# JACKSON COMMUNITY COMPREHENSIVE PLAN 2000-2025

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Prepared By

The Jackson Community Planning Committee

With Assistance From

The Region 2 Planning Commission and its Staff



Adopted Thursday, May 26, 2005

Amended Thursday, December 21, 2006

## Jackson County Comprehensive Plan PLAN AMENDMENTS

<u>Amendment No. 1</u> – The Jackson Community Comprehensive Plan was amended by the Jackson Community Planning Committee on Thursday, December 21, 2006. The amendment was adopted to clarify policies for farmland preservation and to quality local farmers for participation in the Michigan Agricultural Preservation Fund. The amendments include revision to the goal for agricultural land preservation, the addition of text in the Comprehensive (Master) Plan to define an "Agricultural Preservation Area" and the criteria applied to establish the map, and the addition of Map 18a, Agricultural Preservation Areas.

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d Eden* Nan Miltich	Liberty Township	
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\*\* Denotes deceased Commissioner. Bold signifies current Representative.

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<ul> <li>Denotes former member of Committee.</li> <li>** Denotes deceased Commissioner.</li> <li>Bold signifies current Representative.</li> </ul>			

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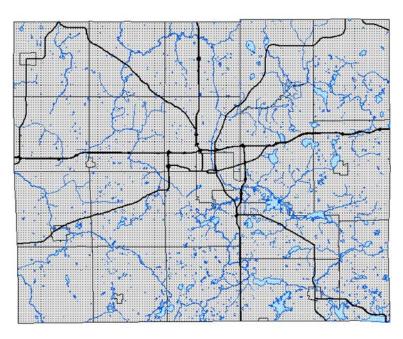
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Chapter 1 INTRODUCTION

#### What is a Comprehensive Plan?

A Comprehensive Plan provides a framework within which the Jackson Community 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 area of Jackson County. A welldesigned and implemented Plan will help Jackson 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. Local units of government including the city, townships, and villages in Jackson County 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 Jackson Community Comprehensive Plan consists of 4 general components:

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

Jackson County's first comprehensive plan, prepared by the Jackson Metropolitan Regional Planning Commission, was adopted in 1971. The Plan outlined growth for a twenty-year period (through 1990) for the County. It called for most growth and development to occur in the area including, and immediately surrounding, the City of Jackson. Much of the 1971 Plan was implemented though 1970 much of the County's growth has occurred in rural areas, Jackson's urban core has expanded as the urbanized area has grown into Blackman, Leoni, Rives, Spring Arbor, and Summit Townships. The Plan proposed a program for housing improvements which has been implemented in the City of Jackson, and in selected areas of Jackson County with the use of the Community Development Block Grant Program. The Plan also proposed wastewater disposal and treatment in the urban area by the City of Jackson Treatment Plant, and a lagoon system operated in Leoni Township.

In the late 1990's, the need for a comprehensive plan was identified in strategic planning sessions held by Jackson County Commissioners and staff. The City of Jackson and Jackson County townships expressed an interest in the preparation of a plan. And ultimately, the Jackson Community Planning Committee, an organization comprised of representatives from the County of Jackson including the Chair of the Board of Commissioners and the County Administrator, the City of Jackson including the Mayor and City Manager, the supervisors of Jackson County's townships, and the village presidents joined together with the intent of preparing a plan. These communities shared in the cost of plan preparation.

Further incentive for the preparation of the plan came from the private sector. Consumers Energy, considering the consolidating of its offices in the downtown Jackson area, proposed that a plan be prepared for the Jackson Community.

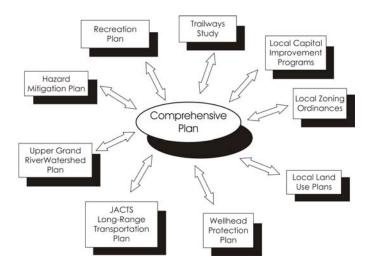
Throughout the plan development process, citizen participation was actively sought. Citizen participation is extremely important to the success of almost any community planning effort. Citizen participation helps guarantee that the vision outlined for the Community's future accurately reflects the true goals of its residents. Direct and indirect public input opportunities included:

- 1. Regular meetings of the Community Planning Committee where the Plan was discussed. These meetings were duly noticed and open to the public.
- 2. Meetings with Community stake hold groups, and organization to receive input.
- 3. Public meetings on the Comprehensive Plan.
- 4. Public hearings on the Comprehensive Plan.

Although the Plan has been prepared by the Jackson Community Planning Committee, a group representing all of Jackson County's local units of government, the implementation of the Plan will rest primarily with the City of Jackson, and Jackson County's townships and villages. The Plan addresses regional concerns, and calls for communication and cooperation among and between local units of government. As these local units of government update their land use plans and zoning ordinances, the concepts contained in the Community Comprehensive Plan will be reviewed and evaluated for incorporation into local planning and zoning efforts. It will be the implementation of these local plans and zoning ordinances which will result in the implementation of the policies contained in the community plan.

## Other Planning Efforts

The Jackson Community Comprehensive Plan is interfaced with several other planning efforts which are on going, or have been initiated at the countywide or local levels. As these plans 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?

Some areas may require revitalization. Beautification programs are necessary. Our urban environments must be improved to be more desirable. The Jackson Community must continue to change in order to remain a dynamic and attractive community. 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. Industries must be developed and expanded while others must be encouraged to locate in the Jackson Community. Parks and other public spaces must continue to be developed and improved. Numerous other changes will be necessary as the Community grows.

The Comprehensive Plan can be viewed as the Community'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 the area of Jackson County through the year 2025. The City of Jackson, and each of the County's six villages and nineteen townships has an adopted land use plan. The Jackson Community Master Plan is not intended to replace these plans. The Community Comprehensive Plan takes a broader view and provides a perspective on land use issues which tend to extend beyond the boundaries of the county's city, townships and villages.

The Community Comprehensive Plan incorporates the plans and planning efforts of local units of government within Jackson County. The Plan has been prepared to assist local units of governments in their planning efforts by offering a regional perspective, and incorporating implementation measures to enhance inter-governmental communication and cooperation as the community grows and develops.

#### Legal Authority

The Jackson Community Comprehensive Plan was prepared and adopted through the joint efforts of the Jackson Community Planning Committee and the Region 2 Planning Commission.

The Jackson Community Planning Committee was established under the authority of the Intermunicipality Committees Act, Act 200 of 1957. Act 200 authorizes the governing bodies of municipalities, including cities, villages, townships, and other incorporated political subdivisions of the State of Michigan to establish and organize an inter-municipality committee for the purpose of studying area governmental problems of mutual interests and concerns. The purpose of the Community Planning Committee is to study governmental land use and development problems and to formulate recommendations for review and action on these matters by member units of local government. The Act requires adoption, by the resolution of majority of the membership of the inter-municipality study committee of any recommendation or submission to member governing bodies.

The membership of the Jackson Community Planning Committee is identified in the introductory pages of this plan.

Each of the local unit of governments represented by members of the Community Planning Committee, contributed funds to finance the completion of this plan.

The Jackson Community Comprehensive Plan was also prepared and adopted as a regional plan by the Region 2 Planning Commission. The authority of the Commission to prepare and adopt such plans is authorized by the Regional Planning Commission Act, Public Act 281 of 1945. This Act authorizes community planning on a regional scale through regional planning commissions. The Act specifically authorizes the coordination and development of plans for the fiscal, social and economic development of all or a portion of a defined regional area. This adopted plan is the official recommendation of the regional planning commission for the development of the Jackson Community.

The Region 2 Planning Commission is comprised of member units of government from Hillsdale, Jackson, and Lenawee Counties. The Jackson County delegation of the Region 2 Planning Commission, that is, the commissioners appointed by member units of government from Jackson County, are identified in the introductory pages of this plan.

With the adoption of the Jackson Community Comprehensive Plan by the Region 2 Planning Commission, the plan is legally established as a regional plan for the area of Jackson County.

#### **Guiding Principles**

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

- 1. <u>Sustainability.</u> The Jackson Community Comprehensive Plan was prepared to guide the redevelopment and growth of the Community in a way that is sustainable. Sustainability, in terms of community 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 Jackson County. The plan, and the development policies it proposes, have been proposed to improve the quality of life of citizens of Jackson County. An attempt has been made to assure that future generations, in their pursuit of quality of life, will not be limited by current actions.
- <u>Diversity.</u> The importance and value of diversity in the health and vitality of communities is well established. Diversity in natural communities assures adaptability and the health of the ecological system. Diversity in employment helps a community weather the fluctuations in economic cycles. Diversity in population promotes richness in culture and broader perspectives.
- 3. <u>Smart Growth.</u> The Michigan Land Use Leadership Council, appointed by Governor Jennifer 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, including but not limited to environmental groups, the Michigan Chamber of Commerce, The Michigan Home Builders

and Realtors Associations, and representatives of state and local government. The Council, in reporting its findings and recommendations 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 in the development of many of the recommendations contained in the report. As noted in the report "these ten tenants can form the basis for establishing a set of state land use goals".<sup>1</sup>

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 Jackson Community Comprehensive Plan as is follows:

Promote quality of life for Jackson County's existing and future citizens through the application of community revitalization and orderly growth to enhance community heritage and culture, expand employment opportunity, preserve lands of value for open space and agriculture, and to preserve and protect environmentally sensitive lands.

## **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.<sup>2</sup> 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 townships of six-mile square, or thirty-six square miles. Townships were laid out by lines running due north and south, and others run-

<sup>&</sup>lt;sup>1</sup> 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

<sup>&</sup>lt;sup>2</sup> Leiserowitz, Anthony. Pg. 1

ning east and west. The Ordinance further divided townships into 36 mile-square sections, each of which contained 640 acres.<sup>3</sup>

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 six-mile square land divisions, which were established as a result of the Land Ordinance of 1785.

The political framework of township government in Jackson County, which grew from the Land Ordinance of 1785 and the Northwest Ordinance in 1787, resulted in the growth of township governmental powers to the extent that today it is difficult to discern the differences between townships, cities and villages.<sup>4</sup>

In 1929, Horace Blackman, the first white settler, arrived and settled in an area not far from what is now downtown Jackson. Blackman found dense woods, a beautiful river in a little valley, and, west of the river, an Indian camp.

In 1830, "Blackman's location" was renamed Jacksonburg by Michigan Road Commissioners in honor of President Andrew Jackson. To avoid confusion over the numerous Jacksonburgs across the Nation, postal officials dropped the end of the name and the settlement became known as "Jackson" in 1838. Surveyors and engineers designed the community with a grid street system and a central public square, which was bisected, crossed by Main Street (now Michigan Avenue) and Jackson Street.

Jackson was located along a significant westward movement route. A high volume of settlers passing through the area created a demand for wagon and carriage makers. These wagon and carriage makers became the antecedent for early automobile producers. The extension of rail lines through the area re-enforced Jackson's significance as a transportation center. At one time, Jackson had more rail passenger traffic than any other city in Michigan. Jackson was second only to Detroit in the amount of rail freight shipped per year. Jackson soon became the home to the Michigan Central Railroad and its engine manufacturing and repair facilities.

In its early days, the City and the surrounding area was an important agricultural community. Jackson led this part of the state in the breeding of horses and the production of corn and beans.

The prison in Blackman Township also likely contributed to Jackson's industrial boom in the mid 1800's. The prison provided a source of cheap labor for factories, making Jackson a very attractive place to do business. However, in 1909 the practice of using prisoners for labor in private industry was prohibited by the Michigan Legislature.

By that time, Jackson had many established companies manufacturing items from sewer pipe, paving brick, and small oil heaters, to car manufacturing and mining. Several corset manufacturers also located in Jackson, which launched a thriving undergarment sector. Eventually changing fashions and competition drove them out of business.

Jackson also hosted the first Republican Convention on July 6, 1854. Jackson was selected as the site of the Republican Convention due in part to its involvement in the Underground Railroad. Hundreds of influential Michigan citizens made the pilgrimage to Jackson, exceeding the capacity of the conventional hall. The convention was forced to re-convene in an Oak Grove on

<sup>&</sup>lt;sup>3</sup> Thomas, Stephen. Pg. 4

<sup>&</sup>lt;sup>4</sup> Michigan Township Association. Pg. 1

attractive land known as "Morgan's forty" west of the Village. Today the site is an older residential neighborhood. Only a few scattered oaks remain and the area is now known as the Under The Oaks Historic Neighborhood. A boulder, dedicated by President by William Howard Taft in 1910, can still be found at the corner of Second and Franklin Streets, where the Committee on Resolutions framed the first Republican platform.

Despite Jackson's late start in the automobile industry, by the early 1900's no fewer than 25 companies including Lewis Spring and Axel Company, American Top, National Wheel and Jackson Cushion Spring, had switched from carriage production to automobile production. Auto parts makers soon replaced auto production. By the mid-1920's, half of Jackson's industries were producing auto parts, making it the dominant industry in Jackson for many years.

Jackson's economy is still closely tied to the automobile industry. The proximity of the Jackson Community to the Detroit area, and the "just-in-time" movement which came about in the 1980's and 90's reinforced Jackson's association with the automobile industry.

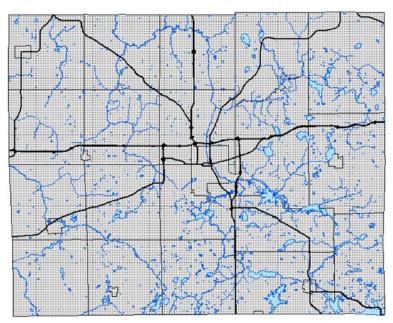
Other industries that have played an important role in Jackson's history include Aeroquip, now known as Eaton Corporation, which began producing hoses for the aircraft industry in 1939; and Commonwealth Power, now known as CMS Energy, the electric and natural gas utility that serves the largest number of Michigan residents.

By the 1930's Jackson had been transformed from an agricultural community to a bustling city of 55,000. The invention of the elevator facilitated the construction of several tall buildings in Jackson built of limestone and marble. It was during this time when Jackson's dramatic downtown skyline emerged.

In the years following World War II the Nation's urban areas experienced suburban growth. Jackson was no exception with growth extending out in subdivision development into Blackman, Leoni, and Summit Townships.

Jackson's suburban areas offered lower diversity housing in subdivisions in Blackman, Leoni, and Summit Townships. Many of these subdivisions are separated by wetland areas which afford natural open space. Suburban development occurred at a time when the City offered jobs and other urban amenities. Most of these areas now have sewer and water services. Commercial development and industrial growth have followed. During this time and perhaps even more significantly later over the past thirty years, urban development, as single-family homes placed on metes and bounds described properties were developed in the rural areas of Jackson County. These rural areas of the County offer a high quality environment for rural living within an easy commuting distance of area jobs, and jobs in Ingham and Washtenaw Counties. In very recent times, large stately homes have been constructed in these rural areas. While the rural environment served to attract Jackson County households;

While townships surrounding the City of Jackson and in Jackson's rural areas expanded in population, beginning in the 1950's the City of Jackson experienced population loss. This trend has continued to the present day. The City of Jackson still retains valuable features such as well-maintained streets, beautiful parks, historic buildings, and a central downtown which has recently experienced re-emergence with the establishment of new restaurants and destination-commercial enterprises. A new effort is underway to bring people into the City, and in particular, into downtown.

