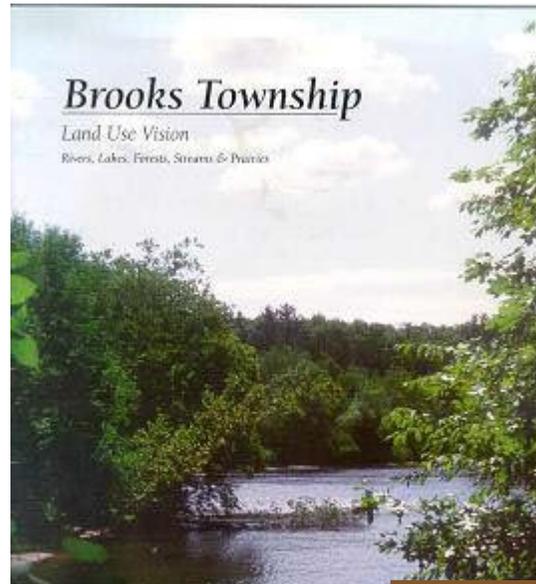
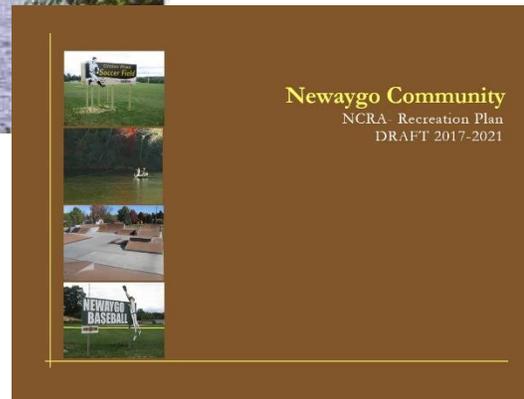
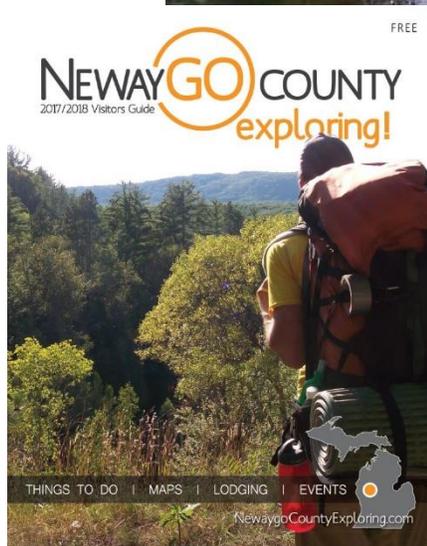


Brooks Township Master Plan 2017



*Building On
The Past...*



...Planning For The Future



Acknowledgments

Special Thanks to...

Members of the Township Planning Commission

- Mark Pitzer, Chairperson
- Philip Knape, Vice-Chairperson
- Pat Baker, Secretary
- Danielle Hummel, Trustee
- Ryan Schultz, Trustee
- Cheryl Rosen, Trustee
- Matt Arthur, Trustee

Members of the Township Board

- Cory Nelson, Supervisor
- Jennifer Badgero, Clerk
- Christina Haynor, Treasurer
- Ken Page, Trustee
- Ryan Schultz, Trustee

and

All Brooks Township Residents who participated in the update of this Plan.

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CHAPTER 1

INTRODUCTION

The Brooks Township Master Plan

Brooks Township is a rural community located in Newaygo County, Michigan. The township borders the City of Newaygo and is located approximately 32 miles north of Grand Rapids.



Brooks Township is connected to that large metropolitan center via M-37 and M-82/US-131.

Collectively, Brooks Township and the City of Newaygo form a desirable “small

town” example of an environment considered highly attractive to families and visitors. The area is rich in natural features including large tracts of forested lands, the Muskegon River and associated tributaries, lakes and wetlands, rolling topography, and an abundance and variety of flora and fauna. The area is generally characterized by low density residential development and possesses an emerging base of commercial and industrial opportunities.

The qualities that make a community desirable can be lost if not carefully managed. This is of major concern to Brooks Township. The township acknowledges that population growth will likely result in heightened demand for the conversion of open space to residential and other intense forms of use; pressures to develop M-37 and M-82 for commercial purposes; potential requests for the provision of “urban infrastructure” such as public water and sanitary sewers to serve high growth areas near the City of Newaygo and around the township’s populated lakes; and, the implementation of other facilities and services necessary to meet the needs of a growing and diverse population. It is the goal of the township to establish a workable program within which these demands and pressures will be evaluated and directed. This will help ensure that the desired qualities existing today will be carried over into the township’s future.

The Brooks Township Master Plan represents the framework for the above program. It is the public’s vision of the township’s future. As such, the plan attempts to:

- recognize and balance the interests and desires of all residents and landowners;
- provide a basis of support for the Township Zoning Ordinance;
- recognize and protect the township's natural features, many of which are unique and/or fragile in character;
- recognize the City of Newaygo as the area's central city;
- recognize and, as appropriate, coordinate land use opportunities along the township's perimeter with the City of Newaygo and neighboring townships;
- delineate land development types and patterns consistent with the needs and desires of township residents;
- recognize that the intensity and/or density of certain land uses requires location in or near areas served by public infrastructure such as all-season roads, public water, sanitary sewers, etc.
- recognize the importance of maintaining the township's rural character; and,
- achieve the quality of life desired by township residents.

The Brooks Township Master Plan - Legal Basis

The Master Plan was prepared by the Brooks Township Planning Commission. The Commission is a body of local residents appointed by the Brooks Township Board under the provisions of The Michigan Planning Enabling Act 33 of 2008.

Pursuant to Act 33, the Commission is charged with preparation and adoption of the Township Master Plan.

The Brooks Township Planning Commission also has administrative responsibility for a variety of zoning functions including site plan review and initial preparation of zoning ordinance text and map amendments.

The Master Plan and Zoning Relationship

It is a common, but false, perception that the master plan and zoning ordinance are synonymous. While the two instruments are intricately linked, they serve different purposes. As illustrated by the following chart, the master plan is a visionary document providing support for the zoning ordinance. The zoning ordinance is a regulatory document governing the present day use of land. It is a tool used to achieve the recommendations of the master plan.

MASTER PLAN <i>[Visionary-Establishes Policy]</i>
Guides Land Use
Future/Visionary Document
Supports Zoning Ordinance
Adopted by Planning Commission and/or Township Board, if desired

ZONING ORDINANCE <i>[Regulatory-Land Use Law]</i>
Regulates Land Use
Present Day Document
Implements Master Plan
Adopted by Township Board

Building on a Foundation of Prior Planning Activity

In addition to the zoning relationship, the Master Plan is also intrinsically linked to several other township planning instruments.

**CURRENT BROOKS TOWNSHIP
MASTER PLAN**

Brooks Township Land Use Vision

**Previous Brooks Township Master
Plan**

Brooks Township Zoning Ordinance

Newaygo County Recreation Authority

The Land Use Vision represents a unique plan (planning exercise) combining the input and expertise of local, regional and state agencies and organizations in order to identify land use issues of concern, and methods for resolving those issues. The findings and recommendations of the Land Use Vision were used extensively in the preparation of the new Master Plan.

The previous Master Plan provided important detail concerning the township's historic make-up and patterns of change. The plan also identified a series of goals and

objectives used to guide growth and development during the plan's implementation phase. This information served as important building blocks for preparation of the current plan.

While not a plan, per se, the Zoning Ordinance represents an important planning tool relative to implementation of the Master Plan. Much of the township's historic land development is based on the regulatory standards of the Zoning Ordinance.

The Recreation Plan represents a comprehensive planning document reflecting the township's identified recreational need and outlining action programs for addressing those needs. Demographic and other data is shared between the two plans.

Due to their extensive use in the preparation of this document and continued relevance, the Land Use Vision and the Recreation Plan are classified as supplementary (support) instruments to the Brooks Township Master Plan. The Zoning Ordinance will continue to serve as an important plan implementation tool.

How Does the Plan Impact Residents and Property Owners?

Although the Master Plan is not a regulatory instrument, like zoning, it can be extremely important to residents, property owners, business entrepreneurs, interest groups, future investors and others. For example, the plan:

- identifies and spatially delineates the land use districts programmed for

- the township;
- details levels of acceptable land use intensity and/or density for identified plan districts;
- recognizes the need to protect the Muskegon River, its tributaries and other water resources as well as prairies and woodlands;
- supports the identification, purpose, and regulations of the township's zoning districts; and
- details goals and objectives concerning the township's future growth.

The above information can be very useful during investment decisions, identifying development opportunities, and assessing needed programs and services.

Updating the Plan

Communities experience change. That change may simply involve the aging of the existing populace and land use. Or, it may entail new residents, new developments, new lifestyle demands, philosophical changes in attitude regarding land stewardship, and/or other adjustments. As time progresses, Brooks Township will likely experience a combination of these factors.

Accordingly, it is important that the Master Plan be periodically reviewed and, as necessary, updated to reflect community needs and desires. The necessity to update should not be viewed as a weakness of the document in place, or the process as a whole. In fact, state law requires that the plan be reviewed at least every 5 years. Master planning is evolutionary. It is a strategy by which current and future residents are given the opportunity to build on

past efforts, and to lead the township in a positive direction.

CHAPTER 2

THE COMMUNITY

Brooks Township History

Water features, including the Muskegon River, Hess, Brooks, Emerald, Sylvan, and Pickerel Lakes, have played a significant role in the history of Brooks Township.



Prior to European settlement, ancestors of the Ottawa Indians were fur trappers, capitalizing on water-dependent animals, such as beaver. Historical remnants of the Indian culture can still be found in Brooks Township. Ancestors of the Ottawa Indians left burial grounds, now called Mallon Mounds, located near Brooks Lake.

Also prior to European settlement, there were...

...large prairie openings of 600-1500 acres. Surrounding these openings were barrens, "park-like" areas with trees. Dense forests covered much of the remainder of the township. The frequency of fires, along with soils, determined where prairies, barrens, and forests grew.

Brooks Township Land Use Vision

Before 1837, lumbering was established in Newaygo County as a major economic activity. The forests of Brooks Township were tapped for their woodland resources.

Later, area settlers attempted to capture the hydrologic energy afforded by the flow of the Muskegon River.

Consumers Power Company played a significant role in this effort. One of its achievements most commonly recognized is the Croton Dam, established in 1907.

Emerald and Sylvan Lakes also added another economic attraction to the area. Marl found on the bottom of the lakes, used in production of cement, helped to attract the Newaygo Portland Cement Company in 1900.

The river and the lakes also attracted people pursuing recreation and proximity to natural resources. This formed the basis of tourism in the area and the building of cottages and homes along various shoreline areas of the river, tributaries, and lakes.

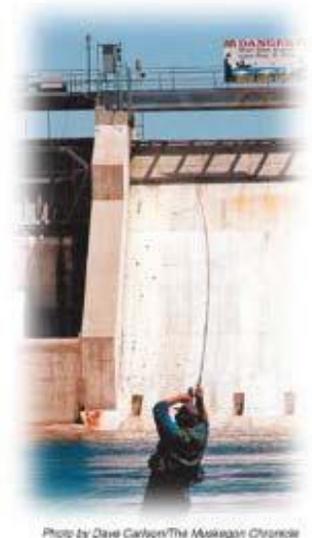


Photo by Dave Carlson/The Muskegon Chronicle

Advancements in technology, the development of the automobile and the extension of electric and other services, attracted many full-time residents in the area now known as Brooks Township.

