

Updated Comprehensive Master Plan

For Greenwood Township, Michigan

Adopted: _____ 2026

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Credits

Township Board

Supervisor:	Eric Krikorian	Trustee:	Marvin Roberts
Clerk:	Sonya O'Brien	Trustee:	Douglas Nowicki
Treasurer:	Rebecca Ramsey		

Planning Commission

Chairperson:	Jim Vincent	Member:	Lonnie Teichow
Vice Chair:	Mike Schaefer	Member:	Marvin Roberts
Secretary:	Bonnie Lester	Member:	Keith Berg
Member:	Linda Lincoln		

Goals and Objectives

The goals and objectives formulated by the Planning Commission are the cornerstone of the planning process. They are intended to provide the basic framework for public and private decision-making. The Master Plan's arrangement of future land use is based upon the community goals for the future. As such, the goals will effectively direct both public and private decisions regarding land use and development.

Purposes of the Master Plan

The Master Plan is the official document that serves as the long range, comprehensive policy guide to the day-to-day decisions about the future development of the Township. The Plan is written to be flexible in order to meet changing future conditions and is designed for the community as a whole; not for specific parcels. Through its text and graphic aids, the Master Plan explains the Township's philosophy and desires concerning future development.

The purposes of the Master Plan are:

- To improve the physical environment of the Township as a setting for human activities and promote the general health, safety and welfare by making the Township more functional, beautiful, decent, healthful, interesting and efficient.
- To promote the public interest, the interest in the community at large, rather than the special interests of specific individuals or groups within the community.
- To facilitate the democratic determination and implementation of community policies and physical development. The Plan is primarily a policy instrument. The Plan constitutes a declaration of long-range goals and objectives, and provides the basis for a program to accomplish the goals. By providing opportunities for citizen participation, the Plan facilitates the democratic process.
- To affect political and technical coordination in community development.
- To inject long-range considerations into the determination of short-range actions.
- To bring professional and technical knowledge to bear on the making of decisions concerning the physical development of the community.

Policy Basis

Only through careful analysis of existing conditions and the forces that have brought them about, can the Township understand their interrelationships, identify their underlying purposes, anticipate future problems, and devise solutions.

Accordingly, the community identifies its objectives by relating them to current problems and issues, and to tangible alternative solutions. At the same time, the Township must attempt to anticipate future problems and recommend the steps necessary to prevent their development or reduce their severity.

Policy Purpose

The Master Plan is a long-range plan for the Township, which captures the vision of where the community wants to be at some point in the future, by analyzing and evaluating the future growth of the Township. The Plan provides guidance for the physical development of the Township with an emphasis on future land use.

Determining Policy

The Master Plan is not just a series of maps. Rather, it is first a series of policy statements of objectives. Policy statements, of course, do have limitations. They cannot cover every situation. Certain areas are so complex that it will be impossible to know what sort of policy decision can be made until all of the facts are assembled. Also, there must be agreement and consensus in the first place before a policy statement can be adopted. Obviously, this concurrence will not always exist. None of this negates, however, the desirability of formulating and adopting policy statements in as many areas of planning concern as possible.

Planning Objectives

General Character

- Provide for a balance of land uses within the Township, both residential and rural, with the location and boundaries of residential and rural areas defined through the planning process that includes a detailed inventory and analysis of man-made and natural features in the community.
- Preserve the rural character of the Township through proper and thoughtful arrangement of land uses on the Master Plan, insofar as a variety of uses is consistent with maintaining that rural character.
- Prevent haphazard intrusion of urban uses into the Township or into those areas of the Township not planned to receive public utilities.
- Recognize that most urban uses will not be suitable in most areas of the Township until such time as public water and sewer service can be extended into the Township.
- Maintain a “small community” atmosphere with a low incidence of crime by discouraging rapid and uncontrolled growth of population and households.
- Keep Township land use policies and controls up-to-date and, where desirable, coordinated with those of adjacent communities.
- Foster a sense of shared mission and mutual cooperation among Township officials, where possible, in carrying out these planning objectives.
- Encourage and promote the preservation and adaptive reuse of historic structures so as to preserve the Township’s heritage.
- Maintain and encourage a well-ordered, beautiful, and attractive community by discouraging the presence of “blight” through adoption and faithful enforcement of local ordinances.

Farmland and Agriculture

- Encourage farmland preservation and the use of open space easements by assisting individuals who wish to enroll their lands under Public Act 116.
- Encourage participation in the State of Michigan Purchase of Development Rights Program (Section 3611b of the Farmland and Open Space Preservation Act).
- Encourage the development and use of other farmland preservation techniques in the County and in the Township.

- Provide areas for residential and commercial growth on lands that are inappropriate for farming or will not affect the status of agriculture in Greenwood Township.
- Encourage residential uses to be clustered together where soils are suitable for development, thereby preserving the integrity of large agricultural tracts.
- Where development is allowed to occur along existing roads, establish maximum depths for the urban users (as required by the Michigan Land Division Act, P.A. 591 of 1996) and require proper access to be maintained so that agricultural activities can be continued on the interior acreage.

Open Space and Natural Resource Protection

- Require developers to preserve trees, woodlands, watersheds, streams and drains by integrating such natural features into the design of their development (insofar as practicable).
- Protect natural resources from intrusion by industry, business and residences so as to not jeopardize their delicate balance.
- Protect the air, surface water, ground water, soil, forest, mineral and wildlife resources of the Township so that future generations may enjoy them in the same or better state than they now exist.
- Preserve land with natural open space features such as mature trees, recognizing that these are the unique features of Greenwood Township that make it such an attractive community.
- Protect areas designated as scenic, wildlife preserves or recreation by maintaining them in their natural state.

Housing and Residential Development

- Avoid the creation of pollution problems and extensive sewer programs by concentrating development where soils are adequate for septic tank systems or where sewers are most likely to occur first.
- Provide sufficient open space to serve each dwelling unit whether through increased minimum lot areas, generous yard spaces, or commonly owned open space areas.
- Require residential developments to preserve the natural features of each site, such as woods, topography, natural drainage, and retention areas.
- Provide sites for multiple family residential development only where public sewer and water services are possible and adequate road access is available or planned.

- Encourage a variety of housing types, both site-built and factory-built, including single family, two family, and, when suitably located and serviced, apartment type development.
- Restrict aesthetically incompatible housing types, such as units having a width of less than 20 feet, to locations within licensed mobile home parks.
- Permit manufactured housing that is aesthetically compatible with site-built housing to be located in the community, wherever comparable housing is located.
- Discourage mobile home parks and other higher density housing from locating in unsuitable areas, where they would infringe upon prime agricultural land, wetlands, woodlands or other fragile lands, and on sites that are not served by paved primary roads, adequate public utilities, and in areas that are far removed or isolated from support services, shopping, schools, centers of employment, etc.

Commercial

- Encourage limited commercial development that serves the needs of local residents when properly located.
- Concentrate limited commercial development in planned district(s) around the intersections of paved County primary roads or preferably make it the focal point of a village or town center.
- Permit lawful “home occupations” where proper protection can be provided to adjoining residences and where such occupation is clearly accessory to the main residential use of the premises.
- Encourage retail sales related to the products of the agricultural community, such as farm stands and farmers’ markets.

Industrial

- Buffer industrial uses from less intensive land uses through the use of appropriate setback standards, landscaping, and by locating industrial uses adjacent to other intensive land uses.
- Favor uses that do not pollute the air, soil or water, or offend because of noise or visual characteristics, and will conform to locally adopted industrial performance standards and controls.
- Permit industry only in a planned, well-regulated industrial district.

Roads and Transportation in Compliance with the St. Clair County Road Commission

- Design the road system so that various modes of traffic flow most directly to their destination.
- Devise a network of roads by type and function that will provide a complete road system (major, secondary, collector and local).
- Obtain right-of-way dedications and reservations consistent with local, county and state right-of-way plans and proposals.
- Correct hazardous and unsafe areas by improving street alignments where possible.
- Assure that individual land uses have proper and adequate feeder service and ingress and egress.
- Discourage or prohibit the construction of private roads due to issues of substandard construction, difficulty in ensuring long-term maintenance, and because such roads would only serve to promote increased housing development and loss of farmland which is incompatible with maintaining the character of the community.
- Promote a system of roads that is easy to service. Use limestone instead of gravel, whenever funds permit, to provide a road surface that is durable, longer lasting, and costs less in the long run to maintain.
- Encourage county and state departments to install proper control devices to prevent accidents.
- Pave all roads with heavy traffic volumes. Plan for other new road paving only when road use, traffic volumes, desire lines, and planned service levels warrant such improvement.
- Encourage the provision of demand-responsive (“dial-a-ride”) essential public transportation service for elderly, handicapped, and other transit dependent persons, when such service can be provided on a cost-effective basis.

Recreation, Public Facilities and Services

- Encourage public utilities to locate their major transmission lines in common utility and transportation corridors where possible, with routes that will minimize disruption to existing or planned land use patterns.
- Avoid the cost and maintenance problems of sewer and water facilities by encouraging large lots and on-site disposal systems, where feasible.
- Propose sewer and water facilities only where planning and zoning will not be compromised by their use. Provisions of public water and sewer services should generally be discouraged during the planning period since it would be inconsistent

with the objective of maintaining the desired character of a small, slowly growing, rural community.

- Do not allow sewer and water facilities to intrude upon or preempt major features of the natural environment.
- Provide police, fire and emergency services on a contract basis, or in cooperation with other communities, until population levels and fiscal capabilities make Township sponsored departments feasible.
- Promote the establishment of medical resources, such as clinics and/or ambulance service, to serve Township residents.
- Plan the acquisition of public safety (police, fire and ambulance) facility site(s) well in advance of need.
- Promote a sound street name and numbering system to facilitate recognition and easy location for emergency service.
- Adopt and use state and national recreation standards to determine the need for and locations of existing and future recreation sites and facilities.
- Promote the development of both active and passive recreational areas that adequately address the needs of local residents for facilities that are not available in the local area.
- Locate major public buildings in an attractive planned “civic center” where adequate land is available for future expansion.

Regional Setting

Many factors influence the growth and development of a given community. Some relate to local decisions and can be controlled by the local community. Others result from actions and/or development outside the community and are, therefore, subject to somewhat less local control. In turn, the influence of actions and/or development outside the community depends on the position of the community within the larger surrounding region. This position is a factor that cannot be changed, but must be recognized and accommodated. Local policies and decisions impacting land use, therefore, should take these regional influences into account to be relevant and effective.

History

Greenwood Township was organized in 1855, later than most of the other townships in the County. In fact, there were no settlers in the Township until after 1840, three years after Michigan became a state. Lumbering and settlement came late to the Township because of the lack of navigable streams in or near the Township. Since the Township was heavily wooded when surrounding areas had already been lumbered off, it was named Greenwood.¹

The Township developed very quickly in its first 25 years, boasting two villages, Greenwood Center and East Greenwood, which no longer exist. Most of the first settlers in the Township came from New York and New England. In 1882, the Village of Fargo, named after then Postmaster Charles Farr, was founded. Remnants of this village still exist today. The population of the Township rose to a historical high of 1,900 persons in 1890, then quickly dropped off as the lumbering of the Township was completed. Entering the 20th Century, farming activities sprung up on the cleared land, resulting in the agricultural township that exists today.

¹ *St. Clair County, Michigan, Vol. 1, p. 241, W.I. Jenks*

Regional Location

Figure 1: Location of Greenwood Township in St. Clair County and St. Clair County location in the State of Michigan.



Greenwood Township is located in north central St. Clair County, along the Sanilac County line, approximately 15 miles west-northwest of downtown Port Huron; 30 miles east of the City of Lapeer; 50 miles east of the City of Flint; and 50 miles north of the City of Detroit. The Township is bordered by Grant Township to the east; Kenockee Township to the south; Brockway Township to the west; and Fremont Township (in Sanilac County) to the north. Other nearby communities are the City of Yale (located two miles to the west); Lakeport (seven miles to the east); and the Village of Emmett (six miles to the south-southwest).

Regional Access

Regional roadway access is provided by the I-69 expressway via Fargo Road, State Highway M-136 and Kilgore Road. I-69 is located approximately seven miles south of the Township. Yale Road connects the Township directly with the City of Yale and, via Comstock Road and Burtch Road, connects the Township with Lakeport. Fargo Road, via M-136, connects the Township with the City of Port Huron.

Regional Influences

There are several major regional free market and governmental influences on the growth and development of Greenwood Township. These regional influences are:

1. Detroit Metropolitan Area Labor Markets
2. The Southeastern Michigan Council of Governments
3. The St. Clair County Metropolitan Planning Commission

Descriptions of these regional influences are as follows:

Detroit Metropolitan Area Labor Markets

St. Clair County is part of the Detroit Metropolitan Area, a region that is experiencing continued growth and decentralization. Greenwood Township lies at the extreme northeastern fringe of this region. The location of Greenwood Township, with respect to the labor markets of the region, and in particular those in the Port Huron Urbanized Area, is such that persons can maintain a rural residence in the Township and commute to employment in these labor markets. This permits many residents to take advantage of the city and the country. However, as more and more people seek this lifestyle, patterns of “urban sprawl” and traffic congestion develop which negatively impact the lifestyle these residents were seeking.

Southeastern Michigan Council of Governments

St. Clair County is in the Southeastern Michigan Council of Governments (“SEMCOG”) region. SEMCOG plays an active role in providing planning-related data, transportation modeling, and regional planning to its member municipalities. SEMCOG also reviews local applications for federal and state funding to ensure that the local projects, for which funds are applied, are consistent with regional planning efforts.

St. Clair County Metropolitan Planning Commission

The St. Clair County Metropolitan Planning Commission (“SCCMPC”) also carries out planning functions, of which the most important are coordinating local planning efforts and providing planning assistance to local units of government. To fulfill its coordination function, the SCCMPC updated the *St. Clair County Master Plan* in 2022. This Plan, which was adopted on December 14, 2023, has addressed certain planning concerns in St. Clair County as a whole through 2040. These concerns include land use and change management; the environment; the economy; transportation; public facilities and services.

The Master Plan indicates that most of the Township, outside of the property owned by Detroit Edison for its Greenwood Energy Center, is planned for rural and agricultural conservation.