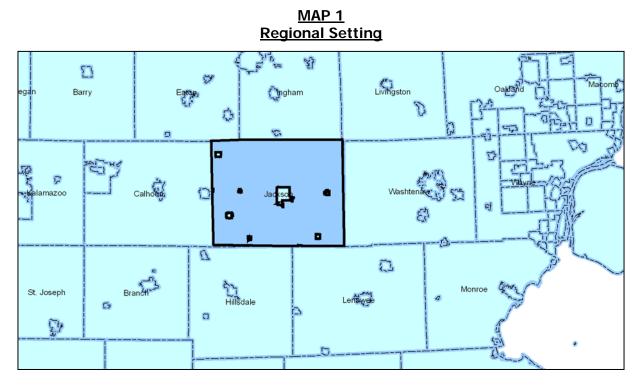


Chapter 2 REGIONAL & LOCAL SETTING

#### **Regional Setting**

The Jackson County area 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.



Both the cities of Ann Arbor and Lansing are located within a 20 to 40 minute commute. These two communities offer Jackson residents employment opportunities. Lansing is the state capital. East Lansing, is the home of Michigan State University. The University of Michigan is located in Ann Arbor. These two institutions offer Jackson Residents higher educational opportunities, and a wide range of cultural opportunities. The Jackson labor market area also draws workers from the Hillsdale and Lenawee County areas 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.

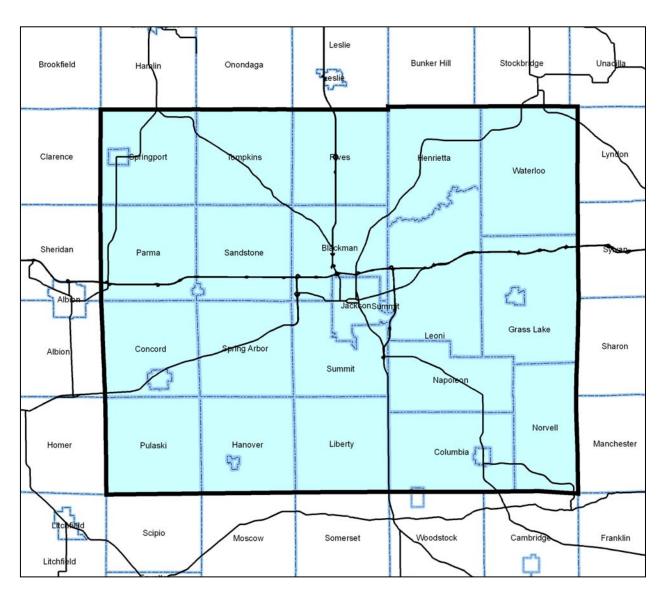
The City of Jackson is located in the geographic center of Jackson County. As such, the Jackson commercial market area is largely coterminous with the area of Jackson County.

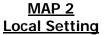
In addition to locational advantages for automobile and truck traffic, the Jackson community is served by Amtrak Rail Passenger service linking Detroit and Chicago. This service is located on the Norfolk and Southern Railroad lines which also afford the area with rail freight capacity.

Most Jackson Community residents rely on Detroit Metropolitan Airport located 60 miles to the east along I-94 for air passenger travel.

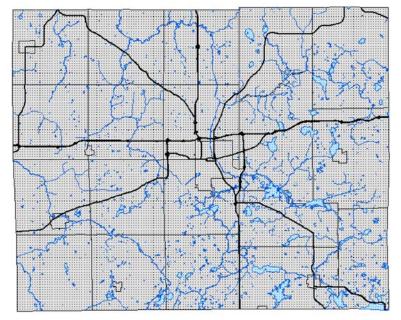
#### **Local Setting**

Jackson County consists of the City of Jackson, nineteen townships, and six villages. The City of Jackson is located in the geographic center of the County. The City is surrounded by the urban townships – Blackman, Leoni and Summit.





# Chapter 3 PHYSICAL SETTING



#### 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 any of the five characteristics is shown on Map 3, Soil Suitability for Building Development. These soils cover 35% of Jackson County. They are distributed, often in fragmented fashion, across the County. A few large contiguous areas of land exist, particularly in areas surrounding the urban area, in which there are soils conducive to development.

Soils Rated Severe For Building Development in Jackson County					
Area in Acres Area (sq mi) % of County					
Soils Rated Severe	161,976	253.1	35.0%		
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 Jackson County 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 4, Soil Suitability for On-Site Sanitary Facilities. Sixty-three percent (63%) of the land area of Jackson County is covered with these soils. While areas of unsuitability for on-site disposal exist throughout the County a particularly concentration of large areas which are unsuitable for septic tank absorption fields exists in the east half, and in particular the southeast quadrant, of Jackson County.

Soils Rated Severe For On-Site Disposal in Jackson County				
Area in Acres Area (sq mi) % of County				
Soils Rated Severe	293,370	458.4	63.4%	
Source: Soils Survey of Jackson County, Michigan				

#### Wetlands

Wetland data for the area of Jackson County is available through the National Wetlands Inventory. This inventory identifies four types of wetland areas existing within the County: Aquatic Bed, Emergent Wetland, Scrub-Shrub, and Forested Wetlands. Aquatic Bed of Wetlands include "wetlands and deep water habitats dominated by plants that grow principally on or below the

# THE PHYSICAL SETTING

surface of the water for most of the growing season in most years."<sup>1</sup> Emergent Wetlands are "characterized by erect, rooted, herbaceous hydrophytes, which are present for most of the growing season in most years."<sup>2</sup> Scrub-Shrub Wetlands are those "dominated by woody vege-tation less than twenty feet tall."<sup>3</sup> Forested Wetlands are those "characterized by woody vege-tation that is more twenty feet tall."<sup>4</sup> In all, the four categories of wetlands consume 19.5% of Jackson County's land area.

Numerous small wetlands exist in the County in scattered fashion, and larger wetland areas associated with surface water and drainage systems meander through the County. The location of these wetland areas in Jackson County is shown on Map 6, Wetlands.

Wetland Areas in Jackson County				
Type of Wetland	Area <u>(acres)</u>	Area <u>(sq mi)</u>	% of <u>County</u>	
Aquatic Bed	622	1.0	0.1%	
Emergent	41,204	64.4	8.9%	
Scrub-Shrub	19,901	31.1	4.3%	
Forested	28,661	44.8	6.2%	
Total Wetlands	90,389	141.2	19.5%	
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 farmland without drainage. The second are soils which could be considered prime farmland if drained and which are not located within hydric soils (wetlands) as identified in the Jackson County Soil Survey. The location of these soils is shown on Map 7 Prime Farmland. Most of the prime farmland soils are located in the western half of Jackson County, and these soils are generally scattered about rather than unified in large areas of contiguous soils. Relatively few areas of prime farmland may be found in Summit Township and townships to the east including Grass Lake, Leoni, Napoleon, Norvell and Waterloo.

Prime Agricultural Soils, Jackson County				
	Area <u>(Acres)</u>	Area <u>(sq mi)</u>	% of <u>County</u>	
Prime Farmland	84,380	132	18.2%	
Prime Farmland if Drained, but not including wetlands	19,383	30	4.2%	
Total Prime Farmland	103,763	162	22.4%	
Total Area of County	463,072	724	100.0%	
Source: Jackson County Natural Resources Conservation Service				

In terms of area, 103,763 acres of prime farmland exist which amounts to 22.4% of the total area of the County. Of this total, 84,380 acres are considered prime farmland, while 19,383 acres are considered prime farmland if they are drained.

<sup>&</sup>lt;sup>1</sup> Cowardin, Lewis M. et al.

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> Ibid.

### Topography

Topography in the area of Jackson County can be described as gently rolling, moderately hilly morainal uplands. Elevations range from approximately 900 to 1150 feet above sea level, with most of the area of the County ranging between 950 and 1050 feet above sea level<sup>5</sup>.

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 County 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 County 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 Jackson County have slopes which exceed 16%. <sup>6</sup>

Jackson County's highest elevations appear in the Hanover Township area and in a few scattered locations between Waterloo and Grass Lake Townships along a ridgeline extending in an east/west direction. The lowest elevations in the County are at the location where the Grand River exits the County in Tompkins Township. Lands in the County form a drainage divide with the areas in the northern and western parts of the County draining to Lake Michigan through the Grand River and Kalamazoo River Watersheds, and the southeast area of the County draining to Lake Erie through the River Raisin Watershed.

#### **Surface Water**

#### Watersheds

The area of Jackson County includes parts of four Michigan Watersheds. The largest of these, the Grand River Watershed, provides drainage to most of Jackson County including the City of Jackson. The southwest part of Jackson County is drained by the Kalamazoo River Watershed. This area includes all of Concord and Pulaski Townships, and most of the townships of Hanover and Parma with portions of Spring Arbor Township and Springport Township. Both the Grand River and Kalamazoo River Watersheds drain to Lake Michigan. The extreme southeast corner of Jackson County drains into the River Raisin Watershed. Most of Norvell and Columbia Townships are included in the watershed area and parts of Napoleon and Grass Lake. The River Raisin drains to Lake Erie. Very small portions of Waterloo and Grass Lake Townships are included in the Huron River Watershed which also drains to Lake Erie.

The Jackson community recently completed a watershed plan for the Upper Grand River Watershed. This plan, the Upper Grand River Watershed Management Plan, provides a series of measures to assure the water quality in the area of the Upper Grand. The plan includes recommendations for an institutional strategy for water quality improvement, public awareness of surface water resources and their care, an appropriate land use policy to protect water quality,

<sup>&</sup>lt;sup>5</sup> USDA Soil Conservation Service – Soil Survey of Jackson County Michigan Page 2.

<sup>&</sup>lt;sup>6</sup> R2PC, Appendix 1 Environmental Inventory and Database, Areawide Waste Treatment Management Plan Page 11.

water resource policy, wetland protection, stream bank protection, a recommendation on Best Management Practices (BMP) by sub-watershed, and Best Management Practices to maintain total maximum daily limits of certain contaminants. Highlights of the recommendations include:

- 1. The development of a watershed management council to coordinated further watershed management planning and implementation activities and to serve as a land conservancy for the protection and management of unique and valuable land.
- 2. The creation and dissemination of public education materials designed to raise citizen awareness of the river and its watershed in a coordinated, multi-media campaign.
- 3. Necessary revisions to local land use plans and ordinances to protect and improve water quality.
- 4. Adoption of local water and infrastructure use polices which provide local governments with additional powers to govern cross-watershed boundary wastewater discharges and/or with-draws of surface or ground water in their natural state.
- 5. Implementation of specific recommendations to safeguard existing and restored degraded wetlands.
- 6. Detailed recommendations for each of seven major sub basins regarding agricultural, residential, and the best urban management practices based upon the predominant land use in each of the sub basins as well as the estimated risk for specific water quality issues.

Jackson County watersheds, and surface water features are shown on Map 5, Watersheds and Surface Water.

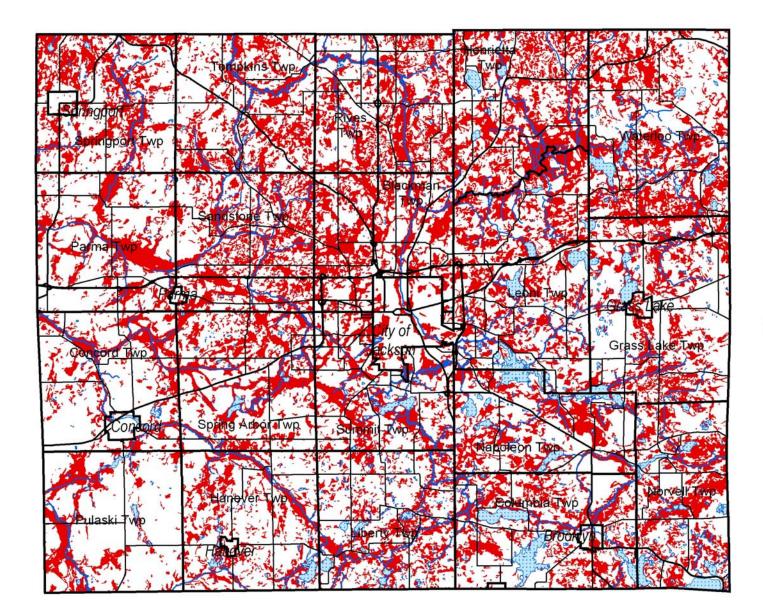
#### Lakes and Ponds

Jackson County has 188 bodies of water, including lakes and ponds. These lakes and ponds 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 dwelling units 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. Several of the lakes have now been sewered. Most of the lakes, and lakeside development, is located on the eastern one-half of Jackson County.

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.

In addition to Jackson County's lakes, there are 679 miles of rivers and streams within the County's borders. The most significant of these, the Grand River, flows north from the Liberty-Hanover Township area through the City of Jackson, and exit into Ingham County from Tompkins Township. Rivers and streams in Jackson County are in the head waters of the four watersheds noted above. They have value for the recreational use, wildlife, their drainage function, and are an important component of Jackson County's unique natural system.

Jackson County's lakes, rivers and streams are one of the features of the County which attract population and contribute to quality of life for County residents.