Land Use Trends

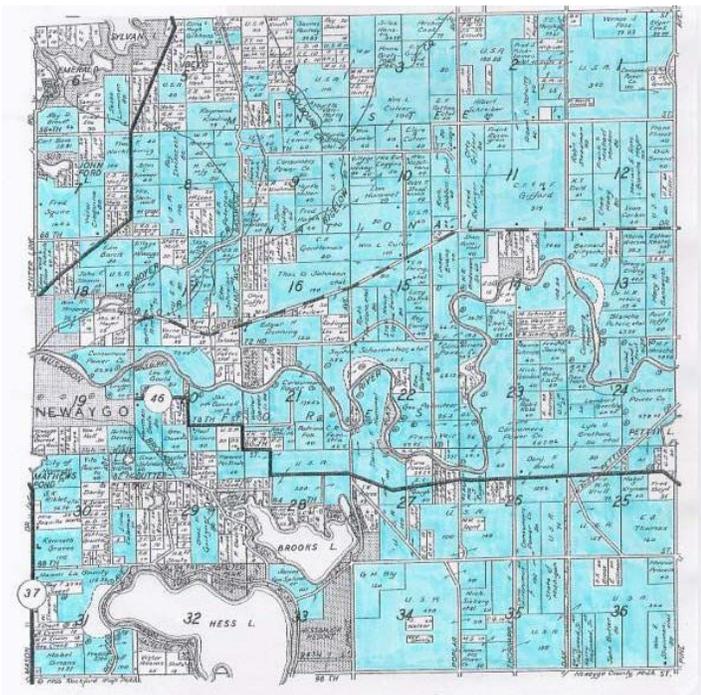
The land use trends in Brooks Township, and the rest of the State, have been largely influenced by the land division laws. These laws have affected how land has been subdivided and used.

The series of maps on the following pages are plat maps (from 1955, 1982, 1998 and 2016), illustrating the division of land in Brooks Township. Note that over time, the larger parcels (over 40 acres) have diminished significantly outside public land areas. This land fragmentation is a result of people migrating into the area for a rural lifestyle. In the 2016 map, only state lands are highlighted, which reflects the relatively small percentage of privately owned land in parcels of over 40 acres in size.

Several significant land events occurred during the time period depicted by these plat maps. First, platting around the lakes happened prior to 1955. Also prior to 1955, much of the land that was originally settled for farming that was not well suited for agriculture was abandoned. This land reverted to State and Federal organizations and became what is now the Manistee National Forest.

In 1967, the Subdivision Control Act was enacted allowing 40 acres to be split into 4 parcels without the formal platting process. This caused the creation of many long, narrow 10 acre “bowling alley lots”, parcels with narrow frontage on county roads which are tough to divide efficiently. Perhaps this had the largest affect on the changing character of the township.

Brooks Township
Historical Land Divisions
1955

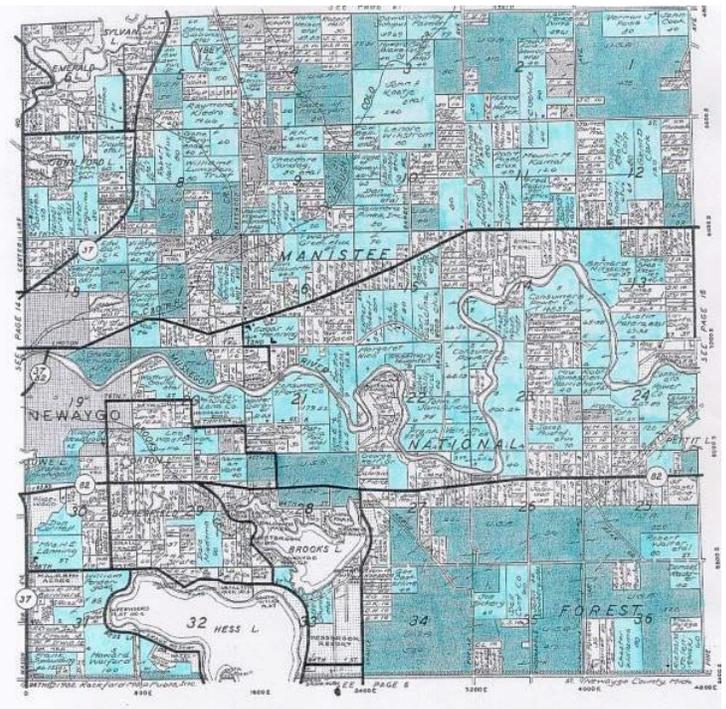


Areas depicted in blue are contiguous parcels under the same ownership that are greater than or equal to 40 acres.

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Brooks Township
Historical Land Divisions
1982



Areas depicted in blue are contiguous parcels under the same ownership that are greater than or equal to 40 acres.

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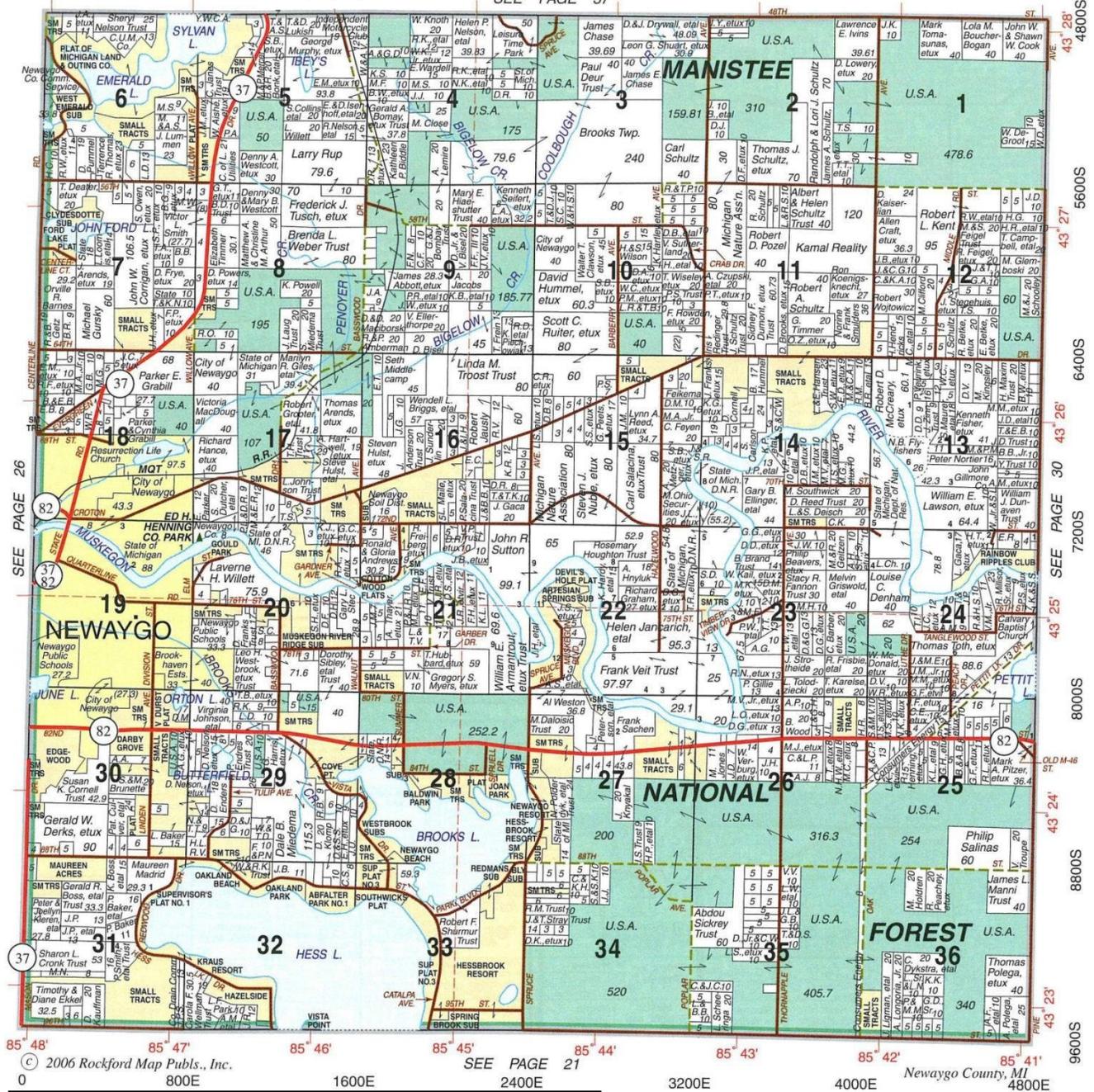


See Township Hall for 1998 parcel map.
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BROOKS 2006

T.12N.-R.12W.

SEE PAGE 37



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BROOKS 2015

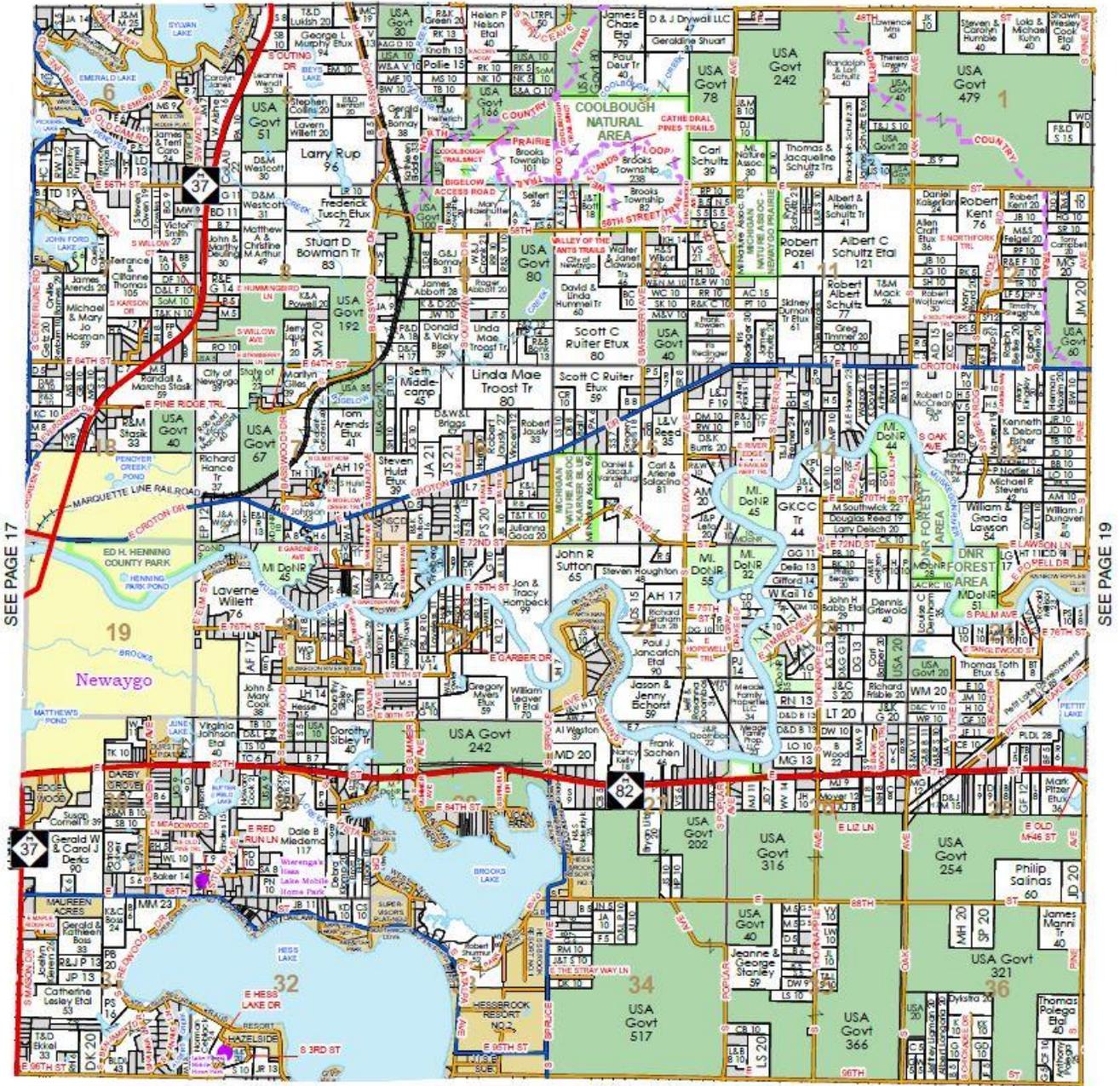


Brooks

Township 12N - Range 12W

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Land Use Trends

Land Use Categories	1978 Land Use (acres)	2016 Land Use (acres)	Difference 1978 and 2016 (acres)	% Change	Annual Loss Or Gain (acres)
Single Family Residential	911	2,107	1,196	131%	31
Manufactured Home Park	27	27	0	0%	0
Commercial	32	34	2	6%	0.05
Public/Quasi-Public ¹	132	132	0	0%	0
Industrial/Extractive	82	0	-82	0%	0
Agricultural	801	262	-539	-67%	-14
Vacant Land	1,843	1,694	-149	-8%	-4
Natural Features	1978 (acres)	2016 (acres)	Difference 1978 and 2016 (acres)	% Change	Annual Loss Or Gain (acres)
Forest ²	16,985	16,566	-419	-2%	-11
Wetlands	357	346	-11	-3%	-0.29
Water	1,495	1,459	-36	-2%	-0.1
Total Approximate Acres	22,792	22,792	-----	-----	-----

¹ This does not include the recent addition of 400 acres from the Coolbough Natural Area (categorized mostly as "Forest")

² The Manistee National Forest land encompasses approximately 3,950 acres.