Planning in Neighboring Communities

In addition to the wider regional influences given above, planning and zoning efforts in neighboring communities can influence the Township’s growth and development. For example, if land in a neighboring community was zoned/used for light industrial purposes, it would be advisable for the Township to designate its land that abuts such an area as a compatible use as opposed to an incompatible use (i.e., for commercial rather than residential use). As noted above, there are four communities that share a common boundary with Greenwood Township: Fremont Township to the north; Brockway Township to the west; Grant Township to the east; and Kenosha Township to the south, which are, for the most part, zoned agriculture.

Existing Land Use

The manner in which the land in a community is being used is one of the basic determinants of the general character of the community and its development potential. Land use patterns on the periphery of a community also influence planning activities because of their potential impact on the community.

Existing Land Use Survey

A field survey of Greenwood Township was undertaken by the planning consultant in September-November 1998. The following materials were utilized:

- Aerial photographs.
- A base map of the Township prepared by the planning consultant.
- The tax roll book of the Township with property descriptions.
- Parcel maps of the Township at 1" = 200' [source: St. Clair County Lands & Graphics Department].
- A 1995 Land Cover Map of the Township [source: SEMCOG].

The survey team drove along every road in the Township and observed land uses on the applicable parcel maps. Upon completion of the fieldwork, the information gathered by the survey team was compared with the tax roll book, air photos, a list of businesses in the Township, and the parcel maps, to ensure that uses noted in the field were plotted in the correct locations. This information was used to prepare an Existing Land Use Map with the plotted land use categories described and shown in color on pages 14-17. The Land Use Map and aerial photographs were updated in 2024.

Existing Land Use Categories, Patterns, & Trends

For mapping and analysis purposes, the various land uses noted in the field were divided into seven (7) land use categories:

- Agricultural
- Intensive Agriculture
- Single Family Residential
- Commercial
- Public, Quasi-Public, & Institutional
- Power Production
- Industrial

The areas of the various uses, in terms of the above-land use categories, identified and located by the survey team in 2000, were measured from the Existing Land Use Map. The total measured land area of Greenwood Township is 23,080.13 acres, or approximately 36 square miles.

Table 1: Greenwood Township Existing Land Use 2024

Land Use Category	% of Total	% of Developed
Single Family Residential	14.42	54.36
Commercial	≤0.01	0.04
Public, Quasi-Public, Institutional	0.63	2.37
Industrial	0.07	0.26
Power Production	11.40	42.97
Total Developed Land:	26.53	100.00
Agricultural	73.28	--
Intensive Agriculture	0.19	
TOTAL:	100.00	--

The following are descriptions of each existing land use category and their patterns and trends within the Township.

Agriculture

The Agriculture existing land use category includes cultivated land; pasture and grazing lands; fallow lands available for future cultivation; barns and other agricultural-type buildings; and farmsteads.

Currently, approximately 73% of the total area of the Township is used for farming, farming-related activities, and farmsteads, making agriculture the largest land use classification. There are farms in every section of the Township. Much of this farmland is fragmented and is interspersed with large lot residential development.

Intensive Agriculture

The Intensive Agriculture existing land use category includes specifically designated lands where large farming, dairying, forestry operations and other similar rural-type uses exist to preserve the land use and prevent urban agricultural land use conflicts. Intensive Agriculture land uses occupy approximately 0.19% of land in the Township.

Single Family Residential

The Single Family Residential existing land use category includes all areas where single family homes are located on individual lots. This also includes single family mobile and manufactured housing units on individual lots.

Single family residential land uses occupies approximately 14% of land in the Township, accounting for approximately 54% of the developed land area of the Township. These single-family residences are built on principally unplatted lots scattered along the section line roads in the Township. Concentrations of single-family homes can be found in and around Fargo and at various intersections in the Township.

Commercial

The Commercial existing land use category includes all areas where products, goods and/or services are sold, leased or otherwise provided, such as retail business establishments, shopping centers, banks, and restaurants.

The only commercial use in the Township is the Fargo Market located on Fargo Road in Section 26 (in the Fargo settlement). The Fargo Market occupies less than 0.01% of the total land area and approximately 0.04% of the developed land area of the Township).

Public, Quasi-Public, Institutional

The Public, Quasi-Public, Institutional existing land use category includes lands devoted to governmental facilities and offices; public, parochial and private schools; churches; cemeteries; and other quasi-public and private institutions.

Public, quasi-public and institutional uses represent 0.63% of the total land area and 2.37% of the developed land area within the Township. This acreage is occupied by the Township Hall (in Section 16), three churches, two cemeteries, and utility easements.

Industrial

The Industrial existing land use category includes all lands devoted to manufacturing; processing; warehousing; storage of raw materials; and intermediate and finished products; junk and refuse yards; energy production; and the provision of services of an industrial nature.

Industrial land occupies approximately 0.07% of the total land area and 0.26% of the developed land area. The industrial acreage in the Township is comprised of a small factory near the

intersection of Bricker and Normal Roads, and another small parcel near the intersection of Comstock and Fisher Roads.

Power Production

The Power Production existing land use category includes all lands devoted to the creation of energy or power in the Township. This includes both traditional energy production methods such as natural gas and renewable energy methods which are a source of usable energy derived from replenishable sources such as the sun (solar energy) or wind (wind power/wind turbines). These constructions are erected on agricultural/industrial zoning sites upon approval of a special land use application and hearing.

Power Production uses occupy approximately 11.40% of the total area in the Township and over 40% of the developed area of the Township. Most of this acreage is occupied by the Detroit Edison Greenwood Energy Center facility in Sections 21, 22, 27 and 28 of the Township.

Approximately 15 acres of DTE Energy's Greenwood Energy Center consists of solar energy panels which provide energy up to 329 homes on a clear, sunny day. The solar energy panel project at Greenwood Energy Center was completed in 2016. Additional solar energy panels may be constructed in the future.

Additionally, the Lake Iris Solar, LLC solar energy project was approved in 2021 by the Greenwood Township Planning Commission and constructed in 2026. The entire solar farm consists of approximately 1,217 acres and the substation sits on a parcel that is approximately 5-10 acres in size.

Approximately 11.40% of land in Greenwood Township is delegated to energy production at this time (2024). This would be parts of sections 21, 22, 27, 28, 33, and 34. Since Greenwood Township is a farming community that values agricultural land preservation into the future, 11.40% shall be considered as meeting its maximum threshold for energy production use.

Population Projections

The Land Use Plan is directly related to the Year 2050 population projections of Greenwood Township, making these projections one of the most significant steps in the planning program. The historical growth of the Township provides a basis for future estimates. Although generators of growth, such as new highways and utilities, are considered in the population forecast, they do not have significant impact on the historical growth. These projections should be viewed as a guide for the development plan and not as the ultimate goal. Thus, as Greenwood Township examines its total population growth, the development plan of the community can be accelerated or decelerated as the level of growth determines. For example, if the level of population expected in Greenwood Township in the year 2050 occurs by 2030, the development plan must be accelerated to meet the transportation and community facility needs of the population.

Methodology

Population projections can be determined by many varying methods. The four methods that are most appropriate for a community such as Greenwood Township are as follows:

Arithmetic Projection

This simple method involves computing the average numerical population change per decade in the past and then projecting this numerical increase into the future. This procedure produces the same result as a straight-line graphic projection on plain coordinate paper.

Geometric Projection

This method involves computing the average rate of change per decade in the past and then projecting this average rate (or percentage change) into the future. This corresponds to a straight-line graphic projection on semi-logarithmic coordinate paper.

Both the arithmetical and geometric techniques are founded on the assumption that the factors and conditions that produced population growth or decline in the past will continue unchanged and will have the same effects in the future, or that they are derived from an assumed curve of population growth.

Share of County Method

This is one of two apportionment methods used for this study. This method assumes that population growth in a community is often closely related to or affected by economic and population changes in the county in which it lies. Future population changes in the larger area may have an important influence on growth and decline in the smaller area. Therefore, past relationships between population growth in an area or community and that of its county are valuable guides for projection of the local population. If logically founded population projections for the county are available, projections for the community can be derived directly by apportioning part of the county's population to the community.

This apportionment is accomplished by a two-step process. In the first step, the ratio of the community's population of the county's population is the base year (often the base year is the last census year or the year with the most recent population estimate) is calculated. Then, in step two, this ratio, which is assumed to hold constant during the forecast period, is multiplied by the forecasts of the county population to derive the forecasts of the community's population.

In some cases, a definite trend can be seen in the ratio of the community's population to the county's population. For example, the community's share of county population may be either steadily growing or shrinking over time. When such a trend occurs, it is often desirable to calculate a projected ratio of community population to county population, instead of using a constant base year ratio.

Small Area Forecast

This kind of apportionment method, utilized by the Southeast Michigan Council of Governments ("SEMCOG") as part of its Regional Development Forecast, attempts to forecast the Township's share of the projected population of Southeastern Michigan. Small area forecasts consider variables such as the relative suitability throughout the region of soils for on-site sewage disposal systems; existing and planned sewerage areas; agricultural land that is required to be preserved; the existing and planned highway networks; and the relative demands for development of residential, commercial and industrial uses throughout the region.

Background

In the 30 years from 1990 to 2020, the population of Greenwood Township increased by 453 persons, for an overall growth rate of approximately 43.68%. The largest portion of this growth took place during the 1990's when the population grew by 336 persons, which translates to a growth rate of 32.40% for that decade. During the 2010's, however, the Township suffered a decline in population by 48 people (-3.12%). The average population growth per decade for the Township is 151 people, for an average growth rate per decade of 13.34%. These last two numbers will be used respectively for the arithmetic and geometric population projections identified in Table 3 below.

Table 2: Population of Greenwood Township From 1940 to 1990

Year	Population	Change	
1990	1,037	--	--
2000	1,373	+ 336	+ 32.4%
2010	1,538	+ 165	+10.73%
2020	1,490	- 48	- 3.12%
Average Change per Decade		+ 151	+ 13.34%

Source: U.S. Bureau of the Census

Table 3: Greenwood Township's Share of County Population

St Clair County		Greenwood Township	
Year	Population	Population	% of County
1940	76,222	876	1.15%
1950	91,599	932	1.02%
1960	107,201	847	0.79%
1970	120,175	889	0.74%
1980	138,802	1,046	0.75%
1990	145,607	1,037	0.71%
2000	164,235	1,373	0.84%
2010	163,040	1,538	0.94%
2020	160,383	1,490	0.71%
2030	159,213	1,433	0.90%
2040	164,884	1,419	0.86%
2050	163,144	1,287	0.78%

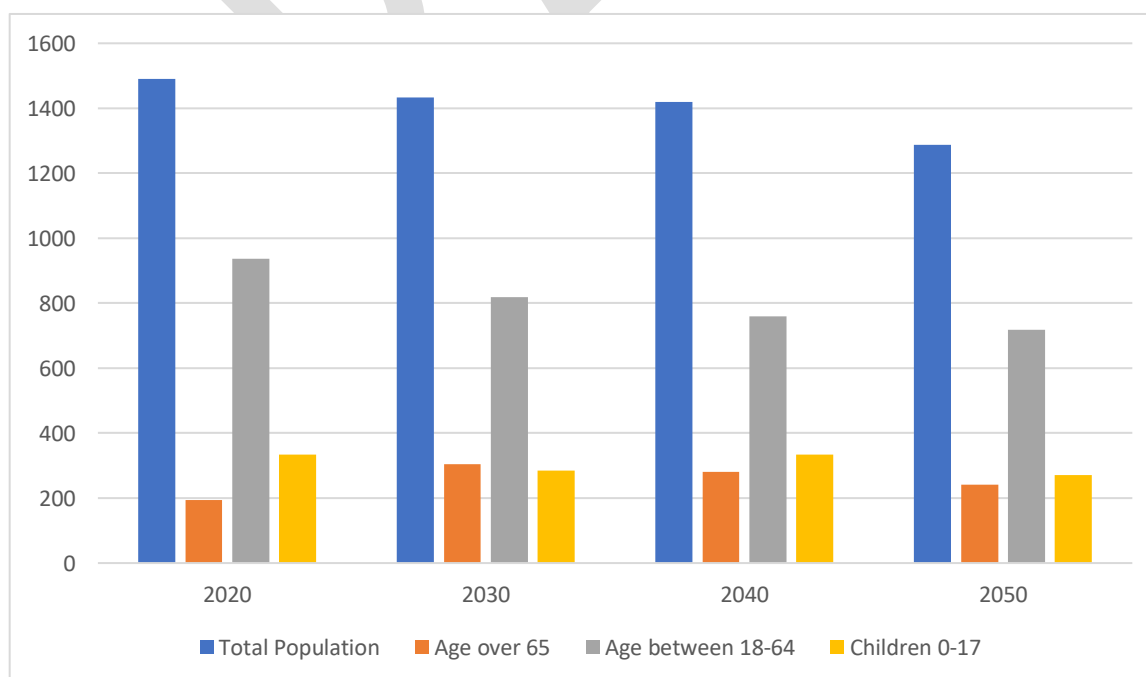
Source: U.S. Bureau of Census, Southeastern Michigan Council of Governments, 2050 Forecast Summary Report, October 2026.

In 1990, the Greenwood Township population of 1,037 amounted to 0.71% of the population of St. Clair County, which was 145,607 in 1990. This ratio was then multiplied by the forecast population of the County in 2000 and 2020 to arrive at the forecast population for the Township in those years using the share of county projection method. The Southeastern Michigan Council of Governments (SEMCOG) 2020 Regional Development Forecast indicated that in the year 2000 the population of the County was expected to be 167,639; in 2010 the population should be 182,967; and in 2020 the population would be 199,345. These three County population forecasts were multiplied by Greenwood Township's 0.71% share of the County population to calculate the share of county population projections given above. Since that time, it was found that the population growth projected in 1990 largely stagnated throughout the first two decades of the 21st century. Actual counts from the decennial census identified county population levels at 164,235 in the year 2000, 163,040 in 2010, and 160,383 in 2020.

Population Projections

In 2020, SEMCOG revisited their projections for Greenwood Township and St. Clair County. The projections for the Township followed the trend of the past three decades, slow population loss. As identified in Figure 2, the projections consist of 1,433 in 2030; 1,419 in 2040; and 1,287 in 2050.

