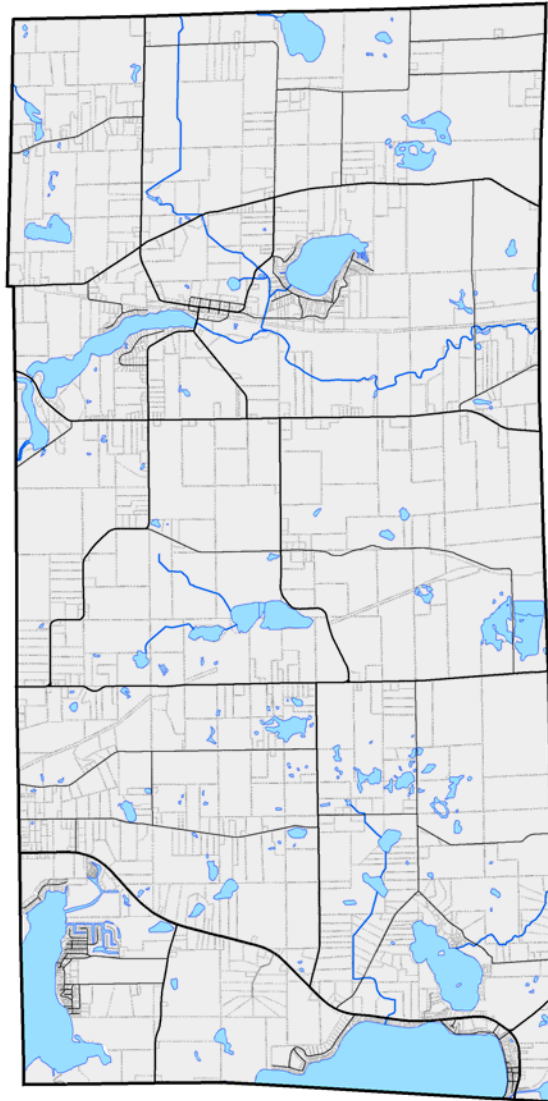


NORVELL TOWNSHIP COMPREHENSIVE PLAN 2000-2025



NORVELL TOWNSHIP COMPREHENSIVE PLAN 2000-2025

Prepared By

Norvell Township
Planning Commission

With Assistance From

The Region 2 Planning Commission
and its Staff



Template Prepared By

The Jackson Community
Planning Committee

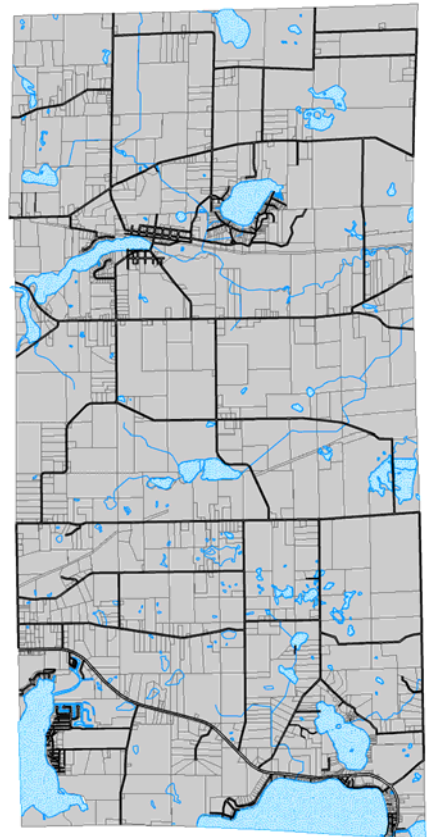
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Chapter 1
INTRODUCTION

What is a Comprehensive Plan?

A Comprehensive Plan provides a framework within which Norvell Township may evaluate its present status and outline its desired future direction. The Comprehensive Plan is the guiding document for land use and development for the Township. A well-designed and implemented Plan will help Norvell become a highly desirable community in which to live, work and visit.

The Plan is a “living” document, which should be reviewed on a yearly basis. This review should evaluate the level of program achievement and include a strategic implementation plan for the upcoming year. If circumstances in the community change, the Plan should be amended. Norvell Township officials should consult the Plan when considering development proposals and zoning changes, infrastructure improvements and when considering capital expenditures and use the Plan as support for grant applications.

The Norvell Township Comprehensive Plan consists of 4 general components:

1. Background information. Compiled through analysis of existing studies, reports and census findings; field investigations; and input from community organizations and leaders.
2. Community-wide goals & objectives. A vision of the future which anticipates growth, development, and redevelopment.
3. Future land use plan. A plan for the physical distribution of land uses throughout the County that respects the goals and objectives of the community.
4. Plan implementation. Strategies, policies and actions to achieve the Plan's goals and future land use plan.

Norvell Township's first comprehensive plan, prepared with the assistance of the Region 2 Planning Commission, was adopted in 1977. The Plan outlined growth up to the Year 2000 for Norvell Township. It called for the preservation of areas for open space and nature, agriculture and recreation while encouraging residential development and ensuring that commercial and industrial development relates to the overall character of the Township.

Other Planning Efforts

Norvell Township joined with the other governmental units in Jackson County, including the County of Jackson, to form the Jackson Community Planning Committee, which developed and adopted the Jackson Community Comprehensive Plan 2000-2025 on May 26, 2005. Norvell Township utilized the Jackson Community Comprehensive Plan as the template for developing this Comprehensive Plan. Participation of the Jackson Community Planning Committee and the tie between the Countywide and Township planning documents should help to increase compatibility in the planning efforts of Norvell Township and adjacent Jackson County townships.

The Norvell Township Comprehensive Plan is also interfaced with several other planning efforts:

- The Heart of the Lakes Recreation Commission
- The River Raisin Watershed Council
- The Jackson County Regional Trailway Study, 2002
- The Norvell Township Zoning Ordinance

As these planning efforts evolve and the planning documents that result from their efforts are implemented, or updated, assurance should be provided that the recommendations contained within the plans are coordinated and consistent with other planning efforts.

Why Plan?

Existing developed areas within the Township must be maintained and improved to retain their desirability. Norvell Township must also continue to change in order to remain dynamic and attractive. New residents must be attracted and existing residents must be encouraged to stay. Homes need to be remodeled and new ones must be built. Existing businesses must be retained and business start-ups must be generated. Appropriate industries must be encouraged to locate in Norvell Township. Parks and other public spaces must continue to be developed and improved. Numerous other changes will be necessary as the Township grows.

The Comprehensive Plan can be viewed as the Township's blueprint for the future; a guide to help ensure each individual decision fits as part of a whole.

The Plan includes long-range recommendations for:

- Physical growth and development
- The economy
- Community infrastructure
- Future land use
- Redevelopment
- Preservation of valuable natural systems and resources
- Preservation of agriculture and open space

Some communities simply allow change to happen. They hope for the best and react to development proposals as they surface. Others work diligently to influence change in a manner that results in the quality of life desired by residents and others. A major step in that "influencing process" is the preparation of a Comprehensive Plan.

Scope

The purpose of this Plan is to set forth land use, redevelopment, and development policies for Norvell Township through the year 2025. The basis for this Plan is the Jackson County Comprehensive Plan. The broader view and perspective on land use issues provided by that plan, which extend beyond the boundaries of the Township, are expanded upon when considered valid in Norvell Township.

Legal Authority

The Norvell Township Comprehensive Plan was prepared and adopted through the efforts the Norvell Township Planning Commission with assistance from the staff of the Region 2 Planning Commission. The Norvell Township Planning Commission was established under the authority of the Township Planning Act, as amended (PA 168 of 1959, MCL 125.321 *et seq*), which requires the development of a comprehensive plan. The Act also allows for the adoption of the Comprehensive Plan by the Norvell Township Board, which it elected to do. This action was considered important because the Plan provides the legal basis for the Norvell Township Zoning Ordinance, according to the Michigan Zoning Enabling Act, as amended (PA 110 of 2006, MCL 125.3101 *et seq*).

Guiding Principles

The preparation of this Plan has been established through the use of the following principles:

1. **Sustainability.** The Norvell Township Comprehensive Plan was prepared to guide the redevelopment and growth of the Township in a way that is sustainable. Sustainability, in terms of Township growth and development means that the resources that are used to support redevelopment and growth are consumed at a rate which results in no diminution of such resources for the availability and application of the future citizens of Norvell Township. The Plan, and the development policies it advocates, was developed to help improve the quality of life of citizens of Norvell Township. An attempt has been made to assure that future generations, in their pursuit of quality of life, will not be limited by current actions.
2. **Diversity.** The importance and value of diversity in the health and vitality of the Township is well established. Natural diversity assures adaptability and the health of the ecological system. Employment diversity will help the Township weather the fluctuations of economic cycles. Population diversity promotes cultural richness and broader perspectives.
3. **Smart Growth.** The Michigan Land Use Leadership Council, appointed by Governor Granholm in 2003, studied land use trends and problems in Michigan. The Council was comprised of the leadership of a wide range of stakeholder groups. Its findings and recommendations, which were reported in a document entitled "Michigan's Land, Michigan's Future: *The final report of the Michigan Land Use Leadership Council*", endorsed ten smart growth tenants. As noted in the report "these ten tenants can form the basis for establishing a set of state land use goals".¹ This is also true for Norvell Township.

These tenants include:

1. Create a range of housing opportunities and choices.
2. Create walkable neighborhoods.
3. Encourage community and stakeholder collaboration.
4. Foster distinctive, attractive communities with a strong sense of place.
5. Make development decisions predictable, fair, and cost-effective.
6. Mix land uses.
7. Preserve open space, farmland, natural beauty and critical environmental areas.
8. Provide a variety of transportation choices.
9. Strengthen and direct development toward existing communities.
10. Take advantage of compact development design.

Vision Statement

The vision statement for Norvell Township Comprehensive Plan is as follows:

Promote quality of life for Norvell Township's existing and future citizens through the application of township revitalization and orderly growth to enhance its heritage and culture, expand its employment opportunities, preserve its lands valuable for open space and agriculture, and to preserve and protect its environmentally sensitive lands.

¹ Michigan Land Use Leadership Council, "Michigan's Land, Michigan's Future: Final report of the Michigan Report of the Michigan Land Use Leadership Council, " Page 27

Historical Context

The shape and character of the Jackson Community was determined by the physical development of the community upon its natural landscape. The earliest known inhabitants of the Jackson County area were the Potawatomi Indians. These peoples, who migrated to the area from the south before the Revolutionary War, hunted and grew crops for food, and fished in area lakes and streams. They established a trade network with other native peoples and a system of Indian trails to accommodate this commerce evolved across Jackson County's landscape.

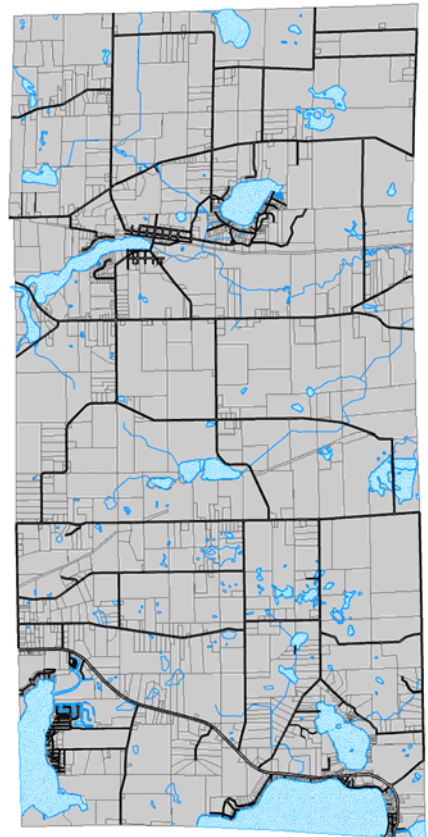
With the arrival of the white man and the establishment of the National Government, and following the Revolutionary War, the fledgling Nation was strapped for cash and decided to sell lands to settlers and to give lands to war veterans as payment for service.² The Land Ordinance of 1785 authorized a precise survey of lands to the west, in what is now the Midwest, to provide the basis for property description and the distribution of lands. The Ordinance resulted in a survey of the land to divide the territory into surveyed townships of six-mile squares, or thirty-six square miles. Surveyed townships were laid out by lines running due north and south of a surveyed baseline and east and west of a surveyed meridian. The location of each surveyed township can then be located by its position by the number "townships" north or south of the baseline (i.e., T4S) and the number of "ranges" east or west of the meridian (i.e., R2E). The Ordinance further divided surveyed townships into 36 one-mile square sections, each of which contained 640 acres.³

The Northwest Ordinance of 1787 established the initial government of the territory that became the states of Indiana, Illinois, Michigan, Ohio and Wisconsin. The creation of local township government largely coincided with the surveyed townships which were established as a result of the Land Ordinance of 1785. However, the Michigan Territory Legislative Council included what is now Norvell Township as part of Napoleon Township, which covered the four surveyed townships (i.e., T3S, R1E; T3S, R2E; T4S, R1E, and T4S, R2E) located in the southeast corner of Jackson County in 1833. Norvell Township was created in 1859 and was named after John Norvell who was one of the first Senators for the State of Michigan and also served as a State Senator and United States District Attorney.

Further text is needed.

² Leiserowitz, Anthony. Pg. 1

³ Thomas, Stephen. Pg. 4

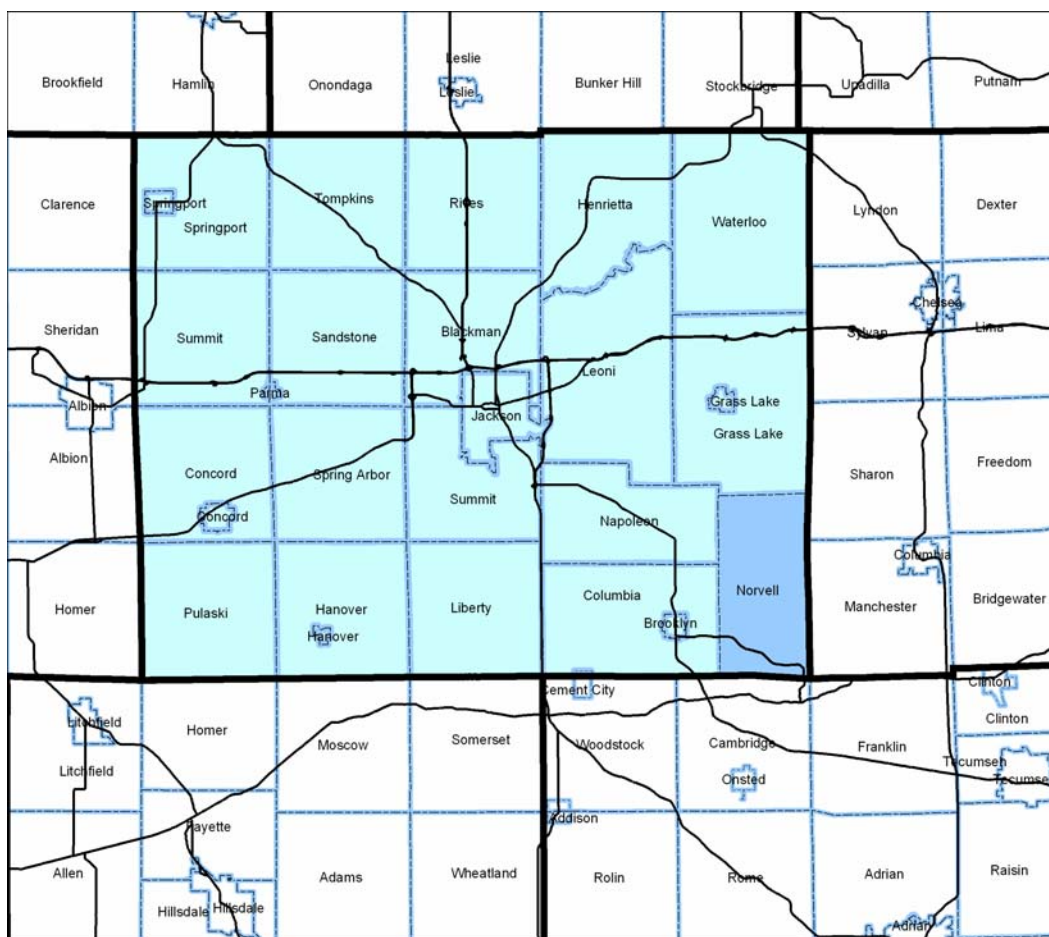


Chapter 2
REGIONAL & LOCAL SETTING

Local Setting

Norvell Township is in one of the nineteen townships which, along with a city and six villages, comprise Jackson County. The Township is located in the southeast corner of the County. The Jackson County Townships of Columbia, Grass Lake, and Napoleon are adjacent to the Township as are the Lenawee County Townships of Cambridge and Franklin and the Washtenaw County Townships of Manchester and Sharon. The unincorporated Village of Norvell is located in the northern third of the Township, nest to Norvell Lake. The incorporated Villages of Brooklyn, Cement City, Grass Lake, Manchester, and Onsted, as well as the unincorporated Village of Napoleon are also nearby.

MAP 1
Local Setting



Norvell Township is often considered to be a part of the Irish Hills Area which is roughly centered along United States Highway 12 (US-12), between Michigan Highway 124 (M-124) and United States Highway 127 (US-127). The Township is also considered to be part of the Heart of the Lakes Area, which is centered on the Village of Brooklyn.

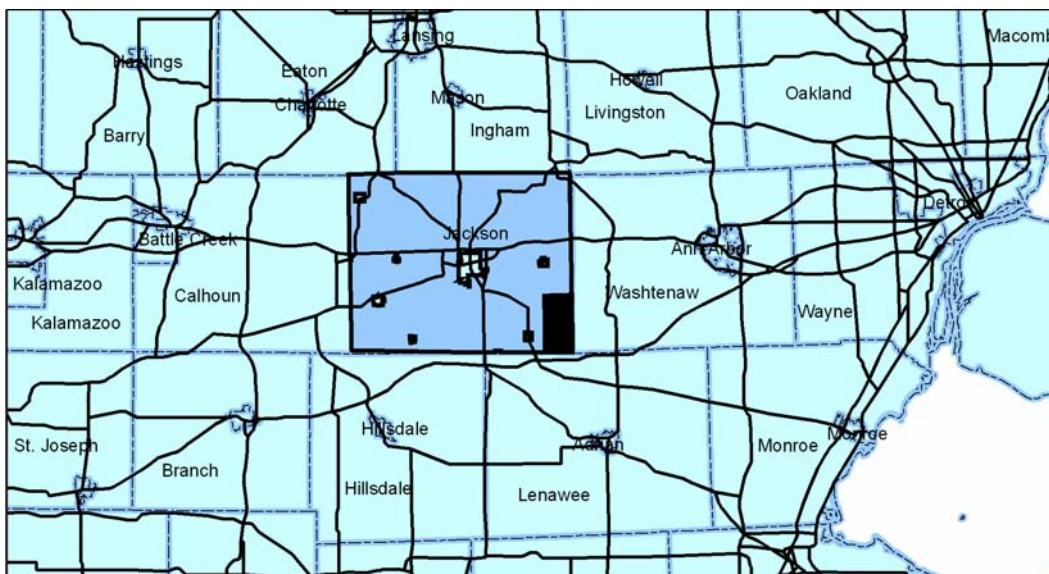
Regional Setting

Jackson County is located in southeast Michigan 70 miles west of Detroit and 200 miles east of Chicago along the Interstate 94 (I-94) corridor. Jackson's location on the I-94 corridor and its

proximity to the Detroit area affords local businesses and industries access to the Detroit area within just-in-time proximity.