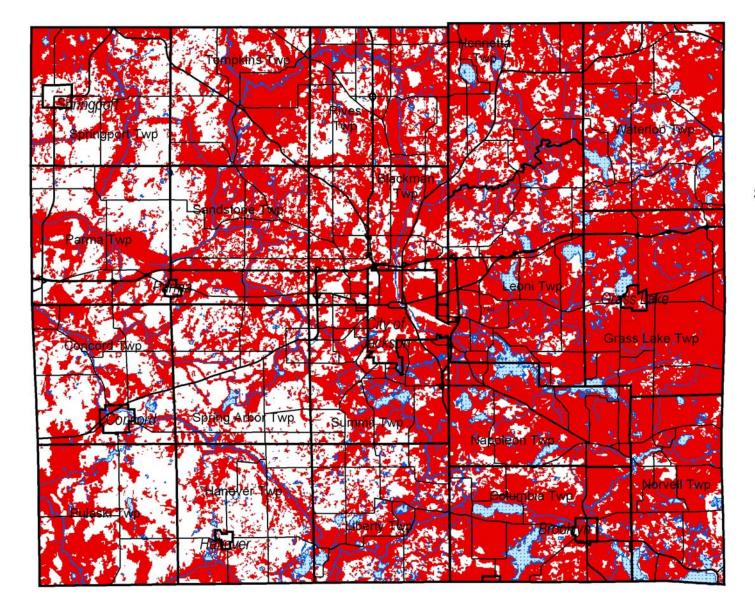
Map 3 Soils Rated Severe for Building Development

Legend

Soils Rated Severe for Building Development

Source: Jackson County Natural Resource Conservation Service





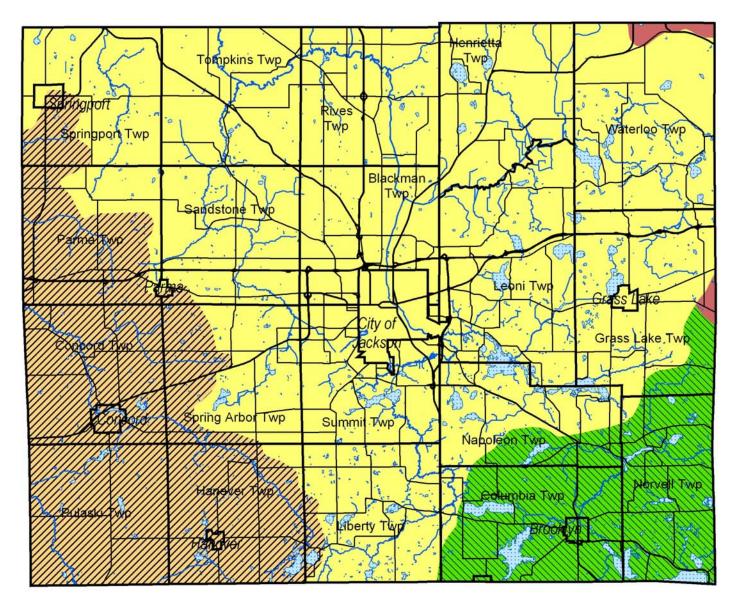
# Map 4 Soil Suitablity for Onsite Sanitary Facilities

Legend

Soils Rated Severe for Septic Tank Absorption

Source: Jackson County Natural Resource Conservation Service

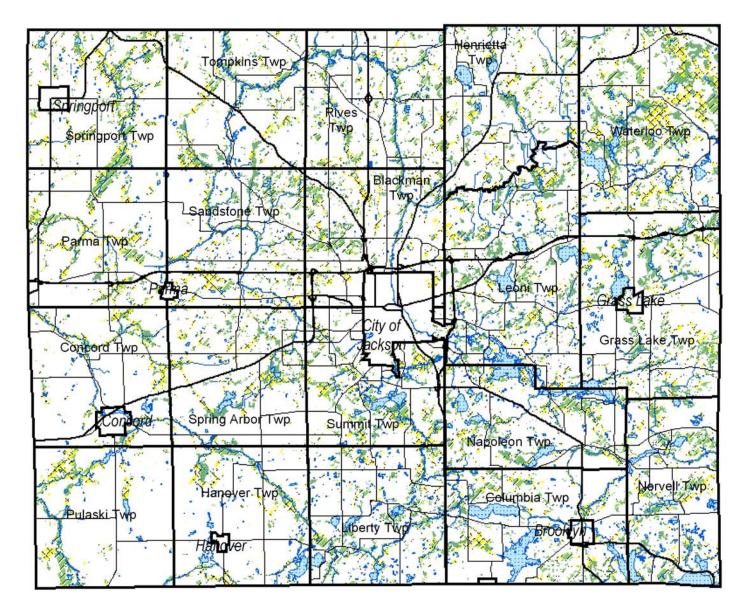






Sources: The National Atlas for the USA The Center for Geographic State of Michigan

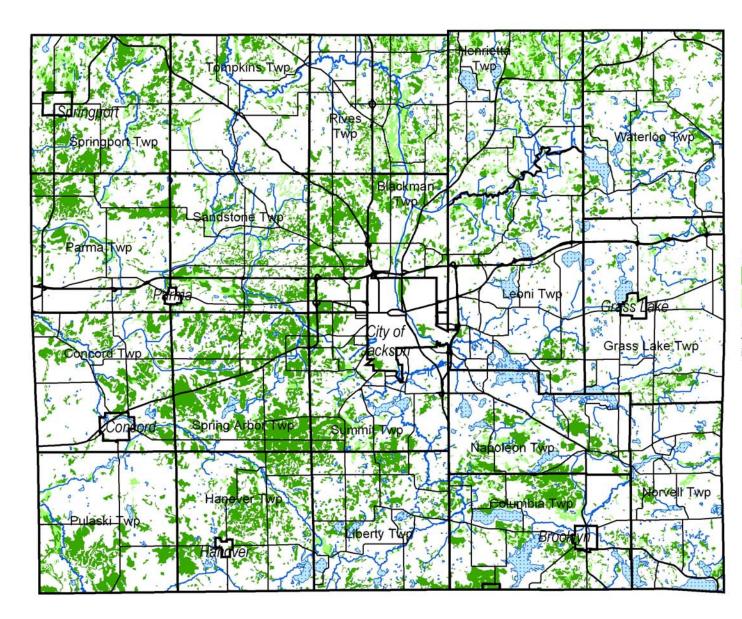






Source: National Wetlands Inventory





## Map 7 Prime Farmland

Legend

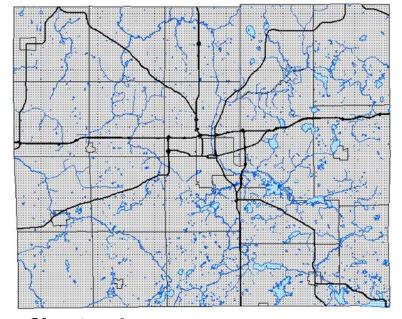
Prime Farmland, no exceptions if adequately drained

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

> Source: Jackson County Natural Resources Conservation Service



# Chapter 4 DEMOGRAPHICS



#### Population Growth, by Type of Local Government Unit, 1950-2000

#### 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 the County of Jackson population increased in the period of time between 1950 and 2000, while the City of Jackson's population was declining, where was the offsetting population increase occurring?

For the purposes of analysis, the local units of the County were divided into four groups – The City of Jackson, suburban townships (Blackman, Leoni, and

Population Change, 1950 - 2000 City of Jackson				
Year	Population	Change	% Change	
1950	51,088			
1960	50,720	-368	-0.7%	
1970	45,484	-5,236	-10.3%	
1980	39,739	-5,745	-12.6%	
1990	37,446	-2,293	-5.8%	
2000	36,316	-1,130	-3.0%	
1950 - 2000		-14,772	-28.9%	

Summit), rural townships, and villages. The table Population Change by Type of Unit, 1950-2000, Jackson County identifies population levels for each of the decades between 1950 for these groupings of local units of government.

Population Change by Type of Unit, 1950-2000						
Jackson County						
	1950	1960	1970	1980	1990	2000
City of Jackson	51,088	50,720	45,484	39,739	37,446	36,316
Suburban Townships	31,586	45,591	52,684	56,113	55,057	57,793
Rural Townships	21,126	30,716	39,792	50,595	52,354	58,889
Villages	4,125	4,967	5,314	5,048	4,899	5,424
Total Source: US Census	107,925	131,994	143,274	151,495	149,756	158,422

#### Suburban Township Growth

As shown in the table, the population of Jackson County's suburban townships generally followed the growth trends of the County. Suburban townships increased in population in each of the decades with the exception of the decade between 1980 and 1990 when population declined by almost 1000 persons. Growth was greatest in the decade between 1950 and 1960 when the suburban townships, during the period of rapid suburbanization consistent with other metropolitan areas, the population increased 44% in population. The rates of population growth in the County, and the suburban township declined through 1990, and then began to increase again in the decade between 1990 and 2000. An analysis of population growth between 1980 and the year 2000 for each of the three suburban townships – Blackman, Leoni, and Summit indicates that Blackman Township grew in population in each of the two decades. Between 1980 and 1990 the population increased by 3.8%, and between 1990 and the year 2000 it increased by 11.3%. Population levels in Leoni and Summit Township declined between 1980 and 1990 by 5.8 and 4.4.% respectively. Population increased in each of the two townships between 1980 and 2000 by 0.2 and 1.9% respectively. Each of the two townships experienced a net decline in population between 1980 and the year 2000.

The growth in Blackman Township's population over this period of time is likely due to the substantial multiple family development which the Township experienced immediately north of I-94 over this time period.

#### **Rural Township Growth**

The most significant rates of change, in terms of population growth, occurred in the rural townships which have increased in population 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, which surpassed that of the suburban townships, through 1980. In the decade between 1990, while the County, the City, the suburban townships, and the villages lost population, population in the rural townships increased. 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 on metes and bounds described properties along the County's rural roads.

**1980-1990.** The rates of growth between 1980 and the year 2000 for rural townships were also analyzed to determine growth which could be statistically significant based upon the **nu-merical change** in population, and the percentage change in population. Between 1980 and 1990 based upon the numerical change of population, significant growth occurred in Columbia and Waterloo Townships. While declines in population in Parma and Rives Townships had statistical significance. In terms of the test for statistical significance based upon percentage population change, significant **rates** of growth were identified in Norvell and Waterloo Townships.

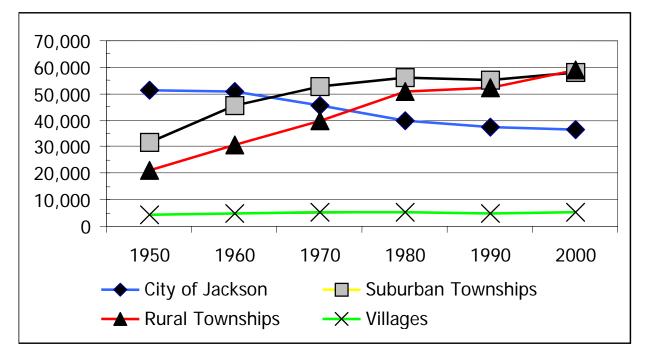
Jackson County Rural Townships Statistically Significant Population Change							
High Levels of Growth — 1980 –1990 High Levels of Growth — 1990-2000							
% Change	Numerical Change	% Change	Numerical Change				
Norvell	Columbia	Grass Lake	Columbia				
Waterloo	Waterloo	Liberty	Napoleon				
		Tompkins	Rives				
Low I	<u>_evels of Growth</u>	Low Levels of Grov	<u>vth</u>				
% Change	Numerical Change	% Change	Numerical Change				
Parma	Parma	Hanover	Concord				
Rives	Rives	Pulaski	Hanover				
		Springport	Pulaski				
			Springport				

# DEMOGRAPHICS

**1990-2000.** For the period of time between 1990 and 2000 townships experiencing population growth based upon **numerical change**, and with statistical significance include Columbia, Napoleon and Rives. Conversely, the townships of Concord, Hanover, Pulaski, and Springport each experienced numerical change at rates that were significantly lower for rural townships. A similar analysis conducted for population change reveals that the townships of Grass Lake, Liberty and Tompkins each experienced **rates** of change which has statistical significance for high population growth, while the townships of Hanover, Pulaski, and Springport had statistically significant lower rates of growth.

#### Village Population Change

The growth in Jackson County's seven villages increased between 1950 and 1970, then declined through 1990, and increased again with the 2000 Census.



## **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, 2002. The July 2002 estimate for Jackson County is 160,972, an increase of 1.61% over the actual population of 158,422 in April, 2002.

The Census Bureau estimates that the City of Jackson continued to lose population, declining to 35,514, a decrease of 2.21%.

All the townships in Jackson County were estimated to have increased in population, with the exception of Waterloo Township. The Townships of Blackman, Grass Lake and Rives are each believed to have experience significant growth relative to the townships as a whole. The Townships of Hanover, Leoni, and Waterloo were significant in terms of their lower growth rates or, in Waterloo's Township case, its decline in population.

The population of the villages in Jackson County changed little between April, 2000 and July, 2002.

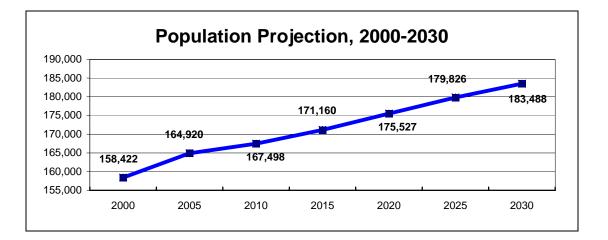
Analysis of Population Growth, Local Units of Government, 1980 - 2000								
	-		kson Coui		· ·			
City of Jackson	<u>1980</u> 39,739	<u>1990</u> 37,446	<u>2000</u> 36,316	% Change <u>80-90</u> -5.8%	# Change <u>80-90</u> -2,293	% Change <u>90-00</u> -3.0%	# Change <u>90-00</u> -1,130	
Blackman	19,741	20,492	22,800	3.8%	751	11.3%	2,308	
Leoni	14,259	13,435	13,459	-5.8%	-824	0.2%	24	
Summit	22,113	21,130	21,534	-4.4%	-983	1.9%	404	
Suburban Town-								
ships	56,113	55,057	57,793	-1.9%	-1,056	5.0%	2,736	
Columbia	4,871	5,253	6,028	7.8%	382	14.8%	775	
Concord	1,420	1,464	1,591	3.1%	44	8.7%	127	
Grass Lake	2,723	2,871	3,504	5.4%	148	22.0%	633	
Hanover	3,160	3,229	3,368	2.2%	69	4.3%	139	
Henrietta	3,814	3,858	4,483	1.2%	44	16.2%	625	
Liberty	2,312	2,452	2,903	6.1%	140	18.4%	451	
Napoleon	6,141	6,273	6,962	2.1%	132	11.0%	689	
Norvell	2,418	2,657	2,922	9.9%	239	10.0%	265	
Parma	2,435	2,267	2,445	-6.9%	-168	7.9%	178	
Pulaski	1,725	1,816	1,931	5.3%	91	6.3%	115	
Rives	4,081	4,026	4,725	-1.3%	-55	17.4%	699	
Sandstone	2,707	2,715	3,145	0.3%	8	15.8%	430	
Spring Arbor	6,868	6,939	7,577	1.0%	71	9.2%	638	
Springport	1,324	1,383	1,478	4.5%	59	6.9%	95	
Tompkins	2,152	2,321	2,758	7.9%	169	18.8%	437	
Waterloo	2,444	2,830	3,069	15.8%	386	8.4%	239	
Rural Townships	50,595	52,354	58,889	3.5%	1,759	12.5%	6,535	
Village of Brooklyn Village of Cement	1,110	1,027	1,176	-7.5%	-83	14.5%	149	
City	38	28	30	-26.3%	-10	7.1%	2	
Village of Concord	900	944	1,101	4.9%	44	16.6%	157	
Village of Grass Lake	962	903	1,082	-6.1%	-59	19.8%	179	
Village of Hanover	490	481	424	-1.8%	-9	-11.9%	-57	
Village of Parma	873	809	907	-7.3%	-64	12.1%	98	
Village of Springport	675	707	704	4.7%	32	-0.4%	-3	
Village Total	5,048	4,899	5,424	-3.0%	-149	10.7%	525	
TOTAL	151,495	149,756	158,422	-1.1%	-1,739	5.8%	8,666	
Source: U. S. Census								