Figure 2: Greenwood Township Population Projection



Source: SEMCOG 2050 Forecast Summary Report

Growth of Households

In addition to forecasts of Greenwood Township population in its Regional Development Forecast, SEMCOG also issues forecasts of average household size for the Township. These forecasts, when used with the population projections derived on page 19, allow us to project the number of households to be found in the Township. The resulting figures are presented in Table 4 below:

Table 4: Greenwood Township Households – Past and Projected Size and Number

	2030	2040	2050	Change	
				Number	Percent
Average Persons per Household	2.71	2.62	2.62	0.1	0.9%
Number of Households	528	531	490	-56	-10.3%

Source: SEMCOG 2050 Forecast by Community for St. Clair County

Population Profile

A profile of the current population of the Township is just as important to the planning process as the projections of the Township's population into the future. Such a profile can help determine whether or not the current pattern of land uses within the Township and the facilities of the Township are sufficient to meet the needs of the population as currently composed. Any "deficiencies" in the current land uses or facilities can then be addressed by this Master Plan. For example, if the population profile indicates a large number of "senior citizens" and the inventory of community facilities indicates a lack of senior citizen facilities in the Township, then there probably is a deficiency in this kind of facility.

Methodology

This profile will look at five aspects of the population of the Township.

1. The general composition of the population, including age, sex and race.
2. The income and poverty levels of the population.
3. The labor force status of the population, as well as the occupations and industries that employ the population.
4. The education and school enrollment levels of the population.
5. The age, value, condition, composition and amenities of the housing stock.

Current data for the State of Michigan and for St. Clair County, as well as data for the Township will be provided for comparison purposes (whenever possible). Data in this section, except as

otherwise noted, is taken from the *SEMCOG 2050 Forecast by Community for St. Clair County*; *U.S. Census: Michigan (2020)*; *Michigan Center for Data and Analytics (April 2024)*.

Population Composition

Table 5: Population Forecast for Michigan, St. Clair County, and Greenwood Township

	2020	2030	2040	2050	Change: 2020-2050	
					Number	Percent
Michigan	10,077,331	10,833,059	10,369,529.5	9,906,000	128,000	-1.3%
St. Clair County	160,383	159,213	164,884	163,144	2,761	1.7%
Greenwood Twp	1,490	1,433	1,419	1,287	-203	-13.6%

Table 6: Population by Age

	Greenwood Twp 2010	Greenwood Twp 2024	Change 2010-2024
≤ 5 years	90	57	-33
5-9 years	115	58	-57
10-14 years	145	142	-3
15-19 years	126	119	-7
20-24 years	75	83	8
25-29 years	49	121	72
30-34 years	75	53	-22
35-39 years	123	53	-70
40-44 years	155	65	-90
45-49 years	150	130	-20
50-54 years	109	138	29
55-59 years	79	155	76
60-64 years	65	115	50
65-69 years	60	54	-6
70-74 years	50	58	8
75-79 years	31	44	13
80-84 years	31	41	10
85+ years	10	16	6
Total	1538	1502	-36
Median Age	39.1	45.0	5.9

Source: SEMCOG Community Profiles

Table 7: Population by Sex 2024

	Michigan	St. Clair County	Greenwood Township
Male	49.5%	50.3%	51.8%
Female	50.5%	49.7%	48.2%

Source: 2022 U.S. Census; Census Reporter

Table 8: Population by Race

	Michigan 2010	Michigan 2020	St. Clair County 2010	St. Clair County 2024	Greenwood Twp 2010	Greenwood Twp 2024	Greenwood Twp Change 2010-2024
Total Population	9,883,640	10,077,331	163,040	160,221	1,538	1,502	-36
White	7,569,939 76%	7,295,651 72.4%	150,213 92.1%	143,658 89.7%	1,467 95.3%	1,363 90.7%	-104
Black	1,383,756 14.0%	1,358,458 13.5%	3,860 2.4%	3,395 2.1%	4 0.3%	21 1.4%	+17
Hispanic	436,358 4.4%	564,422 5.6%	4,708 2.9%	5,905 3.7%	29 1.9%	69 4.6%	+40
Other	493,587 0.04%	858,800 0.085%	4,259 2.7%	7,070 4.43%	38 2.5%	49 3.3%	+11

Source: U.S. Census Reporter; U.S. Census; SEMCOG: Community Profiles

As with the population of St. Clair County, that of Greenwood Township is composed mostly of Whites, Blacks and Hispanics. American Indians, Eskimos, Aleuts, Asians, Pacific Islanders and all other races combined account for less than 4% of the Township's population, a proportion far less than in either the County or the State. These same general proportions existed in 2010 and are not expected to change appreciably in the future.

Table 9: Population by Disability 2024

	Michigan	St. Clair County	Greenwood Twp.
Total Population	10,033,412	159,032	1,502
Under 18 years of age	2,101,481	31,447	329
With disabilities	109,758	1,826	13
Without disabilities	1,991,723	29,621	316
Age 18-64	5,982,918	93,117	960
With disabilities	733,604	13,438	129
Without disabilities	5,249,314	79,679	831
Age 65 and older	1,949,013	34,468	213
With disabilities	610,086	11,512	76
Without disabilities	1,338,927	22,956	137

Source: U.S. Census Bureau

Of the 960 persons in Greenwood Township in 2024 who were between the age of 18 and 64, 13.4% had a disability that resulted in either a mobility and/or self-care limitations, whereas 35.7% ages 65 and over had some sort of disability.

Urban and Rural Populations

As shown in the following table, because there is no urbanized area within the Township, all of the population of Greenwood Township is considered rural. Over 87% of these people do not live on any kind of a farm. Almost 13% of the population of the Township live on a farm. The Township has a higher proportion of its population living in both rural-nonfarm and rural-farm areas than does the State and the County.

Table 10: Percentage of Urban and Rural Populations 2020

	Michigan		St. Clair County		Greenwood Twp.	
Urban	8,263,411	81.99%	97,072	60.53%	0.00	0%
Rural – Nonfarm	1,108,506	10.99%	Combined farm/nonfarm 63,361	39.47%	1,296	87%
Rural - Farm	705,413	6.99%			194	13%

Source: U.S. Census; St. Clair County Master Plan; Metro Planning Commission 2020

Income and Poverty

In 2022, 203 households in the Township had incomes of \$50,000 - \$100,000, more than in any other income bracket. The next most populous bracket was the under \$50,000 bracket with 147 households. These income patterns may highlight the importance of ensuring that the Township's housing stock includes a range of housing types and price points to meet the needs of low- to high-income households, while supporting the opportunities for future residential development that are attainable for residents across multiple income levels.

Table 11: Households by Income 2024

	Michigan	St. Clair County	Greenwood Twp 2022
Under \$50,000	1,408,766	23,432	147
\$50,000 - \$100,000	1,251,778	20,736	203
\$100,000-\$200,000	1,078,264	19,907	153
Over \$200,000	388,340	5,115	58

Source: U.S. Census Community Profiles 2024

In 2024, 32.8% of the children in Greenwood Township were living in poverty, and 17.4% of persons 65 and over were living in poverty.

Table 12: Income/Poverty Levels 2024

	Michigan		St. Clair County		Greenwood Twp.	
Children under 18	373,069	18%	4,117	13.2%	84	32.8%
65 years or older	211,191	10.8%	2,698	7.83%	37	17.4%

Source: U.S. Census Reporter 2024

Labor

Table 13: Labor Force Status and Forecast

Total Workforce	2020	2030	2040	2050
Michigan	4,279,580	4,654,510	-----	-----
St. Clair County	66,641	68,791	68,799	67,531
Greenwood Township	278	290	286	275

Source: Michigan Department of Technology, Management and Budget; Census Reporter 2022; SEMCOG

According to *Census Reporter 2022*, the Greenwood Township workforce was 278 in the year 2020 and is expected to remain fairly stable through year 2050.

**Table 14: Employment by Industry 2020-2050 for
St. Clair County (“SCC”) and Greenwood Township (“G.T.”)**

	SCC 2020	G.T. 2020	SCC 2030	G.T. 2030	SCC 2040	G.T. 2040	SCC 2050	G.T. 2050
Natural Resources, Mining & Construction	6,430	70	7,801	82	7,843	81	7,540	79
Manufacturing	8,916	42	9,069	42	8,332	36	7,755	30
Wholesale Trade	1,416	4	1,759	3	1,794	3	1,765	3
Retail Trade	7,765	10	6,909	10	6,221	9	5,599	8
Transportation, Warehousing & Utilities	3,348	22	3,791	33	3,844	33	3,867	34
Information & Financial Activities	5,711	21	5,386	20	5,519	21	5,514	19
Professional and Technical Services and Corporate HQ	2,797	5	3,242	9	3,342	9	3,317	9
Administrative, Support & Waste Services	2,710	17	2,668	18	2,765	19	2,793	19
Education Services	4,156	0	4,201	0	4,257	0	4,175	0
Healthcare Services	8,676	8	9,061	8	9,840	9	10,530	9
Leisure & Hospitality	6,555	0	7,011	1	7,118	1	6,970	1
Other Services	4,565	10	4,253	14	4,277	14	4,157	15
Public Administration	3,596	48	3,640	50	3,647	51	3,549	49
Total Employment Numbers	66,641	257	68,791	290	68,799	286	67,531	275

Source: SEMCOG

In 2020, the industries that employed the most persons overall in the Township were natural resources, mining and construction (70) and public administration (48). It is notable that Greenwood Township is overwhelmingly rural in character, and that the agriculture industry (included in “Natural Resources, Mining & Construction” in the above-table) includes the majority of the workforce.

Education and Enrollment

As can be seen in the table below, 34.4% of persons age 18 and over in Greenwood Township have earned a high school diploma; 12% have earned a Bachelor’s degree; and 4.8% have a post-graduate degree.

Table 15: Education Levels of Population 2024

	Michigan		St. Clair County		Greenwood Twp.	
No Degree	601,751	7.49%	12,477	9.7%	132	11.3%
High School	2,295,627	28.6%	40,847	31.7%	403	34.4%
Some College	2,583,928	32.1%	49,988	38.8%	440	37.5%
Bachelor's	1,545,785	19.2%	16,933	13.1%	141	12%
Post-Grad	942,313	11.7%	8,612	6.68%	57	4.8%

Source: Census Reporter 2024

Housing

In 2024, this table was created to show approximately how many homes were constructed during a certain time period, and approximately how many, percentage-wise, were still standing as of 2024.

Table 16: Years When Housing Structures Were Built and Still Standing as of 2024

	Michigan	St. Clair County	Greenwood Twp. total	Greenwood Twp. Still Standing as of 2024
2020 or later	1.97%	2.01%	3	0.49%
2010 to 2019	5.14%	4.15%	21	3.41%
2000 to 2009	10.3%	10.0%	177	28.7%
1990 to 1999	11.6%	15.5%	105	17.0%
1980 to 1989	9.53%	11.2%	44	7.14%
1970 to 1979	14.4%	12.1%	48	7.79%
1960 to 1969	11.4%	7.91%	21	3.41%
1950 to 1959	14.1%	12.5%	33	5.36%
1940 to 1949	6.93%	7.31%	13	2.11%
1939 or earlier	14.5%	17.3%	151	24.5%

Source: *Comprehensive Master Plan, April 2000.*

Table 17: New Housing Structure Permits and Percentage of County

	Greenwood Twp	St. Clair County	State of Michigan	Greenwood Twp % of St. Clair County
2020 to 2023	8	302	20,592	2.64%
2010 to 2019	21	707	164,138	2.97%
2000 to 2009	105	847	371,311	12.39%
1990 to 1999	160	771	453,482	20.75%

Source: *U.S. Census: Construction Annual Report*

As identified in Table 16, the Township experienced a relatively high level of new housing construction between 1990 and 2009, with the highest level occurring between 1990 and 1999. This was followed by a significant decline in new residential building permits in recent years. As a result, much of the Township's housing stock was constructed during that earlier period. Limited recent construction may reduce opportunities for housing choices and make it more difficult for new residents to locate within the Township. Encouraging appropriate residential development in the future may help maintain a balanced and sustainable housing supply.

As shown in Table 18 below, owner-occupied housing in the Township was valued a bit higher than the State and the County.

Table 18: Value of Owner-Occupied Housing 2024

	Michigan	St. Clair County	Greenwood Twp.
Less than \$100,000	438,060	7,436	40
\$100,000 to \$200,000	675,494	15,823	120
\$200,000 to \$250,000	377,534	8,390	71
\$250,000 to \$300,000	335,824	5,981	72
\$300,000 to \$500,000	805,285	13,558	158
\$500,000 to \$1M	345,573	3,203	25
Over \$1M	59,129	391	8
Median Value:	\$224,400	\$219,400	\$259,300

Source: SEMCOG 2022

Table 19: Housing Occupancy 2022

	Michigan	St. Clair County	Greenwood Twp.
Owner-Occupied	3,034,798	56,239	494
Renter-Occupied	1,096,483	12,882	67
Vacant units	537,828	4,454	55
Total Units	4,669,109	73,575	616

Source: SEMCOG 2022

Table 19 above identifies housing occupancy in Greenwood Township, St. Clair County, and the State of Michigan in 2022. This table identifies that the majority of housing in the Township, 88%, is owner occupied housing units. This is a larger percentage of owner occupied units within the total housing stock than that of the County and state. Only about 8% of the housing stock in Greenwood Township is vacant which is in line with the County and lower than the State. The Township's housing stock is comprised of only about 3% of renter occupied housing units, which is substantially lower than that of the County and the State. Encouraging the addition of additional rental units, whether those are multiple family residences or rental homes, could provide additional housing options for those in the Township who have lower incomes. As noted earlier in the chapter, the Township has a higher percentage of those living in poverty and residents with lower incomes. The addition of rental units, which often provide monthly housing costs lower than those who own their homes could reduce those who may be housing burdened in the Township. The Township could look to encourage this denser housing type in the Fargo area, as this area already has housing that is at a density greater than the rest of the Township.

Given the current nature and agricultural heritage of the Township, all higher density housing development should be in character with the surrounding community. This should consist primarily of duplexes, triplexes, or quadplexes that can be supported by private well and septic systems. Increased residential housing density should be excluded from agricultural areas of the Township.

All single-family homes are restricted as to how many people are allowed to live there according to the Fair Housing Act and HUD. For example, an 11'x15' bedroom can hold one person, but a 15'x22' bedroom can hold two people, if of the same family. Only bedrooms are counted. If non-related, these numbers are lower. This is in effect to prohibit overcrowding of a single-family residence so as to not endanger the life, health, safety or welfare of the occupants.

All of the housing units in the Township obtain potable water through some sort of well. One hundred percent of the units in the Township utilize septic tanks to dispose of wastewater.