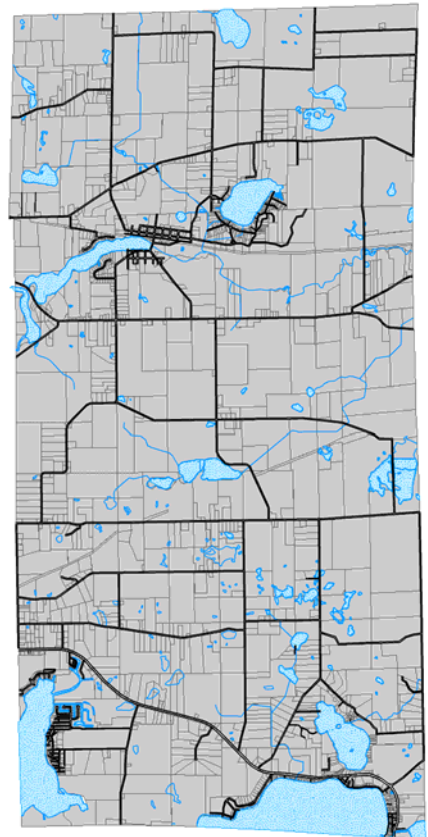
I-94 is also designated a North American Free Trade Agreement (NAFTA) Highway. Location along this route, which will eventually link Canada with Mexico through the heartland of the United States, affords Jackson industries and businesses access to international markets.

MAP 2
Regional Setting



Both the Cities of Ann Arbor and Lansing, via the City of Jackson, are within easy driving distance of Jackson County and the Township. Those communities offer the residents of Norvell Township employment, educational, and cultural opportunities. Lansing is the state capital and East Lansing is the home of Michigan State University. The University of Michigan is located in Ann Arbor. The Norvell Township labor market area also includes Hillsdale and Lenawee Counties, including the City of Hillsdale, and the Cities of Adrian and Tecumseh. Other major cities within an easy drive include the cities of Battle Creek and Kalamazoo to the west along I-94, and Toledo to the southeast, which is accessible via US-127 and US-223.

In addition to locational advantages for automobile and truck traffic, Amtrak rail passenger service, linking Detroit and Chicago, is available in nearby Jackson. Air passenger travel is also available through Detroit Metropolitan Airport located along I-94.



Chapter 3
PHYSICAL SETTING

Topography

The topography of Norvell Township can be described as gently rolling, moderately hilly uplands. Elevations range from approximately 918 to 1,017 feet above sea level. Topographic limitations to development are mainly due to slope. Steeply sloped areas pose development constraints for land use because of practical difficulties and the cost of construction. Land development on steeply sloped areas also increases runoff and non-point pollution loads which have a negative impact on water quality.

The vast majority of land area in the Township has a slope from 0% to 8%, which can be described as gently sloping. These types of slope are suitable for all types of development and there is relatively little sediment runoff associated with development. The Township does have numerous small areas with slopes from 8% to 16% which are categorized as "moderately sloping". These areas are often suitable for limited residential development. Caution is required in these moderately sloping areas because disturbed soils may result in erosion which increase sediment loads and therefore, negatively affect surface water quality. Very few areas in Norvell Township have slopes which exceed 16%.¹ Norvell Township's highest elevations appear in its southern half as well as its northeastern corner. The lowest elevations in the County are along the River Raisin at the eastern edge of the Township.

Surface Water

Watersheds

Norvell Township includes parts of two Michigan Watersheds. The largest of these, the River Raisin Watershed, covers most of Norvell and Columbia Townships and parts of Napoleon and Grass Lake Townships. The River Raisin drains to Lake Erie. A portion of the Grand River Watershed, which provides drainage to most of Jackson County, covers the northwest corner of the Township. The Grand River drains into Lake Michigan. Norvell Township watersheds and surface water features are shown on Map 3, *Watersheds and Surface Water*.

Lakes and Rivers

Norvell Township has lakes and ponds which cover approximately 8% of its surface area. These resources attract residential development. Several area lakes were quickly developed with summer cottages. In recent times many of these cottages have been converted to year-round dwellings or demolished to be replaced by new year-round dwellings. These areas have their own unique set of challenges. Many of the subdivisions surrounding lakes were comprised of small lot areas. As a result high densities of dwellings are located around many of the lakes. Cottages in these areas were served by private wells and septic tanks. In many lakes the water quality was affected by on-site sewage disposal. Portions of Vineyard Lake have now been sewered. Most of the natural areas which surrounded lakes have been replaced with development. As a result the riparian buffers which help to maintain water quality have been eliminated.

Lakes and Ponds			
	Area in Acres	Area (sq mi)	% of County ¹
Lakes and Ponds	1,654	2.6	8.0%

Source: Soils Survey of Jackson County, Michigan

¹ R2PC, Appendix 1 Environmental Inventory and Database, Areawide Waste Treatment Management Plan Page 11.

In addition to Jackson County's lakes, there are at least 4 miles of rivers and streams within the County's borders. The River Raisin is the most significant of these. The rivers and streams have value for the recreational use, wildlife, their drainage function, and are an important component of Norvell Township's unique natural system. They are also one of the features of the Township which attract population and contribute to quality of life for its residents.

Wetlands

Wetland data for Norvell Township is available through the National Wetlands Inventory. This inventory identifies four types of wetland areas existing within the Township: Aquatic Bed, Emergent Wetland, Scrub-Shrub, and Forested Wetlands. Aquatic Bed Wetlands include "wetlands and deep water habitats dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years." Emergent Wetlands are "characterized by erect, rooted, herbaceous hydrophytes, which are present for most of the growing season in most years." Scrub-Shrub Wetlands are those "dominated by woody vegetation less than twenty feet tall." Forested Wetlands are those "characterized by woody vegetation that is more twenty feet tall."² In all, the four categories of wetlands consume 21% of Norvell Township's land area.

Wetland Areas			
Type of Wetland	Area (acres)	Area (sq mi)	% of County
Aquatic Bed	9	0.0	0.0%
Emergent	1,782	2.8	8.7%
Scrub-Shrub	1,417	2.2	6.9%
Forested	1,158	1.8	5.6%
Total Wetlands	4,366	6.8	21.2%

Source: National Wetlands Inventory

Numerous wetland areas exist in the Township in scattered fashion, and other wetlands associated with surface water and drainage systems meander through the County. The location of these wetland areas in Norvell Township is shown on Map 4, *Wetlands*.

Soil Suitability

The total surface area of Norvell Township encompasses over 32 square miles. The net area of the Township available for various types of land uses is limited to less than 30 square miles due to the presence of lakes and ponds. Wetlands also cover almost 7 square miles of the Township. However, they can be utilized for agricultural purposes in certain circumstances. They are included in the net surface area because of this factor

Surface Area			
	Area (acres)	Area (sq mi)	% of County
Total Surface Area	20,592	32.2	100.0%
Lakes and Ponds	1,654	2.6	8.0%
Net Surface Area	18,938	29.6	92.0%

Source: National Wetlands Inventory

Prime Farmland

The Jackson County Soil and Water Conservation District has identified soils within Jackson County that can be considered prime farmland. Two categories of prime farmland soils have been identified. The first category consists of those soils which could be considered prime

² Cowardin, Lewis M. et al.

farmland without drainage. The second are soils which could be considered prime farmland if drained and which are not located within hydric soils (wetlands). The location of these soils is shown on Map 5, *Prime Farmland*. Relatively few areas of prime farmland may be found in Norvell Township.

Prime Agricultural Soils			
	<u>Area (Acres)</u>	<u>Area (sq mi)</u>	<u>% of County</u>
Prime Farmland	1,569	132	8.3%
Prime Farmland if Drained, but not including wetlands	379	30	2.0%
Total Prime Farmland	1,949	162	10.3%

Source: Jackson County Natural Resources Conservation Service

In terms of area, 1,949 acres of prime farmland exist which amounts to approximately 10% of the net surface area of the Township. Of this total, 1,569 acres are considered prime farmland, while 379 acres are considered prime farmland if they are drained.

Soil Suitability for Building Site Development

The soil survey of Jackson County, Michigan, provides an analysis of soil types and their suitability for building site development. Each soil type is rated based upon its ability to accommodate dwellings, with and without basements, based upon the following five characteristics: slope, wetness, ponding, low strength, and flooding. Each of the soils is rated as a soil posing slight, moderate, or severe limitation to development.

The location of soils rated severe for dwellings, with or without basements, is shown on Map 6, *Soil Suitability for Building Development*. These soils cover approximately 40% of net surface area of Norvell Township, often distributed in a fragmented fashion across the Township. A few large contiguous areas of land exist in which there are soils conducive to development.

Soils Rated Severe For Building Development in Norvell Township			
	<u>Area in Acres</u>	<u>Area (sq mi)</u>	<u>% of County</u> ¹
Soils Rated Severe	7,645	11.9	40.4%

Source: Soils Survey of Jackson County, Michigan

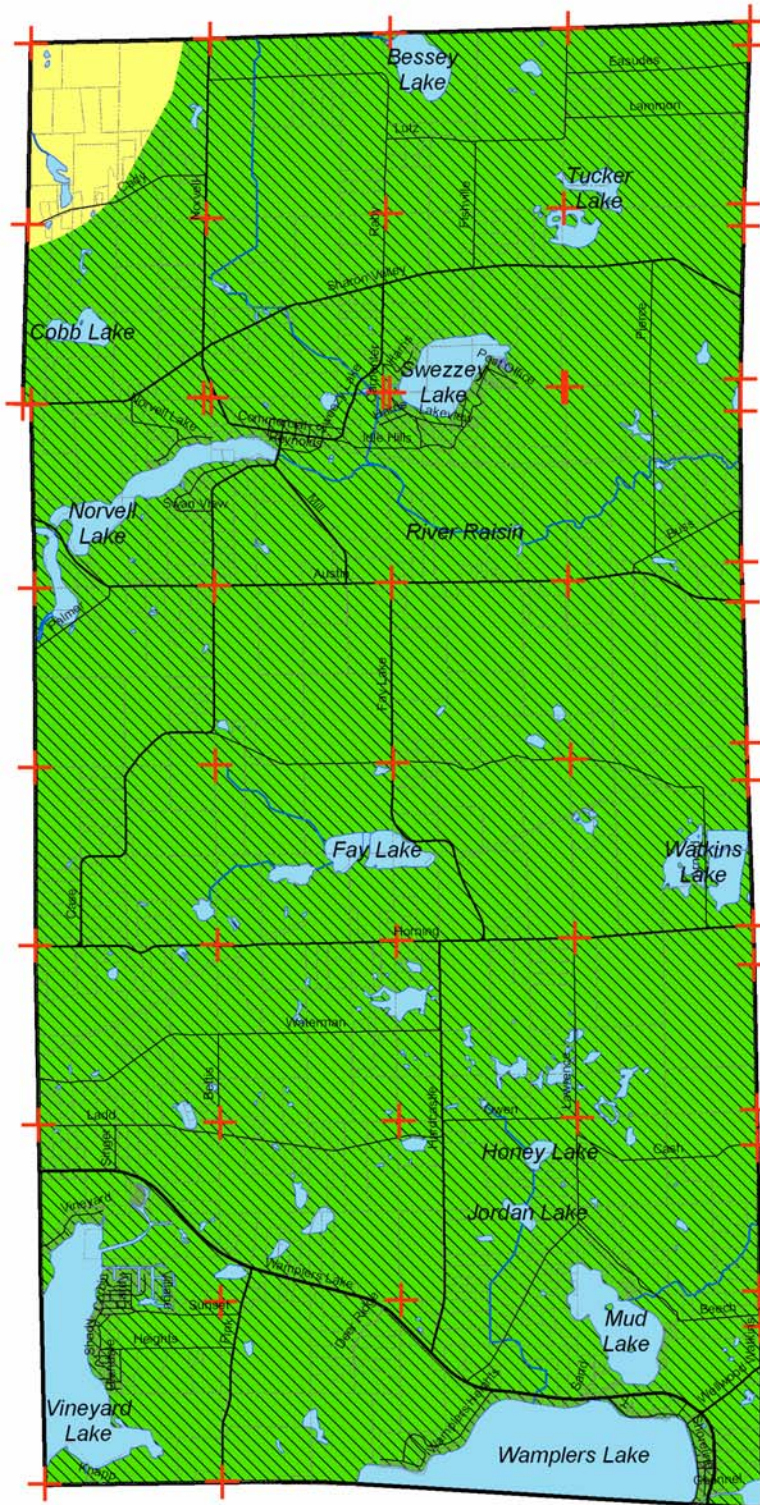
Soil Suitability for On-Site Sanitary Facilities

The Soil Survey for Jackson County, Michigan also provides information on the suitability of Norvell Township soils for on-site sanitary facilities. Soils are rated as posing limitations which are rated slight, moderate, or severe for septic tank absorption fields. Analysis is based on the following characteristics of soils: depth to bedrock, poor filter, ponding, slope, wetness, flooding potential, and slow rate of percolation.

The location of areas rated severe for septic tank absorption fields is shown in Map 7, *Soil Suitability for On-Site Sanitary Facilities*. Approximately 84% of the net surface area of Norvell Township is covered with these soils. Suitable soils are scattered throughout the Township, sometimes in the vicinity of area lakes.

Soils Rated Severe For On-Site Disposal in Norvell Township			
	<u>Area in Acres</u>	<u>Area (sq mi)</u>	<u>% of County</u> ¹
Soils Rated Severe	15,923	24.9	84.1%

Source: Soils Survey of Jackson County, Michigan



Norvell Township Comprehensive Plan

Map 3 Watersheds

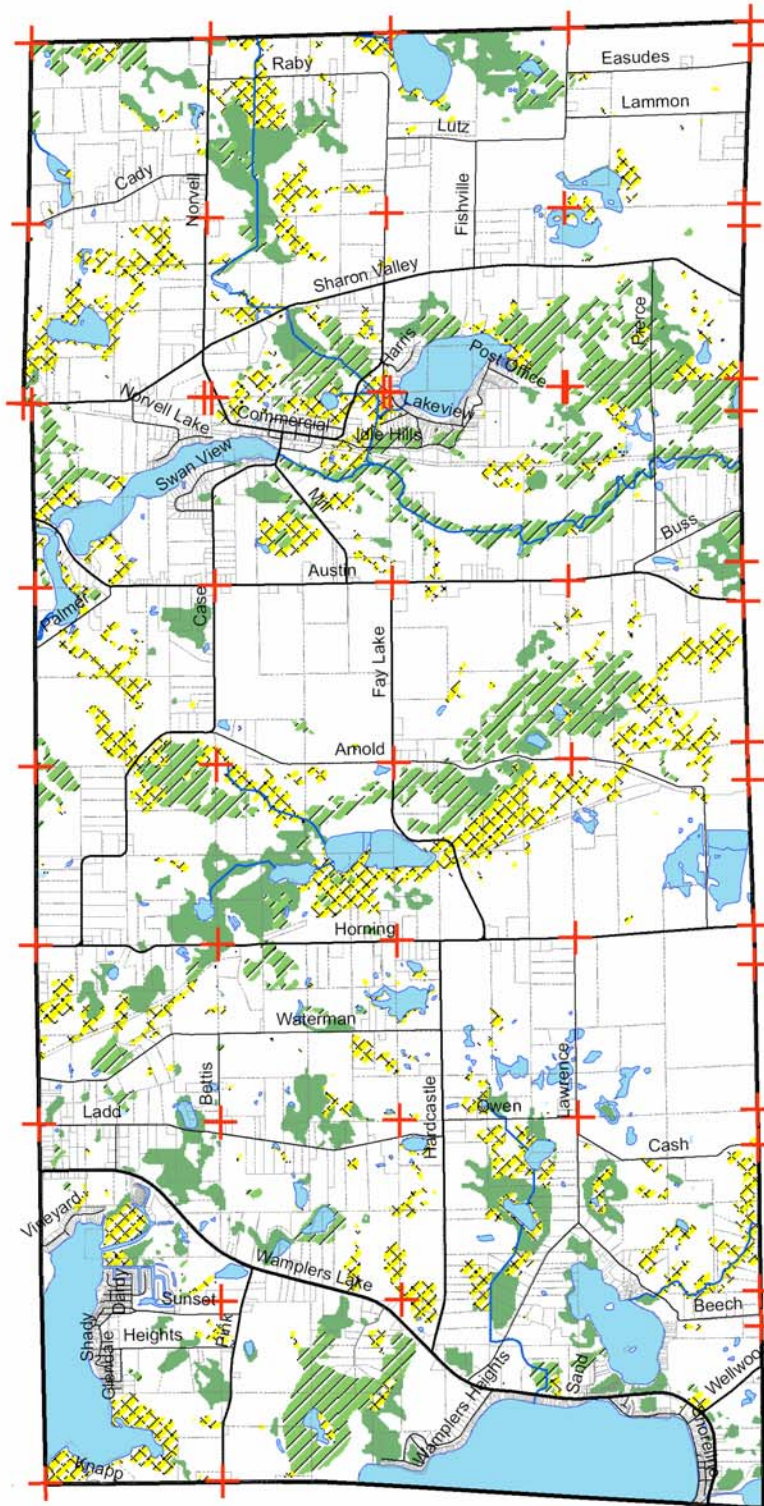
Legend

- Huron
- Kalamazoo
- Raisin
- Upper Grand

Sources:
The National Atlas
for the USA
The Center for
Geographic
Information
State of Michigan