The data presented in this table was developed using Environmental Systems Research Institute, Inc. (ESRI) Geographic Information System technology. Land use information from the State of Michigan Department of Natural Resources MIRIS was used for 1978. Most recent available land use information from Newaygo County GIS for 1998 was updated using 2016 orthophotography available from ESRI.

Brooks Township Today

People often base their perception of land use and land use change in their community on 1) the number of houses recently built in close proximity to their own; 2) increased traffic on roads they often travel; and 3) encroaching development on open areas or areas of recreation they often visit.

Often these perceptions are a reflection of actual trends. However, it is important to document measurable trends.

The table on the previous page is a brief summary of land use trends in the township as determined from, essentially, aerial photography. It is useful in that relative ratios of land cover can be determined, (e.g., forest vs. subdivisions) but it does not reflect true suburbanizing trends. For example, a 20-acre piece of land that has a home built in the woods may still be reflected as “forest” but it may not be used for forest production because it has become a homestead.

The remainder of this section more thoroughly discusses each type of land use within the township.

- The number of acres devoted to residential land use has more than doubled since 1978 to over 2,000 acres. This land has been converted from other uses such as agricultural production, vacant land (or open field), and forested areas.
- Commercial development has not had an impact on land use within Brooks Township only increasing a net total of 2 acres since 1978. The Township is now currently devoid of industrial or extractive uses.

- Land used for agricultural purposes has decreased from 800 acres to just approximately 260 acres. (This can be attributed to several factors, including the cessation of Christmas tree production. Some of this land has been sold for residential development.)
- Forested land has decreased by about 2% (over 400 acres) since 1978, and mostly developed for single family homes.

Existing Land Use

An existing land use inventory provides a snapshot in time. It is valuable and useful in many ways. From a planning standpoint, the information permits a community to:

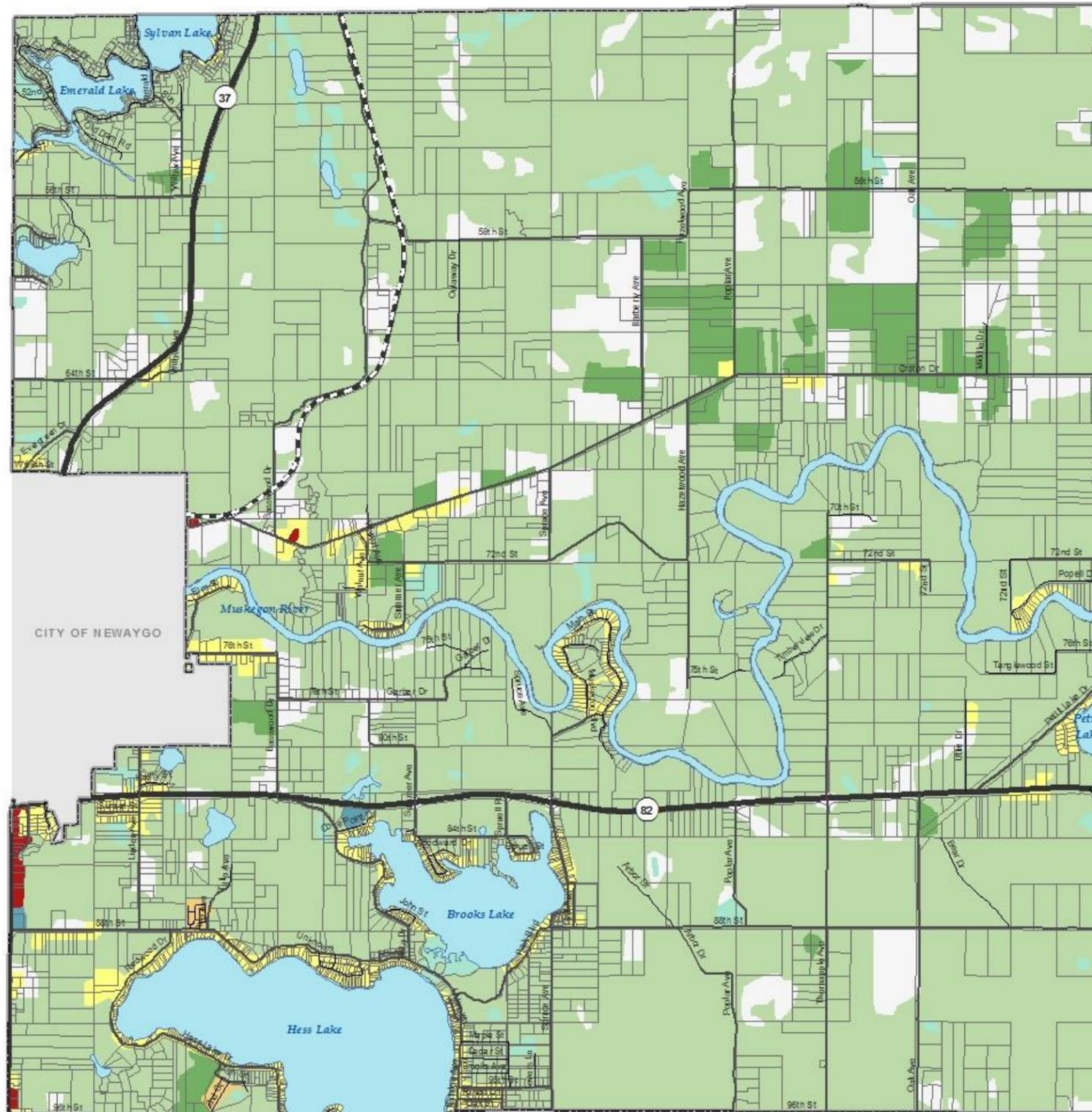
- identify the spatial patterns of land use/land development trends;
- measure the land area devoted to the land use categories;
- identify and measure sprawl;
- identify possible infrastructure needs;
- assess impacts on the natural environment;
- identify possible land use deficiencies;
- identify likely growth areas.

The following sources of land use information were used to map land use and to establish land use trends in Brooks Township:

- 1978 land use information developed by the Michigan Department of Natural Resources from aerial photography.
- 2016 land use information developed from 1998 land use information from Newaygo County GIS and updated with 2016 aerial photography available from ESRI.

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Existing Land Use Map



Brooks Township
Newaygo County, Michigan

Existing Land Use

- Agricultural
- Single Family Residential
- Manufactured Home Park
- Commercial
- Public/Quasi-Public
- Vacant
- Forest
- Wetland
- Water



Miles

Draft: February 3, 2017



williams&works
engineers | surveyors | planners

Source: Michigan Department of Natural Resources
Newaygo County GIS
National Wetlands Inventory

Single Family Residential

Historically, and more recently, people have moved to Brooks Township to get away from more urbanized areas, drawn by openness and natural features.

The Existing Land Use map shows several population concentrations:

- around the lakes (primarily Brooks, Hess, Emerald, and Sylvan Lakes);
- along the Muskegon River;
- along M-82; and
- along Croton Drive.

The Brooks Township Land Use Vision also reports that over 80% of residents live adjacent to a water body.



Residential concentrations can also be found near the City of Newaygo. This shows a natural progression of growth, outward from a developed city center. Living outside of the city allows individuals to live near their place of employment, businesses, and services while enjoying life where a stronger sense of rural character still exists.

The comfortable commute to Grand Rapids, within 30-40 driving minutes, also draws residents to live in the rural settings of the township.

Access to roads, their quality and maintenance have also influenced residential development patterns in the township. The homes along the improved routes of M-82 and Croton Drive exemplify this, with many other residences found along County maintained and operated roads that adjoin these two major thoroughfares. In general, poorer roads have less development on them. When a roadway is improved, development pressures increase.

Building permits (shown on the following page), as recorded by section in the township, also help to identify where residential development has been concentrated in recent years. From around 2009 to 2014, residential building dramatically slowed due to the economic recessionary period. This trend has begun to reverse as residential development activity has increased to pre-recession levels. This could partly be due to a number of withheld projects during the housing crisis awaiting more favorable market conditions. It remains to be seen whether this building activity will continue in the coming years.

Multiple Family Residential

Currently, there is no multi-family development in the township because of the community's rural nature. It is the intent of this plan to direct higher density development, like condominiums, apartments and other multi-family uses, into the City of Newaygo where such developments are supported by public water and sewer and which, in turn, support the City's tax base and economy.

Residential Building Permits
by Section in Brooks Township

New housing construction activity in Brooks Township has increased in the last two years (2015 and 2016). The year 2015 represented the greatest number of new home permits in nearly a decade with 12 new home permits. Only slightly less, 11 new home permits were issued the following year in 2016. This recent uptick in development activity follows two languid years of 2013 and 2014 which only saw two new home permits for both years combined. Total building permits have begun to increase as well, primarily in the southern sections of the township (sections 28, 32, and 33) south of M-82.

2007 – 2012
Total Building Permits by Section

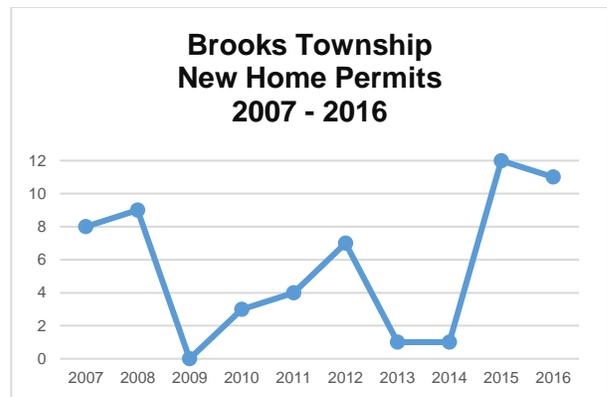
6	5	4	3	2	1
44 BP	11 BP	2 BP	3 BP	1 BP	0 BP
7	8	9	10	11	12
2 BP	2 BP	4 BP	9 BP	6 BP	4 BP
18	17	16	15	14	13
1 BP	10 BP	6 BP	3 BP	13 BP	2 BP
19	20	21	22	23	24
0 BP	14 BP	21 BP	28 BP	5 BP	9 BP
30	29	28	27	26	25
40 BP	21 BP	63 BP	14 BP	3 BP	7 BP
31	32	33	34	35	36
23 BP	60 BP	49 BP	1 BP	0 BP	2 BP

Source: Brooks Township, 2012

2013 – 2016
Total Building Permits by Section

6	5	4	3	2	1
50 BP	9 BP	1 BP	0 BP	1 BP	2 BP
7	8	9	10	11	12
8 BP	5 BP	4 BP	4 BP	2 BP	5 BP
18	17	16	15	14	13
3 BP	8 BP	5 BP	1 BP	8 BP	3 BP
19	20	21	22	23	24
0 BP	8 BP	11 BP	18 BP	7 BP	14 BP
30	29	28	27	26	25
28 BP	22 BP	49 BP	24 BP	3 BP	3 BP
31	32	33	34	35	36
21 BP	34 BP	56 BP	3 BP	2 BP	2 BP

Source: Brooks Township, 2016



Source: Brooks Township, 2016

Manufactured Housing

Individual isolated manufactured homes can be found scattered across the township. Concentration of these units, known more commonly as manufactured home communities, are found south of 76th Street and Brooks Creek (Section 20) and to the north and south of Hess Lake (Sections 29 and 32). A concentration of single-wide manufactured homes located on non-park, scattered, sites is found just south of M-82 in Section 30.