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Natural Resources

The optimum arrangement of land use in a community is that which properly utilizes the natural resources and physical features of that community, so that any given land use is located only in an area where the natural resources and physical features of the area are best suited for that particular use. For example, areas in a community that have soils that are considered “prime agricultural soils” and are relatively flat and free of wetlands are best suited for farming uses. Other areas that contain wetlands may be better suited for recreational uses. Still other areas may have natural features best suited for residential development. Thus, it is very important to make a thorough inventory of the natural resources and features in the Township.

Topography

The land surface of Greenwood Township is relatively flat in the eastern two-thirds of the Township, maintaining elevations between 740 and 750 feet above mean sea level. The remainder of the Township is relatively hilly, particularly in the southwestern portion of the Township, with elevations as high as 800 feet above mean sea level. This hilly area forms part of the northern boundary of the Mill Creek valley, which lies to the southwest of the Township.

Geology

The land surface of Greenwood Township, which is graphically illustrated on the Bedrock of Michigan Map, consists primarily of shale of the Lower Mississippian stratigraphic unit, except for the northeastern corner and eastern edge of the Township, which is sandstone. A layer of sediment between 250 feet and 350 feet thick covers the bedrock in the Township.

Soils

Soil characteristics are an important determinant of land use potential. Not only do soils influence the suitability of land for agricultural purposes, they also help to determine whether or not a parcel is suitable for more urban forms of development such as housing, business, industry, roads and utilities (water, gas and sewer).

Soil Association

There are twelve major soil associations found in St. Clair County according to the *Soil Survey of St. Clair County*. These soil associations are areas with a distinctive and/or proportional pattern of one or more major soils and/or soil complexes and at least one minor soil. The soils in one association may occur in another, but in a different pattern. Of the twelve major soil associations, three can be found in Greenwood Township, and they are as follows: ²

Blount-Parkhill Association

Nearly level to gently sloping, somewhat poorly drained, and poorly drained soils that have a dominantly loamy subsoil which occur primarily on till plains found in most of the Township. Most areas of the soil in this association are used for farming (dairy and cash crop). The major soils have a very high seasonal water table and require drainage for most uses. Also, the seasonal high-water table of these soils creates severe limitations for the use of septic tank disposal fields. An on-site investigation of the soils is necessary to determine the suitability of a particular site for septic tank/field use. Erosion is a moderate hazard on slopes.

Boyer-Wasepi-Spinks Association

This association occurs on the outwash plains, glacial drainageways, and glacial beaches scattered throughout the county. However, in Greenwood Township, it is found only in the eastern one-half of Section 36. The general landscape is gently undulating and has distinctive low ridges. Most areas of these soils have been cleared and cultivated, but a few areas are still forested. The main farming uses are for dairying, beef cattle enterprises, and some cash cropping. The major soils have low natural fertility and low available water capacity. The Wasepi soils have a seasonal high-water table and need drainage for most uses. Erosion is a moderate hazard on the sloping hills.

Alluvial Land-Rough Broken Land Association

This association occurs on the floodplains and steep bluffs of the major rivers and streams throughout St. Clair County. More particularly in Greenwood Township, this association occurs only in the northeastern quarter of Section 12 along Silver Creek. The general landscape is broad to narrow, generally deeply incised valleys. The Alluvial land component of this association is the active floodplains of the rivers and streams that are level to gently sloping. Rough, broken land is strongly sloping to very steep, and consists of bluffs or escarpments that border the outer edges of

² *Soil Survey of St. Clair County, Michigan, pp 2-6; USDA Soil Conservation Service.*

the floodplains and the higher uplands. Most areas of this association are pastured, forested, or idle, and covered with brush. Alluvial land has a seasonal high-water table and is subject to flooding. Rough broken land is subject to severe erosion and is too steep and rough for most uses.

Limitations of Soils for Septic Fields

The *Soil Survey for St. Clair County* also classifies individual soils by the degree of limitations for use in septic tank disposal fields.³ In determining these limitations, the factors considered are depth to the water table, permeability rates, hazard of flooding, and topography. The rating of the soil is based upon the limitations of the soils to absorb effluent from septic tanks. Soils are rated for three degrees of soil limitations:

1. **Slight:** where the soil is relatively free of limitations or limitations are easily overcome.
2. **Moderate:** where soil limitations need to be recognized but can be overcome with good management and careful design.
3. **Severe:** where soil limitations are severe enough to make use questionable.

Generally, urban and residential development beyond existing public sewer areas (of which there are none in Greenwood Township) should be limited to those areas having soils with only slight or moderate limitations for septic use.

Most of the soils found within the Township are classified as having severe limitations for septic field use. Several isolated areas of moderate and slight limitations can be found in the northern and eastern parts of the Township.

Wetlands

Wetlands serve a number of important environmental functions that need to be considered during the community planning process. The most important functions of a wetland are to serve as a natural filtration device, by trapping and storing nutrients from upland runoff in plant tissue and to serve as a settling basin for silt generated from upland erosion. These functions can be seriously damaged and possibly destroyed by poor land use practices. Since every wetland has a unique tolerance for filtering runoff from the uplands surrounding it, development in those adjacent areas can create more nutrient and sediment inflow than the wetland can handle. Such an overload can damage the wetland to the point where it can turn into a settling basin of polluted, foul water, destroying the area's ecological health, and possibly posing a threat to the physical health of the area's population.

³ Please see the *Soil Survey of St. Clair County, Michigan*, p. 103; USDA Soil Conservation Service

Even more serious is the removal of wetlands. The removal of these natural features by dredging or filling will have an immediate impact on the water quality of streams and lakes below them in the watershed system. Preserved wetlands improve water quality, moderate flooding, and stabilize water supplies, thereby providing for overall environmental health and stability.

Wetlands Protection

In recognition of the importance of wetlands, the State of Michigan enacted the *Goemaere-Anderson Wetlands Protection Act* (Act No. 203 of the MI Public Acts of 1979), authorizing regulation by the DNR of development in and around wetlands. This legislation defines wetlands as “land characterized by the presence of water at a frequency and duration sufficient to support, and that under normal circumstances does support, wetland vegetation or aquatic life” and generally regulates the development of wetlands over five acres in size, or which are contiguous to the Great Lakes or to a river, stream, pond or inland lake. Permits are required for the following activities:

- depositing or placing fill material in a wetland;
- dredging or removing soil from a wetland;
- constructing, operating or maintaining any use or development in a wetland; and
- draining surface water from a wetland.

The issuance of permits for these activities depends upon whether or not the activity in question is in the public interest and whether or not it is otherwise lawful (that is, permitted by the zoning ordinance and/or other ordinances of the community).

Identifying Wetlands

As important as wetlands are, it can sometimes be very difficult to properly identify and define a wetland. Often the only sure way to determine if a particular parcel is a wetland or not is to do an on-site survey. This is because (physically and legally) land does not have to be wet all of the time in order to be defined as a wetland. Repeated site surveys can show if water is present frequently enough for the parcel to qualify (legally) as a wetland. In addition, wetlands normally contain unique forms of plant life which, again, are best identified by on-site surveys.

Hydric Soils

For planning purposes, extensive on-site surveys are rather impractical (too time consuming and often too expensive), so other sources of wetland information must be used to help us determine what areas of the Township contain wetlands. One possible source is the list of “hydric soils,” e.g., those soils deemed likely to support wetlands, developed by the Soil Conservation Service (“SCS”) of the U.S. Dept. of Agriculture. This list is keyed to the SCS Modern Soil Survey Maps, thus making it possible to show where such soils can be found and, hence, what areas are likely to be wetlands.

There are three limitations to using the soil surveys and the list of hydric soils. First, the soil maps cannot show smaller occurrences of soil types, particularly those smaller than two acres. Also, the presence of a wetland soil does not legally define an area as a wetland, so this information cannot be used as a legal guide. Finally, as with all information sources, there are occasional errors.

National Wetland Inventory

Another source of information on wetlands is the National Wetland Inventory (“NWI”) maps. These maps are created by interpretation of aerial photographs and overlaying apparent wetland areas onto standard topographic maps.

Again, there are limitations to using this kind of information. Since they are produced by mass scale aerial photograph interpretation, there is a significant source of error. Some areas have been interpreted from black and white photographs; others from infrared color photographs that are easier to interpret. Most areas have not been verified by field checks. Due to scale, small areas might be missed. Finally, an aerial photograph reflects a specific time and condition, and may not reflect a “typical” condition.

Greenwood Township Wetlands

For the purposes of this Plan, the Natural Resources Map, located in Appendix A, will be used to identify wetland areas in the Township. Most of the larger wetlands are located in the northern half of the Township, although smaller, scattered, wetlands are distributed throughout the Township. Actual on-site inspection of these areas by the Michigan Department of Natural Resources is necessary to precisely determine the characteristics and extent of these wetlands on specific parcels in the Township. The Natural Resources Map for Greenwood Township was created using data from the US Geological Survey’s National Land Cover Database. This database includes sixteen land cover categories that for this map have been simplified to show just the areas of wetlands and woodlands within the Township.

Floodplains

Floodplains are areas where floodwaters spread when the natural stream or river channel overflows its banks because it cannot accommodate runoff from storms or melting snow. Dissipation of flood waters into the floodplain helps reduce the amount of damage incurred by flooding. In addition to providing natural buffers for floods, floodplains provide critical functions as groundwater recharge areas and wildlife habitat.

When the floodplain is altered by grading, filling, or the erection of structures, its flood-dissipating functions are reduced. Oftentimes, changes to the natural system aggravate flooding and damages. Factors that increase flooding problems include:

- Removing vegetation that stabilizes banks of streams and rivers, and slows flood waters.
- Erecting structures that deflect or inhibit flow of floodwaters can increase flood elevations and modify flow paths, shifting flooding problems and increasing erosion.
- Constructing bridges, culverts, buildings, or other structures that encroach on the floodplain and reduce the storage area available for floodwaters.
- Building drainage systems that quickly feed stormwater into the receiving body.
- Channelizing streams (straightening meandering watercourses to expedite drainage) which transfers flooding problems downstream, alters wildlife habitat.
- Filling and dumping in floodplains which can cause a considerable amount of damage as floodwaters rise and transport debris that can interfere with the movement of floodwaters.

National Flood Insurance Program

In response to widespread life and property loss associated with flooding, and to help those affected by floods, the federal government has promoted local floodplain management strategies through education programs and enactment of the National Flood Insurance Program (“NFIP”). The insurance program is basically the only source of flood insurance and is only available to property within communities participating in the NFIP. It is administered by the Federal Emergency Management Agency (“FEMA”). In order to participate in the subsidized insurance program, communities are required to adopt and enforce regulations regarding development in flood-prone areas. Participation in the program is voluntary and relies heavily on state and local involvement. However, there is a strong incentive to participate as FHA, VA and other federally insured mortgages are prohibited in identified floodplains unless flood insurance is carried.

State Floodplain Protection

In the process of augmenting federal protection measures, the State of Michigan has implemented rules that require a permit to occupy, fill, or grade lands in a floodplain, streambed, or channel of a stream. FEMA flood insurance studies, rate maps, and other state data are used to determine floodplain boundaries. The flood area within the jurisdiction of state and federal programs is the 100-year floodplain. A 100-year flood (which results from approximately 5 inches of rainfall in 24 hours) has a one percent chance of occurring in any given year. This means that a structure in a 100-year floodplain has a 26% chance of being flooded before the average mortgage is paid off, if it is not properly elevated.

Greenwood Township Floodplain

Greenwood Township does not participate in the National Flood Insurance Program. Thus, there are no flood insurance rate maps showing the 100-year floodplain. However, a good approximation can be found by mapping Alluvial lands as shown in the *Soil Survey for St. Clair County*. These Alluvial lands are found primarily in floodplains and therefore show the general location of the floodplain area in Greenwood Township along Silver Creek in Sections 11, 12 and 14.

Woodlands

Wooded areas also serve significant environmental functions that need to be recognized and acknowledged. These functions include watershed protection, air quality protection, noise abatement, and weather protection. There are also many less quantifiable, but highly important, benefits provided by woodlands.

Watershed Protection

A wooded area can be of great value to a watershed area. The canopy of trees aids in breaking the force of precipitation, thereby decreasing erosion. Erosion is further inhibited by the fibrous root system of the understory plants, as well as the layer of leaf or needle litter. Woodlands can also reduce the volume of stormwater runoff. Clear-cut lands can produce excessive runoff unless trees are replaced by other vegetation with comparable water retaining capacity. With no soil and vegetation to moderate runoff from precipitation, flooding may result, in addition to a loss of precipitation ordinarily retained and recharged into groundwater reserved by the woodland.

Air Quality Protection

Woodlands improve air quality and afford protection from wind and dust. Leaves and branches moderate the strength of winds, and when moistened with dew or rainwater, reduce suspended particles in the air, which are later washed off with rainwater. Plants also serve to moderate the effect of chemical pollutants in the air by absorbing some ozone, carbon dioxide, and sulfur dioxide.

Noise Abatement

A dense stand of trees can significantly cut noise from adjacent factories or highways by six to eight decibels per 100 feet of forest. Moreover, the moderating effects of forests on temperature and wind can significantly cut the sound-carrying capacity of the atmosphere.

Weather Protection

The resilience of woodlands creates a microclimate around the tree stand itself. Woodland qualities that moderate and buffer temperature, precipitation, runoff, wind and noise are features of this microclimate effect. The benefits of this microclimate effect to surrounding urban and suburban areas can be significant. An urban area, devoid of vegetation, is the exact opposite of the forest microclimate. It increases the range of temperature fluctuations much like the climatic extremes of a desert.

The sun's energy striking streets and buildings is changed into heat, further increasing the temperature on a hot day. At night, the buildings lose heat and offer no protection cover from night chill or winter winds. Thus, if woodlands are interspersed among built-up areas, the effects of their microclimates can be felt in adjacent urban areas, moderating fluctuations in temperatures by keeping the surrounding air cooler in the summer and daytime, and warmer in the winter and evening.

Other Benefits of Woodlands

The significance of woodlands is given added weight by the less quantifiable benefits that they provide to the public. Not only are woodlands important buffers, they also add aesthetic values and provide attractive sites for recreational activities such as hiking, camping, and other passive recreational pursuits.

Continued stability of good real estate values is a secondary benefit offered by woodlands. Since people choose to live in and around woodlands, providing for woodland protection in the planning of development projects will maintain favorable real estate values.

Woodlands in Greenwood Township

Since most of the land in Greenwood Township has been cultivated, there are only a few large woodland areas left in the Township. These large woodland areas are located in Sections 6, 13, 14, 22, 23, 24, 25, 26, 27, 34, 35, and 36. Smaller woodlands are scattered throughout most of the remainder of the Township. As noted earlier in the chapter, the general location of woodlands in Greenwood Township can be found on the Natural Resources Map, located in Appendix A, which has been created using data from the National Land Cover Database.