0 0.25 0.5 1 1.5 Miles







Norvell Township Comprehensive Plan

Map 4
Wetlands

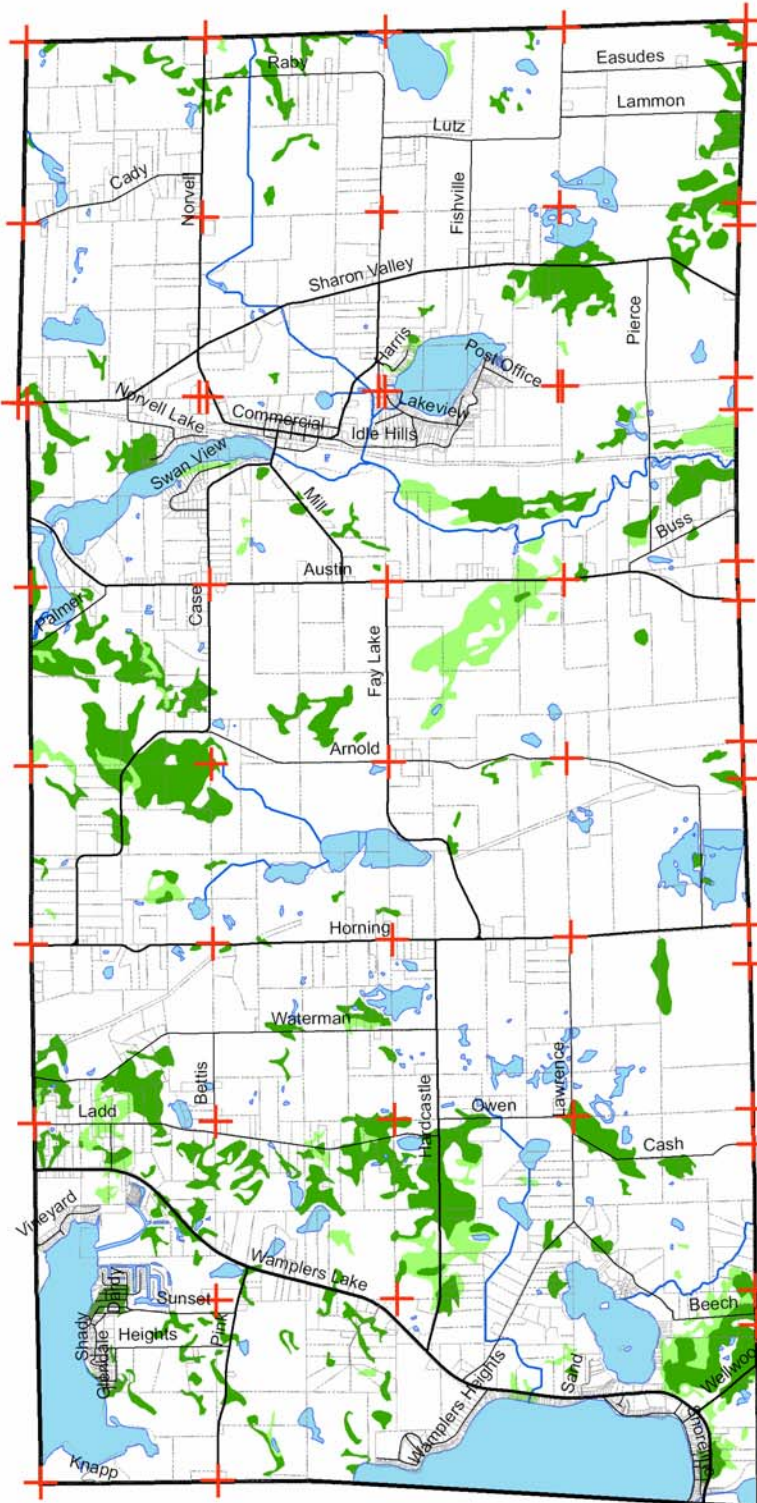
Legend

-  Aquatic Bed
-  Emergent
-  Scrub-Shrub
-  Forested

Source:
National Wetlands Inventory

0 0.25 0.5 1 1.5 Miles





Norvell Township Comprehensive Plan

Map 5 Prime Farmland

Legend

Prime Farmland

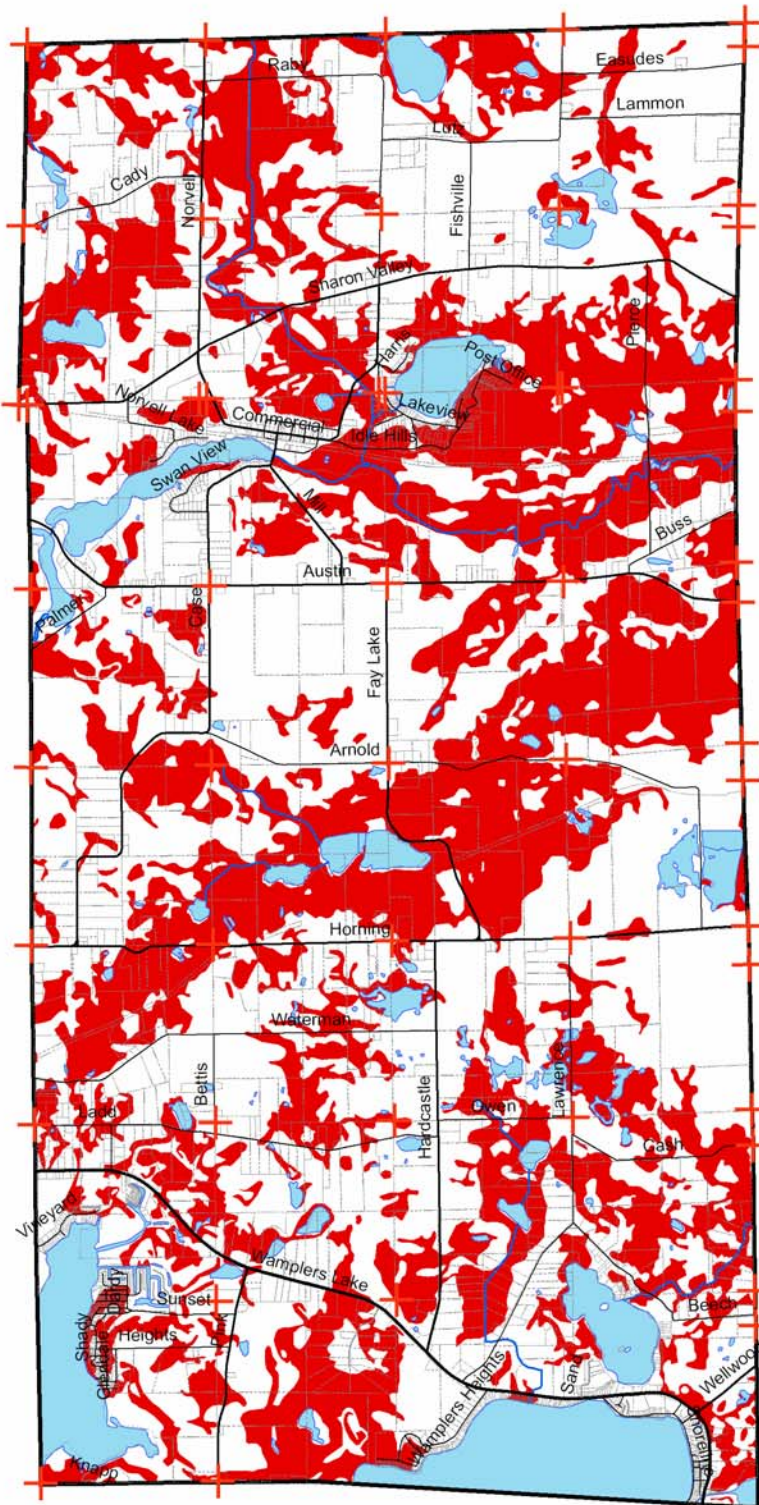
- no exceptions
- if adequately drained

No hydric soils (wetlands), as defined by the Jackson County soil survey, were included in the listing of prime farmland

Source:
Jackson County
Natural Resources
Conservation Service

0 0.25 0.5 1 1.5 Miles





Norvell Township Comprehensive Plan

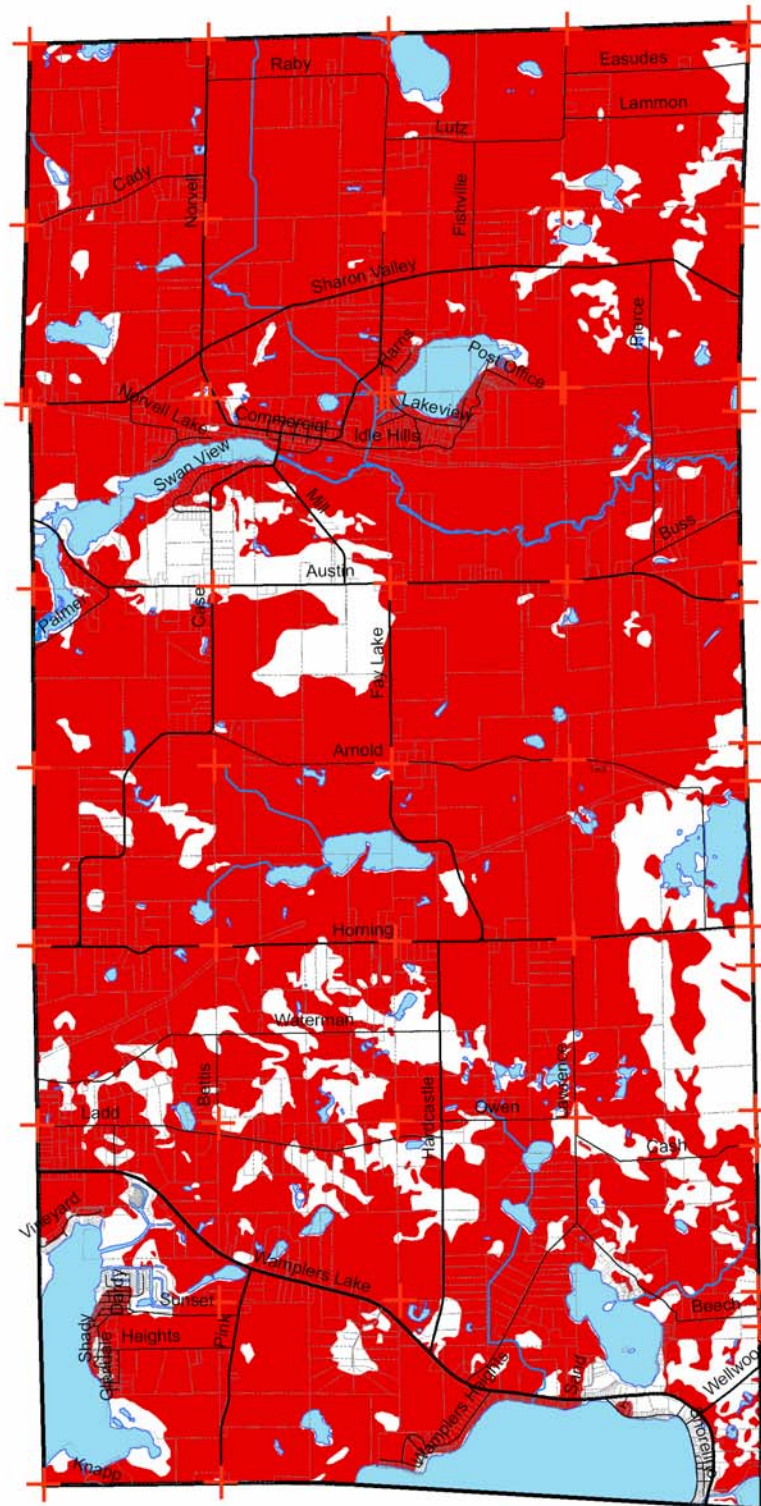
Map 6 **Soils Rated Severe for Building Development**

Legend
Soils Rated
Severe for
Building
Development

Source:
Jackson County
Natural Resource
Conservation Service

0 0.25 0.5 1 1.5 Miles






Norvell Township Comprehensive Plan

Map 7 **Soil Suitability for Onsite Sanitary Facilities**

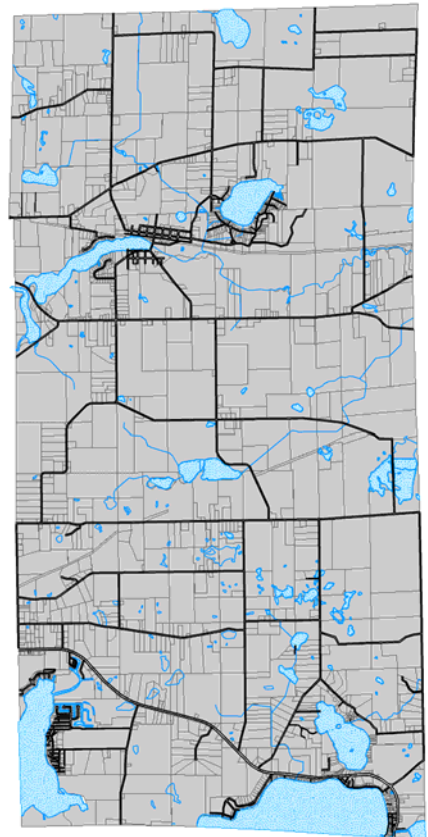
Legend

 Soils Rated Severe
for Septic Tank
Absorption

Source:
Jackson County
Natural Resource
Conservation Service

0 0.2 0.4 0.8 1.2 Miles





Chapter 4
DEMOGRAPHICS

Population Growth, 1950-2000

Norvell Township

Norvell Township's population has increased almost 1½ times since 1960. This dramatic growth rate can be explained by the population growth that occurred during the 1960s and 1970s, when the population grew by 1,242 people. A healthy growth rate of close to 10% continued through the 1980s and 1990s, when the population grew by 504 people.

Population Change, 1960 to 2000			
Year	Population	Change	% Change
1960	1,176		
1970	1,788	612	52.04%
1980	2,418	630	35.23%
1990	2,657	239	9.88%
2000	2,922	265	9.97%
1950 to 2000		1,746	148.47%
Source: US Census			

Jackson County

The following subsections provide a comparison with population change in different parts of Jackson County over the same time period. For the purposes of analysis, the County was divided into four groups: the City of Jackson, suburban townships (i.e., Blackman, Leoni, and Summit); rural townships, including Norvell Township; and villages.

Jackson County Population Change, 1960 to 2000					
	1960	1970	1980	1990	2000
City of Jackson	50,720	45,484	39,739	37,446	36,316
Suburban Townships	45,591	52,684	56,113	55,057	57,793
Rural Townships	30,716	39,792	50,595	52,354	58,889
Villages	4,967	5,314	5,048	4,899	5,424
Jackson County Total	131,994	143,274	151,495	149,756	158,422
Source: US Census					

Jackson County and the City of Jackson

While Jackson County's population increased in each of the decades since 1950, with the exception of the decade between 1980 and 1990; the City of Jackson's population declined in each of the decades since 1950. The decline of the City's population has been significant with a loss of 14,772 persons, or 29% of the City's 1950 population. The greatest declines occurred between 1960 and 1980 when the City experienced double digit percentage declines in each of the two decades. Since 1980, however, the rate of population decline has fallen substantially. Between 1990 and 2000, the decline amounted to only a three percent loss. If Jackson County's population increased by 47% during the period of time between 1950 and 2000, while the City of Jackson's population was declining, where was the offsetting population increase occurring?

Suburban Township Growth

The population in the suburban townships generally followed the growth trends of Jackson County. Suburban townships increased in population in each of the decades with the exception of the decade 1980s when population declined by almost 1,000 persons. Growth was greatest in the decade of the 1950s when the suburban township population increased 44%. The rates

of population growth in the County, and the suburban township declined through 1990, and then began to increase again during the 1990s.

Rural Township Growth

The most significant rates of population growth occurred in the rural townships whose populations increased in each of the decades since 1950. While the rate of change between 1950 and 1960 was less than that of the suburban townships, the rural townships experienced significant growth during the decade and continued this rate of growth, surpassing that of the suburban townships through the 1970s. Rural townships were the only portion of the County which grew in population during the 1980s. Substantial growth occurred again in the decade between 1990 and 2000. This rate of population growth in the rural townships is significant because it is likely that the growth occurred not in subdivision development, but on lots of between one and ten acres along the County's rural roads.

Village Population Change

The growth in Jackson County's seven villages increased between 1950 and 1970. A decline in population occurred during the 1970s and 1980s. The population increased again during the 1990s, resulting in a 31% growth rate between 1950 and 2000.

Population Estimates

July 2005 Population Estimates

United States Bureau of the Census estimates population for local units of governments annually. The most recent estimates of population are for July of 2005, which shows an increase of approximately 4% for Norvell Township over the actual population of 2,922 in April, 2000.

July 2005 Population Estimates			
<u>Actual 2000</u>	<u>Est. July 2005</u>	<u>Est. # Change</u>	<u>Est. % Change</u>
2,922	3,049	127	4.3
<i>Source: U. S. Bureau of the Census</i>			

2000-2025 Population Projections

Population projections by five year increments are shown in the table entitled, "Jackson County Population Projections, 2000-2030." According to these projections, Jackson County's population is expected to increase from 158,422 in 2000 to 179,826 in 2025; and 183,488 in 2030.

Population Projections, 2000 to 2030			
<u>Year</u>	<u>Population</u>	<u># Change</u>	<u>% Change</u>
2000	2,922		
2005	3,068	146	4.99%
2010	3,221	153	4.99%
2015	3,381	161	4.99%
2020	3,550	169	4.99%
2025	3,727	177	4.99%
2030	3,913	186	4.99%
<i>Source: US Census</i>			

Urban and Rural Population

The US Census provides information on the urban and rural populations for, counties, cities and townships. For urban populations, population totals are provided by 'urbanized areas' and 'ur-

ban clusters.' The Census defines an 'urbanized area' as an "area consisting of a central place and adjacent territory with the general population density of 1,000 persons per square mile of land area that together have a minimum residential population of at least 50,000 people". For Jackson County this includes almost all of the City of Jackson and irregular areas which extend into adjacent townships. The Census defines the term 'urban cluster' as "a densely settled territory that has at least 2,500 people but fewer than 5,000. No urban clusters are located in Norvell Township. However, a nearby urban cluster includes the Village of Brooklyn and Lake Columbia in Columbia Township.

Households

An important measure of community growth may be determined through an analysis of the change in the number of households. Households create a demand for a housing unit and, therefore, provide an indication of the level of growth in the size of the residential land area of the community. In Norvell Township the number of households increased by a factor of 3.4 from 333 households in 1950 to 1,135 households in the Year 2000. Household formulation was particularly high during the 1960s and 1970s.

Household Growth, 1960 to 2000			
<u>Date</u>	<u>Number of Households</u>	<u>Numerical Change</u>	<u>Percent Change</u>
1960	333		
1970	541	208	62.46%
1980	832	291	53.79%
1990	970	138	16.59%
2000	1,135	165	17.01%

Source: U. S. Census

For the purposes of analysis a comparison was made between population and household growth rates for each of the decades between 1961 and the Year 2000. The comparison reveals that the rate of growth for both households was greater than that for population in each of the decades surveyed. In other words, while the population increased almost 1.5 times, the number of households increased by more than 2.4 times.

Population and Household Growth, 1961 to 2000		
<u>Date</u>	<u>% Change Population</u>	<u>% Change Households</u>
1961-1970	52.04%	62.46%
1971-1980	35.23%	53.79%
1981-1990	9.88%	16.59%
1991-2000	9.97%	17.01%
1961-2000	148.47	240.84

Source: U. S. Census

What accounts for the difference between population and household growth? Household growth is outstripping population growth simply because the average household size is declining. The average household size in Norvell Township was 3.53 persons per household in 1960. The average household size decreased to 3.30 persons in 1970, 2.89 persons in 1980, 2.73 persons in 1990, and 2.56 persons in the Year 2000. As long as household size is declining and population remains stable, or increases, the number of households will increase, and therefore the demand for housing units in the County will increase.

Race and Ethnicity

The US Census provides data on the race of its residents. Norvell Township's population is overwhelmingly homogenous. Of the Township's population in the Year 2000, 97% were white in the Year 2000. Black/African Americans; American Indian and Alaskan Natives; Asians; Native Hawaiian and other Pacific Islanders; and other races each comprised less than 1% of the population. Individuals who indicated that they were members of two or more races comprised more than 1% of the Township's population.