Commercial

Brooks Township has maintained its rural atmosphere, in part, by the absence of commercial businesses dotting major roadways. Residents of Brooks Township primarily rely on commercial services offered by the Cities of Newaygo, Fremont, Grand Rapids, or Muskegon.

Commercial development in the township has occurred along M-37, just south of the City of Newaygo. There are home occupations that currently exist in other areas of the township.

Brooks Township has not experienced the development of scattered commercial operations. In many other townships in West Michigan, in which this type of sprawl development has occurred, there has been duplication of services, scattered residential growth, and the expensive (and often, needless) extension of infrastructure. It is the intent of this plan to keep commercial development consolidated on M-37 near the City of Newaygo and to prevent strip development along M-82.

Industrial

There is no industrial development in the township nor is any intended. Industrial lands are best suited in the City, again, where infrastructure and other City services are readily available.

Agricultural

The identified agricultural areas on the existing land use map are primarily fields that are being actively farmed.

In years past, Christmas tree farming was more prevalent in the township. Many of those farms are no longer managed and the stands of evergreens have become forest stands.

Vacant Land

Land that falls within this category is not developed. It is typically areas of forests and open fields. Some of this land in Brooks Township has been identified as prairie remnants. Pre-European settlement, there were more prairie-like openings. Many rare butterfly and plant species depend on this habitat. These prairies are found mostly in the northeast quadrant of the township.

Public/Quasi-Public

These uses entail:

- Churches
- Camp Newaygo
- Land owned by the Michigan Department of Natural Resources
- Coolbough Natural Area
- Approximately 3,950 acres of state forest land.

Natural Features

The latest Michigan DNR data depicts that forests cover over 72% of the township, with water covering another 7% (1,500 acres), and wetlands 2% (300 acres) of the land area. Over 81% of the land in Brooks Township is occupied by natural features.

Forest

The Manistee National Forest accounts for over 3,950 acres of forested land in Brooks Township which represents about 17% of all forest land in the township.

The Huron-Manistee National Forests are unique in that they were created



from abandoned farms and lumbered wastelands that were unwanted.

The Manistee National Forest contains a variety of habitats for bird watching. Deciduous and coniferous forests, lakes, rivers, streams, swamps, and marshes support diverse assemblages of wildlife and plants.

During the late 1930's and early 1940's the Civilian Conservation Corp (CCC) planted an amazing number of pine trees giving nature a precision not usually seen. [Today] indigenous plants are moving into the CCC pine plantations, re-establishing natural habitats. (GORP website)

The Forest also offers other recreational activities valued by Brooks Township residents including:

- canoeing and boating;
- tubing and kayaking
- fishing;
- hunting;
- trapping;
- ORV trails (designated);
- scenic drives and lookouts;
- hiking; North Country Trail
- cross-country skiing (designated).

A majority of the forested land in the township, more than 12,500 acres, is in private ownership. These “native” forest stands, classified as dry-mesic northern forests, are full of oak, white pine and other hardwood and softwood species.



A small segment of forests in the township are abandoned Christmas tree farms. They can be distinguished from the “native” forest stands, principally by tree type.

Water Resources

Lakes

There are ten lakes in the township, including:

- Hess
- Brooks
- Sylvan
- Emerald
- Butterfield
- John Ford
- Abeys
- June
- Pickerel
- Pettit

The township’s lakes range in size from a few acres to one of over 700 acres. The lakes are typical for southwest Michigan in that they range from mesotrophic (tending to be conical with respect to depth; having clear, cooler waters with native vegetation) to eutrophic (water tending to be shallow, warm and nutrient rich as well as murky

and weedy, having both native and non-native vegetation).

Most of the lakes are home to many year round residents, as well as supporting seasonal dwellers. However,



the year-round populations are growing. Seasonal use has now become nine months rather than three or four. These trends are creating more stress on the quality of water in the lakes. Increased recreational use and nutrient loading from on-site septic systems, landscaping, fertilization and building of new or additional dwellings and accessory buildings contribute to the creation of poor water quality.



The lakes are recognized as an important part of the quality of life in Brooks Township. Thankfully, the



inhabited lakes have Lake Associations and/or Lake Boards. Residents and non-resident property owners are supportive of and are being aggressive with respect to water quality, green spaces, building and zoning issues and issues of public health and safety. Several projects are ongoing, have been completed or are contemplated with respect to the care of these precious resources, our lakes.

Rivers & Streams

It is the rivers and streams throughout the township that provide a connected “greenway” network. This greenway is as important to the residents of Brooks



Township as it is for habitats for many different species of animals and birds.

The Muskegon River is the largest river in the township. Logging early in the township’s history damaged the River’s natural integrity. Logging stripped slopes of existing vegetation and increased erosion. Subsequent restoration attempts and the end of the logging era partially restored some elements of the original river ecology. Erosion is a natural process, but still one of concern. Sediment erosion can cover existing fish spawning areas in the river, increase water temperatures and degrade overall quality of the river.

Several Muskegon River Watershed programs are currently focusing on further restoration and public education efforts. Education efforts will be aimed at prevention of further degradation by future development. Even with erosion concerns, the Muskegon River itself remains a cool water fishery which means it can support both cold water fish (e.g., trout and salmon) and warm water fish (e.g., bass and walleye). Currently, the state estimates that the fishery generates over 1.9 million dollars in revenue annually between Croton Dam and Muskegon Lake according to a 2015 Muskegon River Angler Survey Report conducted by the Michigan Department of Natural Resources (MDNR). Stocking efforts represent a major investment from the MDNR. In 2016, the state stocked over 16,000 rainbow trout and over 5,000 brown trout downstream from Croton Dam. This represents about \$250,000 of annual state investment in the fishery.

The gravel and cobble beds in the Muskegon River currently provide some of the best spawning habitat in the entire Midwest for salmon, steelhead, trout,

and walleye. There are also populations of rare fish, the lake sturgeon and river red horse sucker.

...[It] is the steepest free-flowing section remaining within the entire 237-mile long river system.

Bigelow Creek and Penoyer Creek are quality cold water tributaries of the Muskegon River. These systems are unique in character in the river's lower watershed. Bigelow Creek flows for much of its length through steep forested banks...

Penoyer Creek has warm water sources and flows for a relatively short distance, but has cold water due to the steep sandbanks and large influx of groundwater.



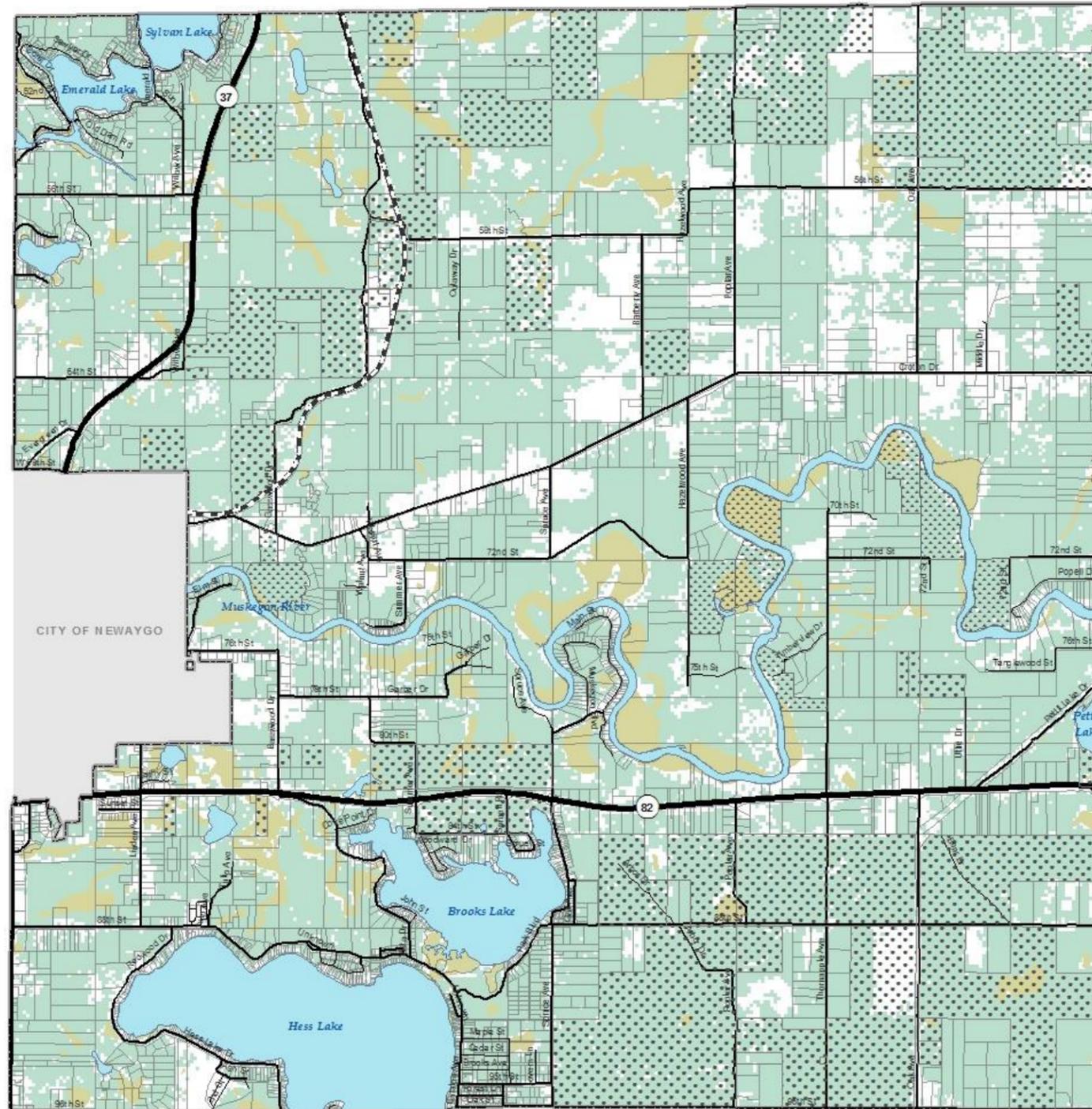
Penoyer Creek



Bigelow Creek

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Natural Features Map



Brooks Township
Newaygo County, Michigan

Natural Features

-  Michigan Dept. of Natural Resources
-  Manistee National Forest
-  Wetlands
-  Forest
-  Water

0 0.25 0.5 1 1.5 2



Miles

Draft: February 3, 2017



williams&works
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Source: Michigan Department of Natural Resources
Newaygo County GIS
National Wetlands Inventory

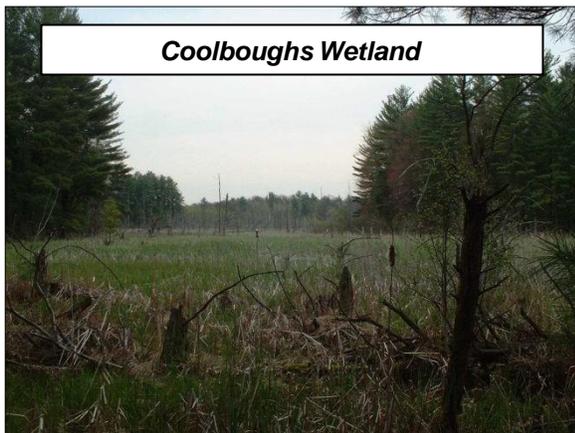
Brooks Township Land Use Vision

Wetlands

Wetlands identified on the Natural Features map come from general state and federal wetlands inventories.

Wetlands are scattered in Brooks Township, but found primarily along water bodies. They are important to groundwater and surface water quality and the overall environmental quality of the township because they provide:

- wildlife habitat;
- sediment control;
- nutrient removal;
- sites of groundwater discharge (often found where the groundwater table intersects the land);
- barriers to erosion;
- flood storage and conveyance.



The "Brooks Township Land Use Vision" identifies the presence of rich conifer swamps that act as buffers to wetlands.

The document also calls for more information to be gathered about wetlands in the township, with specific regard to location. Such an inventory

would allow township leaders to assess the appropriateness of wetland regulatory measures beyond those of the State. (The State of Michigan Wetlands Protection Act establishes the authority for local governments to regulate wetlands.)