July 2002 Population Estimates								
Jackson (	County and L	ocal Units of	f Governmen	t				
Local Unit of Gov- ernment	<u>2000</u>	Estimated July 2002	Estimated Numerical <u>Change</u>	Estimated % Change				
City of Jackson	36,316	35,514	-802	-2.21				
Blackman Columbia	22,800 6,028	24,087 6,107	1,287 79	5.64 1.31				
Concord	1,591	1,635	44	2.77				
Grass Lake Hanover	3,504 3,368	3,699 3,388	195 20	5.57 0.59				
Henrietta	4,483	4,621	138	3.08				
Leoni	13,459	13,550	91	0.68				
Liberty	2,903	3,000	97	3.34				
Napoleon	6,962	7,075	113	1.62				
Norvell	2,922	3,011	89	3.05				
Parma	2,445	2,540	95	3.89				
Pulaski	1,931	2,019	88	4.56				
Rives	4,725	4,976	251	5.31				
Sandstone	3,145	3,250	105	3.34				
Spring Arbor	7,577	7,832	255	3.37				
Springport	1,478	1,525	47	3.18				
Summit	21,534	21,812	278	1.29				
Tompkins	2,758	2,855	97	3.52				
Waterloo	3,069	3,040	-29	-0.94				
Village of Brooklyn	1,176	1,198	22	1.87				
Village of Cement City	30	30	0	0.00				
Village of Concord	1,101	1,102	1	0.09				
Village of Grass Lake	1,082	1,094	12	1.11				
Village of Hanover	424	427	3	0.71				
Village of Parma	907	893	-14	-1.54				
Village of Springport	704	692	-12	-1.70				
Jackson County Source: U. S. Census	158,422	160,972	2,550	1.61				

## Jackson County Population Projections

Population projections for Jackson County have been prepared by the Region 2 Planning Commission. These projections are based upon projections originally compiled by the Michigan Information Center which were updated given the known population levels in the year 2000. According to these projections, Jackson County's population is anticipated to increase from 158,422 in the year 2000; to 179,826 in the year 2025; and 183,488 in 2030. Projections by five year increments are shown in the table entitled, "Jackson County Population Projections, 2000-2025."

Jackson County Population Projections 2000 - 2025								
date population # change % change								
2000	158,422							
2005	164,920	6,498	4.1%					
2010	167,498	2,578	1.6%					
2015	171,160	3,662	2.2%					
2020	175,527	4,367	2.6%					
2025	179,826	4,299	2.4%					



## **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 urban clusters. The Census defines an urbanized area as an "area consisting of a central place and adjacent territory with the general population density of 1000 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 2500 people but fewer than 5000. Three townships in Jackson County have been identified as having population inside urban clusters.

Of Jackson County's total population, 92,953 persons, or 59% of the population resides in urban areas. The balance of 65,469 resides in rural areas in the County.

Of the 92,953 urban population, 88,050 reside in urban areas, and 4,903 reside in urban clusters.

Springport Springport Twp	Tompkins Twp	Rives Twp	Henrietta Twp	Waterloo Twp
Parma Twp	Sandstone Twp	Blackman Twp	Leoni Twp	Grass Lake
Concord Twp	Spring Arbor Twp	City of Jackspri		Grass Lake Twp
Pulaski Twp	Hanover Twp Hanover	Liberty Twp	Columbia Twp	Norvell Twp

MAP 8 Urbanized Areas

Jackson County's urban area includes almost all of the City of Jackson; most of the population of Blackman, Leoni, Spring Arbor, and Summit Townships; and small portions of the population of Napoleon and Rives Townships.

Of the County's 4,903 persons who reside in urban clusters, most reside within the urban cluster in Columbia Township. Of Columbia's total population of 7,234, 4,368, or 60% of the population within the township reside within the urban cluster.

Populations inside urban clusters have also been identified in Liberty and Parma Townships, with 228 and 307 persons, respectively. These populations represent relatively small parts of the total population in each of the two townships.

	Urban and R	ural Population	on		
	Jackson	County, 2000			
	Inside	Inside			
	Urban	Urban	Urban		
	Areas	<u>Clusters</u>	<u>Total</u>	<u>Rural</u>	<u>Total</u>
Jackson County	88,050	4,903	92,953	65,469	158,422
City of Jackson	36,258	0	36,258	58	36,316
Blackman Township	21,147		21,147	1,653	22,800
Leoni Township	7,632		7,632	5,827	13,459
Summit Township	<u>17,146</u>		<u>17,146</u>	4,388	<u>21,534</u>
Total	45,925	0	45,925	11,868	57,793
Columbia Township		4,368	4,368	2,866	7,234
Concord Township			0	2,692	2,692
Grass Lake Township			0	4,586	4,586
Hanover Township			0	3,792	3,792
Henrietta Township			0	4,483	4,483
Liberty Township		228	228	2,675	2,903
Napoleon Township	573		573	6,389	6,962
Norvell Township			0	2,922	2,922
Parma Township		307	307	2,389	2,696
Pulaski Township			0	1,931	1,931
Rives Township	988		988	3,737	4,725
Sandstone Township			0	3,801	3,801
Spring Arbor Township	4,306		4,306	3,271	7,577
Springport Township			0	2,182	2,182
Tompkins Township			0	2,758	2,758
Waterloo Township			0	_3,069	_3,069
Total	5,867	4,903	10,770	53,543	64,313
Source: U. S. Census					

## Households

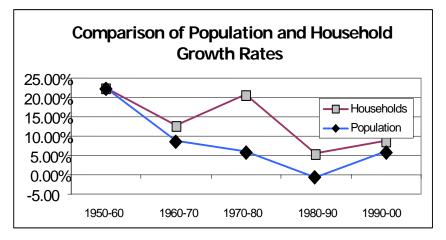
An important measure of community growth may be determined through an analysis of the change in the number of households. Households create a demand for a housing unit and, therefore, provide an indication of the level of growth in the size of the residential land area of the community. In Jackson County the number of households increased from 30,705 in 1950 to 58,168 in the year 2000, almost doubling in number. Household formulation was particularly high between 1950 and 1960, and between 1970 and 1980. Household formulation increased by over 20% in each of these two decades

Ja	Jackson County Household Growth							
	1950 - 2000							
	Number of Numerical Percent							
Date	<u>Households</u>	<u>Change</u>	<u>Change</u>					
1950	30,705							
1960	37,520	6,815	22.2%					
1970	42,261	4,714	12.6%					
1980	50,974	8,713	20.6%					
1990	53,660	2,686	5.3%					
2000	58,168	4,508	8.4%					

For the purposes of analysis a comparison was made between population and household growth rates for each of the decades between 1950 and the year 2000. The comparison re-

Population and Household Growth							
1950 – 2000							
% Change % Change Date Population Households							
1950-60	22.3%	22.2%					
1960-70	8.5%	12.6%					
1970-80	5.7%	20.6%					
1980-90	-1.1%	5.3%					
1990-00 Source: U.	5.8% S. Census	8.4%					

veals that the rate of change for both population and households was approximately equal at slightly over 20% during the period of time between 1950 and 1960. Beginning in 1960, however, and through the year 2000, the number of households grew at a much faster rate than population. This was especially true in the decade between 1970 and 1980 when population grew by 5.7% and the number of households grew by 20.6%. Between 1980 and 2000, while Jackson County's population increased 5%, the number of households increased by 14%.



The dramatic difference between the level of population growth and household formulation is shown in the table Population and Household Growth, 1950-2000. During the 50-year period, while Jackson County's population grew by 46.8%, the number of households grew by 89.4%.

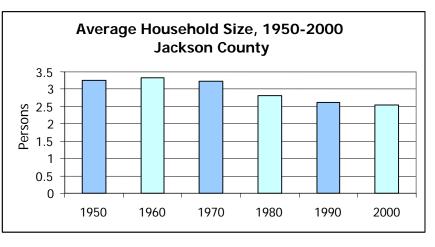
What accounts for the difference between population and household growth? Household growth is out stripping population growth simply because the average household size is declining. This trend, evident in Jackson County as it is nationally, has resulted in a decline in the average household size from 3.26 persons per household in 1950 to 2.55 persons per household in the year 2000.

Jackson County Average Household Size				
1950 - 2000				
Average				
Year	Household Size			
1950	3.26			
1960	3.33			
1970	3.23			
1980	2.81			
1990	2.62			
2000	2.55			
Source: U. S. Census				

The average household size by decade between 1950 and 2000 is shown in the bar graph entitled, "Average Household Size, Jackson County, 1950-2000". As shown in the graph, household size increased in 1960, but since 1960 household size declined in each of the decades through the year 2000. While the average household size continues to fall, it is falling at a decreasing rate, and it appears as though it may level off within the next two decades. 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 Jackson County residents. Of Jackson County's population in the year 2000, the vast majority of residents, 88.5%, or 140,280 were The Black/African white. American race was the largest racial minority in the year 2000. The total number of Black/African Americans equaled 12,009,



which amounted to 7.6% of the total population. American Indian and Alaskan Natives, Asians, Native Hawaiian and other Pacific Islanders, and other races each had approximately 1% or less of the total population. Those who indicated to the US Census that they were of two or more races in the year 2000 numbered 2,972, or almost 2% of the population.

Racial Populations By Type of Governmental Unit Jackson County, 2000								
American Hawaiian Black/ Indian and and Other Two								
		African	Alaska		Pacific	Other	or More	Total
	<u>White</u>	<u>American</u>	<u>Native</u>	<u>Asian</u>	<u>Islander</u>	<u>Races</u>	<u>Races</u>	Population
City of Jackson	26,939	6,898	237	150	6	723	1,363	36,316
Urban Townships	50,711	4,829	295	458	22	568	865	57,748
Rural Townships	57,089	274	121	121	10	378	680	58,673
Villages	5,541	8	24	3	0	45	64	5,685
Total County	140,280	12,009	677	732	38	1,714	2,972	158,422
%	88.5%	7.6%	0.4%	0.5%	0.0%	1.1%	1.9%	100.0%
Source: R2PC, from U.	S. Census da	ta						

Allocation of the population by race for Jackson County and local units of government is provided in the Table entitled, "Race-Jackson County and Local Units 2000". The Black/African American population is located primarily in the City of Jackson with substantial numbers also in Summit and Blackman Townships. In the rural townships, less than ½% of the population is Black/African American.

The American Indian and Alaska Native population, and the Asian population, though relatively small in number, is distributed more proportionally throughout the County. The County has few Native Hawaiian and other Pacific Islanders. Those of other races, and those who are of two or more races were also distributed somewhat proportionally among local units of government.

	R	ace - Jack	son County	and Lo	ocal Units			
			2000					
		Black/ African	American Indian and Alaska		Hawaiian and other Pacific	Other	Two or More	Total
	White	American	Native	Asian	Islander	Races	Races	Population
Jackson County	140,280	12,009	677	732	38	1,714	2,972	158,422
City of Jackson	26,939	6,898	237	150	6	723	1,363	36,316
Blackman Township	18,018	3,892	160	135	0	278	260	22,743
Leoni Township	12,898	111	55	27	10	42	271	13,414
Summit Township	19,795	826	80	296	12	248	334	21,591
Total	50,711	4,829	295	458	22	568	865	57,748
Columbia Township	5,551	4	17	0	0	0	79	5,651
Concord Township	1,542	0	4	2	0	12	19	1,579
Grass Lake Township	3,587	11	13	3	0	7	35	3,656
Hanover Township	3,361	42	0	24	0	7	11	3,445
Henrietta Township	4,466	12	0	0	0	73	81	4,632
Liberty Township	2,857	0	9	14	0	0	26	2,906
Napoleon Township	6,729	11	34	24	0	85	79	6,962
Norvell Township	2,861	0	4	0	0	0	59	2,924
Parma Township	2,292	65	16	17	0	31	48	2,469
Pulaski Township	1,944	2	6	6	0	4	17	1,979
Rives Township	4,532	0	0	8	0	35	76	4,651
Sandstone Township	3,097	12	0	0	0	16	24	3,149
Spring Arbor Township	7,292	29	7	19	10	72	44	7,473
Springport Township	1,429	0	4	0	0	5	16	1,454
Tompkins Township	2,714	3	7	4	0	23	30	2,781
Waterloo Township	2,835	83	0	0	0	8	36	2,962
Total	57,089	274	121	121	10	378	680	58,673
Village of Brooklyn	1,101	0	5	2	0	19	17	1,144
Village of Cement City	436	0	0	0	0	0	0	436
Village of Concord	1,090	0	2	0	0	5	5	1,102
Village of Grass Lake	1,001	0	7	1	0	0	3	1,012
Village of Hanover	403	2	0	0	0	0	2	407
Village of Parma	856	0	10	0	0	9	4	879
Village of Springport	654	6	0	0	0	12	33	705
Total	5,541	8	24	3	0	45	64	5,685
Source: U. S. Census								

Population totals in Jackson County include the inmate population residing in state correctional institutions in Blackman and Waterloo Townships. The year 2000 Census identified 7,270 inmates in correctional institutions. Of this total, 7,064 were located in state correctional facilities. Of the total population in correctional institutions, 3,659, or slightly over 50% were Black/African Americans. The balance of the total, 3,611 were of other races, primarily whites. Almost all of the inmate population was located in state correctional facilities in Blackman Township, which had an inmate population in the year 2000 of 6,939. When the inmate population is disregarded the Black/African American population in the year 2000 numbered 8,555 of a total 151,358 Jackson County citizens. These 8,555 persons amounted to 5.7% of the total population.