Racial Composition of the Population, 2000					
<u>White</u>	<u>Black/African American</u>	<u>American Indian & Alaska Native</u>	<u>Asian</u>	<u>Other Races</u>	<u>Two or More Races</u>
2,842	18	15	3	4	40

Source: U S Census

The US Census also provides data on its Hispanic/Latino population. In the Year 2000, Hispanic/Latino residents of Norvell Township numbered 20 individuals, less than 1% of the population. While the numbers of Hispanic/Latino residents are quite low relative to the total population, the Census data reveals that the number of people claiming Hispanic/Latino ethnic origin is grew at a rapid rate countywide between 1990 and 2000. However, the number of Hispanics/Latinos in Norvell Township during that same time period remained unchanged.

Age and Sex

Median Age

For the past several decades the median age of Norvell Township's population has been increasing. This increase, which is similar to median age trends for other areas of the state, is due to declining birth rates, increasing longevity, and migration. The median age of Township residents was just under 27 years in 1970. In 1980 the median age was 29.5 years. The median age increased just over 30 years in 1980, to 36 years in 1990, and again to just over 41 years in the Year 2000.

Generations

The baby-boomer population, the population following WWII born between 1946 and 1964, has had an enormous impact on culture, lifestyle, and politics in the U.S. Baby-boomers, aged 35-54 in the year 2000 are the largest generation in the County. As the boomers grow older, they will, as they have in previous years impact the community in terms of housing, recreation, the economy, and transportation to unprecedented degrees.

Population by Generation, 2000		
	<u>Populations</u>	<u>%</u>
Baby Boomers (35-54)	49,126	31.0%
Shadow Boomers (15-34)	40,971	25.9%
Echo Boomers (0-14)	33,942	21.4%
Other Generations (55+)	34,383	21.7%
Total	158,422	100.0%

Source: U S Census

Age and Sex

Almost 52% of Norvell Township's population was male in the Year 2000 and more than 48% was female. Males comprise the majority of most of the 5-year age groups of the Township's population. However, almost 52% of the senior citizen population (e.g., residents 65 years of

age or older in the Year 2000) were women and more than 53% of the children aged 5 to 14 in the Year 2000 were girls.

Age and Sex of Population, 2000			
Age Group	Numbers of Persons		
	Male	Female	Total
0 to 4 years	92	64	156
5 to 9 years	85	106	191
10 to 14 years	101	106	207
15 to 19 years	112	86	198
20 to 24 years	71	49	120
25 to 29 years	56	67	123
30 to 34 years	87	89	176
35 to 39 years	117	115	232
40 to 44 years	153	123	276
45 to 49 years	134	127	261
50 to 54 years	122	108	230
55 to 59 years	111	94	205
60 to 64 years	79	72	151
65 to 69 years	69	69	138
70 to 74 years	58	65	123
75 to 79 years	41	38	79
80 to 84 years	15	18	33
85 to 89 years	6	12	18
90+ years	2	3	5
Total	1,511	1,411	2,922
Source: U. S. Census			

The age and sex composition of Jackson County, as shown in the graph "Age and Sex, Jackson County 2000" reflects the pattern that is typical for the State and Michigan counties in the southern Lower Peninsula. The number of males in the population for age cohorts between 0 and age 19 exceed the female population because of higher male birth rates. Similarly, because life expectancy for males is shorter than that of females, the number of females typically exceeds the number of males in the older age cohorts. One notable exception to what is "typical" in such analysis is the number of males in the age cohorts from age 20 through age 49, which are comprised, in part, from the inmate population in Michigan Department of Corrections facilities located in the County. The year 2000 Census identifies 7,064 persons residing these state prison correctional institutions in Jackson County.

Selected Health Concern – Overweight and Obesity Risk Factors

Many argue that "urban sprawl" has contributed to "waistline sprawl" in that it supports an automobile-friendly environment rather than an environment where other modes of active transport (walking, cycling, and other non-motorized vehicles) are encouraged.

The US Surgeon General has called for action to prevent and decrease overweight and obesity. The Health consequences of overweight and obesity have been labeled as "a public health issue that is among the most burdensome faced by the nation." This national health problem manifests itself in premature death and disability, high health care costs, loss of productivity, and

social stigmatization. According to the Surgeon General's call to action "To Prevent and Decrease Overweight and Obesity, 2001," there are many factors which cause overweight and obesity. "For each individual, body weight is determined by the combination of genetic, metabolic, behavioral, environmental, cultural, and social economic influences. Behavior and environmental factors rare large contributors to overweight and obesity and provide the greatest opportunity for actions and interventions designed for prevention and treatment."

The availability of data regarding overweight and obesity specific to the area of Jackson County is lacking. Data regarding obesity for the State of Michigan is available through the Behavioral Risk Factor Surveillance System (BRFSS, 2001). The data reveals that in 1991, 15.2% of the State's population was obese. At that time, Michigan's rate of obesity was tied for third highest in the Nation with the State of West Virginia. Only the states of Mississippi and Louisiana exceeded Michigan in the rate of obesity. In the Year 2001 Michigan's rate of obesity had climbed to 24.4%, the third highest state in the nation, following the states of Mississippi and West Virginia. Sixty-one percent of Michigan's population is either obese or overweight.

Actual Causes of Death in the United States, 2000.

The National Center for Chronic Disease Prevention and Health Promotion, an agency of the Center for Disease Control provides data on the actual causes of death in the United States for the Year 2000. The category "Poor Diet / Physical Inactivity" ranks second, in terms of the percentage of all deaths, at 16.6%, closely behind tobacco use at 18.1%.

Obesity Trends in the State of Michigan, 1991 to 2001	
<u>Year</u>	<u>% Obese</u>
1991	15.2
1995	17.7
1998	20.7
1999	22.1
2000	21.8
2001	24.4

Source: Behavioral Risk Factor Surveillance System, 2001

Actual Causes of Death, United States, 1990 & 2000		
<u>Cause</u>	<u>% Of Deaths</u>	
	<u>1990</u>	<u>2000</u>
Tobacco	19	18.1
Poor diet and physical inactivity	14	16.6
Alcohol Consumption	5	3.5
Microbial Agents	4	3.1
Toxic Agents	3	2.3
Motor Vehicles	1	1.8
Firearms	2	1.2
Sexual Behavior	1	0.8
Illicit Drug Use	<1	0.7

Source: National Center for Chronic Disease Prevention and Health Promotion

Factors Contributing to Unhealthy Weight

The report "Health Policy Options for Michigan Policy Makers: Promoting Healthy Weight in Michigan through Physical Activity and Nutrition" identifies factors which contribute to unhealthy

weight. While several factors contribute to this problem, the report identifies factors which are of particular relevance to community growth, development, and planning. The report notes:

“Physical and Social environmental barriers are present in Michigan that negatively affect physical activity and nutrition. Inadequate community infrastructure limits the ability to be active. These include lack of accessible indoor and outdoor exercise facilities, neighborhood sidewalks, walking paths, and bicycle trails. Additionally, inclement weather, lack of adequate recreational opportunities, and unattractive or unpleasant local environments may prevent people from exercising”

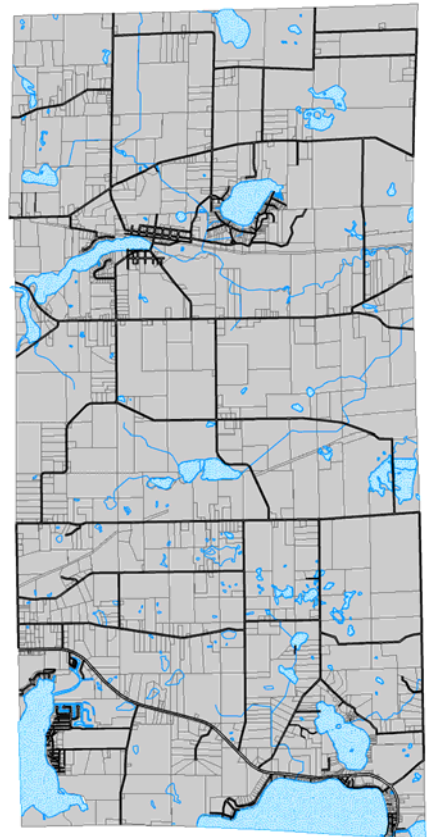
“Programs and policies are necessary to promote smart community growth and the establishment of urban and rural environments supportive of physical activity. Active community environments provide access to safe favorable conditions for physical activity and promote the development of social support networks that encourage activity”.¹

The report notes that various state departments, community planners, and community members should work together to promote active environments. The report also lists a series of policy recommendations, including the following specific recommendations relative to what the report labels “active community environments”.²

1. Develop walkable communities by widening and maintaining our building sidewalks, safe roadway crossings, and aesthetically pleasing areas.
2. Encourage bicycling by developing, maintaining, and promoting the use of bike paths.
3. Require all urban planning and re-design - incorporate the concepts of active community environments and there by promote physical activity.

¹ Kreulen Pg. 10

² Kreulen Pg. 18



Chapter 5
ECONOMY

The analysis of the local economy is critical to a successful comprehensive planning effort. It is the economy which results in the creation of jobs, and job creation results in population growth. An evaluation of the economy also provides an indication as to the quality of life of the population of a given area. High levels of employment and the creation of high-wage jobs mean more income and wealth for residents. Economic information is often reported at the county level. Due to this factor, much of the information reported below is for all of Jackson County.

Jackson County's economy has been supported historically by manufacturing jobs, especially those related to the automobile industry. With the County's proximity to Metropolitan Detroit and its associated automobile production, the County's manufacturing and machining capabilities tied the health of the economy to the health of the national economy. When the national economy was strong, Jackson's economy boomed. Consequently, in times of recession, when capital goods purchases declined, the impact was magnified locally. The County's economy throughout the twentieth century was continually subjected to wide fluctuations because of the lack of diversity in the local economy.

Labor Force and Employment

Jackson County's labor force averaged 79,900 workers in the Year 2000. In the thirty years since 1970, the population increased by less than 11% while the labor force increased by over 35%. Employment also increased significantly over this period. Employment increased by over 37% to 74,900 workers in the Year 2000. The unemployment rate continued to increase during the 1970s and 1980s to over 7% in 1990. The economic recovery during the 1990s then reduced the unemployment rate to just over 3% in the Year 2000.

Jackson County Labor Force Employment Information, 1970 to 2000				
<u>Year</u>	<u>Labor Force</u>	<u>Employment</u>	<u>Unemployment</u>	<u>Unemployed Rate</u>
1970	58,200	54,800	3,500	6.00%
1980	67,400	59,700	7,700	11.50%
1990	71,100	65,900	5,200	7.30%
2000	79,900	77,400	2,500	3.10%

Michigan Department of Labor and Economic Growth

Since the Year 2000, the average number of persons in the labor force has remained relatively stable. Employment on the other hand has declined from 77,400 in the Year 2000 to a low of 71,974 in 2003. During this three year period, the unemployment rate increased from just over 3% to just less than 8%. This change is reflective of the recession experienced both at the national and local levels during the period. Employment has increased during 2004 and 2005, decreasing the employment rate to less than 7%.

Labor Force, Employment, and Unemployment				
<u>Year</u>	<u>Labor Force</u>	<u>Employment</u>	<u>Unemployment</u>	<u>Unemployed Rate</u>
2001	79,846	75,698	4,148	5.2%
2002	78,257	73,111	5,146	6.6%
2003	78,149	71,974	6,175	7.9%
2004	79,260	73,273	5,987	7.6%
2005	79,889	74,684	5,205	6.5%

Michigan Department of Labor and Economic Growth

Sector Analysis

Data on total non-farm employment for Jackson County is available through the Michigan Department of Labor and Economic Growth. This data provides a breakdown between govern-

ment and private employment as well as goods producing and service providing employment. The 2000 US Census provides information on the various economic sectors employing Norvell Township residents including: construction and mining; manufacturing; trade, transportation, and utilities; information; financial; professional; health services; leisure and hospitality; other services; and government.

Private and Government Non-Farm Employment

Non-farm employment increased between 1990 and the Year 2000 and then decreased again in 2005. However, total non-farm employment did increase over 9% between 1990 and 2005, from 56,200 jobs to 61,500 jobs. The private sector accounted for 51,500 jobs in the Year 2000, comprising approximately 84% of total non-farm employment. Between 1990 and 2005 total private sector jobs increased by 5,300, more than a 9% increase. The number of government sector jobs decreased by less than 3% during the same time period.

Jackson County Non-Farm Employment, 1990 to 2005						
Category	1990	1995	2000	2005	Change	
					#	%
Total Non-Farm	56,200	60,000	65,100	61,500	5,300	9.4%
Total Private	45,900	50,100	54,900	51,500	5,600	12.2%
Government	10,300	9,900	10,100	10,000	-300	-2.9%

Michigan Department of Labor and Economic Growth

Goods Producing Versus Service Providing Employment

Comparison of goods producing jobs and service providing jobs reveals that in the Year 2000, 74% of total non-farm employment, 41,600 jobs, were in service providing industries. Goods producing industries supplied the balance of 15,800 jobs. In a trend evident nationally, the number of jobs in goods producing industries increased between 1990 and 2000, but at a rate much slower than jobs created in service providing industries. In Jackson County goods producing jobs increased by over 8% while jobs in service providing industries increased by over 18%. Goods producing jobs decreased between the Year 2000 and 2005, resulting in a net decrease of over 12% between 1990 and 2005. Service providing jobs also decreased, but at a much slower rate, resulting in a net increase of over 17% between 1990 and 2005. This contrast in job growth is indicative of the vulnerability of Jackson County's economy to economic fluctuation.

Jackson County Goods and Services Employment, 1990 to 2005						
Category	1990	1995	2000	2005	Change	
					#	%
Total Non-Farm	56,200	60,000	65,000	61,500	5,300	9.4%
Goods Producing	14,600	15,200	15,800	12,800	-1,800	-12.3%
Service Providing	41,600	44,800	49,200	48,700	7,100	17.1%

Michigan Department of Labor and Economic Growth

Sector Analysis – Goods Producing Industries

Within the goods producing industries between 1990 and the year 2000, construction and mining jobs increased 1,300 to a total of 3,100, an increase of 72%. Manufacturing employment remained the same at 12,800 over the ten-year period.

Since the year 2000, construction, mining and manufacturing jobs have declined by 3,400. Most of this loss, occurred in the manufacturing sector which lost 3,000 jobs between 2000 and 2003, a decline of 23.4%.

Employment by Industry

The manufacturing and construction sectors, goods producers, employed almost 43% of workers residing in Norvell Township in the Year 2000. Countywide, just over 24% of workers were employed in goods producing industries that year. The majority of those Township residents employed in goods producing industries had jobs in the manufacturing sector.

Service providers include a large assortment of employment sectors. The educational, health, and social services sector provided jobs for over 16% of employed Norvell Township residents. The professional, scientific, management, administrative, and waste management services sector employed over 8% of the workers living in the Township. Retail trade employed over 7% of the Township workforce. The arts, entertainment, recreation, accommodation and food services sector employed over 6% of the workers living in the Township. Each of the remaining service sectors accounted for the employment of less than 5% of the Township workforce.

Farming is not a major source of employment for Norvell Township workers. Less than 1% of the Township workforce was employed in the agriculture, forestry, fishing and hunting, and mining sector in the Year 2000. This trend follows the Township's lack of prime farmland.

Norvell Township Employment by Industry, 2000		
	Change	
	#	%
Agriculture, forestry, fishing & hunting, & mining	10	0.75%
Construction	134	9.99%
Manufacturing	441	32.89%
Wholesale trade	26	1.94%
Retail trade	100	7.46%
Transportation & warehousing, & utilities	48	3.58%
Information	37	2.76%
Finance, insurance, real estate, & rental and leasing	21	1.57%
Professional, scientific, management, administrative, & waste management services	109	8.13%
Educational, health and social services	215	16.03%
Arts, entertainment, recreation, accommodation & food services	82	6.11%
Other services (except public administration)	66	4.92%
Public administration	52	3.88%
	1,341	100.00%
<i>US Bureau of the Census</i>		

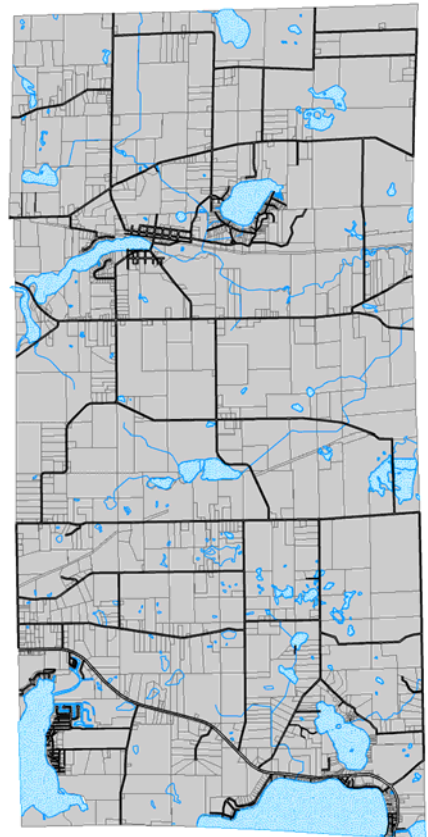
Industry Employment Forecast 2000-2012

The Michigan Department of Labor and Economic Growth provided a 2012 industry employment forecast for the area of Hillsdale, Jackson, and Lenawee Counties. The forecast projects total wage and salary employment to increase by approximately 10% between 2002 and 2012 in the tri-county area. Goods producing industries are expected to see an increase in employment of less than 4% while service providing industries are anticipated to increase employment by approximately 12%.

The forecast indicates that the majority of job growth within goods producing industries will occur in the construction sector, which is projected to grow by almost 21%, and specialty trade contractors are expected to enjoy an employment increase of almost 25%. Employment in the manufacturing sector is only anticipated to increase by less than 1%.

Hillsdale, Jackson, & Lenawee County Employment Forecast, 2002-2012			
	<u>2002</u>	<u>2012</u>	<u>Change</u>
Total, Wage and Salary Employment	111,040	122,000	9.9%
Goods Producing Industries	29,150	30,200	3.6%
Natural Resources and Mining	150	150	2.0%
Construction	4,710	5,680	20.6%
Manufacturing	24,290	24,370	0.3%
Durable goods	20,350	20,420	0.3%
Non-Durable Goods	3,940	3,950	0.3%
Service Providing Industries	81,890	91,790	12.1%
Wholesale Trade	2,640	2,970	12.6%
Retail Trade	15,230	16,250	6.4%
Transportation, Warehousing and Utilities	4,590	4,750	3.5%
Information	990	990	-0.4%
Finance and Insurance	3,390	3,750	10.6%
Real Estate and Rental and Leasing	800	850	5.2%
Professional and Business Services	8,120	10,650	31.2%
Education and Health Services	23,700	27,170	14.7%
Leisure and Hospitality	9,560	10,490	9.7%
Other Services	4,740	5,460	15.1%
Government	8,130	8,480	4.3%
<i>Michigan Department of Labor and Economic Growth</i>			

Healthy growth is projected for employment within service providing industries. Employment in professional and business services is anticipated to increase approximately 31% by 2012. Jobs in the other services; education and health services; wholesale trade; finance and insurance; and leisure and hospitality sectors are projected to grow between approximately 10% and 15%. Only the Information sector has a projected decrease.