Some wetlands are regulated by the State of Michigan Department of Environmental Quality (MDEQ). Those that are include:

- contiguous to a water body (without regard to size) and;
- non-contiguous wetlands greater than 5 acres in size.



Ground Water

The residents of Brooks Township rely on ground water to supply their potable water needs. The use of ground water as the primary source of drinking water is expected to continue over the life of this plan. Accordingly, it is extremely important to maintain land use (zoning) regulations conducive to the long term protection of ground water and to educate the public on the need for ground water protection measures. (See also the section on Soils.)

Prairies

As detailed in the *Brooks Township Land Use Vision*, Brooks Township is blessed with a variety of dry sand prairie plants species.



These are found on dry sand prairie remnants located in both the northerly and southerly sectors of the townships.

The presence of the prairie offers a unique quality to the township's environmentally sensitive, rural, character. However, modification of prairie lands may easily occur unless protected from over development and use.

Rare Species

The natural features in the township provide habitat for many wildlife species. Those listed in this section are considered rare and potentially vulnerable by the Michigan Department of Natural Resources. Protection of these species is dependent upon the preservation of the natural features in the township.

Birds

- Bald Eagle
- Common Loon
- Golden-winged Warbler
- Cerulean Warbler



Bald Eagle

Fish and Reptiles

- Lake Sturgeon
- Pugnose Shiner
- Wood Turtle



Wood Turtle

Butterflies, Moths and Other Insects

- Dusted Skipper Butterfly
- Frosted Elfin Butterfly
- Henry's Elfin Butterfly
- Karner Blue Butterfly



Karner Blue Butterfly

- Ottoe Skipper Butterfly
- Culvers Root Borer Moth
- Spartina Borer Moth
- Great Plains Spittlebug

Plants



Blue-eyed Grass

- Alleghany Plum
- Black-Fruited Spike-Rush
- Blue-eyed Grass
- Golden Alexanders
- Grooved Yellow Flax
- Prairie Smoke
- Side-oats
- Virginia Meadow-Beauty
- Western Silvery Aster
- Lupine
- Big Blue Stem grass
- Birdsfoot violet

Soils

Broad Land Use Considerations

Each year, some areas in Newaygo County are developed for residential, commercial, or industrial uses. Deciding what land should be used for urban development is a very important issue. The general soil map is suitable for broad land use planning...

Soil Survey: Newaygo County, Michigan

Too often, soils information is overlooked in planning because soils mapping is done by sampling at large intervals, not parcel-by-parcel. A soil survey is meant to be, and is, a good over-all guide where site-by-site examination is necessary.

Soils are an important and inherent natural feature to a community. Soils dictate, among other things:



- what types of vegetation (native or non-native) will grow (for example pines in sandier soils);
- whether a drain system is needed to build a home with a basement; and
- whether sand needs to be hauled to a site for road development.

1. Plainfield-Grattan-Brems; suitable for building except for on steep slopes, poorly suited for septic tanks
3. Glendora-Abscota-Anglansee; floodplain soils, not suitable for development or septic tanks
4. Marlette-Metea-Spinks; fairly well suited for development and septic, erosion concerns
5. Coloma-Spinks-Metea; suitable for building and septic tank absorption, slope limitations

6. Toogood-Boyer; suitable for building and septic tank absorption, slope limitations

Overall, many of the soils in Brooks Township are well-suited to forest production. Their sandy texture is ideal for pine species.

In fact, many of the soils that were cleared for farming were not productive. This texture may also make some areas fairly suitable for development, but raises large concerns regarding septic suitability for standard (tiled) systems due to the rapid rate of percolation which occurs in these soil types. Areas which are typically unsuitable for development or septic include the northwest portion of the township, as well as the central section along the Muskegon River floodplain. Along the River, soils *may* be suitable for development and septic tank absorption; however, steep slopes serve as an extreme limitation in most cases.

Transportation

The capacity of the existing transportation system in a community must be examined in conjunction with changes in land use. Land use affects transportation systems by:

- the type of development (commercial, residential, etc.);
- intensity;
- location; and
- design and location of access to the use.

The transportation system in Brooks Township is part of a much larger network that operates regionally, statewide, and nationwide. It is

principally made up of roads. For planning purposes, roads are classified by movement and access functions. (Refer to the map on following page)

Roadway Classifications

A majority of the township's major roads are classified as arterial roadways.

Arterial roads:

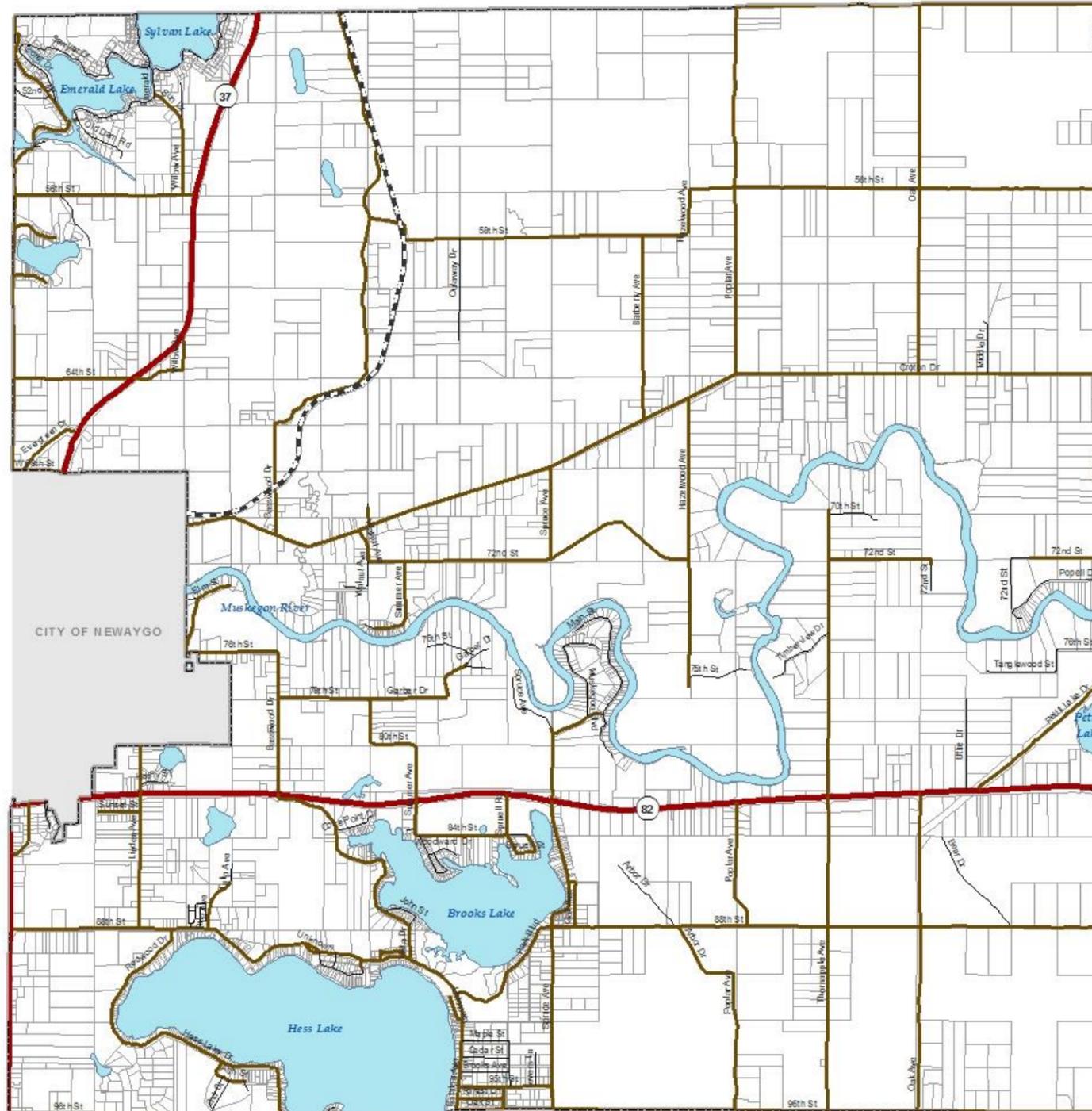
- Serve large volumes of through traffic (major arterials) or localized, shorter distance traffic (minor arterial).
- Access to abutting land use restricted, to maintain high-level traffic service.
- Act as boundaries of housing and community areas.
- Connect to collector streets.

Description of Existing Roadway Infrastructure

The two major arteries in the township are M-82 and M-37. M-82 traverses Brooks east to west, intersecting M-37 in the City of Newaygo. It runs to the east of Brooks Township to Howard City, just beyond U.S. 131. M-37 continues north to Traverse City and south to Grand Rapids.

The other roads are paved county roads, unpaved county roads, graded local roads and unimproved local roads (on the Transportation Map as two track or seasonal roads). These roads fall under the jurisdiction of the Newaygo County Road Commission. Several other access roads are private, some of which are nonconforming in terms of current township design standards.

Transportation Map



Brooks Township
Newaygo County, Michigan

Transportation Network

- State Highway
- County Road
- Local Road
- Railroad



Draft: February 3, 2017



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Source: Michigan Department of Natural Resources
Newaygo County GIS
National Wetlands Inventory

Roadway Character

A majority of the roads in the township are currently tree-lined, which contributes significantly to the rural character of the area. Pines and various deciduous tree species line M-82, which carries more traffic yet is *visibly* less developed than Croton Drive, a paved county east-west road that traverses the township to the north of the Muskegon River.

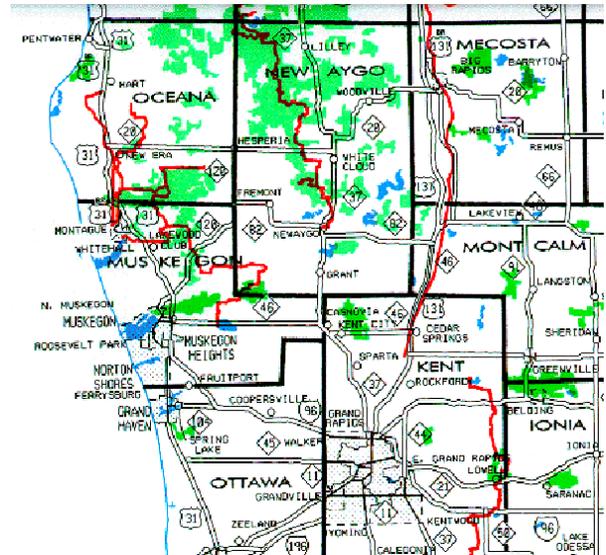
Existing Transportation Studies

M-37 Corridor Study (July 1998) completed by *West Michigan Shoreline Regional Development Commission and the M-37 Corridor Study Steering Committee* was completed to... *identify planning and development issues for a major transportation artery, undertake research and analysis, develop policy guidelines, and recommend various actions to the appropriate transportation planning bodies.*

Input from local businesses was taken into consideration in this study as recognition of the Corridor's economic importance. The following are issues and recommendations brought to light in the Study as related to Brooks Township:

- Traffic congestion and turning between 88th Street and M-82 should be addressed by 1) an MDOT traffic study to look at decreased speed limit along this stretch and/or 2) looking at the feasibility of adding a turning lane or simply widening this section of M-37.
- A standardized site plan review process [should] be adopted by all

jurisdictions along M-37 to provide for a cooperative, unified approach to development along the Corridor.



Regional Transportation

Roadway Improvements

The Michigan Department of Transportation (MDOT) does not currently have plans to improve the segments of M-82 and M-37 in Brooks Township (based on the *5 Year Road & Bridge Program published by MDOT 2016-2020*). However, M-37 is slated for resurfacing from M-82 north to the Muskegon River in the City of Newaygo.

The improvements of other roads in the township are the responsibility of the County Road Commission. The Commission is responsible for construction of all roadway and bridge improvements. However, the township is normally called upon to fund a major part of any improvement. Discussion with the Newaygo County Road Commission staff, completed as part of the planning process, finds no significant planned improvements to the township's roadway system over the next several years. Understanding these facts, it is the land use policy of

the township to restrict density and limit the extent of commercial areas to prevent unnecessary pressures on the existing roadway.