Agricultural Lands

Soil data is the principal source of information used by the U.S. Department of Agriculture Soil Conservation Service (“SCS”) to determine those areas of the Country that have the greatest potential for long-term agricultural production. St. Clair County includes a considerable amount of land (over 294,000 acres) that has been designated by the SCS to be either prime or unique farmland. Prime farmland, because of characteristics such as level topography and soil characteristics (e.g., fertility, moisture levels, depth, and texture) is the land most suitable for row crops. Unique farmlands are lands other than prime lands that have a special combination of characteristics (e.g., soil qualities, location, topography, and growing season) that make them ideally suited for specialty crops like vineyards, orchards, and vegetables. Much of this prime and unique farmland is confined to the western portions of the County.

Prime Farmland in Greenwood Township

Most of the land in the Township is considered prime farmland. Small areas of non-prime lands are scattered throughout the northern one-third and eastern one-third of the Township, particularly in Sections 2, 3, 4, 6, 10, 12, 13, 14 and 36. No unique farmland is found in Greenwood Township.

The long-term use of this prime farmland for agricultural purposes will be influenced by factors other than just soil characteristics. These factors include land speculation activity, increasing land values, taxation and assessment practices, and general economic trends. The desirability of preserving land for long-term agricultural purposes and to accommodate the demand for a range of urbanized uses are situations that will be addressed during the planning process.

Public Act 116 Lands

The Public Act 116 program (“P.A. 116”) is an attempt by the State of Michigan to preserve and protect farmland from development into higher intensity uses. In the P.A. 116 program, the State enters into contracts with owners of agricultural land that is deemed threatened by development,

whereby the landowner agrees to keep the land in question as agricultural for at least 10 years, in exchange for an income tax credit. Also, the property in question will be exempt from any special assessments.

There are 33 parcels in the Township enrolled in the P.A. 116 program, containing a total of approximately 1,750 acres. These parcels are scattered throughout the Township and contain significant amounts of prime farmland.

Groundwater

Greenwood Township, like most rural communities, relies entirely on individual water wells for its potable water supply. Thus, the availability of groundwater in the Township is a determinant of the amount and intensity of development that the Township can support.

Even though the soils throughout the Township have high water tables, the supply of groundwater in the Township is generally not abundant. This is because clay lies underneath most of the topsoil of the Township and this clay does not transfer water from the topsoil down to lower levels of soil very easily. Even if the clay is saturated, water passes through it so slowly that it usually is not capable of supplying a well adequately. Furthermore, as mentioned previously, the uppermost layer of bedrock, which lies directly beneath the clay, consists mostly of shale, which is an even poorer source of water than the clay.

Fortunately, there are some deposits of sand and gravel mixed within the clay into which water from the saturated surrounding clay will collect. Often, adequate wells can be obtained by tapping into these deposits, although locating these aquifers can sometimes be a trial-and-error process. Information concerning water wells drilled in Greenwood Township can be ascertained by contacting the St. Clair County Health Department.

Community Facilities and Services

The facilities, services, and programs offered by the Township to its residents and businesses are essential to maintaining an adequate standard of living and are an essential factor in determining whether or not a community can thrive and grow.

Township Hall

Greenwood Township owns and maintains a 30-acre parcel at the intersection of Yale Road and Kilgore Road in Section 16. The Greenwood Township Hall is located on 10 acres of this parcel which contains the Township administrative offices and a meeting room that is used for public meetings of the Township. The Township Fire Department is located in an adjacent building on the Township Hall property. The remaining 20 acres parcel is designated as the Greenwood Township Park. The Township maintains the Park landscape as well as the baseball diamond, tennis court, playground area and picnic area, as well as a nature walk located therein.

Utilities

Currently there are no public water or sewer facilities available in the Township, nor is it expected that such will be provided during the period covered by this Master Plan. Residences and businesses in the Township are served by individual on-site wells and septic tanks. However, the Detroit Edison facility is served by Detroit Water. Electric power is provided to all areas of the Township by Detroit Edison. Natural gas service is provided to some residents along Kilgore Road north of Oatman by the Southeastern Michigan Gas Company. Most residences utilize on-site propane or fuel oil tanks.

Schools

A wide range of educational opportunities and services are available to Township residents. They are described as follows:

Yale Public Schools

Greenwood Township is located almost entirely within the boundaries of the Yale Public School District. At this time, the district does not have any school sites within the Township and none are expected to be constructed within the Township during the planning period. The closest district facility is the Avoca Elementary School located near the intersection of Kilgore Road and Avoca Road (M-136), one mile south of Greenwood Township, in Kenockee Township.

Croswell-Lexington Community School District

The extreme northeastern corner of the Township is served by the Croswell-Lexington Community School District. The district does not have any school sites within the Township and none are expected to be constructed within the Township during the planning period. The closest district facilities are the high school, middle school, and elementary schools in and near Croswell, approximately 7-8 miles north of the Township.

Intermediate School District

The Intermediate School District of St. Clair County (“ISD”) provides adult education services, vocational programs, and special education services to eight school districts in the County, including the Port Huron Area School District. These services are provided by facilities at the ISD Educational Service Center located at 499 Range Road in Kimball Township.

One such facility is the Technical Education Center (“TEC”) which offers job training and placement opportunities for nearly 1,200 high school and adult students. These programs are competency based, allowing students to progress according to individual ability and experience.

As part of the ISD Educational Service Center complex, severely and profoundly mentally impaired students are provided training, education, and enrichment opportunities at the Woodland Development Center.

Curriculum development, media, instructional materials, and training for teachers and volunteers are other ISD supportive services designed to strengthen area school programs.

St. Clair County Community College

St. Clair County Community College, located at 323 Erie Street in Port Huron, is a comprehensive community college offering associate degrees in both transfer and occupational areas. The college provides the freshman and sophomore courses needed to fulfill requirements for transfer to a senior college or university. The occupational curriculum is designed for those who plan to enter directly into business or industry from community college.

The Community and Business center of the Community College works closely with business to schedule seminars and classes for employee upgrading and training on campus, as well as in the workplace.

Public Safety Services

Police

Police protection for the Township is provided by the St. Clair County Sheriff's Department and Michigan State Police as part of their regular patrols and service.

Fire Protection

In addition to the existing facilities at the Township Hall (one fire truck), the Township contracts with the fire department of Brockway Township to help provide fire protection for Township residents. The township has extended their contract with Brockway township.

Thoroughfare Plan

An important element of the Master Planning process is the development of a plan for the overall system of streets and roads in a community. This system provides for the movement of people and goods to and from places, both inside and outside the community. Also, the rights-of-way of roads provide places for various public utilities such as water lines, gas lines, sanitary and storm sewers, cable television lines, electrical power, and telephone lines, in addition to the actual roadway surface. Because of these functions of roads, the system of roads in a community can impact economic conditions, environmental quality, energy consumption, land development, and the overall quality of life in a community.

With the implementation of the Thoroughfare Plan, strength will be lent to the development of the Township in the pattern envisioned by the Future Land Use Plan. Because of the close relationship between transportation and land use, improvements to the system of thoroughfares will increase the development possibilities for the Township. See Township map.

Principles

To be effective, a Thoroughfare Plan must adhere to certain principles. The principles associated with developing an effective thoroughfare plan are as follows:

- The Thoroughfare Plan must provide for a road system in the Township that will be safe, convenient, and efficient in the movement of people and goods.
- The Thoroughfare Plan must effectively integrate local roads with regional thoroughfares, but segregate through traffic from local residential streets.
- The Thoroughfare Plan must ensure adequate ingress and egress for all land uses.
- The Thoroughfare Plan must ensure right-of-way dedications, reservations consistent with local, county, and state proposals.
- There must be coordination of the Thoroughfare Plan with the existing and proposed patterns of land use.
- The Thoroughfare Plan must be developed to accommodate all types of traffic expected in the Future Land Use Plan.
- The Thoroughfare Plan must facilitate governmental and private development of streets and thoroughfares through an orderly and progressive Capital Improvement Program for the Township.
- Modern design standards must be used in planning rights-of-way, pavement width, and other characteristics of streets.

Functional Classification of Streets and Roads

The first step in creating a thoroughfare plan is to inventory the township road network by classifying each road by planned function/right-of-way categories. The four categories used in this Plan will be:

1. Major thoroughfares
2. Secondary thoroughfares
3. Collector thoroughfares
4. Local thoroughfares

These functional classifications are defined as follows:

Major Thoroughfares

These roads have a planned right-of-way of at least 150' and are intended to carry high volumes of through traffic, both within the Township and to or from the surrounding region. Major thoroughfares also can provide access to larger abutting properties and large commercial or business areas, such as shopping centers, factories, and industrial parks.

Secondary Thoroughfares

These roads have a planned right-of-way of 120' and serve many of the same functions as major thoroughfares (carrying through traffic and providing access to large scale abutting uses), but at somewhat lower traffic volumes and speeds. Furthermore, secondary thoroughfares primarily only carry through traffic within the Township, not to or from the surrounding region.

Collector Thoroughfares

These roads have a planned right-of-way of 86' and have three purposes. First, they collect traffic from local streets and distribute that traffic to local destinations or major and secondary thoroughfares. Second, they funnel through traffic from major and/or secondary thoroughfares. Third, collector streets can provide internal circulation and access to major shopping centers and industrial parks.

Local Thoroughfares

These roads have a planned right-of-way of 66' and are intended to provide access to adjacent land uses such as residential neighborhoods. Generally, these roads carry relatively small volumes of traffic.

County Road Classifications

The St. Clair County Road Commission also uses, for maintenance purposes, a classification system based on the source(s) of funding for repairs and upgrades. This classification system has two categories.

County Primary

These are roads for which the County is responsible for providing funds for maintenance and upgrades.

County Local

These are roads for which the County and the local community share in the maintenance and upgrade costs.

Cross-Section Standards

To aid local communities in implementing thoroughfare plans, the St. Clair County Road Commission has established cross-section standards (showing the arrangement of the road surface, shoulders, median strips, and utilities/drainage located within the various widths of road right-of-way) for the four road classifications given above (as well as for expressways).⁴ According to these standards, local and collector thoroughfares (66' and 86' planned right-of-way) are limited to two lanes of traffic, and major and secondary thoroughfares (150' and 120' planned right-of-way, respectively) can accommodate up to four lanes of traffic (two lanes in each direction), plus a left-turn lane. Major thoroughfares can also be divided with a 60' wide median.

⁴ *St. Clair County Thoroughfare Planning Guide, p. 33.*

Existing Road Network

An effective thoroughfare plan can only be prepared after a study of the existing road network is complete.

County and State Roads

The layout of Greenwood Township was influenced by the Land Ordinance of 1785 which established a land survey system that divided the land into six-mile square townships containing 36 square miles. Each square mile in a township is called a section.

The establishment of townships and sections has created a logical system for the provision of county roadways along the mile-grid section lines. East-west mile roads in the Township include:

- **Metcalf Road** A gravel county primary road between Duce Road and Brown Road, and a gravel county local road west of Brown Road and east of Duce Road; the western end (less than ¼ mile) from part of State Highway M-136.
- **Norman Road** A gravel county primary road that runs west of Brown Road and east of Duce Road.
- **Norman Road** A gravel county local road that runs 1,320' east of Brown Road.
- **Wilkes Road** A gravel county local road that runs from Cork Road to Brown Road.
- **Oatman Road** gravel county local road that traverses the width of the Township.
- **Yale Road** A paved county primary road that traverses the width of the Township.
- **Jeddo Road** A gravel county local road that traverses the width of the Township.
- **Fisher Road** A gravel county local road that traverses the width of the Township.

Four other east-west roads lie parallel to, but not on any section lines.

- **Holly Road** A gravel county local road that runs from Duce Road to Cribbins Road.
- **Hewitt Road** A gravel county local road that runs from Duce Road to Cribbins Road.

- **Lohr Road** A gravel county local road that runs from Kilgore Road to Duce Road.
- **Beckett Road** A gravel county local road that runs from Cork Road to Bricker Road.

North-south mile roads in the Township include:

- **Cork Road** A gravel county local road that runs intermittently from Norman Road to Fisher Road.
- **Bricker Road** A gravel county local road between Metcalf Road and Yale Road
- **Bricker Road** A paved county primary road between Yale Road and Fisher Road.
- **Brown Road** A gravel county primary road between Metcalf Road and Yale Road.
- **Brown Road** A gravel county local road between Yale Road and Fisher Road.
- **Kilgore Road** A gravel county local road that runs from Oatman Road to Fisher Road.
- **Kilgore Road** A paved county local road north of Metcalf Road approximately 1.5 miles to Detroit Edison property turnaround.
- **Duce Road** A gravel county primary road between Metcalf Road and Norman Road.
- **Duce Road** A gravel county local road between Norman Road and Yale Road.
- **Duce Road** A paved county primary road between Yale Road and Fisher Road.
- **Fargo Road** A paved county primary road between Metcalf Road and Yale Road.
- **Fargo Road** A gravel county local road from Jeddo Road to Fisher Road.
- **Cribbins Road** A gravel county local road that runs from Norman Road to Fisher Road.

One other north-south road lies parallel to, but not on a section line, is **Logana Road**, which is a gravel county local road that runs north from Yale Road to Jeddo Road.

One road in the Township that is not located on the mile-grid sections lines is **Comstock Road** which is a gravel county local road. It runs diagonally from Cribbins Road to Fisher Road in the northeast corner of the Township.

All county Roads in the Township are two-lane roads with right-of-way widths of 66-100 feet.

Local Roads

Three roads in the Township can be considered local roads. These are all located in Fargo, are all gravel, and have right-of-way widths of 26-66 feet. They are Second Street, Third Street and Edison Street.

Problem Intersections

1. Two or more intersections falling closely together

When this happens, the number of turning movements required of motorists will rise, thus increasing congestion and traffic hazards. In this category, the intersection of Duce and Fisher Roads is close to the intersection of Fisher and Comstock Roads. Also, the intersection of Comstock and Cribbins Roads is close to the intersection of Yale and Cribbins Roads, and the intersections of Fargo and Comstock Roads, Comstock and Jeddo Roads, Logana and Jeddo Roads, and the intersection of Fargo and Jeddo Roads are all located within one-quarter mile radius of each other. Finally, the intersection of Logana and Yale Roads and Fargo and Yale Roads are located exactly one-quarter mile of each other.