Chapter 6
LAND USE

Existing Land Use

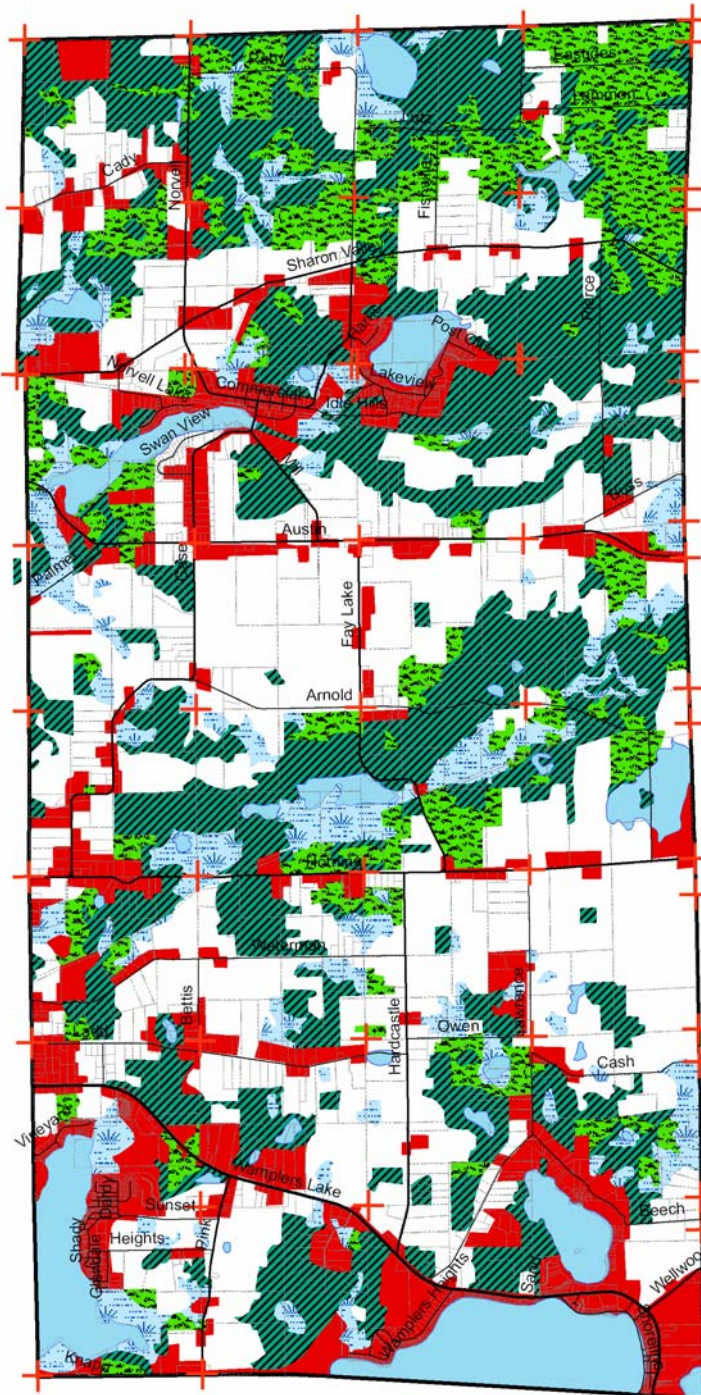
Information on the land cover of Norvell Township is available for 1998. This information was collected as a part of the former Michigan Information Resource Inventory System (MIRIS) and updated by the Center for Remote Sensing at Michigan State University. Norvell Township contains 20,590 acres or 32 square miles.

The survey indicates that 35% of Norvell Township was used for agriculture in 1998. Forests cover 25% of the Township and rangeland covered another 11%. These categories of land use, which can be interpreted as land devoted to agriculture and open space, comprised 23 square miles. Wetlands occupied 8% of the Township and lakes covered another 7%. Wetlands and other bodies of water, which taken together covered 5 square miles, can also be considered as another category of open space. The balance of Township land consisted of urban and "built-up" lands. These lands occupied 4 square miles, or 14% of Township land. In short, Norvell Township is comprised of a rich mixture of land uses with cropland and pasture, and substantial areas of forest, wetlands, and lakes (please see Map 8, *1998 Existing Land Cover*).

Total Land Cover, 1998			
	<u>Area</u> <u>(Acres)</u>	<u>Area</u> <u>(sq. mi)</u>	<u>% of</u> <u>County</u>
Agricultural land	7,263	11.3	35.28%
Forest Land	5,237	8.2	25.43%
Urban and Built-Up	2,821	4.4	13.70%
Rangeland	2,201	3.4	10.69%
Wetlands	1,606	2.5	7.80%
Water	1,462	2.3	7.10%
Total area of county	20,590	32.2	100.00%
<i>Source: Michigan Resource Information System</i>			

The survey also indicates that 4½ square miles of Norvell Township were "built-up." Land used for air transportation, open pit mining, and recreation covered 14% of the "built-up" portion of the Township, approximately ¾ of a square mile. Residences account for the majority of "built-up" land within the Township, approximately 3¾ square miles. As noted in Chapter 4, *Demographics*, and Chapter 7, *Housing*, much of the residential development within Norvell Township over the past three decades is dispersed along County roads in rural areas (please see Map 9, *1998 Urban and Built-Up Areas*).

Urban and Built-Up Lands, 1998			
	<u>Area</u> <u>(Acres)</u>	<u>Area</u> <u>(sq. mi)</u>	<u>% of</u> <u>County</u>
Residential	2,427	3.79	86.05%
Recreation	166	0.26	5.88%
Open Pit Mines	137	0.21	4.86%
Air Transportation	91	0.14	3.21%
Built-Up Areas	2,821	4.41	100.00%
<i>Source: Michigan Resource Information System</i>			



Norvell Township Comprehensive Plan

Map 8 1998 Existing Land Cover

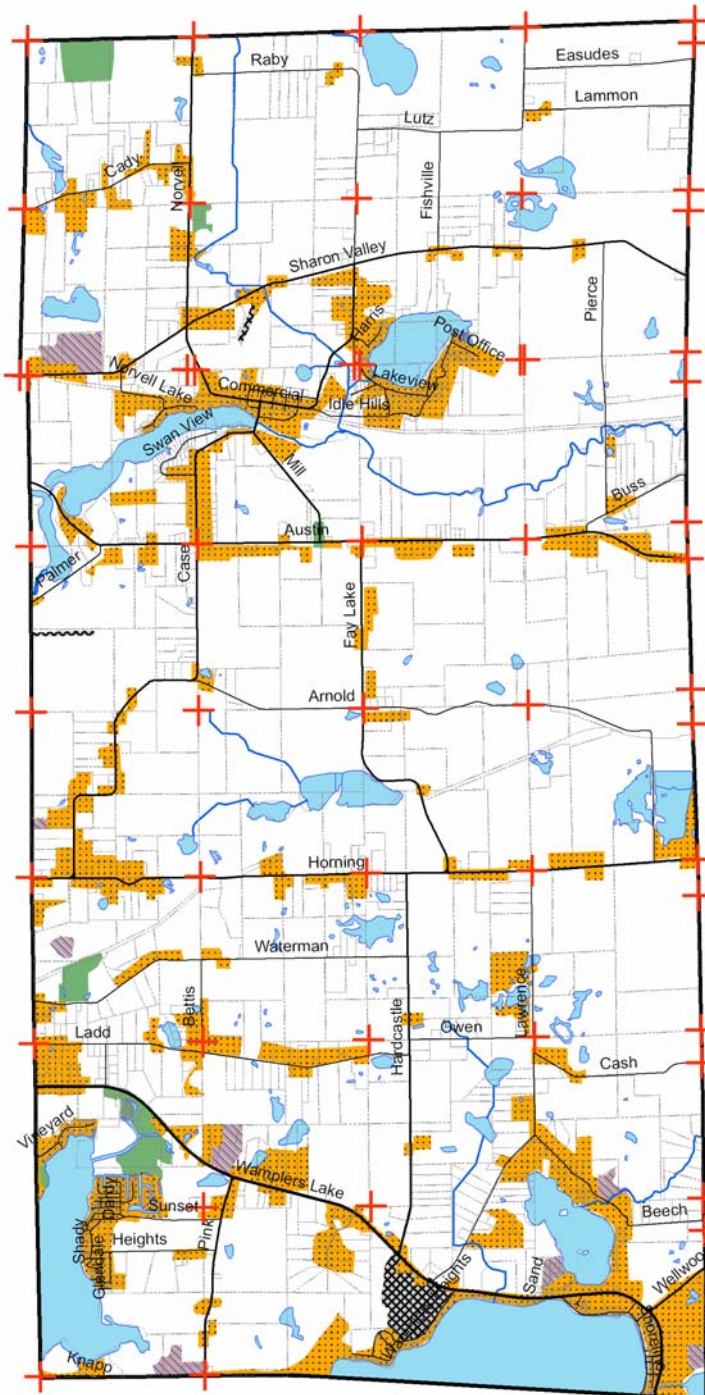
Legend

- Urban and Built Up
- Forest Land
- Rangeland
- Agricultural Land
- Wetlands

Source:
Michigan Department
of Natural Resources
MIRIS (Michigan Resource
Information System)

0 0.2 0.4 0.8 1.2 Miles





Norvell Township Comprehensive Plan

Map 9 1998 Built- Up Areas

Legend

- Recreation
- Residential
- Open Pit Mining
- Air Transportation

Source:
Michigan Department
of Natural Resources
MIRIS (Michigan Resource
Information System)

0 0.2 0.4 0.8 1.2 Miles



Trends in Agricultural Land Use

Information on agriculture is not available for Norvell Township. However, the United States Census of Agriculture provides data at the county level. The Census is taken on the second and seventh year of each decade. This plan includes data for the twenty-year period between 1982 and 2002. The Census of Agriculture is updated every five years on the second and seventh years of each decade.

Number of Farms

The Census notes a decline in the number of farms over the first fifteen years of the twenty-year period. There was more than a 20% decline in the number of farms in the County between 1982 and 1997. However, the number of farms increased between 1997 and 2002 by over 28% providing a net increase of 23 farms between 1982 and 2002.

Number of Farms, 1982 to 2002			
<u>Year</u>	<u># of Farms</u>	<u># Change</u>	<u>% Change</u>
1982	1,242		
1987	1,103	-139	-11.19%
1992	1,041	-62	-5.62%
1997	987	-54	-5.19%
2002	1,265	278	28.17%

Source: U. S. Census of Agriculture

Land in Farms

There was a corresponding decrease in farm acreage over the first fifteen years of the twenty-year period. The amount of land in farms declined 23% between 1982 and 1997. Although the amount of land in farms increased by almost 7% between 1997 and 2002 there was still a net decrease of 42,173 acres of agricultural land between 1982 and 2002.

Land in Farms, 1982 to 2002			
<u>Year</u>	<u>Land in Farms (Acres)</u>	<u>Change (Acres)</u>	<u>% Change</u>
1982	235,184.00		
1987	218,375.00	-16,809	-7.15%
1992	210,638.00	-7,737	-3.54%
1997	181,287.00	-29,351	-13.93%
2002	193,011.00	11,724	6.47%

Source: U. S. Census of Agriculture

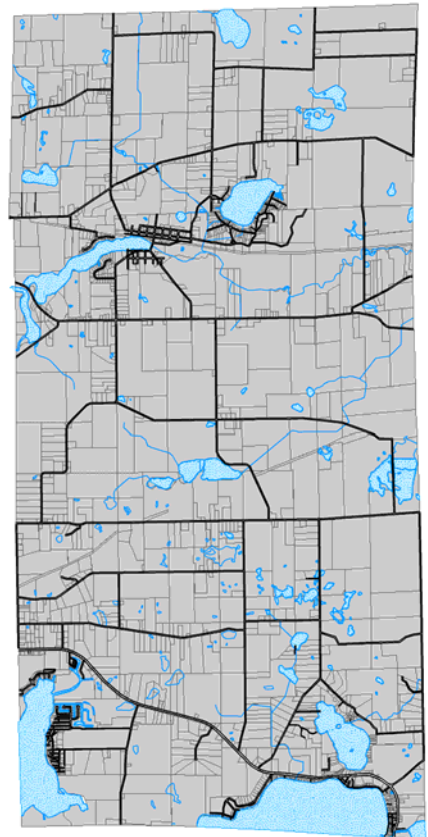
The decline in the number of acres used for agricultural purposes is significant for the following reasons:

1. It is likely tat the decline in the amount of agricultural lands over the twenty-year period is substantially due to the sale of farmland for urbanization; specifically the development of single-family homes in agricultural areas.
2. Once converted to other uses, the likelihood and ease of retrieving land for agricultural purposes becomes very difficult.
3. The decline in agricultural land results in a decline in agricultural production.
4. The use of the land for agriculture creates open space and maintains rural character. The decline of lands used for farming results in a loss of rural character. Rural character is one of the primary motivating factors in large-lot residential development in rural areas.

Average Farm Size

The Census of Agriculture also provides data on average farm size. A trend appeared to be emerging during the first ten years of the twenty-year period when the average size of farms increased by almost 7% between 1982 and 1992. However, average farm size declined by 49 acres between 1992 and 2002.

Average Farm Size 1982 to 2002			
<u>Year</u>	<u>Average Farm Size (Acres)</u>	<u>Change (Acres)</u>	<u>% Change</u>
1982	189		
1987	198	9	4.76%
1992	202	4	2.02%
1997	184	-18	-8.91%
2002	153	-31	-16.85%
Source: U. S. Census of Agriculture			



Chapter 7
HOUSING

Only 16 of Norvell Township's residents lived in group quarters while 2,906 lived in dwellings in the Year 2000. Housing characteristics such as the number of dwelling units, the types of dwelling units, occupancy and vacancy rates, and the age of housing are important in the planning process. The analysis of this data helps to determine governmental actions which may be necessary to promote growth at greater densities, determine the need for affordable housing, and establish appropriate levels of housing rehabilitation.

Housing Occupancy

Norvell Township contained 1,568 housing units in the Year 2000 which is a 17% increase over the 970 housing units that existed in 1990. Over 72% of the housing units were occupied in the Year 2000 as opposed to less than 67% in 1990.

Housing Occupancy, 1990 and 2000				
	<u>1990</u>	<u>2000</u>	<u>Change</u>	<u>% Change</u>
Occupied Units	970	1,135	165	17.01%
Vacant Units	488	433	-55	-11.27%
Total Units	1,458	1,568	110	7.54%

Source: U. S. Census

Vacancy and Vacancy Rates

The US Census provides additional information on housing vacancy. Approximately 89% of the 433 vacant homes identified in the Year 2000 were actually vacation homes compared to approximately 95% of the 488 vacant homes identified in 1990. Less than 8% of the vacant homes identified in the Year 2000 were up for sale or rent or otherwise unused compared to approximately 3% of the vacant homes identified in 1990.

Housing Vacancy, 1990 and 2000						
<u>Year</u>	<u>Total</u>	<u>For Sale</u>	<u>For Rent</u>	<u>Unused</u>	<u>Seasonal</u>	<u>Other</u>
1990	488	12	0	2	464	10
2000	433	15	11	6	386	15

Source: U. S. Census

Housing Tenure

An analysis of housing tenure, or owner-occupied vs. renter-occupied housing, provides a quality-of-life measurement for households as well as a measurement of the quality of the community. This is held to be true because higher levels of home-ownership are generally associated with property investment and neighborhood quality. Almost 93% of Norvell Township's occupied housing units were owner-occupied in the Year 2000 as compared to less than 90% in 1990. Only 87% of all occupied housing units in rural townships countywide were owner-occupied in the Year 2000.

Housing Tenure (Ownership), 1990 and 2000					
<u>Year</u>	<u>Total</u>	<u>Owner</u>	<u>%</u>	<u>Renter</u>	<u>%</u>
1990	970	868	89.48%	102	10.52%
2000	1,135	1,052	92.69%	83	7.31%

Source: U. S. Census

Number and Types of Housing Units

According to the 2000 Census Norvell Township contained 1,577 dwelling units which can be divided into six categories of housing. Over 86% of the housing units were single-family detached homes and almost 11% were mobile homes. Taken together, multiple-family units, du-

plexes, and single-family attached homes comprised the remaining 3% of the Township's housing units.

Types of Dwelling Units		
	<u>Number</u>	<u>% Change</u>
Single-Family Detached	1,360	86.24%
Single-Family Attached	14	0.89%
Duplex	18	1.14%
Multiple Family	16	1.01%
Mobile Homes	169	10.72%
Other	0	0.00%
Total Units	1,577	100.00%

Source: U. S. Census

The number of housing units within Norvell Township increased 7% during the 1990s compared to almost 16% of all rural townships countywide. Single-family detached homes grew by almost 12% in Norvell Township during that decade. The number of multiple-family housing doubled to 16 units and a new duplex was also built. However, the mobile home stock within the Township decreased by 31 units, single-family attached homes decreased by 6 units, and the other forms of housing ceased to exist.

Dwelling Units by Type				
	<u>1990</u>	<u>2000</u>	<u># Change</u>	<u>% Change</u>
Single-Family Detached	1,220	1,360	140	11.48%
Single-Family Attached	20	14	-6	-30.00%
Duplex	16	18	2	12.50%
Multiple Family	8	16	8	100.00%
Mobile Homes	200	169	-31	-15.50%
Other	9	0	-9	-100.00%
Total Units	1,473	1,577	104	7.06%

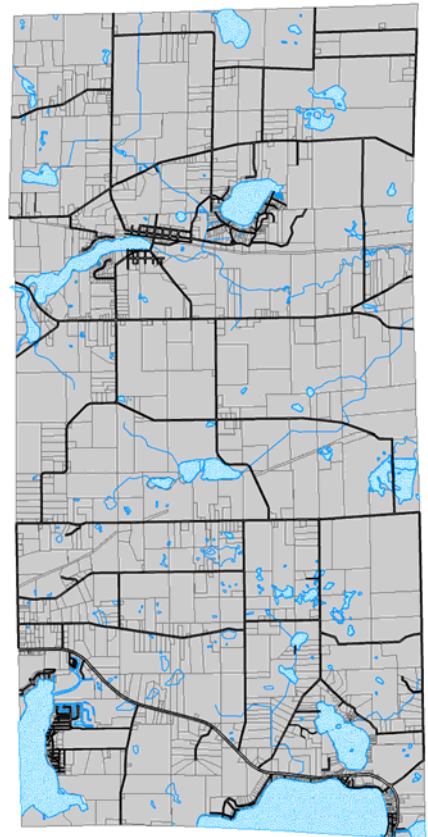
Source: U. S. Census

Housing Quality

An indicator of housing structural condition is the age of the housing unit. The US Census provides data for structures built prior to 1939, between 1940 and 1959 and for each decade since 1960. As a housing unit ages maintenance requirements increase and structural problems may emerge. Almost 22% of Norvell Township's housing units were constructed prior to 1939 and another 22% were built between 1940 and 1959.