Black/ African American Population							
	ckson County a						
With and Without Inmate Population 1990 - 2000							
			Numerical				
	<u>1990</u>	<u>2000</u>	<u>Change</u>	<u>% Change</u>			
Jackson County	11,983	12,009	26	0.2%			
Jackson County less inmates	7,964	8,350	386	4.8%			
City of Jackson	6,615	6,898	283	4.3%			
Blackman Township	4,146	3,892	-254	-6.1%			
Blackman Twp less inmates	276	361	85	30.8%			
Leoni Township	85	111	26	30.6%			
Summit Township	714	826	112	15.7%			
Total	4,945	4,829	-31	-0.6%			
Total less inmates	1,075	1,298	223	20.7%			
Columbia Township	1	4	3	300.0%			
Concord Township	5	0	-5	-100.0%			
Grass Lake Township	35	11	-24	-68.6%			
Hanover Township	7	42	35	500.0%			
Henrietta Township	8	12	4	50.0%			
Liberty Township	6	0	-6	-100.0%			
Napoleon Township	49	11	-38	-77.6%			
Norvell Township	0	0	0	0.0%			
Parma Township	89	65	-24	-27.0%			
Pulaski Township	1	2	1	100.0%			
Rives Township	15	0	-15	-100.0%			
Sandstone Township	9	12	3	33.3%			
Spring Arbor Township	25	29	4	16.0%			
Springport Township	10	0	-10	-100.0%			
Tompkins Township	5	3	-2	-40.0%			
Waterloo Township	156	83	-73	-46.8%			
Waterloo Twp less inmates	7	6	-1	-14.3%			
Total	421	274	-147	-34.9%			
Total less inmates	272	197	-75	-27.6%			
Village of Brooklyn	0	0	0	0.0%			
Village of Cement City	1	0	-1	-100.0%			
Village of Concord	0	0	0	0.0%			
Village of Grass Lake	0	0	0	0.0%			
Village of Hanover	0	2	2	0.0%			
Village of Parma	0	0	0	0.0%			
Village of Springport	1	6	5	500.0%			
Total	2	8	6	300.0%			
Source: U. S. Census							

#### Black/African American Minority

Changes in the size of the Black/African American population between 1990 and the year 2000 for local units of government is provided in the Table, "Black/African American Population Jackson County and Local Units, with and without Inmate Population 1990-2000". The table indicates slight increases in population in the City of Jackson and Leoni and Summit Townships.

The table also shows a loss of Black/African Americans in Blackman Township. The Black/African American population also declined between 1990 and 2000 in the rural township areas. Very few Black/African Americans resided in outlying villages in 1990 and 2000.

When the inmate population at these state prison facilities is subtracted from local unit Black/African American totals, the County realized a gain of 283 persons, between 1990 and 2000, an increase of 4.8%. Excluding the inmate population, the number of Blacks increased in the City and urban townships 506 persons. The increase of 223 Blacks in the urban townships represented an increase of 20.7%.

#### **Ethnicity**

The US Census provides data for Jackson County's Hispanic or Latino population. In the year 2000 the Hispanic or Latino population numbered 3,493, an increase of 1,190, or 51.7% over the 1990 population of 2,303. While the numbers of Hispanic or Latino residents are quite low relative to the total population, the Census data reveals that the number of people claiming Hispanic or Latino ethnic origin is growing at a rapid rate, countywide.

Hispanic or Latino Population as Compared to Total Population							
	Jackson Cou	nty, 2000					
Hispanic/ Total Latino Population <u>Population</u> <u>%</u> Jackson County 158,422 3,493 2,2%							
Jackson County City of Jackson	36,316	1,469	4.0%				
Rural Townships	Rural Townships 58,889 769 1.3%						
	Rural Townships         58,889         769         1.3%						

Within the County the Hispanic or Latino population amounted to 2.2% of the County's total population of 158,422. Hispanic and Latino residents tended to locate primarily within the City of Jackson. Of the City's population of 36,316; 1,469, or 4% of the City's population was Hispanic or Latino. Within the urban townships, 1,179; or 2% of the total urban township's population was Hispanic or Latino. A total of 769 Hispanics or Latinos were located in the rural townships. This represented 1.3% of the total rural township population. Within the villages, 1.4%, or 76 persons, were Hispanic or Latino.

As noted above, and shown on the table "Ethnicity – Hispanic or Latino, Jackson County and Local Units, 1990 and 2000", though the increase in the Hispanic or Latino population is small relative to the total population of the County, the rate of change is significant. Jackson County's Hispanic or Latino population grew from 2,303 in 1990 to 3,493 in 2000, a change of about 52%. This rate of change was consistent for the city, and Suburban and Rural Townships. Growth rates in the villages as a whole were substantially higher.

# DEMOGRAPHICS

Hispanic and Latino Population Growth As Compared to Total Population Growth Jackson County, 2000							
Jackson County	2,303	3,493	1,190	51.7%			
City of Jackson	954	1,469	515	54.0%			
Blackman Township	400	563	163	40.8%			
Leoni Township	175	218	43	24.6%			
Summit Township	245	398	153	62.4%			
Total	820	1,179	359	43.8%			
Columbia Township	30	67	37	123.3%			
Concord Township	17	13	-4	-23.5%			
Grass Lake Township	17	42	25	147.1%			
Hanover Township	27	34	7	25.9%			
Henrietta Township	42	83	41	97.6%			
Liberty Township	20	32	12	60.0%			
Napoleon Township	66	108	42	63.6%			
Norvell Township	20	20	0	0.0%			
Parma Township	36	43	7	19.4%			
Pulaski Township	18	12	-6	-33.3%			
Rives Township	29	83	54	186.2%			
Sandstone Township	39	31	-8	-20.5%			
Spring Arbor Township	60	130	70	116.7%			
Springport Township	20	12	-8	-40.0%			
Tompkins Township	30	37	7	23.3%			
Waterloo Township	25	22	-3	-12.0%			
Total	496	769	273	55.0%			
Village of Brooklyn	6	23	17	283.3%			
Village of Cement City	5	9	4	80.0%			
Village of Concord	8	9	1	12.5%			
Village of Grass Lake	2	7	5	250.0%			
Village of Hanover	0	0	0	0.0%			
Village of Parma	4	15	11	275.0%			
Village of Springport	8	13	5	62.5%			
Total	33	76	43	130.3%			
Source: U. S. Census							

## Age – Sex

#### Median Age

For the past several decades the median age of Jackson County'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. In 1980 the median age was 29.5 years. The median age increased in 1990 to 33.4 years, and again in the year 2000 for County residents to 37.0 years.

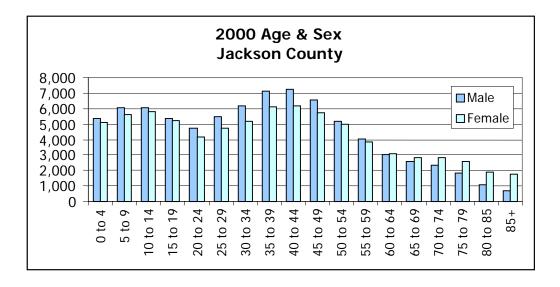
# DEMOGRAPHICS

Within Jackson County, in 2000 the City of Jackson had the lowest median age at 31.0 years. Median ages in the townships, were substantially higher, but varied. Spring Arbor Township had the lowest median age at 35.0 years, while the highest median age was in Columbia Township at 41.5 years of age.

Median Age Jackson County and Local Units of Government								
	1990 & 2000							
	<u>1990</u>	<u>2000</u>						
Jackson County	33.4	37.0	Pulaski Township	32.8	37.4			
City of Jackson	30.7	31.0	Rives Township	32.8	36.4			
Blackman Township	34.5	38.0	Sandstone Township	33.9	37.5			
Leoni Township	34.8	38.0	Spring Arbor Township	31.6	35.0			
Summit Township	36.2	40.0	Springport Township	31.5	35.3			
Columbia Township	37.4	41.5	Tompkins Township	31.5	37.2			
Concord Township	32.8	36.0	Waterloo Township	32.6	35.9			
Grass Lake Township	34.6	37.8	Village of Brooklyn	34.1	39.6			
Hanover Township	32.4	37.7	Village of Cement City	33.0	35.9			
Henrietta Township	32.9	36.1	Village of Concord	32.6	37.0			
Liberty Township	35.6	40.4	Village of Grass Lake	33.1	34.6			
Napoleon Township	34.1	37.2	Village of Hanover	29.7	33.0			
Norvell Township	36.0	41.2	Village of Parma	30.7	32.7			
Parma Township	32.3	37.5	Village of Springport	30.1	35.1			
Source: U. S. Census								

#### Age and Sex

The age and sex of Jackson County's population by 5-year cohort group are identified in the table "Age and Sex of Population, Jackson County, 2000" and the accompanying graph "Age and Sex, Jackson County, 2000".



Age and Sex of Population						
Jackson County, 2000						
Cohort	Num	bers of Person	ns			
<u>Group</u>	Male	<u>Female</u>	<u>Total</u>			
0 to 4	5,324	5,073	10,397			
5 to 9	6,043	5,613	11,656			
10 to 14	6,071	5,818	11,889			
15 to 19	5,361	5,250	10,611			
20 to 24	4,727	4,136	8,863			
25 to 29	5,456	4,717	10,173			
30 to 34	6,176	5,148	11,324			
35 to 39	7,145	6,092	13,237			
40 to 44	7,215	6,187	13,402			
45 to 49	6,557	5,741	12,298			
50 to 54	5,194	4,995	10,189			
55 to 59	4,032	3,867	7,899			
60 to 64	3,048	3,056	6,104			
65 to 69	2,592	2,812	5,404			
70 to 74	2,314	2,816	5,130			
75 to 79	1,802	2,602	4,404			
80 to 85	1,081	1,882	2,963			
85+	710	1,769	2,479			
Total	80,848	77,574	158,422			
Source: U. S.	Census					

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					
Jackson County, 2000					
Number of					
<u>Persons %</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 <b>158,422 100.0%</b>					

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 Tre State of Mic	
1991-200	)1
Year	<u>% Obese</u>
1991	15.2
1995	17.7
1998	20.7
1999	22.1
2000	21.8
2001	24.4
Source: Behavioral Risk F System, 2001	actor Surveillance

Actual Causes of Death, United States							
1990 and 2000	1990 and 2000						
% Of Deaths							
Cause	<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 Prevent	tion and Health P	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"

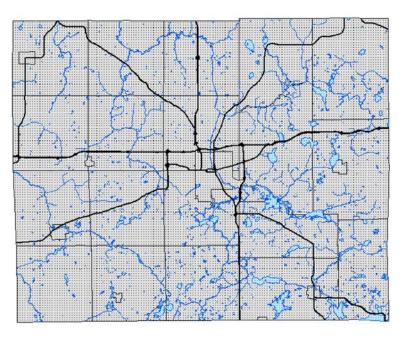
"Programs and policies are necessary to promote smart community growth and the establishment of urban and rural environments supportive of physical activity. Active community environments provide access to safe favorable conditions for physical activity and promote the development of social support networks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

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".<sup>2</sup>

- 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.

<sup>&</sup>lt;sup>1</sup> Kreulen Pg. 10

<sup>&</sup>lt;sup>2</sup> 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 community. High levels of employment, and the creation of high-wage jobs mean more income and wealth to the community.

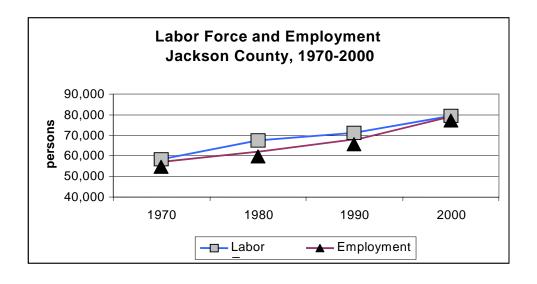
Historically, Jackson County's economy was supported by manufacturing jobs, and in particular, jobs related to the automobile industry. With the County's proximity to the Detroit area and its associated automobile production, the County's manufacturing and machining capabilities tied the health of the economy to the health of the national economy. At times when the national economy was strong, Jackson's economy boomed. And in the times of recession, when capital goods purchases declined, the impact was magnified locally. The County's economy throughout the 1900's was continually subjected to the wide fluctuations because of the lack of diversity in the local economy.

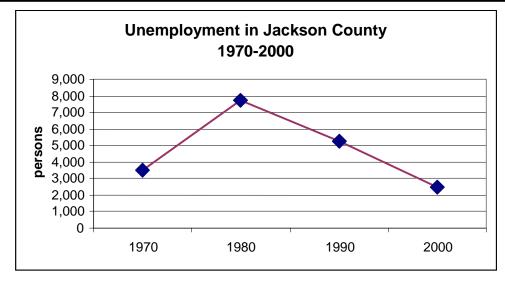
## Labor Force and Employment

**1970-2000.** Jackson County's labor force numbered 79,475 in the year 2000. In the thirty years since 1970, while the population increased 11%, the labor force increased by 36%.

Labor Force, Employment, and Unemployment Jackson County, 1970-2000								
	Unemployme							
Year	Labor Force	Employment	<u>Unemployment</u>	Rate				
1970	58,250	54,750	3,500	6.0%				
1980	67,375	59,650	7,725	11.5%				
1990	71,100	65,900	5,225	7.3%				
2000	2000 79,475 77,025 2,450 3.1%							
Source: Michigan Departr	ment of Career Develop	ment						

Employment has also increased significantly over this thirty-year period. Employment amounted to 77,025 in the year 2000, an increase of 22,275, or 41%, since 1970.

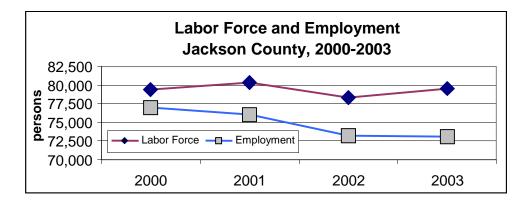


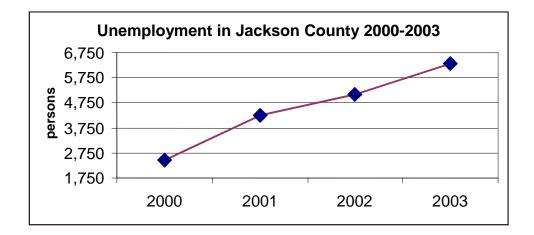


Over the same period of time, 1970-2000, unemployment at 6% in 1970 or 3,500 persons; increased to 11.5% in 1980 or 7,725 persons; and then declined to 7.3% in 1990, 5,225 persons; and 3.1% in the year 2000 to 2,450 persons.

**2000-2003.** Since the year 2000, the number of persons in the labor force has remained relatively stable, with fluctuations of approximately 1000 persons either side of the year 2003 labor force figure of 79,500. Employment, on the other hand has declined from 77,025 in year 2000 to 73,150 in 2003. During this three year period, unemployment increased from 2450, a rate of 3.1% to 6325, or 8%. This change is reflective of the recession experienced both at the national and local levels during the period. While the level of employment appears to be leveling off from the decline experienced in the years 2000 and 2001, unemployment has consistently increased in each of the years 2000-2003.