2. Intersecting roads that meet at angles other than 90 degrees

These kinds of intersections limit horizontal sight visibility between roads, making it difficult to see traffic approaching on the intersecting road, and can create odd shaped lots that can be difficult to develop. The instances where Comstock Road intersects with Cribbins Road, Fargo Road and Fisher Road all fit into this category.

3. More than two roads intersecting in one spot

These kinds of intersections create additional turning movements and increased driver confusion, thus increasing congestion and traffic hazard. At this time, there are no intersections of this kind in the Township.

Generally, problem intersections can be corrected by realigning one or more of the roads in the intersection.

Future Land Use Plan

The goal of land use planning is the improvement of the general welfare of the people of Greenwood Township through the proper development of vacant land and where necessary, the redevelopment of existing areas for new uses that create a better community in which to live, work, and recreate. In general, this land use plan is a guide for locating private and public uses for Greenwood Township.

The future land use plan is intended to be long range, comprehensive, generalized, flexible and regional, with the following broad objectives:

- Long range planning for land development to the year 2050.
- Comprehensive planning to provide for a variety of types of land uses, bearing a relationship to the land capability and transportation system.
- Generalize planning based upon broad principles of land use allocations and relationships.
- Flexible planning that is able to accept changes, yet not detract from the total plan.
- Regional planning transcending arbitrary boundaries which are an integrated part of the regional system.

The future land use plan is more than just a graphic presentation. Behind the graphics and maps are spatial distributions and relationships reflecting the specific goals and objectives described in the “Goals and Objectives” section of this Master Plan.

Concept Plan

The possible physical arrangements of the various land uses on undeveloped ground are infinite in number. Regional consideration, roads, existing land use, soils, topography, population growth and economic potential each are constraints on the number of possible arrangements. The goals and objectives set out earlier in this Master Plan direct the possible array to a narrow band of alternatives. These possibilities are developed into a concept of the preferred general arrangement of land uses.

Due to the limited amount of concentrated development, the provisions of public utilities for all of Greenwood Township would be expensive. One of the assumptions in the Future Land Use Plan is that public sewer and water service will not be available in the Township by the year 2050.

The long-range Future Land Use Plan for Greenwood Township is based upon analysis of the basic data presented in this Master Plan of trends in the Township and the surrounding areas. The recommendations for the separate land uses are graphically and statistically presented in eight (8) classifications.

1. Agriculture and Rural Residential
2. Single-Family Residential
3. Multiple-Family Residential
4. Commercial
5. Energy Production
6. Public, Quasi-Public, Institutional
7. Industrial
8. Recreation, Conservation, Open Space

The Future Land Use Plan for Greenwood Township is designed so as to derive the maximum benefit for the residents of the Township. The Future Land Use Plan illustrates the arrangement of land uses to meet the goals, capacity, and trends in the Township.

Future Land Use Plan Map

A Future Land Use Map was prepared as part of the previous Master Plan in 2000 and updated in 2026. The following is a description of the general locations of the Plan's land use classifications. The rationale for the placement of the various land uses is also discussed.

Agriculture and Rural Residential

One of the Township's objectives is to preserve its rural character through the thoughtful and appropriate arrangement of residential and rural land uses. The Future Land Use Plan designates well-defined areas for future residential development to ensure that agricultural and rural uses remain relatively free from urban competition for land. Scattered residential development could threaten the continuation of existing agricultural practices within the Township.

The areas identified for agricultural and rural residential use, which constitutes most of the area of the Township (91.61%), would be the last to receive any municipal services. While urban pressures on these lands are not anticipated by 2050, any proposed changes should be carefully evaluated for the potential challenges they may create in providing services such as utilities, schools, fire protection, and roads.

For the purposes of this Plan, "rural residential" refers to single-family homes on relatively large lots; larger than typically found in suburban residential developments but smaller than parcels suitable for normal agricultural use, though they could accommodate small "hobby" farms. The Township's current zoning ordinance requires a minimum five-acre parcel with 330' frontage. To the extent practicable, rural residential development should be limited or directed toward areas with the soils that have only slight to moderate limitations for septic system use.

Single-Family Residential

On the Future Land Use Plan Map, approximately .13% of land within the Township have been designated for single-family residential use. All of this acreage is located along Fargo Road, in and around the community of Fargo. Single-family residential densities are planned at 0.8 units per acre, the highest density generally allowed for on-site septic system use. This higher-density residential designation has been planned in and around Fargo to help revitalize and reinforce Fargo as a town center. At a maximum density of 0.8 units per acre, approximately 30 single-family housing units would be allowed in this area, which should be a sufficient number of homes to support a small, village-like settlement.

Multiple-Family Residential

To further revitalize and reinforce Fargo as a town center, a planned 22.37-acre multiple-family residential area is designated at the northeast corner of Fargo Road and Hewitt Road in Fargo. Due to the absence of public sewer and water in the Township, only a small-scale, low-density multiple-family complex should be built, such as a small development of condominium duplexes or one-story townhouses. Any multiple-family residential complex on this site would be contingent on the provision of a well and septic system approved by the County Health Department. The Multiple-Family category accounts for .10% of the Future Land Use of the Township.

Mobile Home Parks

If a mobile home park were to be considered in the Township, the only potentially feasible location would be within the planned multiple-family residential area. However, even in this area, the development of a mobile home park would require higher housing densities than envisioned by this Plan and would not be appropriate.

More broadly, the lack of public water, sewer, and other urban services in Greenwood Township makes mobile home parks unsuitable anywhere in the Township. Mobile home parks are generally more viable near urbanized areas with access to schools, shopping, medical facilities, and employment centers.

Commercial

The Future Land Use Plan Map designates .05% of the land within the Township for commercial use. This acreage is divided into two areas. To ensure proper access for commercial activities, one area is located at the intersection of two paved county primary roads and the other is situated along a single paved county primary road. These commercial areas are as follows:

1. The northwest and northeast corners of Yale Road and Duce Road
2. On the west side of Fargo Road in Fargo

Of these two sites, only the Fargo location current contains commercial uses (the Fargo Market, occupying approximately 0.22 acres). The other site is primarily used for agricultural uses.

The first planned commercial area is expected to accommodate relatively low-density, neighborhood- and highway-oriented commercial uses. The second planned commercial area is intended to serve as a focal point for the Fargo town center and is planned for somewhat more intensive commercial uses, although still at a lower density than found in nearby communities such as Yale or Capac.

Energy Production

The Future Land Use Map designates six (6) sections of the Township for Energy Production uses. This category is symbolized as a cross-hatch on the Future Land Use Map and is intended to identify areas of the Township appropriate for the siting of energy production facilities. The category is designed as an overlay: in each instance where a property is categorized as Energy Production, another future land use designation is also present. In evaluating development proposals for this category, the Township should give preference to energy production facilities in these areas. In the absence of a development request specific to energy production, the future land use designation underlying the cross-hatch should be given preference in land use decisions.

All of this acreage is located near Detroit Edison's 1,780-acre Greenwood Energy Center property. Originally, in the 1970s, Detroit Edison planned to construct a nuclear power facility on most of the property. However, public concerns regarding the perceived risks of nuclear power led Detroit Edison to scale back these plans. Detroit Edison currently uses 754 acres for a gas-fired power plant, along with four gas-fired peaking units.

A Special Land Use Permit was granted to Lake Iris Solar, LLC, to construct a solar farm to be interconnected with the ITC transmission system in the vicinity of the Greenwood Energy Center. The project was completed in 2026.

Public, Quasi-Public, Institutional

Approximately .52% of the Township has been designated for public, quasi-public, and institutional uses. This acreage includes the Township Hall, Fire Station, and Township Park,

located at the southwest corner of Yale Road and Kilgore Road, as well as three cemeteries, two churches, and a Detroit Edison utility corridor running through Sections 28, 29, and 30.

Industrial

Approximately 5.16% of land within the Township has been designated for Industrial uses. These areas are located off Brown Road, between Wilkes Road and Oatman Road and off Duce Road, between Norman Road and Metcalf Road. Given the proximity of this future land use category to the Greenwood Energy Center, those intensive land uses that consume large quantities of power should be concentrated in this area. The types of uses ideal for this area include manufacturing, processing, warehousing, and research facilities.

Intensive land uses proposed in this area shall be evaluated on a case-by-case basis on their overall benefit to the larger Greenwood Township community, and their ability to be served by the existing public services. The Township should evaluate each proposal based upon their anticipated negative impacts on nearby property owners versus their overall benefit to the Township as a whole. Such proposals that cannot be supplied by existing infrastructure or planned infrastructure and cannot show a clear public benefit should be denied.

Recreation, Conservation, Open Space

To meet the Township's open space and natural resource objectives, 2.43% of the total area of the Township have been designated as open space, conservation, and recreation areas. An 86.33-acre portion of this designation is located in Section 16 and includes the existing Township Park along with adjacent acreage for planned park expansion.

The remaining areas consist primarily of flood-prone alluvial land along and near portions of Silver Creek in Sections 11, 12, and 14. This land use designation is intended to discourage development on these parcels. Additionally, the Township's Recreation Plan calls for some of this acreage to be used as a park or natural area.

Acreage Allocations

The areas allocated to the various planned land use categories were measured from the Land Use Plan Map created for this plan dated 2026. The planned land use category measurements and a comparison with the existing land use categories are summarized in the following table and graph.

Table 21: Past and Existing Acreage Comparisons

Land Use Category	Proposed Acreages
Agricultural and Rural Residential	91.61%
Single-Family Residential	0.13%
Multiple-Family Residential	0.10%
Commercial	0.05%
Public, Quasi-Public, Institutional	0.52%
Industrial	5.16%
Recreation, Conservation, Open Space	2.43%
Total:	100.00%

Zoning Plan

This chapter of the Master Plan outlines the Zoning Plan created by the Township as required by the Michigan Planning Enabling Act (MPEA). This Zoning Plan identifies how the future land use categories described in the previous chapter relate to that of the districts in the Township's Zoning Map. Table 22 serves as a comparison between the future land use categories presented in this Plan and the applicable zoning districts from the Township's Zoning Ordinance.

In addition, a list of ordinance amendments that could be pursued by the township are provided. These proposed amendments aim at future aligning the Township's Zoning Ordinance with the future vision provided in this Plan.

Table 22: Zoning Plan

Future Land Use Category	Zoning District
Agricultural and Rural Residential	A/R. Agricultural/Rural Residential District I-A. Intensive Agricultural District
Single-Family Residential	R. Residential District
Multiple-Family Residential	RM. Residential Multiple-Family District
Commercial	B-1. Neighborhood Business District B-2. General Business District
Industrial	I-1. Light Industrial District I-U. Industrial Utility District
Public, Quasi-Public, Institutional	B-1. Neighborhood Business District B-2. General Business District I-1. Light Industrial District I-U. Industrial Utility District
Recreation, Conservation, Open Space	OS. Open Space, Conservation, & Recreation District
Energy Production	I-U. Industrial Utility A/R. Agricultural/Rural Residential District

- Review the site plan review process outlined in the Zoning Ordinance to ensure process aligns with the Township and review information required on site plans to ensure it meets the Township's needs.
- Review the permitted and special uses allowed in each zoning district to ensure they align with the desired future land use plan developed by the Township.
- Review the minimum lot sizes and setbacks required for each zoning district to ensure the sizes align with the desired types of development.
- Review variance approvals on a regular basis to consider additional Zoning Ordinance amendments.
- Ensure that all Ordinances and maps are available online.
- Review the Ordinance for graphics that can be updated and evaluate areas where graphics and tables may be subbed in for text.
- Continue to revise the Township's Zoning Map when necessary to reflect the current zoning within the Township and any changes that have occurred.
- Consider developing Battery Energy Storage Systems (BESS) standards that protect the health, safety, and welfare of Greenwood Township. Ensure that such standards consider the requirements established under P.A. 233 and any relevant case law that pertains to it.
- Consider drafting and developing a guidebook that explains the processes for variances, site plan reviews, rezonings, and uses permitted after special use approval permits.
- Review site development plan criteria and consider adding a second review route, such as a sketch plan, where administrative review can be completed by the Zoning Administrator for certain circumstances that may not need a full site plan review.

- Review and update provisions for home occupations to ensure commercial development is planned and orderly.
- Review and update provisions related to intensive industrial land uses to ensure proper protections are in place to protect area residents and Township resources

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Capital Improvements Programming

Each type of land use has different degrees of need for local public facilities. For example, a community will need different levels of water and sewer system improvements if the comprehensive plan recommends certain densities of residential development or commercial use for a certain location. These and other possible changes in land use policies necessitate a Capital Improvements Program (“CIP”).

The public improvement investments expressed in a CIP can also be used to permit or control phasing of land developments since public facilities investment decisions directly influence the location, intensity and rate of land development.

Purposes and Uses

In its basic form, a CIP is a complete list of all proposed public improvements over the next six-year period, including costs and operation expenses. The CIP outlines the projects that will replace or improve existing facilities or that will be necessary to serve current and projected land use development in Greenwood Township.

Proper management of municipalities today requires not only that a CIP be developed, but also that it be updated annually. Advanced planning for public works projects ensures more effective and economical capital expenditures, as well as the provision of public works in a timely manner. Since municipalities face ongoing expenses, the development of a CIP makes it possible to strike a balance between maintenance and operational expenses for the construction of public works.

CIP Preparation

The CIP process includes the following:

- Determining the type, scale and level of service of public improvements.
- Establishing the timing and beginning date for recommended public improvements.
- Determining the method of financing the public improvements, including the capability of paying operational expenses once the facility is finished.

The Greenwood Township Planning Commission has, as one of its primary responsibilities, the preparation of a viable and fiscally responsible program of capital improvements. Keep in mind that even though the Planning Commission may be responsible for preparing the CIP, the

Greenwood Township Board of Trustees is always the final authority when it comes to allocating and spending money. Therefore, it is crucial that the Planning Commission works closely with the Board of Trustees and other Township officials every step of the way.

There are six major steps in the preparation of the CIP. The Planning Commission should:

1. Identify public capital facilities needed in the next six years to meet basic public service demands of Township residents.
2. Conduct special studies to further define specific public facility needs in advance of appropriating any funds for such a facility.
3. Provide Township residents with the opportunity to participate in the CIP process through public hearings.
4. Coordinate capital improvements with the Greenwood Township Comprehensive Master Plan.
5. Reconcile capital improvement costs of the Greenwood Township CIP with anticipated financial resources of the Township; identify all possible sources of revenues to aid in the financing of recommended public improvements.
6. Seek coordination of the Greenwood Township CIP with similar programs of neighboring units of government and public utility companies that provide services in the Township.