Age of Housing		
<u>Year</u>	<u>#</u>	<u>%</u>
1999 to March 2000	26	1.65%
1995 to 1998	89	5.64%
1990 to 1994	108	6.85%
1980 to 1989	216	13.70%
1970 to 1979	227	14.39%
1960 to 1969	216	13.70%
1940 to 1959	349	22.13%
1939 or earlier	346	21.94%
Total Units	1,577	100.00%

Source: U. S. Census



Chapter 8
TRANSPORTATION

Transportation Planning

Road improvements, beyond those which could be considered routine maintenance, and other than those on roads or streets that could be considered local roads, are generally funded in part with federal funds. The application of federal funds to road improvements in Jackson County is governed by the Jackson Area Comprehensive Transportation Study (JACTS). JACTS prepares a long-range transportation plan and also short-term implementation plans known as Transportation Improvement Programs which govern the allocation of federal funding on an annual basis. The JACTS Policy Committee adopts the long-range plan which is then approved by the Region 2 Planning Commission acting as the Metropolitan Planning Organization for the Jackson urban area.

In September 2001, the JACTS Policy Committee and the Region 2 Planning Commission approved the Jackson Area Comprehensive Transportation Study 2025 Long-Range Transportation Plan. The long-range transportation plan includes eight goals. Those goals and objectives which have been developed to implement them are as follows:

GOAL ONE: SAFETY

The design, construction, and operation of the transportation system should be in accordance with accepted safety standards.

Objectives

- a. The transportation system should minimize traffic crashes and the severity of casualties from crashes.
- b. Standard traffic control devices in the transportation system should be used to increase efficiency and safety.
- c. The transportation system should minimize rail/auto/transit conflicts.
- d. The transportation system should minimize motorized/non-motorized conflicts.
- e. The transportation system should maximize the safety and security of its patrons.
- f. Safety management systems should be encouraged at all levels of local government in the Jackson area.

GOAL TWO: ACCESSIBILITY

The transportation system should be accessible to all persons.

Objectives

- a. The transportation system should minimize barriers which disadvantage mobility-limited persons, senior citizens, and persons who do not have automobiles available.
- b. The transportation system should provide appropriate access to and from major land uses and activity centers.

GOAL THREE: COMMUNITY IMPACT

The transportation system should maximize positive impacts and minimize disruption of existing and anticipated land uses within the community.

Objectives

- a. The transportation system should minimize interference with existing households and disruption of neighborhoods.

- b. Improvements to the transportation system should minimize negative effects on commercial and industrial facilities as well as recreational, cultural, religious, and educational activities.
- c. Historic sites and districts should be preserved and impacted minimally.
- d. Prime agricultural resources and open spaces should be conserved.

GOAL FOUR: COMPREHENSIVE PLANNING

Transportation planning and the system it designs should be comprehensive and coordinated with other planning activities.

Objectives

- a. The development of transportation services should be consistent with regional and local land use plans; water quality management plans; housing plans; and recreation/open space plans.
- b. The transportation system should be multi-modal in character and should provide a smooth interface among different modes.
- c. The transportation system should coordinate local planned use development with the preservation of current and future right-of-way and transportation system improvements.

GOAL FIVE: ECONOMIC AND FINANCIAL CONSTRAINTS

The transportation system should reflect the ability to finance such a system, to best allocate resources, and to become an economic asset to the metropolitan area.

Objectives

- a. Transportation improvements should be cost-effective and should maximize the long-term benefits by considering the overall life cycle costs.
- b. Transportation improvements, for all modes, should minimize capital and operating costs.
- c. The scale and character of transportation improvements should be consistent with the ability to finance such improvements.
- d. Transportation system investments from the private sector should be encouraged.
- e. The transportation system should encourage employment retention, attraction, and expansion in Jackson County.

GOAL SIX: EFFICIENCY

The existing transportation system should be configured and utilized in the most efficient manner possible.

Objectives

- a. Transportation projects which reduce distance and time spent traveling should be promoted.
- b. On-road operating efficiency should be improved through the use of transportation management techniques where possible.
- c. The existing transportation infrastructure system should be preserved and maintained.
- d. Increasing vehicle occupancy for all motorized modes should be encouraged.
- e. The movement of goods should be coordinated for maximum efficiency.
- f. The movement of persons should be coordinated for maximum efficiency.
- g. The transportation system should encourage the multiple use of transportation rights-of-way by different modes, including pedestrian and non-motorized.

GOAL SEVEN: ENVIRONMENTAL IMPACTS

The transportation system should maintain and improve the quality of the environment.

Objectives

- a. Air pollutant emissions and concentrations should be minimized.
- b. The transportation system should minimize the energy resources consumed for transportation.
- c. The use of alternative fuels by all transportation modes should be encouraged.
- d. Transportation projects should minimize disruption to wetlands and natural habitats.
- e. The transportation system should maximize the quality and minimize the quantity of run-off.
- f. Noise emissions and concentrations should be minimized.

GOAL EIGHT: MOBILITY

The transportation system should allow people and goods to arrive at their destinations in a timely manner.

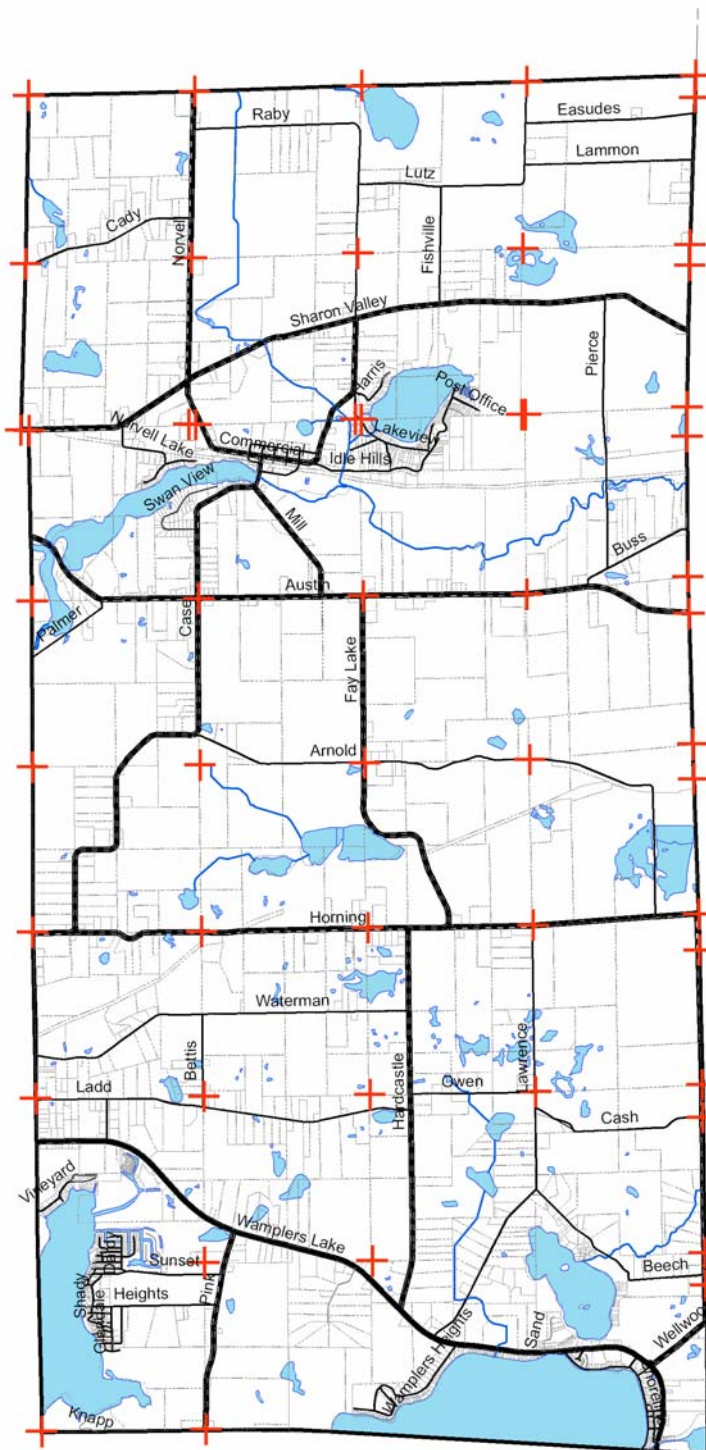
Objectives

- a. The transportation system should encourage employment retention, attraction, and expansion in Jackson County.
- b. The transportation system should provide mobility to all persons. Special consideration should be given to the development of transportation services that provide opportunities for persons who currently have limited mobility.
- c. The transportation system and providers should encourage the use of public transportation and ridesharing.
- d. Techniques aimed at encouraging multiple-occupant vehicle use and spreading travel demand to non-critical times of the day should be actively pursued.
- e. The transportation system should provide continuous service across large portions of the county and needed capacity while providing access to land area.
- f. The transportation system should be designed to operate at the highest level-of-service which can reasonably be provided.
- g. The transportation system should improve economic productivity and competitiveness.

Existing Transportation System

Land use and transportation are intimately related. Each affects the other, and planning for both are necessary if problems are to be avoided in either land use, or the movement of goods and people.

Jackson County's transportation system consists of a network of streets and roads which serve vehicular traffic, transit services provided through the City of Jackson Transportation Authority, a system of non-motorized pedestrian and bicycling routes, rail passenger and freight service, and air transportation service through the Jackson County Airport - Reynolds Field, a general aviation airport. The most important transportation system within Jackson County is its system of roads and highways. This system is necessary to move goods, products, and people into, out of, and within the County. Roads, highways, and streets are provided by the federal government, the State of Michigan Department of Transportation, the Jackson County Road Commission, and the cities and villages within Jackson County. Norvell Township is served exclusively through the street and road network.



Norvell Township Comprehensive Plan

Map 10 Transportation Routes

Legend

- Arterial Roads
- - - Collector Roads
- Local Roads

Source:
The Center for
Geographic Information
State of Michigan

0 0.25 0.5 1 1.5 Miles



Roads serve a variety of functions depending on whether they are intended to move traffic or to provide access to abutting property.

Federal and state roads (freeways and other major highways) are funded primarily by the federal and state government. In Jackson County, these roads include I-94, US-127, M-50, M-99, and M-106 as well as M-124. Federal and state funds may also be used on roads under the jurisdiction of the County Road Commission though the funding proportion from those sources is continually less than roads which are designated as federal or state highways. Local streets, collectors, and arterials in townships are the responsibility of the Jackson County Road Commission which makes the decisions regarding the construction and improvement of those facilities.

State and Federal Road and Highway System

Jackson County is well positioned on the freeway network which links Michigan and the Midwest to other areas of the United States. I-94 runs east and west through the County and is a North American Free Trade Act (NAFTA) route which affords access from the United States to Canada and Mexico. The Jackson Urban Area is positioned between Detroit, located 73 miles to the east, and Chicago, located 205 miles to the west. US-127 provides connection to Lansing to the north and continues south into Ohio. M-50 provides a southeastern connection to Monroe and a northwest connection to Grand Rapids. M-60 extends southwest to the South Bend area.

An important correlation exists between land use and transportation. As noted in the 2025 Long-Range Transportation Plan, "an examination of existing land use trends emphasizes the relationship between land use and transportation and directs planning toward achieving a suitable match between travel needs generated by activity systems and transportation system capacity. In a time of limited financial resources, improvements in traffic flow can be considered to promote development of adjacent land uses and higher intensity developments. There can be no doubt that historically transportation has exerted a major influence on urban form. Transportation improvements alter accessibility and thereby land development, or redevelopment, potential. Disbursing funds for transportation improvements not only benefits traffic flow but has been important in driving economic development by improving accessibility to land." ¹

The Need For New Roads

In addition to the work performed by the Jackson Area Comprehensive Transportation Study and its long-range plan, the Community Planning Committee conducted a review of local road movement needs to determine if additional road construction is necessary. As a result of this process, which included a survey the townships within Jackson County, several transportation deficiencies were identified, including the following which concerns Norvell Township:

A need has been identified for improved traffic flow at Michigan International Speedway on race weekends, and for better access between the Norvell Village Area and U.S. 12 to the south in Lenawee County. North/south traffic movements in this area of Jackson County are hampered by Vineyard Lake and Wamplers Lake as well as numerous other lakes and wetlands. As proposed, it may be possible to make use of Pink Street, Bettis Road, and Case Road.

Further study is needed in consideration for this route. Cost benefit analyses are recommended. In addition, further study is necessary to determine sources of funding. While some federal or state money may be available local governmental contributions will be necessary. Those contributions could be substantial.

¹ R2PC, 2025 Long-Range Transportation Plan. Pg. 20.

County Roads and Streets

The Road Commission assesses data on county roads and streets to determine construction, improvement, and maintenance needs. Townships continue to grow in population and travel demands are increasing on county roads. As a result the Road Commission must constantly assess the need for new roads and the widening of existing roads as routes become laden with higher volumes of traffic. The Road Commission also maintains a program to monitor the condition of roads and conduct maintenance activities as necessary. Local township roads that serve residential properties within subdivisions and site condominium developments are constructed by local developers and then dedicated for public use to the County Road Commission for maintenance and snow removal.

Inter-City Rail Service

Rail lines within Jackson County extend from east to west, and include one line running north from the City of Jackson to the northern part of the state. Rail lines within the County are owned and operated by Norfolk Southern Corporation. Norfolk Southern uses these lines for the transportation of freight.

Amtrak passenger service includes a station in the City of Jackson. Amtrak trains depart daily for Detroit and Chicago. The station is significant in that it offers Jackson County residents an alternative means of travel. The station is also significant in that it is an historic structure. Discussions at the state level have hinted of possibility of establishing the rail lines through Jackson as a high-speed rail corridor. Should the high-speed rail corridor be developed, access to the corridor from the Jackson station will become even more significant as a means of travel for Jackson County residents.

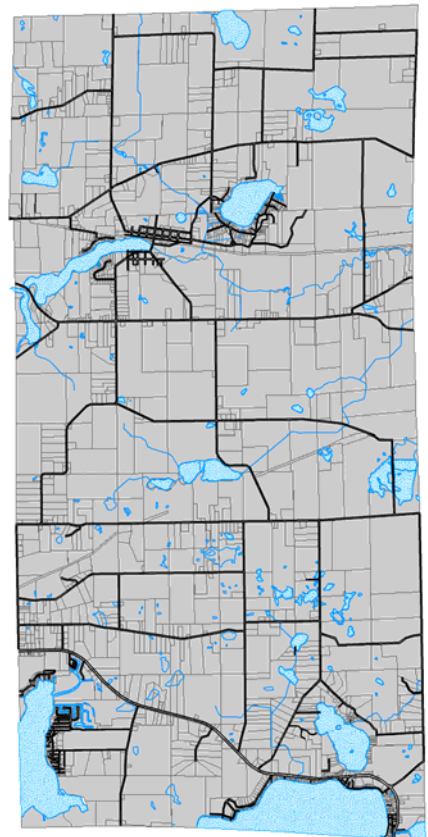
Air Transportation Services

Air transportation services are available at the Jackson County Airport - Reynolds Field. Though no major carrier currently offers service through the airport, charter services are available. The airport also serves local businesses and industries.

The airport includes two runways measuring 4,344 feet and 3,501 feet, respectively. Services available include general aviation, hanger rental, aircraft rental, aircraft chartering and sales, fuel and gas sales, aircraft maintenance and repair, flight instruction, auto rental and a restaurant. Modifications to the airport are currently underway and a runway realignment estimated to cost \$18 million is proposed. An airport industrial park is also under consideration.

Pedestrian and Non-Motorized Transportation

Considerable attention has been given recently to pedestrian and non-motorized transportation within Jackson County. Efforts have been initiated to work with the State in the acquisition and development of railroad rights-of-way as trails. Funding through the Michigan Natural Resources Trust Fund was awarded for the extension of the Falling Waters Trail from Weatherwax Drive west to Concord. The extension of this trail in a northeasterly direction to connect with the Jackson-Lakeland Trail has also been prepared. These plans may be found in the "Jackson County Regional Trailways Study, 2002" as well as the "Heart of the Lakes Area Recreation Plan."



Chapter 9
**WATER, SEWER &
FIRE PROTECTION**

Municipal water and sewer systems, fire and police protection and schools both define and are defined by growth. As areas are developed infrastructure is necessary to support the development. The construction and improvement of municipal systems, especially sewer systems, offers the potential for increases in density and intensity of land use. As such municipal sewer and water systems are significant in terms of their impact on land use.

Water Supply

Census information on the sources of water was not available for the Year 2000. Data from the 1990 Census are used because of that omission. Municipal water service was not available to Norvell Township households in 1990 nor is it currently available. However, over 100 housing units were apparently had access to a private water service in 1990. Less than 1% of dwellings were served by a source of water other than a well or a private service. Most homes were served by a well.

Sources of Water, 1990		
	#	%
Public System or Private Company	111	7.54%
Individual Drilled Well	1,289	87.51%
Individual Dug Well	64	4.34%
Some Other Source	9	0.61%
Total	1,473	100.00%

Source: U. S. Census

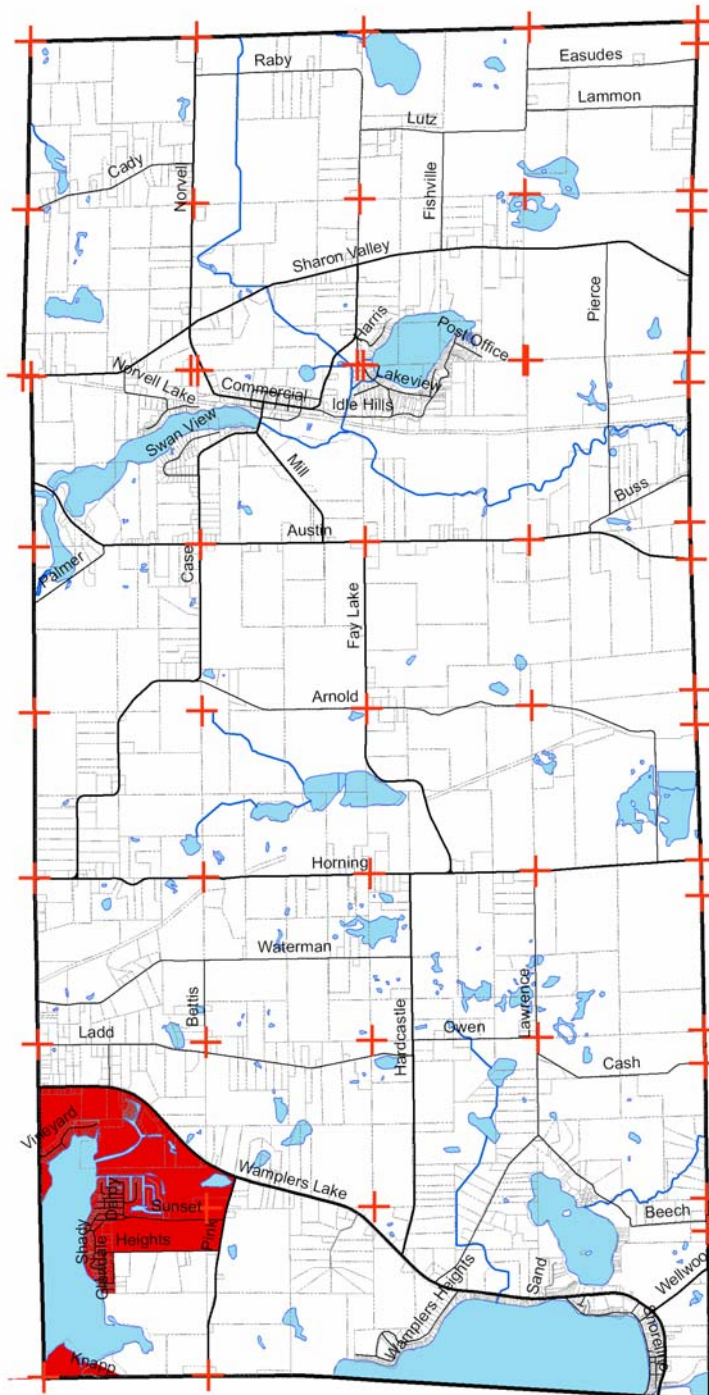
Few areas of Jackson County do not offer good quality water source for individual residential wells. A potential problem with ground water sources in Southern Lower Michigan is the presence of nitrates which in large amounts can cause illnesses in infants. Sources of nitrates include waste from livestock operations, septic tank/drain field effluent, crop and lawn fertilizer, and the occurrence of natural geologic nitrogen. Shallow wells and sandy unconfined aquifers are particularly susceptible to nitrates in excess of the US Environmental Protection Agency's maximum contaminant level of 10 milligrams per liter. Water well testing through the Jackson County Health Department offers homeowners a means of determining the quality of their well water for domestic use for this and other possible contaminants. Over 4% of Norvell Township dwellings were served by dug wells, which are likely to be relatively shallow.