Another factor that influences development and the movement of people and goods in the township is the limitation natural features pose. Because of surface waters north/south movement is also limited in the township. East/west movement is also limited and large sections of the township simply have no roadways (e.g., north of 58th Street between Basswood and Poplar).

DEMOGRAPHICS

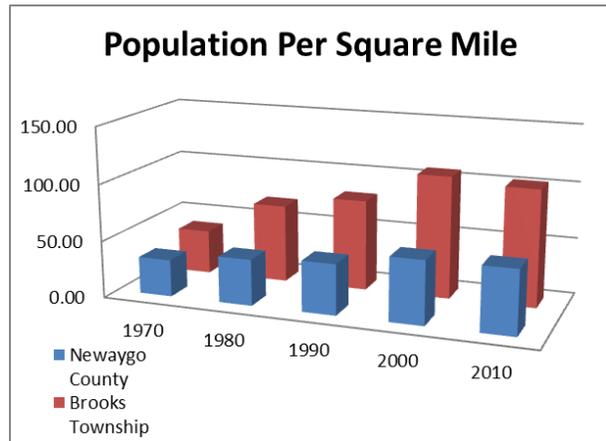
Data

Understanding the physical, social, and economic characteristics of the township is necessary to help determine a future direction. Past trends and current conditions provide a valuable perspective on growth and needs. The following pages offer insights regarding the community's composition and provide both a historical perspective and useful comparisons with neighboring communities.

Population

The U.S. Census (2010) reported a township population of 3,510. This represents a decrease of 161 people, a 4.4 percent decrease since the 2000 Census. This compares to a population change for Newaygo County between 2000 and 2010 of less than 1 percent. Between the years 1980 and 2010, the

Township as compared to Newaygo County, which has experienced less overall growth than the township. Compared to Newaygo County as a whole, the township's population density is increasing at a much faster pace. Increases in density equate to increases in land development area (e.g. break-up of parcels to support housing development, visual presence of development, etc.).



Source: US Census, 2010

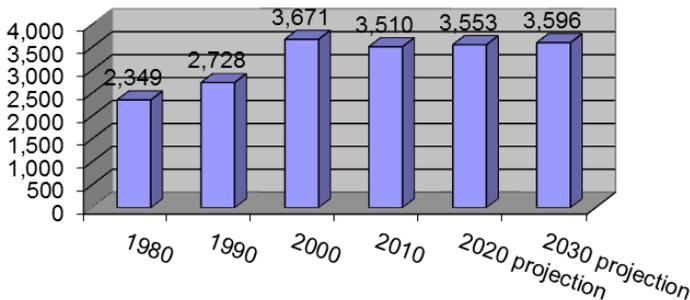
Population density increases also support strong growth in the township.

Determination of density can be indicated by the number of residents per square mile of township area. In 1970, the township's population density was 39 people per square mile. In 2010, the density increased to 102 people per square mile.

Despite the growth and development pressure that has occurred in the area, Brooks

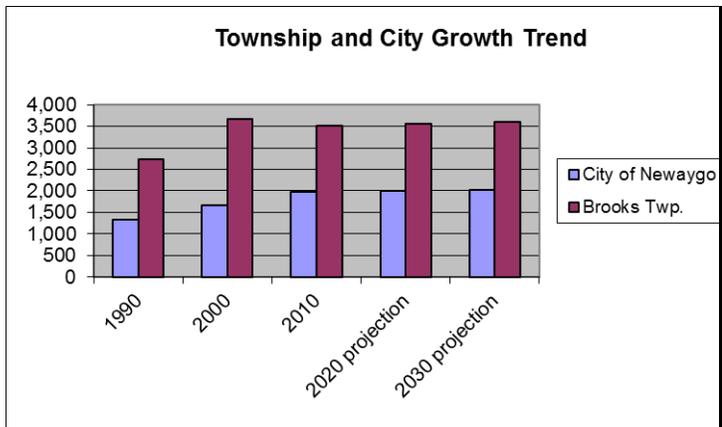
Township remains essentially rural in terms of population density and residents still have a peaceful and quiet place to call home.

Brooks Township Population & Projections, Source: WMSRDC 2011



township's population increased from 2,349 to 3,510 persons, a 30-year growth rate of 49 percent.

The accompanying graph shows the overall population density of Brooks



Source: WMSRDC, 2011

Population Projections

Using the same census numbers for population, population projections through the year 2030 have been calculated based on past growth rates and other measures. Caution is needed when utilizing projections, as changes in the economy, real estate markets, and other factors are difficult to predict, as evidenced by the economic recession from 2007 to about 2012. The township’s resident population, as well as the population of surrounding governmental entities, is anticipated to continue to grow between the 2010 to 2030 period.

The presence of the City of Newaygo at

the western boundary of Brooks Township has planning related implications, especially with regard to commercial and industrial development, and thus data for the city is also included periodically in this section. The rate of growth for the City of Newaygo and Brooks Township show a similar growth projection.

Age of Population

The age of township residents provides an indication of economic, transportation, recreational and other current community needs and how these needs will change as the composition of the population changes. Sensitive community planning can help Brooks Township maintain its high quality of life and provide the opportunity for housing and services which benefit every segment of the population.

The table below provides detail on the township’s resident population base by age category based on the 2000 and 2010 U.S. Census. The information indicates:

Population Age Breakdown – Brooks Township - 2010

Gender	Pre-School 0-4	School Age 5-19	Post School 20-24	Family Forming 25-44	Empty Nester 45-64	Retired 65+
Female	86	356	72	370	416	285
Male	92	395	69	388	571	290
*Total (%) 2010	178 (5%)	751 (22%)	141 (4%)	758 (22%)	987 (29%)	575 (17%)
*Total (%) 2000	215 (6%)	779 (22%)	197 (5%)	999 (27%)	965 (26%)	516 (14%)
*Change (%)	-37 (-17%)	-28 (-35%)	-56 (-28%)	-241 (-24%)	22 (2%)	59 (11%)

Source: U.S. Census, 2010

* Percent figures represent percent of the total township population for the specified category. Percentages have been rounded.

** Values represent population change in segment from 2000 to 2010.

- Slightly over 20 percent of the township’s population is comprised of young adults and children between the ages of 5 and 19.
- 17 percent of the population is 65 years or older.
- The population of the Township has aged over the past 10 years. The only segments that gained population were those 45 – 64 and 65 plus.

The median age of Brooks Township residents is 43, 4 years older than it was in 2000. Male residents slightly outnumber female residents (51% to 49%). Almost 46% of the township’s population falls in the empty-nester or retirement age category, aged 45 years and older.

2010 Household Population Count

Household Type	Number of Household
Family (2 or more persons)	975 (70% of total households)
Non-Family (1 person only)	418 (30% of total households)

Source: U.S. Census, 2010

Seasonal Population

Although accurate counts are not available, it is roughly estimated that the township’s seasonal (summer) population increases the resident base by 1,000 to 2,000 people during peak periods (e.g. summer weekends, holidays, etc.). These numbers include seasonal home owners, vacationers, people using the township’s system of

lakes and rivers, and others.

Conversely, during winter months there is a slight drop in population as a segment of the township’s retired residents travel to warmer climates.

Seventy (70) percent of the population resides in a family household (two or more persons). Thirty (30) percent reside in a non-family household or a single-person household. Fifty-eight (58) percent of households reflect married couples.

Housing Affordability

The median housing value for Brooks Township in 2010 was \$118,100, a 6% increase in value from 2000 median housing values of \$111,600. The median housing value in 2010 for Newaygo County was \$115,800; a significant increase of thirty (30) percent from the 2000 census when the median value was \$88,700.

Income

Eighty-eight (88) percent of the population is above poverty level (e.g. above 50% of the county median income). Twelve (12) percent of the population is at or below poverty level. This is slightly up from 2000, when eleven (11) percent of the population was below the poverty level, possibly attributed (at least in part) to high recessionary unemployment at the time the Census was taken.

	Household Income	Family Household Income
Median Income 2010	\$55,734	\$57,755
Per Capita Income 2010	\$21,393	-----

Source: U.S. Census, 2010
Household refers to a single-person, while family household refers to a household with two or more people

Transportation

The rural living environment of Brooks Township does not offer a sufficient supply of nearby employment centers. Residents are generally required to commute outside of the township for employment.

Average commute time to work is 30.2 minutes; a decrease from 36 minutes in 2000. Of note, is the eighty (80) percent of all commuters that commute alone by car. Only ten (10) percent of commuter's car pooled and as no form of public transportation is provided in the township, no one was able to commute to work by that method. Additionally, seven (7) percent of the work force worked from home, while three (3) percent walked or found other means of transportation. These numbers were almost identical to those for Newaygo County.

With an increase in population figures in a mostly rural area with a low base of commercial and business development, Brooks Township will continue to see new residents attracted to a rural setting in which to live, while working elsewhere.

CHAPTER 3

GOALS & OBJECTIVES

To serve Township citizens while protecting the environment and our way of life.

Brooks Township Mission

Brooks Township recognizes the importance of its unique environment, including the lakes, river, streams, open prairies, and forests to the residents of the township and the region. Environmental quality is the backbone of the community, affecting the health and welfare of all.

This section has been refined from the 2012 Master Plan to be more attune with current needs of the township. The goals and objectives in this section attempt to maintain and protect the environment, and thus the environmental quality and rural character of Brooks Township through sound planning principles.

Natural Features

Goal: To preserve the quality of life of Brooks Township residents by protecting its natural resources and rural character.

River, Tributary, & Lake Objectives:

1. Support local initiatives to bring sewer infrastructure to protect water bodies from nutrient overloading with regard to individual septic systems.
2. Maintain the septic evaluation program as a means to protect surface and groundwater quality in the township.
3. Reduce the amount of impervious surface to reduce storm water runoff in the township by regulating the density/intensity of development and limiting lot coverage for structures and paving, particularly around surface water.
4. Maintain the rural character of surface water bodies through the preservation of natural vegetative buffers, building setbacks, and the implementation of other environmentally friendly development (zoning) regulations.
5. Develop and implement an education strategy (as outlined in the "Summary of Recommendations to the Citizens of Brooks Township" section of the Land Use Vision) to inform property owners and recreationalists of the threats to water quality and practices to improve water resources.
6. The Township supports the state's protection of wetlands in the township, by ensuring that development of properties with

wetlands has been evaluated by the Department of Environmental Quality, to limit any adverse impacts upon them.

7. Explore incentives to encourage property owners to protect wetlands, open space and natural features on their property.
8. Coordinate with neighboring municipalities to develop measures to protect water quality.
9. Enact rules and incentives for storm water filtering for developments beyond the scope of Newaygo County Soil Erosion and Sedimentation Ordinance including rain gardens, grass swales and perennial beds.
10. Limit discharge and withdrawal of water into or out of the township's groundwater supply promoting the long term preservation of water resources.
11. Keep density low and lot sizes larger along the Muskegon River to protect the natural features, water quality and wildlife habitat functions of the river corridor.
12. Improve open space development standards including provisions for contiguous open space and trail connections between developments.

Forests, Prairies, and Open Space Objectives:

1. Promote the acquisition and protection of environmentally sensitive lands by the Michigan Department of Natural Resources, The Nature Conservancy, the Land Conservancy of West Michigan, Brooks Township and others.
2. Promote the preservation of existing public and private lands.
3. Educate citizens on the need to manage private sites for purposes of wildlife habitat, maintenance of rural character, and the protection of natural features.
4. Implement the recommendations outlined in the Brooks Township Land Use Vision and other planning documents as an integral part of protecting the environment.
5. Encourage natural vegetation greenbelts along the township's major arteries (e.g. M-37, M-82, and Croton Road) in residential districts in order to maintain or create visual impressions of rural character.

Residential

Goal: To provide for orderly residential growth within the township that maintains environmental quality and protects the property rights of individual citizens.