The scope and extent of a CIP will vary greatly among municipalities. In low populated, slow growing municipalities, the need for financial planning of public improvements may seem minimal, whereas in larger populated, more rapidly growing municipalities the CIP may be a very sophisticated document. Regardless of the size of the municipality, the CIP must be based upon realistic financing. Therefore, a working knowledge of the Township's financial position (budget, revenues, annual operating expenses, debt costs, and cash reserves) is necessary.

Financing a CIP

The capital improvements program provides an overview of what elected officials and policy makers within the Township foresee, both as short and long-term issues, with respect to public investments, public facility needs, and the ability of the Township to meet the investment requirements.

At this point, it is necessary to obtain a listing of all the sources of revenue available to the Township for financing public improvements. Among the financial sources that should be considered are: cash payments from general fund revenues; revenues from other operating funds; special assessments; general obligation (full faith and credit) bonds; revenue bonds; grants; loans; or gifts.

In order to prepare a realistic set of capital project recommendations, however, it is also necessary to obtain a listing of the expenditures of the Township. This would include costs for all operations, maintenance, equipment and debt service.

Of all the expenditures a municipality incurs, debt service, of course, has priority since it represents the Township's committed obligation to pay. Therefore, the real balance of CIP expenditures must be struck between the cost of operation and maintenance activities and capital expenditures. In short, the Township should not build that which it cannot afford to maintain.

If the Township is going to depend upon general fund revenues to finance the CIP, it will be necessary to analyze the sources of revenues for the general fund. These sources generally include property taxes, state and federal shared revenues, license and permit fees. The revenues for the life of the CIP will have to be projected from past and current general-fund revenues.

It may be possible to finance some public improvements, at least in part, from separate operating funds or voted special millage. Many public utilities operated by municipalities have special purpose funds designed to finance, operate, maintain, and improve the utility system. These funds are, by law, separately accounted for and segregated from the general fund. The operating income for these funds comes from customer service bills and connection fees. Such funds should be evaluated in the same manner as recommended for the general fund.

In order to make use of the other possible sources of funding, the Planning Commission will need some specialized help. A Planning Commission, of course, cannot simply declare a special assessment or commit a community to bonding. If these sources of revenue are to be tapped, it will be necessary to work closely with the Board of Trustees and the Township Attorney. Permission to sell full faith and credit bonds must be given by the electorate. If the Township uses bonding to finance its CIP, it will be necessary to include the debt service costs in each year's operating budget.

Regardless of how the CIP is financed, only part of the work is done when revenues have been estimated. It is then necessary to estimate projected expenses for the next six years. Each year, as the CIP is updated, it will be necessary to add another year's revenues and expenses.

Projecting expenses, especially those to be incurred by the general fund, is neither easy nor precise. The need for services, maintenance operating costs, and increases in personnel cannot be precisely predicted six years in advance. Furthermore, it is necessary to make predictions for every department in the Township, as well as all those functions operated jointly with other units that draw from the Township's general fund. Some allowances must also be made for inflation.

Once revenues and expenses have been evaluated for the next six years, the two must be compared to determine how much the Township can afford, at least from these sources, for capital improvements. If the revenues the Township has calculated do not cover the expenses expected, the CIP may have to be scaled down, unless some additional means of financing can be found or cuts in operation expenses can be made.

Classification of Proposed Capital Improvements Projects

Once the elevation of future revenues and expenditures is complete, the Planning Commission should make an inventory of all proposed public improvement projects. Quite likely the cost of all the projects will far exceed anticipated financial resources. Therefore, it will be necessary to develop a system of project classification and priority selection that will balance the cost of the projects with the available money.

The procedure should ensure that the projects are judged objectively to afford maximum public benefit and to ensure an adequate level of public service to developing neighborhood areas. One way to classify projects is to divide them into three categories:

Physical Capital Improvement Projects

These are projects for land acquisition or for the development of physical assets in the Township. They include buying land for a new park, constructing bicycle paths, improving sidewalks, utilities, storm drains, or public roads.

Capital Replacement/Maintenance Projects

These projects include the replacement or major repair of a fixed, tangible asset owned and used by the Township. This includes replacement of an automobile, fire truck, or construction of a replacement garage. An example of capital maintenance would be resurfacing a public street or renovating a Township owned building.

Capital Project Feasibility/Needs Study

Sometimes studies are necessary to clarify and define proposed projects. Often there is a general awareness of the need for projects of a particular type, but there is insufficient information available to demonstrate the scale, time, feasibility, or cost of such a project. Such studies provide a firmer information base for future capital improvements that more accurately reflect existing and expected needs.

Setting Priorities

When the projects have been identified and classified, they must be placed in order of priority. At this point, the goals and policies of Township development contained in the Comprehensive Master Plan should be carefully reviewed. These goals, as general as they may be, can serve as a guide to setting priorities for public improvements.

Some of the important factors that should be considered in judging the CIP proposals are:

- Protection of life
- Maintenance or improvement of public health
- Protection of property
- Conservation of resources
- Maintenance of physical property
- Provision of necessary and basic public services
- Replacement of obsolete facilities
- Public comfort and convenience
- Reduction in operating costs
- Recreation value
- Economic value
- Social, cultural or aesthetic value
- Potential effect on future developments
- Relative value with respect to other services.

CIP Process in Detail

1. The Planning Commission requests all publicly supported agencies to submit a CIP budget form for every proposed project for at least the next six years. Each proposal form for each project should include:
 - a. Name and description of the project.
 - b. Estimated cost.
 - c. Proposed method of financing.
 - d. Agency assigned priority for the project if more than one is submitted.
 - e. How the project conforms to the Township's comprehensive plan and zoning ordinance.
 - f. Beneficiaries of the project.
 - g. Estimated increase/decrease in personnel, equipment, material, and supply costs that will have to be added to the annual operating budget if the project is approved.

2. The Planning Commission summarizes the projects and forms submitted by the agencies, along with the cost estimate of each project. This summary includes CIP proposals prepared by the Planning Commission itself.
3. The Planning Commission reviews each project individually as to the agency's need and priority.
4. The Planning Commission evaluates each of the projects, including its own; sets preliminary priorities; and prepares a tentative Township CIP.
5. The Planning Commission meets individually and collectively with the agencies and Township officials to resolve differences and come to some general agreement on projects.
6. The Planning Commission convenes a public hearing.
7. The Planning Commission prepares the final CIP and recommends it to the Board of Trustees.
8. The Board of Trustees reviews the CIP, accepts and adopts it, or returns it to the Planning Commission with recommendations for amending.
9. If the CIP has been returned, the Planning Commission reviews and deals with the Board of Trustees' recommendations and returns it to the Commission for adoption.
10. The Board of Trustees makes the final determination on the CIP. Upon adoption, the first year of the CIP becomes the capital budget portion of that year's annual Township budget.
11. The CIP must be reviewed and updated annually. Priorities may be rearranged from one year to the next; funding may change, etc. Both the Commission and the Board of Trustees must be alert to changes within the Township so that the CIP remains useful and current.

Implementation Strategies

It should be realized that the Comprehensive Master Plan represents what is felt to be the best future use of land based upon today's knowledge and trends. The Plan is not a rigid, unchanging document. Changes will be necessary and should be made, not only to adjust to new trends as they become apparent, but also to allow flexibility in cases where an alternative use may be as desirable as the one shown on the Plan. Timing is a very important aspect. Some proposals should be carried out as soon as possible, especially those that required acquisition of land that will eventually become more expensive as development occurs. Other proposals, however, should be delayed until the need arises as the land use relationships indicated on the Plan begin to materialize.

If the Plan is to be eventually realized, planning must be established and worked at on a continuing basis. The Planning Commission should continue to take an active role in reviewing proposed developments in the light of the long-range goals of the Township. Certainly, the Plan must not be regarded as a "straight jacket" for growth. Changing conditions and technology will necessitate revisions in the future. The Comprehensive Master Plan should instead be thought of as a flexible framework within which public and private action may take place, thus producing a Township in which the citizens are afforded a maximum of convenience and enjoyment.

Implementing the Plan

There are four primary means through which the policy recommendations of the Comprehensive Master Plan can be implemented:

1. Updating the Zoning Ordinance
2. Capital Improvement Budget
3. Site Plan Review
4. Code Enforcement

The following is a brief discussion of the various activities that should be considered in implementing the Comprehensive Master Plan.

Updating the Zoning Ordinance

The Township, upon adoption of the Comprehensive Master Plan, should undertake a review of its zoning ordinance. The Comprehensive Master Plan should serve as a guide for future zoning action. The Plan illustrates what would be most desirable and shows the direction that future zoning changes should take. The zoning map may be thought of as a very short-range plan that is designed to protect existing development from encroachment by incompatible uses and where possible, promotes future land use in accordance with the Comprehensive Master Plan. The Zoning Ordinance should be reviewed in relation to the Plan. Certain changes in the Zoning Ordinance, particularly in the Zoning Map, may be desirable to better reflect policies set forth in the Plan.

Capital Improvements Budget

The Capital Improvements Budget is basically a financial plan. It is guided by and includes improvements indicated as needed in the Comprehensive Master Plan. Improvements such as roads, sewer and water lines, parks, parking lots, etc. are included. The first step must be to determine the priority in which the improvements are to be provided. The Capital Improvements Budget covers a five or six-year period and indicates the year in which a particular improvement is scheduled and the means of funding. At the end of the period, a new Capital Improvements Budget should be prepared. Sources of funds for improvements include: the general fund of the Township; proceeds from the sale of bonds (general obligation, building authority, or revenue bonds); special assessment districts; tax increment finance districts; federal and state grants.

Site Plan Review

Site plan review is a process by which documents and drawings specified in the Zoning Ordinance are reviewed to ensure that a development proposal complies with local, state and federal regulations. As defined by Michigan law, a site plan is a plan, drawn to scale, showing the layout of proposed uses and structures. Unlike a plat which only depicts the subdivision of a parcel into smaller lots, along with necessary roads and easements, the site plan includes lot lines, streets, building sites, existing structures, reserved open space, landscaping, utilities, and any other required information. Site plans should be prepared and sealed by licensed professionals including land surveyors, engineers, architects, or landscape architects.

Site plan review can be applied to all development projects. State enabling legislation requires local site plan review for subdivision plats, planned unit developments (“PUDs”), cluster housing, and special or conditional uses specified in the zoning ordinance. For other types of permitted uses to be subject to site plan review, the procedures and standards must be specified in the zoning ordinance. Such permitted uses may include:

- Multiple family residential.

- Site condominiums.
- Commercial and industrial uses.
- Institutional uses.
- Public projects, such as utilities.

Site plan review should also be required for any changes to existing development, such as expansions, demolition, moving of structures, etc. Individual single-family homes are usually exempt from site plan review, requiring only a plot plan which may include drainage provisions for a building permit.

Site plans are reviewed to assure:

- Compliance with applicable zoning standards.
- Public facilities are adequate to serve the site.
- The layout is compatible with the topography and natural features of the site.
- Structures are appropriately sited and the property landscaped to reduce impacts on adjacent properties.
- Compliance with applicable local, state and federal regulations.

The following elements should also be covered in the site plan regulations and standards contained in the zoning ordinance:

- Safe traffic flow, parking, ingress and egress, and emergency vehicle access.
- Loading and unloading of goods.
- Topography and soils.
- Stormwater management.
- Sanitary sewer and water (if applicable).
- On-site septic systems and wells.
- Gas, electric and other utilities.
- Landscaping/buffering/screening/fencing.
- Trash and dumpsters.
- Signage.
- Open space.
- Natural hazards.
- Historic structures.
- Lighting.
- Accessory structures.

Site plan review can be an effective and powerful land use decision-making tool. Any deficiencies in compliance can result in denying the proposed use for the land. From the community's perspective, site plan review can be used to ensure that development projects are consistent with the goals, objectives, and policies of the Master Plan and that standards of the zoning ordinance are met. Site plan review also works well to ensure that the development has a good physical design; that it relates to the presence of the community's infrastructure; that it is compatible with adjacent land uses; and it will not have an adverse effect on the natural environment. It is a tool that can help a community achieve and maintain its desired character.

Code Enforcement

No matter how up-to-date the zoning, subdivision, or other land use ordinances may be, they are of little value unless the community has an effective code enforcement program. In order to provide an efficient enforcement program, the community must have a Code Enforcement Officer with the financial and political backing to consistently enforce the ordinances and consistent procedures for dealing with code violations.

Code Enforcement Officer

State statutes (MCL §764.9c and §41.183) implicitly allow Townships to establish, by ordinance, the position of Code Enforcement Officer. The ordinance establishing the position must designate the official or other person to serve as the Code Enforcement Officer and the scope of his or her authority.

The state statutes also do not specify any specific official or other persons as the Code Enforcement Officer, nor are the specific duties laid out, other than to state that the officer may issue appearance tickets for misdemeanors or citations for civil infractions. Most communities, however, may assign such duties to the Zoning Administrator or the Building Inspector.

Code Enforcement Procedures

The following is a listing of the typical steps involved in code enforcement.⁵

1. The zoning ordinance (or subdivision, etc.) violations are “discovered” when the community becomes aware of their existence. The two primary means of discovery are active enforcement and complaint. Active enforcement occurs when the enforcement official seeks out violations by frequently monitoring properties in the community. For example, the enforcement official may periodically drive through residential areas looking for non-conforming uses. Complaint-based discovery occurs when an individual reports a possible violation to the Township. For example, someone reports that a neighbor is using

⁵ *The Township Guide to Planning and Zoning*, pp 186-189; 1998 Michigan Townships Association.

a garage as an auto repair business. No matter what form of discovery is involved, photographs or videotape recordings, if appropriate, showing the violation should be taken when an ordinance violation is discovered. These should always be dated and the location and time of day noted.

2. The property owner is notified in writing of the violation. The written notice should indicate the nature of the violation, including the appropriate ordinance reference or a copy of the ordinance or provision, the name and address of the property owner (who is ultimately responsible for the violation); the date the violation was discovered, and by whom; actions necessary to bring the situation into compliance; potential penalties; and a date by which the violation must be corrected.
3. A reasonable time limit should be given that is related to the effort needed to correct the violation. If the violation is a clear safety hazard, it should be corrected immediately. Shortly after the date given for correcting the violation, the enforcing officer should recheck the situation to ensure compliance has been achieved. However, note that the violator may also appeal a zoning ordinance to the Zoning Board of Appeals or request a variance.