Sewage Disposal

Census information on sewage disposal was not available for the Year 2000. Data from the 1990 Census are used because of that omission. Municipal sewers are currently available around portions of Norvell Lake and over 100 households had municipal sewer in 1990. Less than 2% of dwellings were served by a source of sewage disposal other than a septic tank, cesspool, or public sewer. Most homes were served by a septic tank or cesspool.

Sewage Disposal		
	#	%
Public Sewer	106	7.20%
Septic Tank or Cesspool	1,346	91.38%
Some Other Source	21	1.43%
Total	1,473	100.00%

Source: U. S. Census



Norvell Township Comprehensive Plan

Map 11 Existing and Proposed Municipal Sewer Service Areas

 Sewer Service Area

Source:
OMM Engineering, Inc.

0 0.25 0.5 1 1.5 Miles

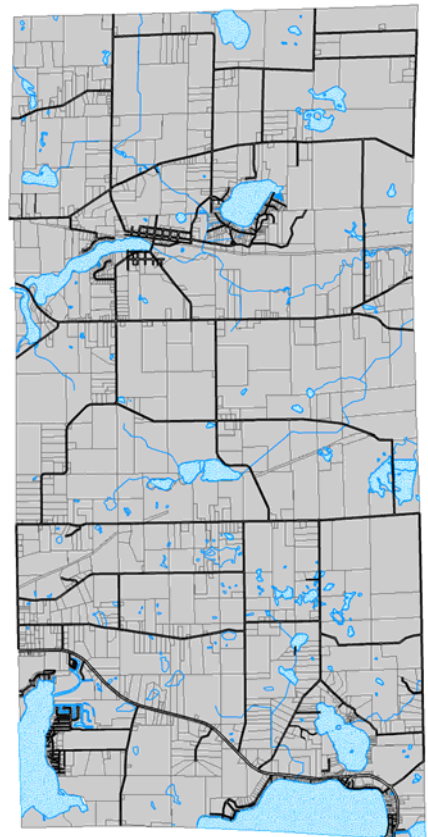


Fire Protection

Fire Protection is a major expense for local units of government. It is particularly expensive in urban and urbanizing areas where full-time fire fighters are necessary. Equipment is expensive, and necessary; new technology has resulted in the development of equipment which has potential to save lives.

Local units of government within Jackson County have assumed the responsibility for providing fire protection services to their citizens. Some local units of government, particularly townships and villages in rural areas have consolidated services so that a department may serve a village and its surrounding township area. Often departments serve two townships. In some cases, townships are served by departments located outside their borders on a contractual basis.

Due to the location of municipal boundary lines, it is difficult for local units of government to obtain complete efficiency with the placement of fire stations completely within their boundaries. It may be possible to realize cost savings through service area agreements between local units of government. These agreements would allow the departments of one local unit of government to make fire runs into a second unit of government where the station within the first unit of government is capable of responding in a timelier manner to stations located within the second unit of government.



Chapter 10
**ISSUES, GOALS POLICIES
AND ACTIONS**

The purpose of this Plan is to establish policies to guide the future growth and development of Norvell Township in concert with the rest of Jackson Community. The following is an identification of land use issues, and the goals and policies to address them. These issues, though numbered for the purposes of identification, are not presented in any particular priority order.

1. Create a Walkable Community

The automobile is firmly embedded in our culture. It offers a measure of freedom and yet also limits the freedom of movement both for the younger and older segments of our population as well as our citizens generally through traffic congestion. The automobile allows us freedom to work in distant places and live in rural areas, but also requires an expansive network of roads and highways to get us there.

Considerable attention has been focused recently on the health of our citizens. The physical inactivity and obesity of many of our citizens has been defined by health professionals as a serious threat to community health and well-being. While it is acknowledged that every citizen is free to make individual choices regarding means and mode of transportation there is a need to insure that our communities are walkable. Indeed, within the concept of community social contact and interaction, the sense of human scale, and community identity are elemental.

Goal: Development decisions and ultimately the shape and form of Norvell Township shall offer the opportunity for employment, commerce, recreation, and social interaction within community centers and neighborhoods which are walkable.

Policies and Actions

1. Within defined subdivisions and site condominium projects development should be promoted which is compact and which fosters higher densities.
2. Sidewalks should be encouraged to be provided in subdivisions and site condominium projects as well as commercial areas.
3. Pedestrian networks are encouraged to be developed which link subdivisions, site condominium projects, recreational areas; and commercial areas as well as connected to a system of regional pedestrian and bicycle trails.
4. Parking shall be encouraged to be located in areas that do not impede pedestrian travel.
5. Commercial zoning districts should be reviewed to promote commercial uses which thrive on pedestrian traffic to be grouped together and to assure that commercial uses which are oriented toward vehicular traffic are established as permitted uses in separate commercial zoning districts. Small commercial areas which offer goods and services to neighborhood areas should be encouraged.
6. The Township's pattern of residential distribution should be reviewed and an attempt should be made to promote and strengthen subdivisions and condominium projects which offer parks and neighborhood commercial areas within walking distance.
7. The Heart of the Lakes Recreation Plan calls for the construction of recreational trails. In addition, the Jackson County Trailways Plan recommends several additional trails and trail extensions. These recommendations should be implemented as funding becomes available. Finally, trailways should be coordinated with the plans for trails in the surrounding area.

2. Farmland Preservation

Significant portions of Norvell Township are used for agricultural production. These areas provide some residents with economic livelihood and result in the production of significant quantities of agricultural products. The sale of these products contributes to the health and vitality of the local economy.

Jackson County farmers have been good stewards of the land. Care of land and water resources under the control of the farmer are important to the maintenance of land that is productive. However, as noted in previous chapters of this Plan, considerable amounts of agricultural lands have been converted for development in recent decades. Agriculture should be protected from challenge by adjacent residents who find best farm management practices, as provided in the Michigan Right-to-Farm Act, objectionable.

Conversely, the preservation of agricultural lands should not mean that farmers cannot sell their property freely. A balance must be struck between farmland preservation activities based upon voluntary participation and regulation, and the private property-rights of the farmer in any successful agricultural preservation policy.

Action on the preservation of valuable agricultural lands may be taken by the County and its townships, individually or collectively. These actions may include the purchase of development rights (PDR); the transfer of development rights (TDR) (when and if this technique is authorized in Michigan Law); agricultural districting where large contiguous tracts of prime agricultural land may be identified; and through the use of conservation easements (legal agreements in which the land owner retains ownership of the property but conveys development rights to a land conservation organization or public body). Each of these techniques, to the extent authorized by law, is endorsed by this Plan. In addition, it is recommended that Jackson County support use value assessment. Use Value Assessment is a technique which establishes the value of a piece of land for tax purposes based upon its current use rather than its maximum potential economic return. The concept of use value assessment would require a change in State Law. Consideration should also be given to the use of the Michigan Agricultural Preservation Fund for use in the purchase of development rights.

Goal: Encourage the preservation of farms and farmlands that have value for farming.

Policies and Actions

1. To reduce the pressure for farmland development, Norvell Township must make its built-up areas healthy, safe, attractive, vibrant, and provide sufficient services.
2. Farmers must be involved in any farmland preservation programming and appropriate regulation to assure that farmland preservation may occur within the constructs of private property rights.
3. Cluster housing options within agricultural areas should be supported through local zoning measures that allow small pockets of densely developed residential areas which are off-set by appropriate areas of open space thereby preserving open space and agricultural lands and promoting compatibility between these land uses.
4. The Township must seek to assist the farmer in efforts to provide and promote farmers markets which offer outlets for locally produced agricultural products.
5. The Township's Zoning Ordinance should be reviewed to determine that land uses which support agricultural activities – including such uses as grain elevators, agricul-

tural supply stores, agricultural equipment and machinery and repairs – are permitted in proximity to large areas of productive agricultural land.

6. Industries which have the potential to use agricultural products produced within the Township should be identified and encouraged to locate within the Township.
7. The Township should consider all available techniques including PDR; TDR (when and if authorized under Michigan Law); agricultural districting where large contiguous tracts can be identified; and the use of conservation easements.
8. The Zoning Ordinance should be amended to allow the roadside sale of agricultural products; value added activities including the processing and packaging of agricultural products; and recreational agriculture enterprises such as cider mills, corn mazes, u-pick operations, and farm tours.

3. Historic Preservation

The Township of today grew out of the Township of the past. Current development patterns, street networks, clusters of buildings, and single buildings themselves are reflective of the unique mix of culture and history in which Norvell Township grew and developed. This unique history gave the Township identity and is a reflection of its heritage.

Today's mass culture and the influence of the mass media, in conjunction with the consolidation and growth of businesses and industries within the economy have resulted in a development pattern which is replicated across the nation. Today's forces of development tend to result in ubiquity which results in a loss of identity.

As the economy has grown nationally, the implications of this growth have been experienced locally; both the benefits and the liabilities of such growth became manifest. While products have become more varied and accessible, the commercial delivery system which provides these products through "big box" stores, and drive-thru "fast-food" restaurant has tended to reduce the diversity and appearance of the urban landscape. As a result, the importance of historic preservation has never been greater, and over time becomes more and more important to maintain community identity and diversity. The preservation of historic buildings and structures provides a vital link to our heritage.

Goal: The Township must identify historic and cultural resources and develop policies, programs, and regulations to promote their continued use and survival.

Policies and Actions

1. Historic and unique community features, structures, and buildings should be identified, mapped, and preserved.
2. The Township should educate developers and the public at large about the availability of tax credits offered through the State of Michigan for historic preservation and encourage this use of those credits.
3. The Planning Commission should consider the impacts of its development decisions on historic and cultural resources.

4. Planning Coordination

There is an important need for coordination and communication in community planning among Norvell Township and its neighboring Townships as well as Jackson County. Such an approach to planning will minimize the artificial "seams" which exist as boundaries between units of government and promote a "seamless" community. Such an effort will re-

duce conflict between local governments resulting from development and will help address regional concerns and issues.

Goal: The Township shall coordinate its planning and zoning efforts with neighboring jurisdictions as well as Jackson County.

Policies and Actions

1. Local zoning recommendations will continue to be reviewed by the Jackson County Zoning Coordinating Committee. The Coordinating Committee will attempt to resolve potential conflicts between local governmental units through their review of ordinance amendments, and requests for rezonings in the proximity of local unit boundary lines.
2. The Planning Commission should send notices of planning commission meetings and public hearings to adjacent townships and the County.
3. The Township should be cognizant of the opportunities for coordination offered through the Joint Planning Act, PA 226 of 2003.

5. Maximum Housing Choice

As noted in other chapters of this Plan, there is a need for maximum choice in housing and affordable housing. A dispersed pattern of affordable housing promotes equity among residents in the provision of local services. Such a policy promotes the maximization of choice in housing for the residents of Norvell Township. As noted in a previous chapter, nearly 22% of all housing units in the Township were constructed prior to 1940. These units are generally smaller in size than those which were constructed in later years. As these units deteriorate and are removed from the housing stock, the numbers of housing units available to lower income households –including young adults and senior citizens– will decline. Because of this, there is a need for maximizing housing choice throughout the County.

Goal: As a means of maximizing housing choice, affordable housing units will be encouraged throughout the Jackson Community.

Policies and Actions

1. The developers of subdivisions, site-condominiums and other housing projects must be encouraged to include within their projects affordable housing units.
2. The Township must consider the use of housing rehabilitation programs available through the Michigan State Housing Development Authority and other potential programs to improve the quality of the housing stock.
3. Amenities, such as infrastructure improvement, including street and sidewalk maintenance, and utility improvement; construction of local parks; and the development of pedestrian networks to offer walkable access to residential developments must be provided to support improvements.
4. The Township should maximize the use of state programs intended to rehabilitate housing units and support neighborhood revitalization and stability.

6. Open Ethical Governance and Citizen Participation

If local plans are to be successful, strong support must be evident from citizens. Citizens must be involved in community planning and in development decisions. Decisions which affect the Township's land should be free from conflicts of interest and conducted in open forums.

Goal: *Citizen involvement in local planning and development decisions is critical to the development of a vibrant Township and such decisions should be made in an open forum designed to engage the participation of citizens.*

Policies and Actions

1. Public hearings should be held for all decisions which impact upon Township growth and land use including –in addition to the adoption of plans, ordinances, and rezoning activity– the extension of sewer and water facilities, roads and road improvements: and the location and improvement of other community facilities.
2. Planning Commissioners and other Township leaders should help to educate the public regarding ethical and open decision-making in local government.

7. Sewer and Water Extension

The extension of utilities affects the location of built-up areas. When utilities are extended into undeveloped areas growth at higher densities is possible. The extension of these utilities should be used as a tool to direct growth appropriately into areas which are supported by an appropriate planning process to enhance the Township.

Goal: *The extension of sewer and water services shall be consistent with adopted regional and local plans.*

Policies and Actions

1. Sewer and water lines should only be extended into areas identified for higher densities in the Township.
2. All extensions of utilities should be subject to public hearings open to citizens within the Township and affected citizens in adjacent communities.
3. Sewer and water extensions should be used as a means of implementing this plan.
4. Consideration should be given to the establishment of a regional authority to facilitate the appropriate extension of sewer services in the County.

8. Culture

The concept of community implies more than simply a place in which a person lives, works, engages in commerce, and plays. Communities are places of social interaction, where people meet face to face. Communities provide the structure necessary for cultural growth and development.

Communities are also places where governance occurs. They are places where people pray and information is exchanged. Communities are elementally important in our cultural system, acting as clearinghouses for all things that make people human. They are the bartering places for the exchange of ideas and cultures. The Comprehensive Plan should support this important role.

Goal: *Community Centers should facilitate social interaction and assemblage, and provide a space for, and enhance, culture.*

Policies and Actions

1. Buildings and structures which facilitate or enhance our culture such as the township hall, schools, libraries, museums, and churches should be identified, mapped, and protected.

2. Indoor and outdoor places of public assemblage that provide a place for public gatherings should be promoted within community centers.
3. The Township should inventory, promote, and maintain their public spaces, and promote their use and safety.

9. Built-Up Development

Development decisions for built-up areas are market driven and made by individuals. These decisions while having a cost and benefit to the individual, can also be viewed from the perspective of the Township and society as a whole. Costs and benefits for the Township and for society can be applied to these decisions and the forms they take upon the landscape.

Built-up areas consume land and require infrastructure support, the level of which depends upon the location and density of development. Such development requires transportation improvements at a minimum. A good system of paved routes extends into Norvell Township and has the capacity to handle additional traffic volume.

As rural areas grow additional demands are placed upon the local fire protection system. More development results in a need for more schools and more school buses. The cost for providing these services rests with local units of government and school districts. Lower density development patterns provide fewer positive fiscal impacts because they cost more and generate less revenue than compact development provides. Lower density developments also incur other societal costs. Sprawling developing patterns are fuel consumptive and result in greater levels of pollution.

However, benefits also accrue to society with lower density development patterns. In Michigan, communities are small and accessible in rural areas. This affords local residents the ability to have an impact on their community and to participate in the decision-making affecting the future of their community.

Goal. Further study is proposed within Norvell Township to evaluate the benefits and costs of low-density urban development to the community and society. In the interim, growth is encouraged in existing population centers and areas where sewers are projected to be provided within the next two to three years.

Policies and Actions

1. A study proposal should be prepared to evaluate the benefits and costs of low-density urban development in the Township.
2. Research should be conducted to determine how to implement beautification measures in built-up areas.
3. Information on the implementation of smart growth principals should be assembled and utilized in local planning and zoning efforts.

10. Overzoning and Strip Development

The purpose of this land use plan and its primary implementing tool, the zoning ordinance, is to direct future growth into areas which are appropriate to accommodate additional growth. These areas typically have the necessary infrastructure including roads, sewer and water facilities, fire-protection, and schools to accommodate additional development. If the areas shown on the land use plan, or areas zoned on the zoning ordinance map are excessively large, or extend for considerable distances along thorough-

fares the ability of these documents to direct growth is diminished. Much of the residential development within the Township is located its collector roads.

Goal: *The Township should review its zoning ordinance to assure that the size of areas proposed for future land uses are contained to a degree necessary to appropriately direct growth.*

Policies and Actions:

1. The Township should make determinations regarding the amount of land necessary to accommodate future population levels.
2. the Township should review its ordinance to reduce the land area designated for various uses in cases where growth projections indicate that actual development will occupy smaller areas of land. In cases where lengthy stretches of development are located along roadways, reductions in length are recommended.

11. Protection of Ground and Surface Water Quality

The maintenance of ground and surface water quality is strongly related to enhancement of quality of life of Norvell Township's residents. Surface water in the form of the Township's lakes, rivers, and streams afford residents recreational opportunities and aesthetic appeal. Groundwater offers domestic water supply. The quality of well water is important to health and property values.

Goal: *The measures proposed in the Upper Grand River Watershed Management Plan, and the recommended measures proposed in the watershed plan for the River Raisin should be implemented within each watershed.*

Policies and Actions:

1. Best management practices for ground and surface water quality should be applied to all developments within the Township.
2. A program should be developed and implemented to plug abandoned or unused wells within the Township.