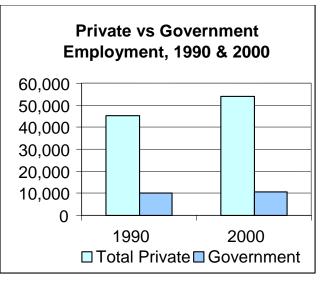
Labor Force, Employment, and Unemployment Jackson County, 2000 - 2003							
<u>Year</u>	Labor Force	Employment	<u>Unemployment</u>	Unemployment <u>Rate</u>			
2000	79,475	77,025	2,450	3.1%			
2001	80,325	76,075	4,250	5.3%			
2002	78,350	73,250	5,100	6.5%			
2003	79,500	73,150	6,325	8.0%			
Source:	Michigan Department	of Career Developmer	nt				





## **Sector Analysis**

Data on total non-farm employment is available through the Michigan Department of Career Development. This data provides a breakdown between government and private employment, goods producing and service providing employment, and the employment within various sectors of the economy 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

Between 1990 and the year 2000 total non-farm employment increased from 55,400 to 64,500, an increase of 16.4%. In the year 2000, 53,800 jobs, or 83% of the total jobs, were private sector jobs. The remaining 10,600 jobs were government sector jobs, which amounted to 17.0% of total non-farm employment.

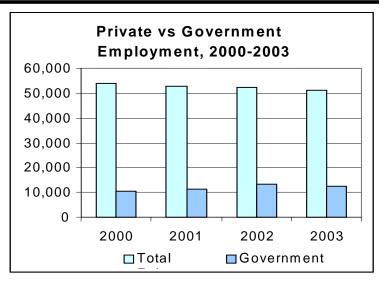
Between 1990 and 2000 total private sector jobs increased by 8,600 a 9% increase for the decade. During this same period of time government jobs increased 3.9%.

Since the year 2000, however, the rate of growth in government jobs has outpaced jobs in the private sector. Private sector jobs de-

Jackson County Labor Market Private and Government Non-Farm Employment 1990 & 2000							
Change							
Category 1990 2000 # %							
Total Non-Farm	55,400	64,500	9,100	16.4			
Total Private 45,200 53,800 8,600 19.0							
Government 10,200 10,600 400 3.9							
Source: Michigan Depa	artment of Caree	r Development					

clined between the year 2000 and 2003 by 2,800 jobs, representing a loss of -5.2%.

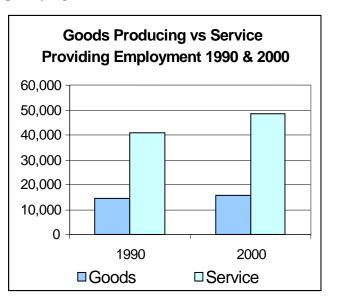
Government sector jobs, on the other hand, increased 1,900, or 17.9% between 2000 and 2003. It is likely that during this time, the loss in private sector jobs was due to economic recession. Government sector jobs increased through the year 2002 and then declined, probably due to a delay in the impact of the recession on local government.



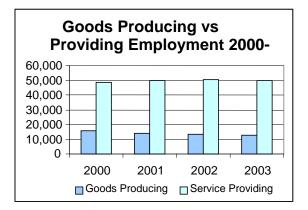
Jackson County Labor Market Private and Governmental Non-Farm Employment							
2000 - 2003							
	Change						
Category	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>#</u>	<u>%</u>	
Total Non-Farm	64,500	64,000	63,700	62,400	-2,100	-3.3%	
Total Private	53,800	52,600	52,200	51,000	-2,800	-5.2%	
Government	10,600	11,400	13,300	12,500	1,900	17.9%	
Source: Michigan Depar	rtment of Caree	r Developmer	nt				

#### Goods Producing Versus Service Providing Employment

Comparison of goods producing jobs and service providing jobs, reveals that in the year 2000, 75% of the total non-farm employment, or 48,600 jobs were in service providing industries. The balance of 15,800 jobs were supplied by goods producing industries. 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 1,200 between 1990 and 2000, an 8.2% increase. Jobs in service providing industries increased 7,000 during the same period, a 19.1% increase.



1990 & 2000 Jackson County Labor Market Goods Producing and Service Providing Employment						
Change						
<u>Category</u>	<u>1990</u>	<u>2000</u>	<u>#</u>	<u>%</u>		
Total Non-Farm	55,400	64,500	9,100	16.4%		
Goods Producing	14,600	15,800	1,200	8.2%		
Service Providing	40,800	48,600	7,800	19.1%		
Source: Michigan Department of Car	eer Development					



Between 2000 and 2003, goods producing industry employment declined by 3,300, a decrease of 20.9% over the three year period. This loss of jobs reduced the number of goods producing industry jobs to 12,500. Service providing jobs increased over the three-year period by 1300, an increase of 2.7%. This increase brought the total number of service providing industry jobs to 49,900. This contrast in job growth is indicative of the vulnerability of Jackson County's economy to economic fluctuation.

Jackson County Labor Market Goods Producing and Service Providing Employment						
2000 – 2003						
Change					nge	
Category	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>#</u>	<u>%</u>
Total Non-Farm	64,500	64,000	63,700	62,400	-2,100	-3.3%
Goods Producing	15,800	14,100	13,300	12,500	-3,300	-20.9%
Service Providing	48,600	49,900	50,400	49,900	1,300	2.7%
Source: Michigan Departr	ment of Career L	Developmen	t			

#### 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%.

#### Sector Analysis – Service Providing Industries

For service providing industries, substantial job growth between 1990 and 2000 occurred in professional, health services, leisure and hospitality, and "other service" sectors. Very little growth occurred in trade, transportation, and utilities; and the governmental sector; while jobs in the information and financial sectors declined over the ten-year period.

# THE ECONOMY

Since the year 2000, the number of service providing jobs has increased by 1,400 an increase of 2.9%. Numerically, the greatest increases were experienced in the government sector with 900 jobs, and the financial sector with 800 jobs over the three-year period. Additional employment increases were experienced in the health services and professional sectors, while losses in jobs occurred in trade, transportation, utility; leisure and hospitality; and other services.

Jackson County Labor Market Goods Producing and Service Providing Employment Detail 1990 & 2000						
			<u>#</u>	<u>%</u>		
Sector	<u>1990</u>	<u>2000</u>	Change	Change		
Construction & Mining	1,800	3,100	1,300	72.2%		
Manufacturing	12,800	12,800	0	0.0%		
Total Goods Producing	14,600	15,900	1,300	72.2%		
Trade, Trans., and Utilities	13,700	14,200	500	3.6%		
Information	800	600	-200	-25.0%		
Financial	1,900	1,800	-100	-5.3%		
Professional	2,100	4,500	2,400	114.3%		
Health Services	5,500	8,300	2,800	50.9%		
Leisure and Hospitality	4,100	5,600	1,500	36.6%		
Other Services	2,500	3,000	500	20.0%		
Government	10,200	10,600	400	3.9%		
Total Service Providing	40,800	48,600	7,800	19.1%		
TOTAL	55,400	64,500	9,100	16.4%		
Source: Michigan Department of Caree	er Development					

Jackson County Labor Market Goods Producing and Service Providing Employment Detail 2000 - 2003						
Sector	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>Numerical</u> Change	Percent Change
Construction & Mining	3,100	2,900	2,700	2,700	-400	-12.9%
Manufacturing	<u>12,800</u>	<u>11,200</u>	<u>10,600</u>	<u>9,800</u>	<u>-3,000</u>	<u>-23.4%</u>
Total Goods Producing	15,900	14,100	13,300	12,500	-3,400	-36.3%
Trade, Trans., and Utilities	14,200	14,200	13,900	13,600	-600	-4.2%
Information	600	600	600	600	0	0.0%
Financial	1,800	2,500	2,600	2,600	800	644.4%
Professional	4,500	4,700	4,700	4,600	100	2.2%
Health Services	8,300	8,000	8,500	8,700	400	4.8%
Leisure and Hospitality	5,600	5,600	5,700	5,500	-100	-1.8%
Other Services	3,000	2,900	2,900	2,900	-100	-3.3%
Government	10,600	11,400	11,500	11,500	<u>900</u>	8.5%
Total Service Providing	48,600	49,900	50,400	50,000	1,400	2.9%
TOTAL	64,500	64,000	63,700	62,500	-2,000	-3.1%
Source: Michigan Department of C	Career Deve	elopment				

## Industry Employment Forecast 2000-2010

The Michigan Department of Career Development provides industry employment forecasts. A forecast for the year 2010 is provided for the area of Hillsdale, Jackson, and Lenawee Counties. The forecast projects total wage and salary employment to increase by 10.9% between 2000 and 2010 in the three county area. Goods producing industries are expected to see an increase in employment of 4% while service providing industries are anticipated to increase employment by 13.6%. Of the three subcategories of goods producing industries - mining, construction, and manufacturing; the greatest increase of employment is anticipated in the construction industry, specifically special trade contractors who are expected to increase employment by 25.6%. Within the manufacturing sector, employment is only anticipated to increase 1.3%.

Losses of employment are anticipated in fabricated metal products, and industrial machinery and equipment manufacturing.

Employment Forecasts Hillsdale, Jackson, & Lenawee Counties 2000 – 2010				
Category and Sector	<u>Change</u>			
Total, Wage and Salary Employment	10.9%			
Goods Producing IndustriesMiningConstructionManufacturingDurable goods0.8Non-Durable Goods3.0	4.0% -6.3 20.0 1.3			
Service Providing Industries Transportation, Communication Wholesale Trade Retail Trade Finance, Insurance, Real Estate Other Services Government Source: Michigan Department of Career Develop	13.6% 7.4% 3.9% 12.0% 9.3% 19.6% 3.2%			

Within the service providing industries, substantial growth and employment is anticipated in the "other services" category which includes substantial anticipated growth in business services, hotels and other lodging places, social services, personal services, and automobile repair services and parking. Each of these categories is anticipated to increase employment by at least 25%. Taken as a whole, these "other services" are anticipated to increase 19.6%. Substantial growth is also anticipated in retail trade where employment is anticipated to increase 12%. Most of the increase of employment in the retail trade sector is anticipated in eating and drinking establishments; furniture and home furnishing stores; miscellaneous retail stores; and building materials, hardware, and garden supplies.

These forecasts anticipate a continuation of trends identified above, that is, a continued decline in the relative importance of manufacturing employment, and a continued increase in employment and service providing industries.

## **Agricultural Economy**

While agricultural has experienced a decline, relative to other sectors of the local economy over the past several decades the industry is still important to Jackson County. In 1997 agricultural production of crops had a product value of \$23,816,000; and livestock product value amounted to \$20,495,000. In total over 44 million dollars of products were produced in Jackson County in 1997 by farmers.

Most farms are farmed by individuals or families. Of the 987 farms identified by the 1997 Census of Agriculture, 878 are owned by individuals or families. 77 farms are owned by partnerships, and 23 farms are family held corporations. In 1997 two farms were owned by other than family held corporations and seven farms were owned by cooperatives, estates or trusts, or institutions.

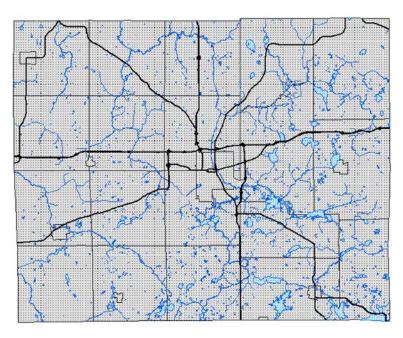
Market Value of Agricultural Products Sold in Jackson County				
1997				
<u>Product</u>	Product Value			
Crops	\$23,816,000			
Livestock	\$20,495,000			
Total	\$44,311,000			
Avg/Farm	\$44,895			
Avg/Farm Acre	\$244.42			
Source: U. S. Census of Agriculture				

Farms by Type of Organization Jackson County				
1992-1997				
Type of Organization	<u>1992</u>	<u>1997</u>		
Individual or Family	892	878		
Partnership	113	77		
Corporation, Family Held	22	23		
Corporation, Other Than Family Held	2	2		
Other (cooperative, estate, institutional, etc.)	10	7		
Total	1039	987		
Source: U. S. Census of Agriculture				

Hired workers worked on 196 farms in Jackson County in 1997. These 196 farms hired 915 workers. Of this total, 167 worked 150 days or more, and the remaining 748 workers worked less than 150 days on the farm.

One final set of data is important in considering the future of farming in Jackson County. According to the US Census of Agriculture, in 1992 the average age of the farm operator was 54.0 years. In 1997, the average age had increased to 54.2 years.

Hired Farm Labor Jackson County	
1997	
Farms	196
Hired Workers	915
Worked 150+ Days	167
Worked less than 150 Days	748
Source: U. S. Census of Agriculture	



<u>Chapter 6</u> LAND USE

## **Existing Land Use**

The area of Jackson County contains 463,072 acres, or 723.5 square miles.

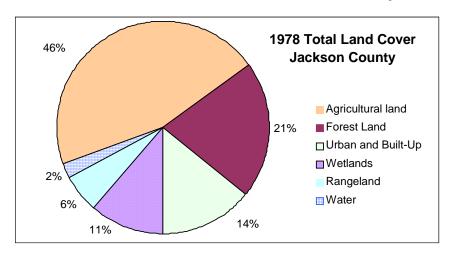
#### Land Cover - 1978 Data

Land cover data is available for 1978. This information was collected as a part of the former Michigan Information Resource Inventory System (MIRIS). This data is being updated for the year 2000 by the Center for Remote

Total Land Cover						
Jackson County - 1978						
	Area	Area	<u>% of</u>			
	(Acres)	<u>(sq. mi)</u>	<u>County</u>			
Agricultural land	210,375	329	45.5%			
Forest Land	96,880	151	20.9%			
Urban and Built-Up	65,984	103	14.3%			
Wetlands	51,820	81	11.2%			
Rangeland	27,537	43	6.0%			
Water	10,092	16	2.2%			
Total area of county	462,687	723	100.0%			
Source: Michigan Resource In	formation Systen	า				

Sensing at Michigan State University. As of this writing, certain townships within Jackson County have been updated and data is available, however, data for the County as a whole, and data for most of Jackson County's townships, is not yet available for the year 2000.

The data for 1978 indicates that 45.5% of the land area of the County was used for agricultural land, and an additional 6% of the land area of the County was used as rangeland. These two



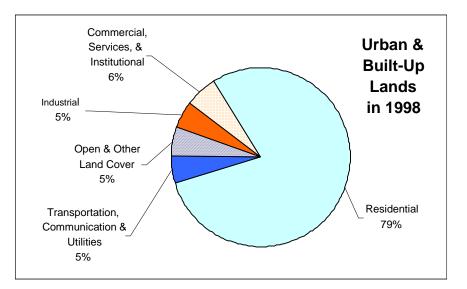
categories of land use, which could be interpreted as the total agricultural and open space land uses amount to slightly over half of the land area of the County or approximately 237.912 acres. Wetlands occupied 11.2% of the land area of the County, and lakes amounted to an additional 2.2% of the land area of the County. In all, wetlands and water areas included 61,912 acres.