If the recheck finds that the violation is still present, the Code Enforcement Officer may either proceed directly to legal action, or send a second notice. The second notice, which should be more strongly worded than the first, should be sent by return receipt mail. This notice may be prepared by either the Township Attorney or by the Code Enforcement Officer with a copy being sent to the Township Attorney. The second notice should have the same information as the first, but will normally have a shorter completion date.

4. When written notices fail to produce compliance, the last step in the enforcement process is any legal action necessary to produce compliance. Depending on how the Township Zoning Ordinance treats the violation, the violation may be enforced as a misdemeanor, a municipal civil infraction, or a circuit court injunction.

Until 1994, a violation of any Township Ordinance, including the Zoning Ordinance, could only be punishable as a criminal misdemeanor, subject to fines not exceeding \$500 and/or 90 days in jail. For violations involving misdemeanors, a notice to appear before the district court is served on the violator. If the violator fails to appear, a complaint and warrant for the violator's arrest and arraignment before the district court is issued.

Effective May 1, 1994, townships are authorized to decriminalize all or some of their infractions by amending ordinance penalty clauses to provide for civil infractions. PA 24 of 1994 amended the Township Zoning Act to either impose a penalty for violating an ordinance or designate the violation as a municipal civil infraction and impose a civil fine. Also, townships are authorized by the Municipal Civil Infractions Statute, MCL §600.8701, *et seq.*, to establish, by ordinance, a municipal ordinance violations bureau to accept admissions of responsibility for municipal civil infractions and to retain the fines and costs received on such matters for the township. The bureau must use a fee schedule adopted by the township board designating the prescribed fines and costs for each violation.

The civil infractions process is similar to that used by police for speeding tickets and other moving violations. Township officials can write civil infraction tickets with little or no involvement by the township attorney. A district court judge makes the final decision if a

defendant challenges a civil infraction ticket. The court has much more discretion in setting fines for civil infractions than misdemeanors, including the possibility of ordering the defendant to reimburse the township for its attorney fees, engineering fees, or other associated costs. The court also has some equitable jurisdiction where a civil infraction is involved, with the authority to issue an order requiring the violator to cease and desist or correct the situation, a power that is generally not present with a criminal misdemeanor.

In some situations, equitable relief such as an injunction or a mandatory order is more desirable. This may be accomplished more directly in circuit court by a written complaint and summons served upon the violator. The township attorney will guide the actions of the Code Enforcement Officer in cases such as these. It is essential that all notes, pictures, videotape, copies of notices, copies of relevant ordinance provisions, and any other materials related to the violation should be gathered and protected from loss. The Code Enforcement Officer should be aware of the legal process, including knowledge of depositions, testifying, and other relevant requirements.

Additional Strategies

A few additional strategies that the Township may want to pursue in order to encourage and control development within the Township are as follows:

Farmland Preservation

With regards to the Township's objective for preserving and protecting farmland, agricultural land uses, and the rural character of the Township from development, the following tools may assist the Township in achieving those objectives.

Farmland Agreements (P.A. 116)

An important tool used across the state in protecting farmland from urban development is the Farmland and Open Space Preservation Act, P.A. 116 of 1974. Under the terms of this Act, an owner of certain kinds of agricultural lands may enter into a Development Rights Agreement with the state, whereby the landowner agrees to keep the land in question in agricultural use for at least ten years (or up to 99 years, as established in the Agreement). In return for this Agreement, all property taxes paid in excess of 7% of the landowner's income will be refunded in the form of a state income tax credit. In addition, the property in question will be exempt from any local special assessments. If the landowner breaks the Agreement before it expires, all benefits received up to that point must be repaid to the state, plus interest (except for special cases where repayment terms may differ). Agreements may be renewed for a minimum of 7-year term. Eligible agricultural lands include:

- An operating farm of more than 40 acres in size.

- An operating farm of 5 to 40 acres with a gross annual income of \$200 per tilled and cleared acre.
- An operating specialty farm (as designated by the Michigan Department of Agriculture) of at least 15 acres with a gross annual income of at least \$2,000.

At least 51% of the land in an operating farm must be under active cultivation or in pasture. The property owner does not have to provide public access to the land and the property may be sold. New owners, however, are bound by the Agreement until it expires.

Although this is a state program, local communities are responsible for processing and approving applications to enroll in the program. Furthermore, the Township can encourage owners of prime and unique agricultural land within the community (and lands designated for agricultural use in the Master Plan) to enroll in the program.

Purchase of Development Rights

Development rights represent the right of a landowner to develop property to the extent allowed by law. All parcels of property have a variety of rights associated with them, such as mineral rights, access and utility easements, and development rights. These rights may be conveyed or sold off by the property owner to other parties.

A purchase of development rights program (“PDR”) is a means of compensating farmers for their willingness to accept a deed restriction on their land, limiting or prohibiting future development of the land for non-agricultural purposes (i.e., giving up the development rights). Generally, landowners are compensated for the fair market value of their land based on the difference between what it could be sold for on the open market with no restrictions and what it could be sold for once an easement restricting development is placed on the land. An easement is a restriction on private property that is legally binding on present and future landowners (the easement “runs with the land”).

PDR – State Program

Section 3611b of the Farmland and Open Space Preservation Act authorizes the state to protect valuable farmland from future development by purchasing development rights. Under the terms of Section 3611b, the state will pay a participating landowner for that portion of the value of the property that represents the right to develop that property. After selling the development rights, the land is restricted to agricultural uses and cannot be developed in the future. The landowner retains all other rights to the property, including the fee ownership of the land. The land may be farmed, rented, sold or passed on to heirs and any agricultural buildings needed may still be built on the land. The state does not acquire the development rights in order to develop the land and does not open the land to public access for fishing, hunting, or other uses. The development rights value is usually the difference between the fair market value and the agricultural value as determined by an independent certified appraiser contracted by the Department of Natural Resources. The money

the state uses to pay for development rights comes from the repayment of tax credits when P.A. 116 Farmland Agreements are terminated.

Any farmland is eligible for consideration of development rights purchase provided that at least 51% of the land is devoted to agricultural use. Section 3622b(3) of the Act establishes criteria to be used in the selection of property for purchase. Factors to be considered include:

- The productive capacity of the farmland.
- Whether the land is considered to be prime or unique farmland.
- Farmland that is or has been enrolled in a P.A. 116 Farmland Agreement.
- Prime farmland that is faced with development pressure that will permanently alter the productive capacity of the land.
- Farmland that would complement, and is part of a documented, long-range effort or plan for preservation by the local government.

Interested landowners must apply to the Farmland Preservation Office to have their development rights purchased. Applications must first be approved by the local unit of government in order to be considered by the Farmland Preservation Office. Applications are then reviewed by the Purchase of Development Rights Review Committee and screened and scored against selection criteria found in the law and developed by the Natural Resources Commission and the Commission of Agriculture. If the application meets the selection criteria and is approved by the Director of the Department of Natural Resources and the Director of the Department of Agriculture, a request will be made to the State Legislature to appropriate the money in the Purchase of Development Rights Fund to acquire the development rights.

PDR – County Program

Some counties in Michigan have established (or are in the process of establishing) their own PDR programs to complement that run by the State. These county-level PDR programs are often supported by a specially designated millage.

The St. Clair County Agricultural Preservation Board was born out of the Farmland and Open Space Initiative (FOSI) group and was formally established on June 9, 2004 by the St. Clair County Board of Commissioners. They are the governing board over the County's Purchase of Development Rights (PDR) program. As part of the County's PDR program, a conservation easement is placed on the land when development rights are purchased or donated from an actively farmed property. A conservation easement is designed specifically to protect farmland by means of compensating farmers for their willingness to accept a deed restriction on their land that limits future development for non-agricultural purposes. Participation is voluntary and landowners are compensated for lost development potential at fair market value for development rights. They still own the land and retain all other rights associated with it; however, the land must continue to be used for agricultural purposes, or remain in a natural state permanently, regardless of transfer or sale of the property.⁶

⁶ *St. Clair County, Boards and Commissions.*

PDR – Local Program

Generally, a local PDR program would not be feasible in most rural townships due to the lack of any urban tax base to support the program. The cost of such a program must be borne by a broad cross-section of society, not just the agricultural sector. However, Greenwood Township has a relatively large industrial tax base because of the Edison facilities located in the Township. This resulted in a 2024 total taxable value of the Township of \$177,389,508, with almost 56% being industrial. Thus, a one-mill PDR millage would contribute approximately \$177,389 per year to a purchase of development rights fund.

Open Space Preservation

With regards to the Township's objectives for preserving and protecting open space from development, the following tools and techniques may assist the Township in achieving those objectives.

Land Acquisition

The most effective control over land use from the public perspective comes when the public owns the land. This is especially true when communities wish to set aside land for open space and conservation purposes. However, many communities, particularly rural ones, do not have the financial resources to purchase sufficient amounts of land.

Fortunately, there is federal, state and county funding available to assist local communities in acquiring open space and conservation land. The Land and Water Conservation Fund (a federal grant program) and the Michigan Natural Resources Trust Fund (a state grant program), both provide sources of funds for public acquisition of lands for recreation and conservation purposes. To qualify for funding under these two programs, communities must have a parks and recreation plan that complies with current Michigan Department of Natural Resources requirements. In addition, revenues from the St. Clair County Parks and Recreation Millage are distributed to the municipalities of the County, to be used to fund local recreation projects and programs, including land acquisition for parks.

Conservation Easements

A conservation easement is a method of preserving open space without purchasing all rights to a parcel of property. Rather than obtaining fee simple or complete ownership, a community (or non-profit land trust or land conservancy) can purchase (similar to the purchase of development rights programs described earlier) or acquire by gift, an easement to the property. Initiation of easements by the landowner is voluntary; however, after signing, the easement is an enforceable document

binding both parties. When an owner places a conservation easement on a parcel of property, certain rights to develop all or part of the land are transferred to another person or organization. When the easement document is properly signed and recorded in the county land records, owners cannot exercise the rights that have been given up.

Under Michigan law, conservation easements may extend for a limited period of time (such as 10 to 20 years) or they may be permanent. However, to benefit from federal income tax and estate tax reductions, a permanent conservation easement must be granted. Conservation easements must be donated to a government agency, a university, or a non-profit organization to be eligible for tax reductions.

Furthermore, conservation easements:

- Are very flexible, and the owner may restrict, limit, or decide how development will proceed on the subject parcel.
- Do not remove the land from the property tax rolls.
- Do not automatically allow public access to the subject parcel unless that is part of the easement agreement.
- Do not limit the owner's right to lease or sell the subject parcel. However, because the easement runs with the land, subsequent owners/lessors are bound by the easement agreement.
- May specify what the land may be used for in future years.
- May identify where structures may or may not be placed.
- May provide access for fishing or hunting.
- May provide for future activities such as constructions of trails or other recreation facilities.
- May prohibit location of commercial and multifamily structures or billboards, or other uses on the subject parcel.
- May prohibit excavation or removal of gravel, soil and/or vegetation.

Local government officials may take several steps to encourage the use of conservation easements, and:

- Identify priority resource areas where conservation easements would be beneficial for the protection of water quality, wildlife habitat, and environmentally sensitive lands and resources.
- Contact landowners in the selected areas, informing them of the option of easements and related financial incentives.
- Encourage the participation of local land trust and land conservancy organizations to promote the easement concept and to receive conservation easements if there is a high degree of citizen interest for the preservation of open space. Land trusts and land conservancies are non-profit organizations directly involved in protecting land for its natural, recreational, scenic, historical, or agricultural value. Two land conservancies that serve St. Clair County are the Blue Water Land Conservancy and the Southeast Michigan Land Conservancy.

Open Space Agreements

Landowners may dedicate a portion of their development rights to either the state or the township through the “open space” provisions in the Farmland and Open Space Act, P.A. 116 of 1974. The Act enables a landowner to enter into a development rights easement in exchange for property tax relief. The minimum time allotment for an Open Space Agreement is 10 years. Agreements may be renewed if the property owner desires.

There are two open space options with which a property owner may become involved: **designated** open space lands or **local** open space lands. Designated lands are those recognized as unique or sensitive by the State and include open spaces with historic, riverfront, or shoreland areas. The program requires that the parcel be undeveloped and recognized as either historic by federal standards, or included in areas designated for protection under state acts (e.g., area designated as a natural river per P.A. 231 of 1970, or high-risk erosion area under P.A. 245 of 1970). Designated open space agreements are between the property owner and the State. There is no loss of property taxes to the local government for state designated areas.

Local open space lands are those areas approved by a local governing body to conserve natural or scenic resources, promote conservation of soils, wetlands, beaches, or preserve historic sites and idle potential farmland. Local open space agreements are between the property owner and the local unit of government. The local governing body provides a tax break to the property owner based upon the difference between the value of the unrestricted land versus the value of restricted land under the agreement.

The property owner does not have to provide public access to the land and the property may be sold. New owners, however, are bound by the agreement until it expires. Although the community

loses taxes in the form of reduced assessments, it can avoid many of the high costs of providing public services to lands that have been prematurely developed.

The local community does have the right to place a lien on the property in an open space agreement and to collect *ad valorem* taxes for the last seven years of the agreement if it is sold after the agreement is expired, or if it is converted to a use prohibited by the former open space agreement.

Rural Clustering

Rural clustering is a set of techniques (primarily zoning) that focus on preservation of open space in rural areas by encouraging new residential development to cluster in a few selected areas on a parent parcel, rather than being spread across the entire site. This permits large portions of the parent parcel to remain open. The dwelling units are clustered in areas that are screened from roadway views, out of sensitive environmental areas, avoiding prime farmland (unless there is no other location), and in locations where they can be effectively provided with services. Open spaces remaining after clustering are protected in perpetuity through a range of legal mechanisms (such as conservation easements). While the development rights of open space on a parcel approved for rural clustering will have been permanently retired, the land can still be actively farmed, used for woodlots, nurseries, pasture, or recreation. Ownership typically remains with a property owners association, a condominium association, or the open space can be transferred to a conservancy or the community. Two principal variations include:

1. Clustering options that create common landscaped open space for recreation by residents of clustered units in addition to the larger, more natural (unaltered) open space, and
2. Cluster layouts that focus more on individual lot open space that is integrated with the larger, more natural open space area.

Figure 3: Standard Subdivision



Figure 4: Cluster Subdivision



APPENDIX

Maps