12. Wetlands

Wetlands are deemed to be important to the proper functioning of the natural system. Wetlands have value for the following reasons:

1. They often serve as aquifer recharge areas.
2. They impede the flow of storm water and thereby act to reduce flooding.
3. They serve as wildlife habitat areas.
4. They filter pollutants from surface waters.
5. They contribute to natural diversity of flora and fauna.
6. They provide natural open space.
7. They contribute to community character and identity as a result of their impact on development patterns.

Goal: *Wetlands shall be preserved in Jackson County.*

Policies and Actions:

1. Township residents should be advised as to the importance of wetlands in the appropriate functioning of the natural system.

2. The Planning Commission should attempt to preserve wetland areas as it reviews development proposals.
3. The Township should consider using open space provisions within zoning ordinances to preserve existing wetland areas.
4. Wetland mitigation, though possible, should as a matter of policy be reserved only for rare instances when preservation is not possible or in instances where the proposed improvement or modification to the land is necessary to assure public health, safety or welfare.
5. The Township should consider the adoption of an ordinance protecting wetland areas of less than five acres in size.

13. Preservation of Open Space

To many residents, the rural nature of the Township is appealing because of the open spaces which exist. Many residents have selected home sites because of the open rural quality such areas afford. Obviously, with additional development in rural areas comes a loss in open space and the values which attracted rural development in the first place.

Goal: *Preservation of Open Space shall be encouraged.*

Policies and Actions

1. The Township should consider applying cluster-zoning provisions to preserve open space and maintain rural character.
2. Policies contained within this Plan encouraging development to be located within existing urban and developed areas and higher densities should be implemented.

14. Economic Diversity

The susceptibility of Jackson County's economy to economic cycles has been identified in this Plan. There is a need to promote the establishment of business and industries which will diversify the local economy.

Goal: *Norvell Township should support existing local businesses as a matter of first priority, recruit businesses from sectors of the economy that will provide stability and diversity in times of national and regional recession; provide residents with good-paying jobs; and promote Brownfield Redevelopment.*

1. Priority should be given to assisting existing local businesses to retain and expand job opportunities.
2. Priority for tax deferments should be given to businesses and industries which offer higher paying jobs, promote diversification and which otherwise contribute to the improvement of quality of life for Norvell Township residents.
3. Priorities should be given to the redevelopment of Brownfield areas, with appropriate consideration to surrounding land uses.
4. The Township and the Jackson Enterprise Group should coordinate efforts during periodic intervals when the Enterprise Group assesses its mission, participates in strategic planning, sets goals, or develops work programs.

15. Innovative Planning and Zoning

Within the field of community planning new techniques and implementation measures are being developed nationally which promote better communities. These include provisions applicable to planned unit developments, cluster developments, mixed-use zoning, site

plan review, performance zoning, and other planning and zoning techniques. They offer local planning commissions a greater range of flexibility to address complex planning issues and to implement local plans.

Goal: National trends in urban and rural planning should be monitored and appropriate new techniques in planning and zoning should be implemented.

Policies and Activities:

1. Appropriate assistance should be contracted by the Township as it develops new and innovative land use plan and zoning ordinance provisions.
2. The Township should share innovative measures with other local governments.

16. The Movement of People and Goods

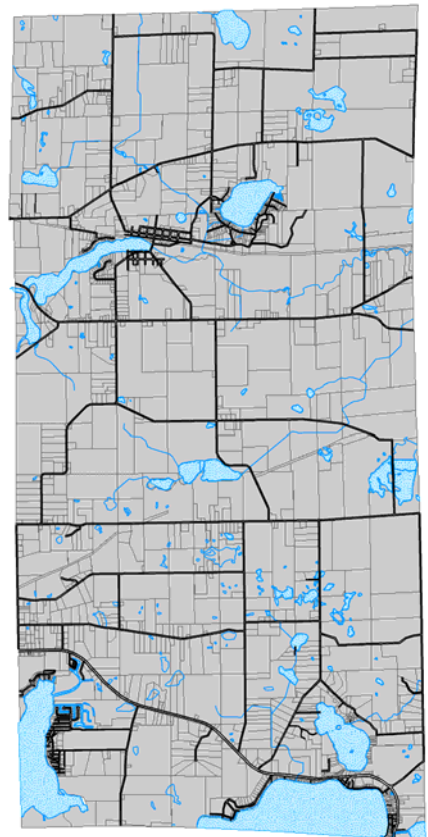
Although the Township's transportation system moves people and goods with efficiency and very little congestion, there is a need to continually monitor and improve the system. The road and street infrastructure requires maintenance and continual replacement in order to maintain system integrity. As noted earlier in the Plan, land use and transportation are mutually dependent and must be planned as a unit for the Township to thrive and develop. In addition, new roads are often necessary to improve traffic movement.

Goal: As the Township grows and develops, transportation improvements necessary to assure and facilitate improvements to the local economy should be implemented in a manner that promotes safety and efficiency, and protects and preserves the natural environment.

1. The Township should work with the Jackson County Road Commission to identify transportation improvement projects in order to reduce traffic congestion; promote efficiency and safety; promote economic development; and to adequately serve developing areas.
2. Projects reviewed for federal funding by the Jackson Area Comprehensive Transportation Study (JACTS) and the Jackson County Road Commission should include an assessment as to the impact of improvements on land use, and the consistency with this Land Use Plan.
3. Improvement and maintenance schedules should be prepared for roads and streets in the Township based upon an assessment of pavement condition and according to a schedule necessary to assure replacement based upon life expectancy.
4. Traffic engineering entities at the state and county levels should take measures to assure optimum system performance through signal timing and traffic operations.
5. The transportation system should be optimized for traffic safety.
6. There exists, within the planning horizon, a need for new road construction in the following location:

Additional improvements may be necessary in the area of Michigan International Speedway to accommodate traffic on race weekends.

Further study is needed to 1) determine feasibility and 2) identify specific routes for the new roadway. In addition, a means of funding must be identified for the new construction project and the purchase of land necessary to make it possible. Existing rights-of-way should be considered for the route wherever possible in order to minimize any negative environmental and social impacts.



Chapter 11
THE PLAN

The Norvell Township Comprehensive Plan is intended to provide guidance for the future growth and development of the Township. The Plan was prepared in accordance with generally accepted practices for the development of comprehensive plans:

1. The Plan is long-range and provides a policy guide for growth and development from the date of its adoption through the year 2025. It is intended to provide a vision for the Township based upon anticipated economic growth, population and household projection, the existing pattern of development, and preferred growth and development patterns.
2. The Plan is intended to be general in nature rather than specific. Because it is a statement of policy, it is expressed as a generalized, or conceptual, plan for future land use, rather than indicating specific land uses for specific parcels of land.
3. The Plan is intended to be flexible and can be amended following the adherence to the legal requirements established in state law. It is not intended to be static but can be revised as needed to respond to change in circumstance.

Greenways Plan

The “Greenways Plan” map identifies a network of greenways proposed throughout the Township. This network generally follows wetland areas, drainage ways, and forested lands and recognizes those areas as a part of the Township’s natural system which should be preserved. The preservation of this system helps to assure high quality surface water, wildlife habitat and movement, diversity, and can be used to help define urban growth.

Much of the Greenways Plan tends to be self-implementing. Development in wetland areas is limited by the practical difficulties associated with the development of these of lands. Soils in these areas are wet, compressive strength to support development is lacking, and the cost of developing in wetland areas is high. In addition, wetlands are protected by the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994.

The prohibition of all forms of development within the proposed greenways is not necessary. Some very low-density development can be incorporated into a greenway without damage to its integrity. Roads and highways transect the network at numerous locations throughout the Township. As this Plan is further developed and implemented it may be likely that there are strategic points within the network that require some type of preservation action. For example, the widths of some greenways are very narrow. Conservation easements may be a good means of assuring continuity in these areas.

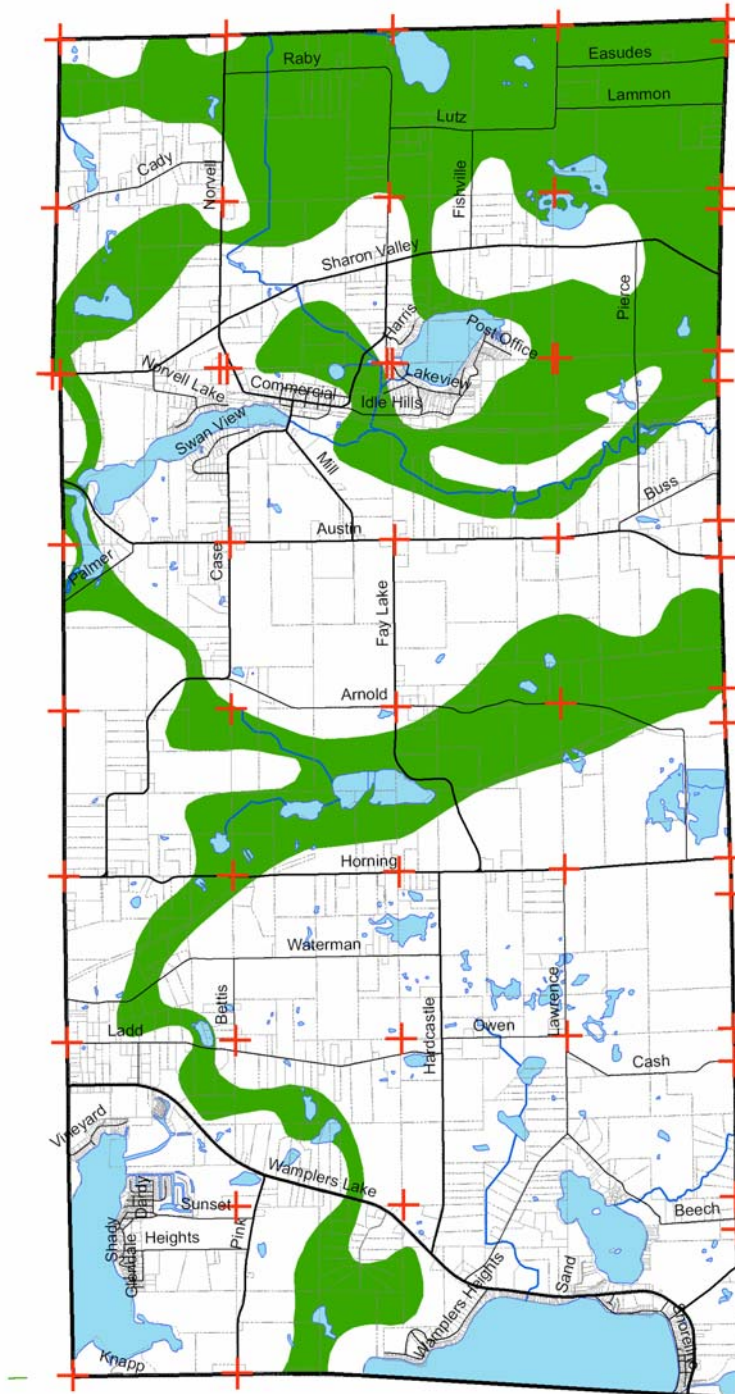
The Greenways Plan sets a foundation for the development of the Comprehensive Land Use Plan within the natural system which exists in the Township. In some instances greenways may help to define built-up areas while separating them from the surrounding rural area. For all of the foresaid reasons, and simply so residents have the opportunity for contact with nature, the implementation of the Plan would significantly improve the quality of life in the Township.

The Land Use Plan

The “Land Use Plan” map sets forth a spatial vision for the future growth and development of the Township. It is generally intended to promote future development within areas which are currently developed. Those areas tend to contain the infrastructure necessary to support growth and development. The Plan recognizes the importance of making the built-up areas of the Township better places to live. The Plan focuses cultural amenities within these areas and encourages beautification and redevelopment programs. Special attention is paid to the provi-

sion of parks in residential areas and the provision of a network of pedestrian and bicycle pathways. As a matter of general policy development within rural areas is to be discouraged.

The Plan identifies areas suitable for residential uses as well as agriculture and open space. For example, residential development is proposed around lakes areas where sewer systems exist or are planned. Residential development in rural areas will continue, but should not be encouraged. Clustered housing in rural areas with secured and permanent open space should always be preferable over large-lot single family development. Existing agriculture should be encouraged in rural areas of the Township, particularly where there are prime soils, or productive farms.



Norvell Township Comprehensive Plan

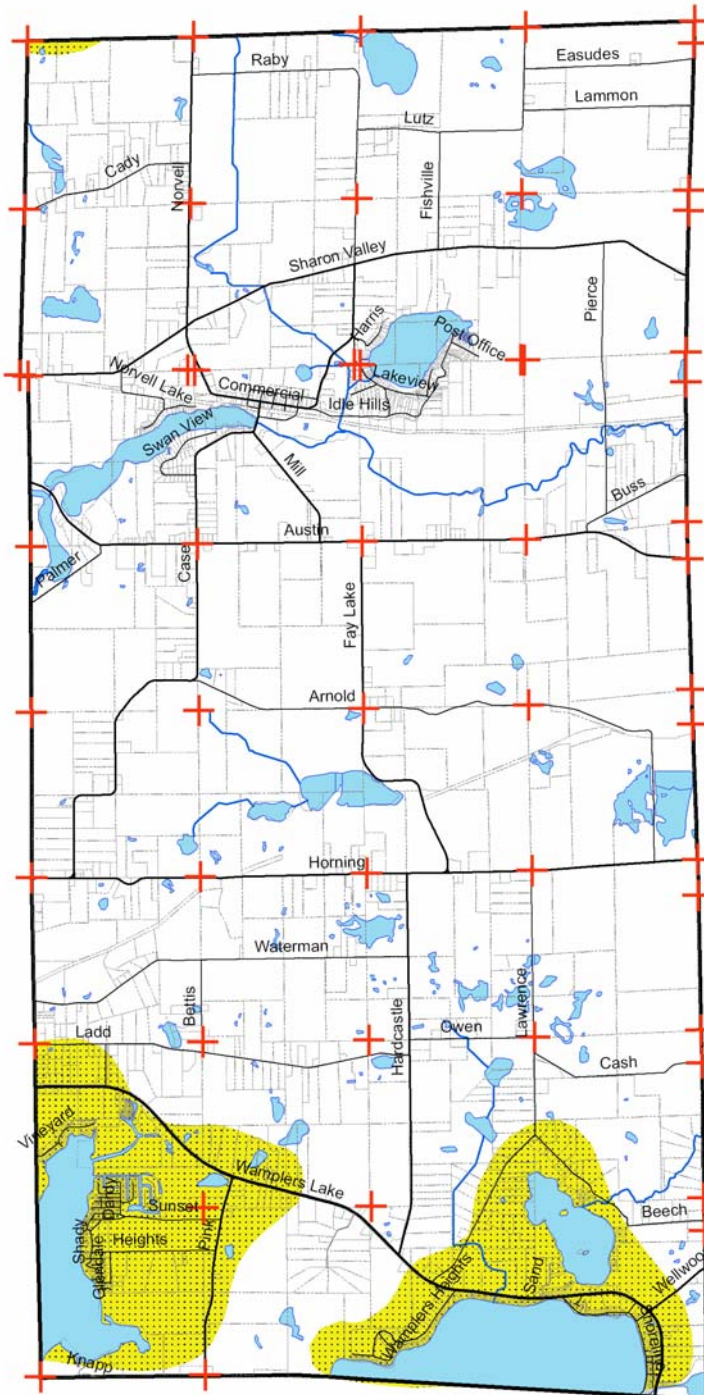
Map 12 Jackson County Greenways Plan

Legend

 Greenways

0 0.25 0.5 1 1.5 Miles





Norvell Township Comprehensive Plan

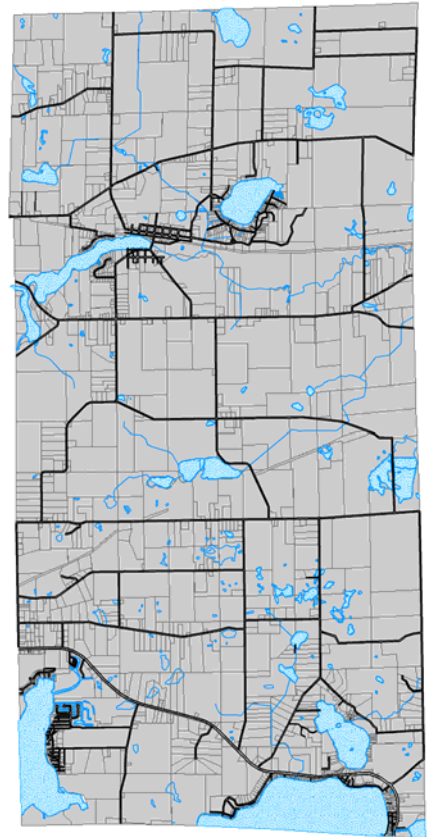
Map 13 2025 Jackson County Land Use Plan

Legend

-  Commercial
-  Industrial
-  Residential

0 0.25 0.5 1 1.5 Miles





Chapter 12
PLAN IMPLEMENTATION

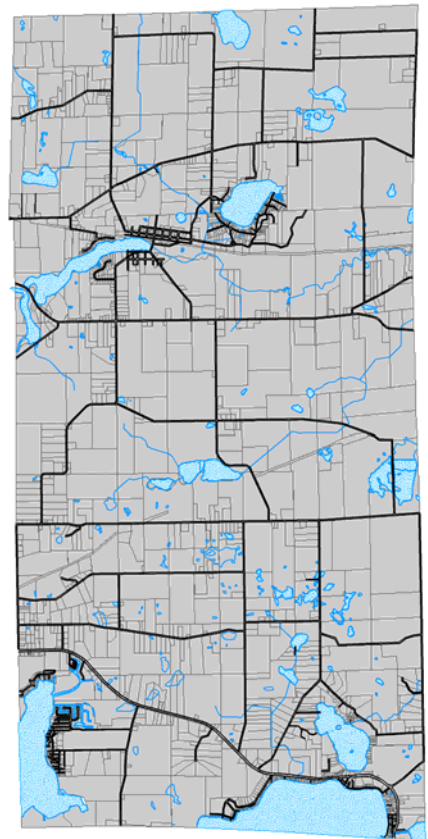
This chapter offers a path to the implementation of the Norvell Township Comprehensive Plan. It defines the roles and responsibilities of the Township and incorporates actions that the private sector can take to assist implementation. Finally, and perhaps most importantly, the need for resident participation and involvement in the refinement and implementation of the Plan over time is also addressed.

Norvell Township

1. The Township should notify neighboring communities of planning and zoning decisions on parcels which may have an impact in adjacent communities.
2. When the 300' notification requirement extends into adjacent communities, notice shall be provided to property owners and residents.
3. The Township should share land use and recreation planning documents with neighboring communities.
4. The Township should prepare a capital improvement plan.
5. This Plan should be reviewed annually to determine if modifications or amendments are necessary, and plans should be updated every five years.

Private Sector

1. Land conservancy organizations may wish to use conservation easements as a means of implementing plan provisions consistent with their mission statements.
2. Business interests, community organizations, and residents are encouraged to participate in local planning by attending and participating in meetings of the Planning Commission.
3. The public is encouraged to participate in all Township planning efforts.



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