Objectives:

1. Maintain Township and citizen involvement in the planning process to continue to protect the interests of property owners.
2. Utilize PUD, cluster zoning, and other open space techniques to protect natural features to retain an integrated greenway network throughout the township.
3. Maintain a low density residential environment consistent with current development patterns, as well as the public's stated desire to retain Brooks Township as an environmentally sensitive, rural community.
4. Restrict moderate to high density housing to areas conducive to such use. Such areas should possess all-season roads and nearby proximity to public facilities and services.

Commercial and Industrial

Goal: To recognize and promote the City of Newaygo as the area's primary commercial and industrial center, while avoiding unnecessary sprawl into rural township locations.

Objectives:

1. Limit additional commercial re-zoning of properties within the Township to protect rural character.

2. Orient future industrial development to the city's industrial park, as opposed to the creation of industrial districts within the township.
3. In the event new commercial or industrial development is proposed for the Township, encourage the use of inter-governmental tax sharing agreements with the City of Newaygo to meet the infrastructure needs (e.g. sanitary sewer and public water) of said development as opposed to the use of on-site septic systems and wells.
4. Make business areas more attractive through cooperative beautification efforts among business owners in Brooks and Garfield Townships and the City of Newaygo.
5. Promote the potential of group purchases for such things as signs and parking lot paving for the business community as a means to improve the quality of the business district.
6. Recognize that tourism is an important part of the local economy; as such, land use controls should include standards for the visual quality of development.

Public Service and Infrastructure

Goal: To provide appropriate services and infrastructure to existing and planned development without unnecessary and costly extensions.

Objectives:

1. Retain and improve the integrity of the transportation network in Brooks Township by utilizing Michigan Department of Transportation and Newaygo County Road Commission access management principles and techniques.
2. Continue the Township's participation in the analysis of future improvements to roadways within the township provided they do not compromise the rural integrity of the Township. Work in conjunction with the Newaygo County Road Commission, MDOT, the West Michigan Regional Planning Agency, and surrounding units of government,
3. Coordinate future utility system's needs with the City of Newaygo, as opposed to the construction of township utility systems.
4. Implement the recommendations of the Newaygo County Recreation Authority.

Quality of Life

Goal: Protect the rural pace and comfort of a quality rural lifestyle for township residents.

Objectives:

1. Continue and expand enforcement of the Township's Junk/Blight Ordinance to maintain the township's natural beauty consistent with feedback received in the 2006 Master Plan Survey.
2. Continue to promote the enforcement of marine safety regulations and additional measures indicated by citizen input to address concerns about noise, safety and environmental conditions on the Muskegon River and Township waterways.
3. Promote the Newaygo County Recreation Authority and support its goals of increased recreational opportunities within the township.

CHAPTER 4

FUTURE LAND USE PLAN

The future of Brooks Township is, perhaps, best expressed by the township's future land use plan. The plan identifies the range of development districts proposed for all sectors of the community. It details the location and extent of the township's programmed land use types.

The plan calls for a series of six (6) land use designations. The plan also calls for the creation of four (4) conservation overlays. The overlays are defined in this plan but are proposed to be made a part of the zoning ordinance at a later date.

The land use designations include:

- Public (P)
- Rural Residential (RR)
- Low Density Residential (LDR)
- Medium Density Residential (MDR)
- High Density Residential (HDR)
- General Commercial (GC)

The proposed conservation overlays include:

- Rural Character (RC)
- Preservation (PV)
- Highway Vista (HV)
- Greenbelts (G)

The identification and spatial arrangement of the designations and overlays were based on a comprehensive analysis and assessment of:

1. Existing land use character and development trends.

2. Analysis of the township's physical character (e.g. soils, water features, etc.).
3. Demographic characteristics and trends.
4. Planning and development goals as prepared by the Township Planning Commission based on the input of area residents, community leaders, environmental and planning professionals, the Brooks Township Board, and others.
5. The recommendations of the Brooks Township Land Use Vision.
6. The need and desire to protect the township's unique natural character.
7. Existing zoning regulations.
8. Development patterns of adjoining units of government.

Plan Districts

The land use map designations are displayed on the accompanying Brooks Township Future Land Use Map and described as follows:

Public - The designation "Public" represents undeveloped, natural, land areas under local, state, or federal ownership. The designations natural character, combined with the large amount of acreage comprising the district, contributes significantly to the township's desired rural atmosphere. The district is characterized by:

1. Highly concentrated/ connected large acreage sites, many in excess of 80 or more acres.
2. Presence of old fields, prairie, or forests, as well as combinations thereof.

3. Abundance of native flora and fauna, as well as the presence of certain threatened and/or endangered species.
4. Naturally connected greenways highly beneficial to the movement of wildlife
5. Abundance of surface water features conducive to the support of cold water fish species.
6. Interspersed with, or contiguous to, undeveloped large acreage sites in private ownership.

The Brooks Township Master Plan calls for the Public designation to primarily remain in a natural state with development highly restricted. Land uses should be generally limited to public outdoor recreational activities such as hunting, fishing, hiking, wildlife observation, canoeing, cross country skiing, and like activities. Certain managed areas may also be conducive to more intensive forms of recreation including outdoor camping and snowmobiling. Conversely, areas possessing unique flora and fauna should be protected from uses likely to significantly disrupt, or possibly destroy, these fragile resources.

Residential - The plan designates four (4) Residential categories. These are: Rural Residential, Low Density Residential, Medium Density Residential, and High Density Residential. While a majority of the township's residential area falls under the Rural Residential category, the delineation of four (4) districts was determined by the Planning Commission to be necessary to support the range of residential opportunities desired by township residents. The districts are described as follows:

Rural Residential - The Rural Residential designation represents those areas of the township programmed for the lowest level of residential density. Generally, Rural Residential areas are located distant from the City of Newaygo. Most of these areas are interspersed among the lands occupying the Public designation. Rural Residential is characterized by:

1. Large parcel development of at least five (5) acres in size; however, it is common to find significantly larger sites. Many of the parcels are void of any development.
2. Lack of public water and sanitary sewer, nor are such facilities planned over the next twenty (20) or more years. Homeowners rely on the use of on-site wells and septic systems.
3. Much of the land area is used for outdoor recreational activities such as hunting, cross country skiing, snowmobiling, wildlife observation, nature photography, etc.
4. Limited system of public roads consistent with the area's low density residential rural character.

Low Density Residential - The Low Density Residential designation encompasses those areas of the township programmed for relatively low levels of residential density. Most of the area identified for Low Density Residential is located in the southwest portion of the township, between the City of Newaygo and Hess and Brooks Lakes. Smaller Low Density sectors are found north of the city, and near

Emerald and Sylvan Lakes. To some degree, the designation serves as a transitional area, separating Rural Residential areas from the urbanized city. Low Density Residential is characterized by:

1. Parcels ranging from two (2) to five (5) acres in size.
2. Lack of public water and sanitary sewer, nor are such facilities planned over the next twenty (20) or more years. Homeowners rely on the use of on-site wells and septic systems.
3. Scattered presence of natural flora and fauna.
4. Roadway system is more highly developed (e.g. miles of road), when compared to the Rural Residential. This is due to the increased level (density) of housing development.
5. Close proximity to the City of Newaygo and the township's major lakes.

Medium Density Residential - The Medium Density Residential designation is generally confined to the "platted" areas surrounding Hess Lake, Brooks Lake, John Ford Lake, Emerald Lake, and Sylvan Lake. Much of the designation is represented by plats created years ago, prior to local planning and zoning efforts. Because of this existing or historic development, the characterization that follows may not be feasible in all cases. Similar to many other inland lakes throughout Michigan, shoreline areas were subdivided into small parcels and sold for seasonal cottage development. Over the years, cottages have either been converted to year round use or replaced by new housing development.

Medium Density Residential is characterized by:

1. Parcels of up to one (1) acre in size as follows:
 - a. unplatted areas - one acre; and
 - b. existing plats - less than one acre provided on-site water and sanitary requirements can be met.

(It is noted that this category is characterized by a lack of public water and sanitary sewer. Homeowners rely on the use of on-site wells and septic systems. In this district, the township strongly supports initiatives by district property owners to investigate and, as needed, implement provisions for public utilities in order to prevent degradation of ground water and surface water resources.)

2. Scattered presence of natural flora and fauna.
3. Roadway system is more highly developed (e.g. miles of road), when compared to the Low Density Residential designation. This is due to the increased level (density) of housing development.
4. Close proximity to the township's major lakes.

High Density Residential - The High Density Residential Designation represents those areas of the township programmed for the highest levels of residential density. The category also

provides opportunity for the placement of manufactured home communities and apartments. Due to a lack of demand, as well as a lack of public infrastructure, the geographic extent of the High Density Residential designation is fairly limited.

The designation is characterized by:

1. One (1) acre parcel size for single-family detached homes, with larger size sites, with an overall minimum of five (5) acres recommended for apartments and manufactured home parks. The plan recommends that apartment complexes be developed at not less than one (1) acre per housing unit with a half (0.5) to one (1) acre additional provided for each unit. This is to provide for adequate parking, on-site drainage, septic and well siting, space for recreation and proper buffers between this and other uses. It is recommended that manufactured home communities establish a base site area of not less than ten (10) acres, with additional increases based on increasing park size.
2. Lack of public water and sanitary sewer. The plan recommends that apartment and manufactured home community developments either secure public utilities from the City of Newaygo, or construct on-site, approved, packaged systems capable of supporting the proposed development. Linkage to city utilities should be based on arrangements acceptable to the Brooks Township Board.

3. Close proximity to major, all-season, roads.
4. Close proximity to the City of Newaygo and public facilities and services.

General Commercial - The Master Plan establishes one (1) commercial designation, referred to as General Commercial. As detailed on the Future Land Use Map, the General Commercial designation is located as a liner strip, east of M-37, between 96th Street and M-82. The designation provides for a wide range of business related facilities and services including offices, financial institutions, general retail, restaurants, convenience stores, service stations, and similar facilities. The district does not provide for industrial uses.

The designation is characterized by:

1. Minimum one (1) acre parcel size.
2. Lack of public water and sanitary sewer.
3. Immediate proximity to M-37.
4. Close proximity to the City of Newaygo and associated public facilities and services.

Due to the General Commercial area's relationship to M-37, and resultant high visibility and impact on traffic, the Master Plan recommends that commercial development:

1. Maintain landscape buffers along M-37.
2. Limit the number of curb cuts on M-37. Where feasible, use of shared entry drives should be encouraged.

3. Where feasible, implement cross (drive) connections between sites for purposes of vehicular movement from one site to another (as opposed to re-entering M-37 in order to reach an adjoining site)
4. Where feasible, use shared parking in order to reduce the degree of paved surface area.
5. Restrict the placement of billboards and other unnecessary signage.

Industrial

The Master Plan does not provide for an Industrial category. Due to the township's close proximity to the City of Newaygo Industrial Park, combined with a lack of public utilities and non-existent demand, the plan recommends that future industrial development be oriented to the city.

The Planning Commission will monitor industrial land area needs and, if necessary, amend the Master Plan to reflect industrial land area needs in the future, if conditions warrant.

Conservation Overlays

The Master Plan calls for a series of supplementary Conservation Overlays. These overlays are proposed to be made a part of the zoning ordinance and are described as follows:

Rural Character and Preservation Overlays - These are conservation overlays designed to protect the township's system of lakes, rivers, and streams. The Rural Character Overlay includes those areas currently developed, whereas, the Preservation

Overlay encompasses locations of a more pristine character. Development standards should:

1. Promote natural vegetative buffers/greenbelts along water bodies.
2. Where feasible, require the placement of buildings and structures distant (e.g. 100+ feet) from the actual water body in order to encourage the preservation of natural shoreline vegetation, limit shoreline erosion, promote a high quality fisheries habitat, maintain property values, and limit contamination of the ground and surface water resource.

It is recognized that existing development, particularly in the Rural Character Conservation Overlay, may prevent the full implementation of the above standards. However, efforts should be made to achieve the highest levels of protection possible.