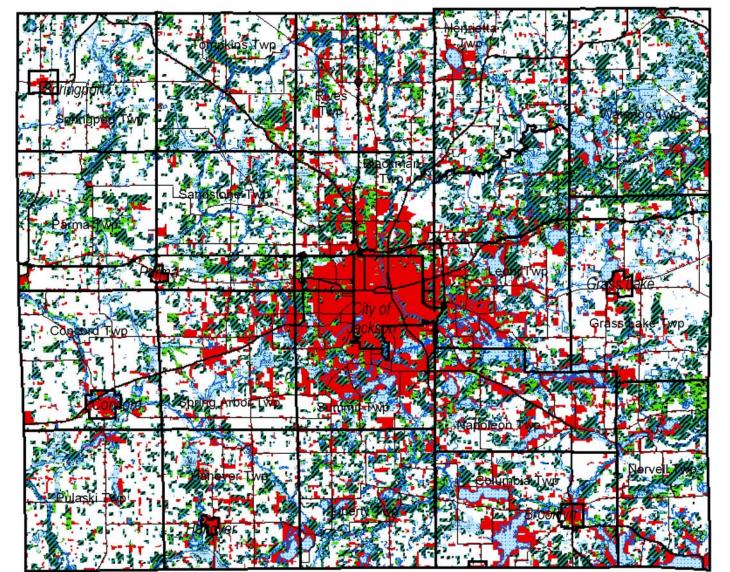
The balance of the land area in 1978 consisted of urban and "built-up" lands. These lands occupied 65,984 acres, or 14.3% of the land area of the County. In short, Jackson County is comprised of a rich mixture of land cover with cropland and pasture, a substantial area of forested land, wetlands, and lakes. The urban and "built-up" area of Jackson County is located primarily in the geographic center of the County, and is comprised of the City of Jackson and portions of the surrounding townships including Blackman, Leoni, Napoleon, Rives, Spring Arbor and Summit Townships. Smaller urban and "build-up" clusters include the village areas in outlying portions of the County-Brooklyn, part of Cement City, Concord, Grass Lake, Hanover, Parma, and Springport. Additional urban and "built-up" lands, though much more difficult to identify and map, include residential development scattered along rural roads in the township areas. As noted in Chapter 4 Demographics, and Chapter 7 Housing, much of the residential development within Jackson County over the past three decades is dispersed along County roads in rural areas. (See map 9 Existing Land Cover, 1978)

#### Urban and Built-Up Lands - 1998 Update

To identify changes in the "urban and built-up" category of land cover, 1978 data was updated to the year 1998. Term "urban and built-up areas" includes the following categories of land cover – Industrial; Commercial, Services, and Institutional; Residential; Transportation, Communication and Utilities; and Open and Other Types of Land Use. Analysis of this updated data reveals that the "urban and built-up area" in and around the City of Jackson increased 4,873 acres to a total of 70,858 acres. This represents an increase of 7.4% over the twenty-year period. The greatest change occurred in residential lands where the land area increased from 50,472 to 56,245, an increase of 5,773 acres or 11.4%. Industrial acreage increased over the twenty-year period by 474 acres or 16.9%. Commercial, services, and institutional land uses increased 218 acres, an increase of 5.6%. Similarly, a slight increase was experienced in the transportation, communication, and utilities" category which increased 151 acres or 4.6%. Finally, the category of land which includes open and other land cover areas declined 1,743 acres for a loss of 31.3%. (See map 10 Urban and Built-Up Areas, 1998).

Changes in Urban and Built-Up Lands (in acres)					
Jackson County, 1978 - 1998					
Category	<u>1978</u>	<u>1998</u>	<u>Change</u>	<u>% Change</u>	
Industrial	2,800	3,274	474	16.9%	
Commercial, Services, and Institutional	3,897	4,115	218	5.6%	
Residential	50,472	56,245	5,773	11.4%	
Transportation, Communication, and Utilities	3,250	3,401	151	4.6%	
Open and Other Land Cover	5,566	3,823	-1,743	-31.3%	
Total	65,985	70,858	4,873	7.4%	
Source: MIRIS data, 1978 and Veridian Inc. data, 1998					





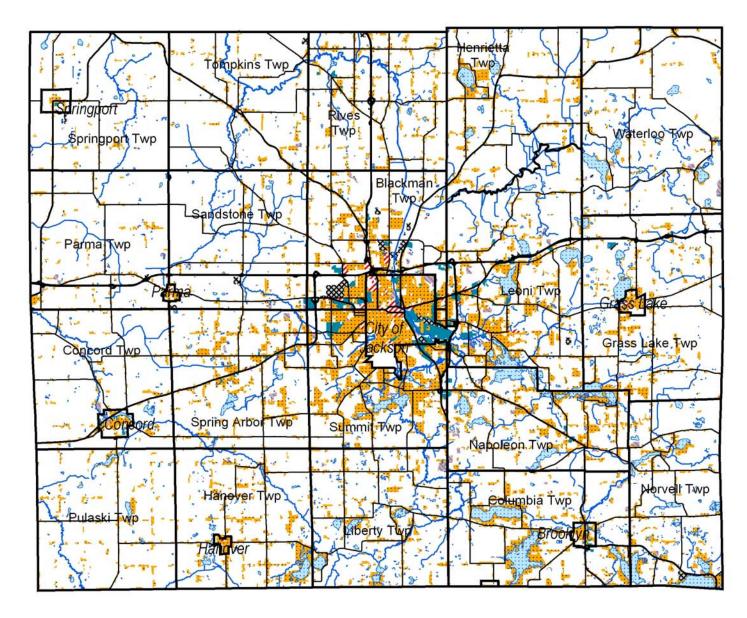
Jackson Community Comprehensive Plan Jackson, Michigan

## Map 9 1998 Existing Land Cover



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





Jackson Community Comprehensive Plan Jackson, Michigan

## Map 10 1998 Urban & Built-Up Areas





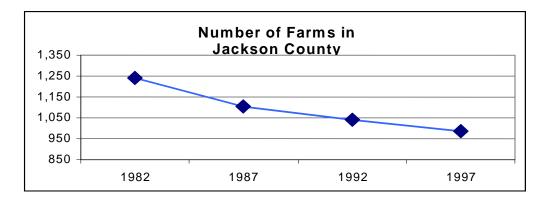
## Trends in Agricultural Land Use

Chapter 5 Economy noted the decline in the agricultural sector of the economy. This decline has significant impacts on land use. United States Census of Agriculture provides data including land and farms, the number of farms, and average farm size. The Census is taken on the second and seventh year of each decade. Data included in the Census of Agriculture for 1982, 1987, 1992, and 1997 were reviewed for the preparation of this plan.

Number of Jackson County Farms				
1982, 1	1987, 199	92, 199	7	
# Of %				
Year	Farms	Change	Change	
1982	1242			
1987	1103	-139	11.1%	
1992	1041	-62	5.6%	
1997	987	-54	5.2%	
Source: U.S.Cen	sus of Agricu	lture		

#### Number of Farms

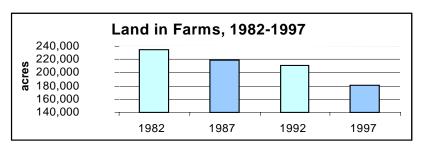
The Census notes a decline in the number of farms over the fifteen-year period. In 1982 there were 1,242 farms in Jackson County. By 1997, the number of farms had declined for the third consecutive five-year period to 987, a loss of 255 farms.



#### Land In Farms

The decline in the number of farms over the twenty-year period has also had an impact on the amount of land in farms. Over the fifteen-year period between 1982 and 1997 the amount of land and farms declined from 235,184 to 181,287 acres. This decline of 53,897 acres represented 23% of the land which existed in farms in 1982.

Land in Farms, 1982 - 1997				
Jackson County				
	Land in Farms	Change		
<u>Year</u>	(Acres)	<u>(Acres)</u>	<u>% Change</u>	
1982	235,184.00			
1987	218,375.00	-16,809.00	-7.1%	
1992	210,638.00	-7,737.00	-3.5%	
1997	181,287.00	-29,351.00	-13.9%	
Total Change		-53,897.00	-22.9%	
Source: U. S. Census o	f Agriculture			

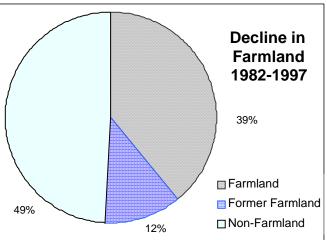


# LAND USE

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

- 1. The decline in the amount of agricultural lands over the fifteen-year period is likely substantially due to sale of land for urbanization, specifically, the development of single-family homes in agricultural areas.
- 2. Once converted to other uses, the likelihood and ease of the retrieval of lands for agricultural purposes becomes very difficult.
- 3. The decline in agricultural lands results in a decline in agricultural production.
- 4. The use of the land for agricultural purposes creates open spaces, 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.

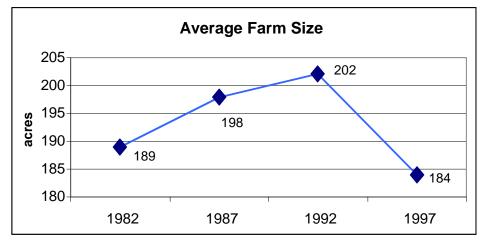
It is also important to note that this loss of 53,897 acres represents the largest acreage decline of any of Michigan's 83 counties over the fifteen year period between 1982 and 1997.

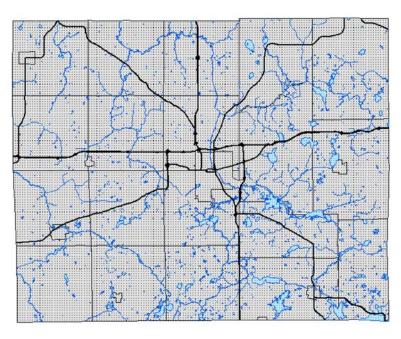


Average Farm Size, 1982 - 1997			
	Jackson County		
Year	<u>A</u>	cres	
1982		189	
1987		198	
1992		202	
1997		184	
Source:	U. S. Census of Agriculture		

#### Average Farm Size

Census of Agriculture also provides data on average farm size. A trend appeared to be emerging between 1982 and 1992 with farm size increasing from 189 acres per farm in 1982 to 198 acres in 1987 and 202 acres in 1997. However, in 1997 the average farm size declined to 184 acres.





Chapter 7 HOUSING Of Jackson County's population of 158,422, those who lived in group quarters numbered 10,039, and the balance of the population, 148,383, lived in dwelling units. Housing characteristics including number of housing units, housing unit type, 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.

## Numbers of Housing Units

The US Census Bureau estimates that the number of housing units increased from 62,906 in April 2000 to 64,778 in July 2002. This estimated increase of 3.0% is 27<sup>th</sup> highest of Michigan's 83 counties.

According to the 2000 Census, Jackson County contains 62,906 dwelling units. Of this total, 15,241 were located within the City of Jackson; 21,598 were located within the urban townships; and the balance of 26,067 was located in the rural township areas.

# Housing Unit Type

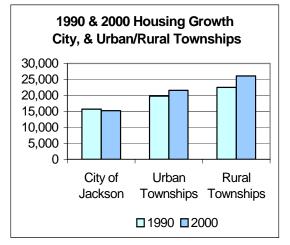
In 2000, Jackson County had 62,906 dwelling units in six categories of housing: single-family detached, mobile homes, single-family attached, duplex, multiple family, and other categories. Of these 62,906 units, 47,246, or 75% of the total units were single-family detached units. Multiple family units numbered 7,116, or 11% of the total number of dwelling units. There were 4,846 mobile homes and 2,597 duplex units, amounting to 7.7 and 4.1 percents of the total housing stock respectively.

Types of Dwelling Units					
Jackson County, 2000					
	<u>Number</u>	<u>%</u>			
Single-Family Detached	47,246	75.1%			
Mobile Homes	4,846	7.7%			
Single-Family Attached	857	1.4%			
Duplex	2,597	4.1%			
Multiple Family	7,116	11.3%			
Other	244	0.4%			
Total Units         62,906         100.0%					
Source: U. S. Census					

Over the ten-year period between 1990 and 2000 the number of single-family detached units and mobile homes increased 11.5 and 9.9 percents, respectively. The numbers of duplexes declined by 8% over the period, and single-family attached dwellings and multiple family dwellings increased by slightly over 1%.

Dwelling Units by Type							
Jackson County, 1990 and 2000							
	<u>1990</u>	<u>2000</u>	<u>Change</u>	<u>% Change</u>			
Single-Family Detached	42,357	47,246	4,889	11.5%			
Mobile Homes	4,411	4,846	435	9.9%			
Single-Family Attached	848	857	9	1.1%			
Duplex	2,823	2,597	-226	-8.0%			
Multiple Family	7,027	7,116	89	1.3%			
Other	513	244	-269	-52.4%			
Total Units	57,979	62,906	4,927	8.5%			
Source: U. S. Census							

Significantly, single-family detached dwelling units are not only the most popular housing unit, at 75% of total housing units; but over the past years the number of these units has grown at a



rate greater than any other type of housing unit.

The table "Analysis of Housing Growth, Local Units of Government, 1990-2000" provides a comparison of housing units existing in 1990 and 2000 for the City of Jackson and Jackson County Townships. While the number of dwelling units within the City of Jackson declined over the ten year period by almost 3%, dwelling units increased by 9.2% in the urban townships, and by 15.8% in rural townships. Growth and housing units was particularly significant in Grass Lake Township which grew by 426 units between 1990 and 2000, an increase of 31%. Waterloo Township also experienced significant growth with 313 units between 1990 and 2000, an

increase of 29%. Other townships with increases in housing units about 20% included Concord, Liberty, Rives and Tompkins Townships.

Analysis of Housing Growth for Local Units of Government							
Jackson County, 1990 - 2000							
City of Jackson	<u>1990</u> 15689	<u>2000</u> 15,241	<u>Change</u> -448	<u>%</u> -2.9%			
Blackman	6202	6,921	719	11.6%			
Leoni	5291	5,568	277	5.2%			
Summit	8288	9,109	821	9.9%			
Total Urban Townships	19,781	21,598	1,817	9.2%			
Columbia	3181	3,552	371	11.7%			
Concord	874	1,092	218	24.9%			
Grass Lake	1378	1,804	426	30.9%			
Hanover	1375	1,490	115	8.4%			
Henrietta	1489	1,753	264	17.7%			
Liberty	978	1,186	208	21.3%			
Napoleon	2468	2,824	356	14.4%			
Norvell	1458	1,568	110	7.5%			
Parma	901	1,001	100	11.1%			
Pulaski	661	769	108	16.3%			
Rives	1454	1,745	291	20.0%			
Sandstone	1168	1,358	190	16.3%			
Spring Arbor	2504	2,694	190	7.6%			
Springport	736	816	80	10.9%			
Tompkins	814	1,032	218	26.8%			
Waterloo	1070	1,383	313	29.3%			
Total Rural Townships	22,509	26,067	3,558	15.8%			
TOTAL	57,979	62,906	4,927	8.5%			
Note: Village housing units are inclu	uded in totals for r	ural townships					
Source: U. S. Census							

# **Housing Tenure**

An analysis of housing tenure, that is an analysis of owner occupied and renter occupied housing, provides a means of measure of quality of life for households and a measure of the quality of the community. Generally, higher levels of home ownership are associated with property investment and neighborhood quality.

