

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 Indians 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, instituted in 1907.

Emerald and Sylvan Lakes also added another economic attraction to area. Marl, found on the bottom of the lakes and 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.

Advancements in technology, the development of the automobile and the extension of electric and other services, resulted in the establishment



Photo by Dave Carlson/The Muskegon Chronicle

of 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 prior 1955, 1955, 1982 and 1998. These maps show the division of land in Brooks Township. Highlighted are parcels 40 acres and larger. These parcels have been highlighted to show how land has been fragmented through ownership. Ownership also largely affects the use of the land.

Several significant land events occurred during the time period depicted by these plat maps. First, platting around the lake 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 without the formal platting process. This caused the creation of many 10 acre “bowling alley lots”, parcels with narrow frontage on county roads. Perhaps this had the largest affect on the changing character of the township.

BROOKS TOWNSHIP TODAY

Land Use Trends

Land Categories	Use	1978 Land Use (acres)	1999 Land Use (acres)	Difference 1978 and 1999 (acres)	% Change	Annual Loss Or Gain (acres)
Single Residential	Family	911	2,059	1,148	126%	52
Multi-Family Residential		-----	2	-----	-----	-----
Manufactured Home Park		27	34	7	26%	0.31
Commercial		32	34	2	6%	0.09
Public/Quasi-Public		132	132	0	0%	0
Industrial/Extractive		82	82	0	0%	0
Agricultural		801	305	-496	-62%	-23
Vacant Land		1,843	1,741	-102	-5%	-5
Natural Features		1978 (acres)	1999 (acres)	Difference 1978 and 1999 (acres)	% Change	Annual Loss Or Gain (acres)
Forest*		16,985	16,476	-509	-3%	-23
Wetlands		357	300	-57	-16%	-3
Water		1,495	1,500	5	0%	0
Total Acres	Approximate	22,792	22,792	-----	-----	-----

* 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. Digital 1978 land use information from the State of Michigan Department of Natural Resources MIRIS was used along with current (1999 land use) information developed by Langworthy, Strader, LeBlanc & Associates.

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 following is a brief summary of more recent land use trends in Brooks Township (refer to the table found on the previous page). 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 and vacant land (or open field).
- ✓ The amount of land devoted to commercial, industrial and public land uses has not changed significantly in the past twenty years.
- ✓ Land used for agricultural purposes has decreased from 800 acres to just over 300 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 acres have decreased by 3% (over 500 acres) since 1978, and mostly developed for single family homes.

Existing Land Use

An existing land use inventory gives a community a snapshot in time. It is valuable and useful in many ways. From a planning standpoint, the information permits one 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
- measure 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;
- 1996 land use information from the Water Resources Institute at Grand Valley State University; and field verification in the form of a “windshield” survey and aerial photography interpretation conducted in December of 1999.

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, the quality and the maintenance of roads has also influenced residential development patterns in the township. The homes along M-82 and Croton Drive exemplify this, with many other residences found along County maintained and operated roads that adjoin these two major thoroughfares.

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. The past decade has seen the highest concentrations of residential building activity continue adjacent to lakes.

Multiple Family Residential

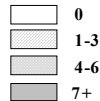
The field survey revealed one group home/adult foster care home in the township, located in section 12, just north of Croton Drive. (Note: The Planning Commission indicated that there may be other such facilities located in the township, but this could not be verified.)

Residential Building Permits by Section in Brooks Township

1992 - 1993

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

As Reported by WMSRDC
in the 1994 Brooks Township
Master Plan



1996 - 1999

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

As Reported by Newaygo
County/Brooks Township

Manufactured Housing

Individual isolated manufactured homes can be found in locations across the township. Concentration of these units, known more commonly as manufactured home parks, 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 lack of commercial businesses dotting major roadways. Residents of Brooks Township primarily rely on commercial services offered by either the City of Newaygo, Fremont, Grand Rapids, or Muskegon.

Commercial development in the township has occurred along M-37, just south of the City of Newaygo. Only three other commercial operations exist currently in other areas of the township:

- a greenhouse operation located to the south of M-82 on the eastern edge of the township;
- a convenience store is located along 88th Street on Hess Lake;
- a propane business is located on Croton Drive, a half mile outside of the Newaygo City limits;
- North Shore Resort on Hess Lake.

Brooks Township has not experienced the development of scattered commercial operations. In many other townships in West Michigan, in which this type of development has occurred, there has been duplication of services, scattered residential growth, and the expensive and in many cases, needless, extension of infrastructure.

Industrial / Extractive (Mining)

The identified industrial uses in the township are primarily mining operations. There are currently three such operations located within the township, they are primarily separated from other land uses, and relatively small in size.



Agricultural

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

In years past, Christmas tree farming was

more prevalent in the township. Many of those farms have been left, not cleared, and those stands of evergreens have become forest stands.

Vacant Land

Land that falls within this category is not developed. It is typically areas of open field. 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 are limited within the township to:

- Churches
- Camp Calvary
- land owned by the Michigan Department of Natural Resources

(Note: The Manistee National Forest is public land. However, it is primarily forested and will be discussed as part of the Natural Features section.)

Natural Features

Forests cover over 72% of the township, with water covering another 7%, and wetlands 2%. 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.

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:

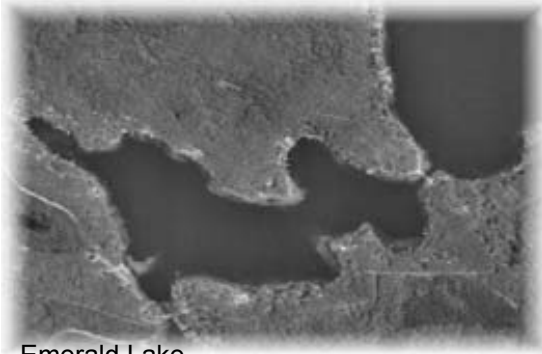
- canoeing and boating;
- fishing;
- hunting;
- trapping;
- ORV trails (designated);
- scenic drives and lookouts;
- hiking;
- cross-country skiing (designated).

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. Many of the old Christmas tree stands have spruces and shorter-needle species.

Water Resources



Emerald Lake

Lakes

There are ten lakes in the township, including:

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



Hess Lake

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 cold water 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.

Brooks Township Land Use Vision

Wetlands

Wetlands identified on the Natural Features map were based on the sources listed at the beginning of this section.

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.)

What wetlands are regulated by the State of Michigan Department of Environmental Quality (MDEQ)? Those that are:

- ✓ 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
- Ottoo Skipper Butterfly
- Culvers Root Borer Moth
- Spartina Borer Moth
- Great Plains Spittlebug



Karner Blue Butterfly

Plants

- Alleghany Plum
- Black-Fruited Spike-Rush
- Blue-eyed Grass
- Golden Alexanders
- Grooved Yellow Flax
- Prairie Smoke
- Side-oats Grama
- Virginia Meadow-Beauty
- Western Silvery Aster



Blue-eyed Grass

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.

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 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.



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