Highway Vista Conservation Overlay

The Highway Vista Conservation Overlay calls for the preservation and maintenance of a natural vegetation strip along the township's major roadways. These include M-82, M-37, and Croton Drive. Development standards should:

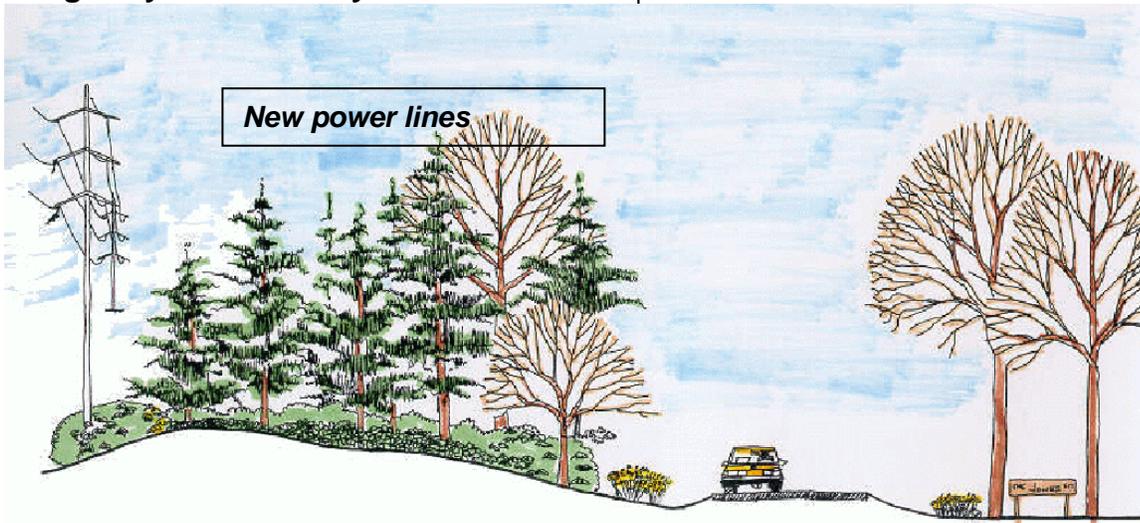
1. Provide for a minimum twenty-five (25) feet natural vegetation buffer along both sides of each roadway.
2. Require new power lines to be setback behind the natural vegetation strip.

3. In non-commercial areas, limit signs to small (residential) name plates.
4. Larger signs for home businesses are allowed in residential districts.
5. Encourage wildflower plantings in the non-developed public right-of-way and in clear zone/corner locations.

Greenbelt Conservation Overlay - The Greenbelt Conservation Overlay represents those areas of the township identified by the Land Use Vision as critical habitat for the preservation of unique flora and fauna. Development standards should:

1. Promote low density development that has minimal impact on the natural environment.
2. Promote maintenance of the natural habitat.

Highway Vista Overlay



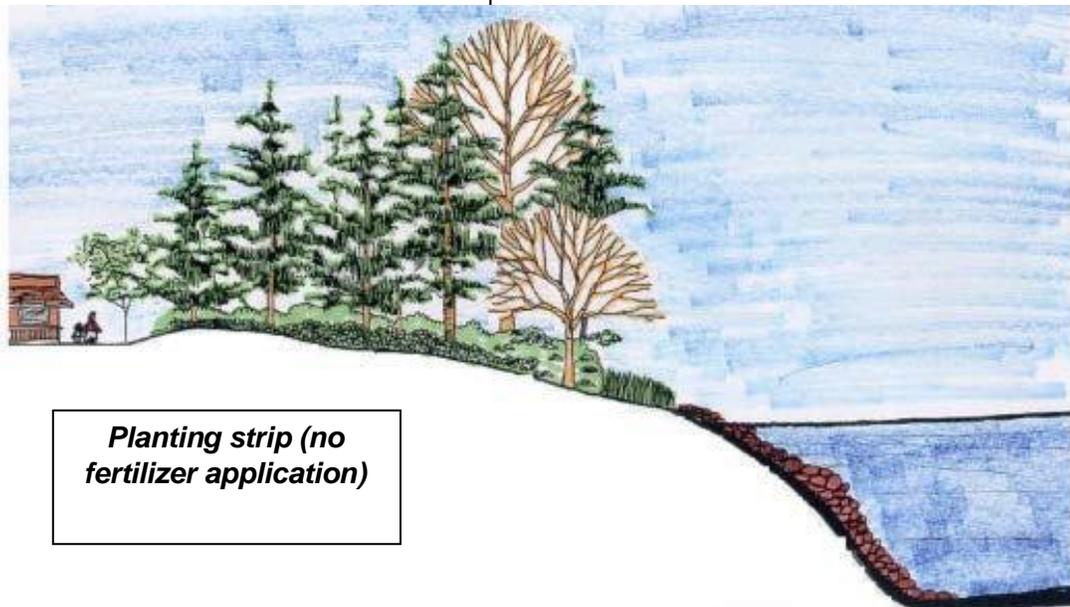
New power lines

Wildflower plantings in the non-developed public right-of-way and in clear zone/corner locations

Signs limited to small (residential) name plates

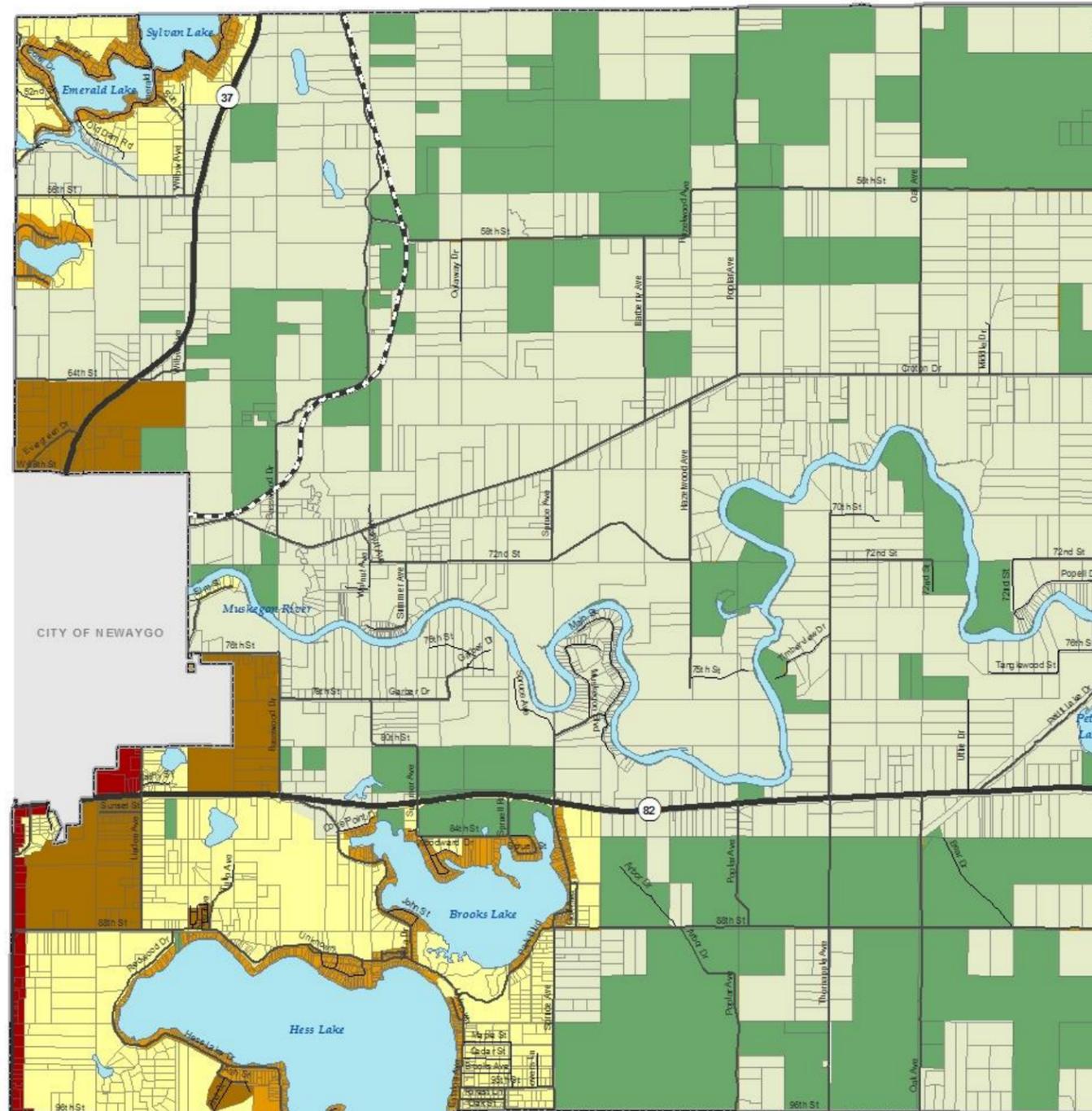
Preservation of natural Vegetation (25 feet or more)

River, Tributary and Lakefront Overlay



Planting strip (no fertilizer application)

Future Land Use Map



Brooks Township
Newaygo County, Michigan

Future Land Use

- Rural Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- General Commercial
- Public/Semi-Public



Draft: February 3, 2017



williams&works
engineers | surveyors | planners

Source: Michigan Department of Natural Resources
Newaygo County GIS
National Wetlands Inventory

Zoning Plan

The Michigan Planning Enabling Act (Public Act 33 of 2008) requires that a Master Plan include a “zoning plan” with an “explanation of how the land use designations on the land use map relate to the districts on the zoning map” (MCL 125.3833).

The Township is divided into 9 distinctive zoning districts. The 9 districts include one agricultural district; four residential districts; one commercial district; one industrial district; and two overlay districts. The ordinance also permits Planned Unit Developments, however it utilized as a procedure only and is restricted to properties zoned “R-1” and “R-2”.

FUTURE LAND USE PLAN DESIGNATION	CORRESPONDING ZONING DISTRICTS
PUBLIC	Currently no zoning district exists that specifically addresses properties owned by public entities. However, those properties identified with this designation are generally zoned R-1 district, permitting very low residential densities. Further, the permitted land uses are limited to residential, agricultural and it is the only zoning district where parks are permitted by-right.
RURAL RESIDENTIAL	AG Agricultural District This district is intended to primarily conserve and protect lands determined suitable for farming operations and natural resource-based businesses. The District also accommodates very low density residential development and other uses generally associated with agriculture. The intent of the zoning district is identical to that of the land use designation, as both are designed to protect the natural topography and resources while permitting very low density residential and agricultural based land uses.

FUTURE LAND USE PLAN DESIGNATION	CORRESPONDING ZONING DISTRICTS
<p>LOW DENSITY RESIDENTIAL</p>	<p>R-1 Low Density Residential District This district is intended to conserve and protect rural township lands for single-family dwellings in low density, rural, natural settings. With a permitted residential density of 1 unit per 5 acres, the R-1 district aims to limit development and maintain the natural topography and rural character while permitting residential development away from agricultural activities.</p>
<p>MEDIUM DENSITY RESIDENTIAL</p>	<p>R-2 Medium Density Residential District The R-2 district permits primarily single-family residential dwellings in a rural setting similar to that of the R-1 district. However, the density of development is increased over that of the R-1 Residential District, permitting a residential density of 1 unit per 2 acres on lands where urban utilities and services are planned in the future. Where areas are not serviced by urban utilities, the densities may be similar to that the low-density designation. These areas are identified as being platted areas near the townships lakes and are generally used for seasonal cottages.</p>
<p>HIGH DENSITY RESIDENTIAL</p>	<p>R-3 High Density Residential District This District is intended for single-family and multiple-family dwellings in an urban setting on lands where public utilities and services exist, or have the likelihood to occur in the near future. These areas may include manufactured housing. However, significant infrastructure improvements may be necessary to facilitate these land uses.</p>

FUTURE LAND USE PLAN DESIGNATION	CORRESPONDING ZONING DISTRICTS
<p>GENERAL COMMERCIAL</p>	<p>C-1 Commercial Business District The C-1, Commercial Business District is intended to accommodate traditional retail businesses and offices meeting the needs of local and area residents. It is the intent to develop attractive and efficient business areas that are convenient and have buildings of harmonious design. In recognition of the unique character of the M-82/M-37 Corridor, this District establishes requirements and incentives to improve vehicular and pedestrian safety, to decrease traffic congestion, and to improve the visual appearance of the corridor through proper landscaping, buffering, and screening.</p>