Housing Tenure							
	Jackson County 1990 - 2000						
	Total	Owner		Renter			
	<b>Occupied</b>	<b>Occupied</b>	<u>%</u>	<b>Occupied</b>	<u>%</u>		
1990	53,660	39,528	73.7%	14,132	26.3%		
2000	58,178	44,513	76.5%	13,665	23.5%		
Source: U. S. Census							

For Jackson County between 1990 and the year 2000 levels of owner occupied housing increased. As shown in the table "Housing Tenure, Jackson County, 1990-2000" occupied units in the year 2000 numbered 44,513, or 76.5% of all occupied housing units. The numbered of occupied units in 1990 was 39,528, which represented 73.7% of the total occupied units. Correspondingly, the number of renter occupied units declined between 1990 and the year 2000 and the percentage of renter occupied units to total units decreased from 26.3% in 1990 to 23.5% in the year 2000.

Housing Tenure for Local Units of Government Jackson County, 2000					
City of Jackson	Owner <u>Occupied</u> 8,181	Renter Occupied 6,029	Total <u>Occupied</u> 14,210	<u>% Owner</u> 57.6%	<u>% Renter</u> 42.4%
Blackman	4,483	2,175	6,658	67.3%	32.7%
Leoni	4,518	722	5,240	86.2%	13.8%
Summit	7,018	1,672	8,690	80.8%	19.2%
S. Total Urban Townships	16,019	4,569	20,588	77.8%	22.2%
Columbia	2,470	424	2,894	85.3%	14.7%
Concord	792	194	986	80.3%	19.7%
Grass Lake	1,405	248	1,653	85.0%	15.0%
Hanover	1,240	134	1,374	90.2%	9.8%
Henrietta	1,453	161	1,614	90.0%	10.0%
Liberty	995	78	1,073	92.7%	7.3%
Napoleon	2,180	412	2,592	84.1%	15.9%
Norvell	1,052	83	1,135	92.7%	7.3%
Parma	820	123	943	87.0%	13.0%
Pulaski	625	85	710	88.0%	12.0%
Rives	1,571	106	1,677	93.7%	6.3%
Sandstone	1,157	164	1,321	87.6%	12.4%
Spring Arbor	2,070	500	2,570	80.5%	19.5%
Springport	608	162	770	79.0%	21.0%
Tompkins	885	100	985	89.8%	10.2%
Waterloo	990	93	1,083	91.4%	8.6%
S. Total Rural Townships	20,313	3,067	23,380	86.9%	13.1%
TOTAL Note: Village housing units are ind Source: U.S. Census	44,513 cluded in totals fo	13,665 or rural townships	58,178 s.	76.5%	23.5%

Housing tenure data for Jackson County for the year 2000 for local units of government indicates, as could be expected, lower owner occupancy rates for owner units in urban areas, and higher owner occupancy in rural areas. In the year 2000, the City of Jackson had 8,181 owner occupied units, which amounted to 57.6% of the City's 14,210 occupied units. In the urban townships 77.8% of occupied units were owned. In the rural township areas, including Jackson County villages, 86.9% of all occupied units were owned units. Owner occupied units as a percent of total occupied units exceeded 90% in the townships of Hanover, Henrietta, Liberty, Rives, and Waterloo.

#### Vacancy and Vacancy Rates

The US Census provides information on housing vacancy by local unit of government. In 2000 4,738 housing units were vacant because they were offered for sale or for rent; rented or sold but not occupied; for seasonal, recreation, or occasional use; for migrant workers; or were vacant for some other reason. The table entitled "Housing Vacancy, Local Units of Government, Jackson County, 2000". Of the 4,738 vacant units in the County in 2000, only 1,576 were for sale or for rent. Vacant seasonal units numbered 1,669; and those falling into the "other vacant" category numbered 568.

Jackson County, 2000							
City of Jackson	<u>Occupied</u> 14,210	<u>Vacant</u> 1,031	Vacant For Sale 126	Vacant <u>For Rent</u> 518	Vacant <u>Seasonal</u> 39	Other <u>Vacant</u> 348	
Blackman	6,658	263	67	82	28	86	
Leoni	5,240	328	69	45	89	125	
Summit	8,690	419	112	97	62	148	
S. Total Urban Townships	20,588	1,010	248	224	179	359	
Columbia	2,894	658	29	30	546	53	
Concord	986	106	15	18	5	68	
Grass Lake	1,653	151	28	7	86	30	
Hanover	1,374	116	6	12	71	27	
Henrietta	1,614	139	20	13	66	40	
Liberty	1,073	113	4	6	68	35	
Napoleon	2,592	232	29	18	130	55	
Norvell	1,135	433	15	11	386	21	
Parma	943	58	15	7	2	34	
Pulaski	700	69	5	6	37	21	
Rives	1,677	68	20	7	6	35	
Sandstone	1,321	37	6	6	2	23	
Spring Arbor	2,570	124	32	31	12	49	
Springport	770	46	9	11	4	22	
Tompkins	985	47	8	4	6	29	
Waterloo	1,083	300	32	0	242	26	
S. Total Rural Townships	23,370	2,697	273	187	1,669	568	
TOTAL	58,168	4,738	647	929	1,887	1,275	

The table entitled "Vacancy Rates, Local Units of Government, Jackson County, 2000" provides vacancy rates for owner and rental units. Vacancy rates for owner units are fairly consistent across the County with rates in the City of Jackson and urban townships at 1.5%, and rates in the rural townships, including the villages at 1.3%.

Vacancy rates for rental units varied more significantly. Rental unit vacancy rates in the City of Jackson were 7.9%. While in the urban townships were 4.7% and the rural townships 5.7%.

These vacancy rates represent a fairly tight housing market.

Vacanc	Vacancy Rates, Local Units of Government						
	Jackson County, 2000						
City of Jackson	Total Owner <u>Units</u> 8,307	Vacant Owner <u>Units</u> 126	Owner Vacancy <u>Rate</u> 1.5%	Total Rental <u>Units</u> 6,547	Vacant Rental <u>Units</u> 518	Rental Vacancy <u>Rate</u> 7.9%	
Blackman	4,550	67	1.5%	2,257	82	3.6%	
Leoni	4,587	69	1.5%	767	45	5.9%	
Summit	7,130	112	1.6%	1,769	97	5.5%	
Total Urban Townships	16,267	248	1.5%	4,793	224	4.7%	
Columbia	2,499	29	1.2%	454	30	6.6%	
Concord	807	15	1.9%	212	18	8.5%	
Grass Lake	1,433	28	2.0%	255	7	2.7%	
Hanover	1,246	6	0.5%	146	12	8.2%	
Henrietta	1,473	20	1.4%	174	13	7.5%	
Liberty	999	4	0.4%	84	6	7.1%	
Napoleon	2,209	29	1.3%	430	18	4.2%	
Norvell	1,067	15	1.4%	94	11	11.7%	
Parma	835	15	1.8%	130	7	5.4%	
Pulaski	630	5	0.8%	91	6	6.6%	
Rives	1,591	20	1.3%	113	7	6.2%	
Sandstone	1,163	6	0.5%	170	6	3.5%	
Spring Arbor	2,102	32	1.5%	531	31	5.8%	
Springport	617	9	1.5%	173	11	6.4%	
Tompkins	893	8	0.9%	104	4	3.8%	
Waterloo	1,022	32	3.1%	93	0	0.0%	
Total Rural Townships	20,586	273	1.3%	3,254	187	5.7%	
TOTAL	45,160	647	1.4%	14,594	929	6.4%	
Source: U. S. Census and R2PC							

The relatively high number of vacancy seasonal units reflects development around lakes in Jackson County, and in particular the lakes located in Columbia, Norvell, Waterloo, Napoleon, Grass Lake, Hanover, Henrietta and Liberty Townships.

# **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, and for each decade since 1940. As the housing unit ages maintenance requirements increase, and structural problems may emerge.

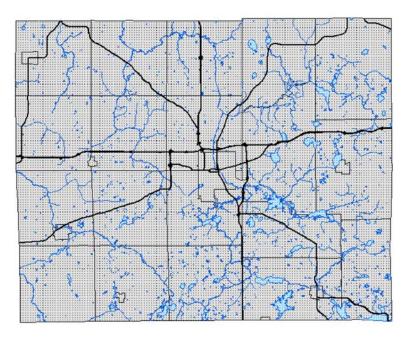
Countywide, almost 26% of all housing units were constructed prior to 1939. Within the City of Jackson 7,783 of the 15,241 housing units, or 51%, were constructed to 1939.

Age of Housing						
	Jackson County					
City of Jackson	Total Housing <u>Units</u> 15241	Units Constructed <u>Prior to 1939</u> 7,783	<u>%</u> 51.1%			
Blackman	6907	775	11.2%			
Leoni	5565	1,264	22.7%			
Summit	<u>9123</u>	1,328	<u>14.6%</u>			
S. Total Urban Townships	21,595	3,367	15.6%			
Columbia	3547	736	20.7%			
Concord	1113	381	34.2%			
Grass Lake	1815	462	25.5%			
Hanover	1491	345	23.1%			
Henrietta	1733	361	20.8%			
Liberty	1191	188	15.8%			
Napoleon	2824	298	10.6%			
Norvell	1577	346	21.9%			
Parma	1024	270	26.4%			
Pulaski	763	150	19.7%			
Rives	1754	257	14.7%			
Sandstone	1335	309	23.1%			
Spring Arbor	2678	284	10.6%			
Springport	805	315	39.1%			
Tompkins	1043	178	17.1%			
Waterloo	<u>1377</u>	<u>201</u>	<u>14.6%</u>			
S. Total Rural Townships	26,070	5,081	19.5%			
TOTAL62,90616,23125.8%Note: Village housing units are included in totals for rural townships. Source: U. S. CensusSource: U. S. Census						

Within Jackson County's urban townships 3,367 units or 15.6% of housing units, were constructed prior to 1939. The highest percentage of these was located in Leoni Township which had 1,264, or almost 23%, constructed prior to 1939.

Within the rural townships, 5,081, or 19.5%, were constructed prior to 1939. Townships with relatively high percentages of units constructed prior to 1939 included Concord and Springport, each of which has more than 30% of housing units constructed prior to 1939. Conversely slightly over 10% of housing units in Napoleon and Spring Arbor Townships were constructed prior to 1939.

While it is difficult to predict the longevity of the housing stock, obviously, housing rehabilitation will become more important over time, particularly in areas where high percentages of units were constructed prior to 1939. Such efforts are especially important within densely settled areas were determination may have a blighting influence on the surrounding neighborhood.



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 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.

<u>Objectives</u>

- 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.

<u>Objectives</u>

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.

#### <u>Objectives</u>

- 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 longterm 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.

#### <u>Objectives</u>

- 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 rightsof-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.

#### <u>Objectives</u>

- 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.

<u>Objectives</u>

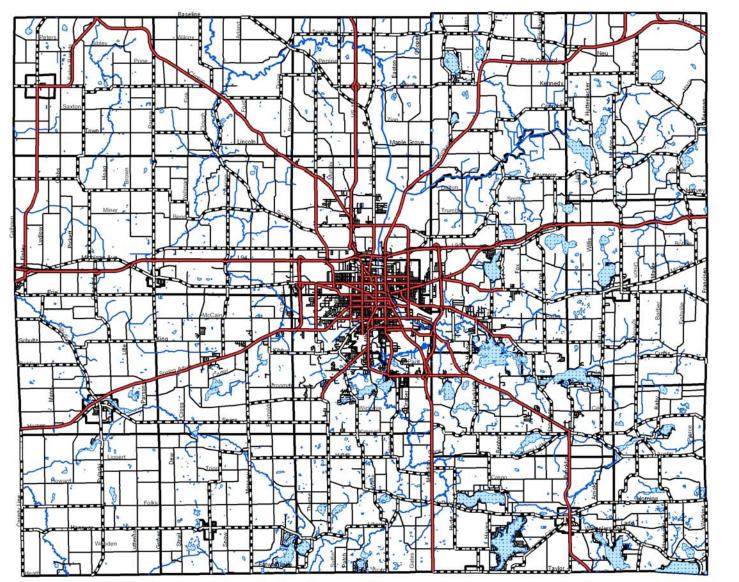
- a. The transportation system should encourage employment retention, attraction, and expansion in Jackson County.
- b. The transportation system should provide mobility to all persons. Special consideration should be given to the development of transportation services that provide opportunities for 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.

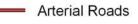
The most important transportation system within Jackson County is its system of roads and highways. This system is necessary to move goods, products, and people into, out of, and within Jackson County. Roads, highways, and streets are provided by the federal government, the State of Michigan Department of Transportation, the Jackson County Road Commission, and the cities and villages within Jackson County.



Jackson Community Comprehensive Plan Jackson, Michigan







- ---- Collector Roads
- Local Roads

Source: The Center for Geograhic Information State of Michigan



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, that is freeways, and major trunklines, are funded primarily by the federal and state government. In Jackson County, these roads include I-94, US-127, M-50, M-106, M-99, and M-124. Federal and state funding may also be used on roads under the jurisdiction of the County Road Commission and the City of Jackson, though the funding proportion from federal and state sources is continually less than those roads which are designated as federal or state highways.

Construction of, and improvement to, local streets, collectors, and arterials are the responsibility of cities and villages, and in the case of townships, the Jackson County Road Commission. These agencies make decisions regarding road construction and improvement for these types of streets.

#### 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 Country. 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. Jackson 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 an southeastern connection to Monroe and a northwest connection to Grand Rapids. M-60 extends to the southwest to the South Bend area.

Roads are defined by functional classification system according to a national standard which classifies streets and highways based upon the principle function they serve. Transportation routes, based upon this classification system, are shown in Map 11.

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." <sup>1</sup>

The JACTS Long-Range Plan has identified five major traffic movements within Jackson County:

- 1. Movement to and from retail and hotel establishments at US-127 North near I-94 to retail and office activities along West Michigan Avenue and the City of Jackson's Central Business District.
- 2. From US-127 South to commercial and industrial areas along East Michigan Avenue and the Central Business District.
- 3. From south US-127 to the Central Business District along Airline Drive.
- 4. From the southwest at M-60 north to Michigan Ave.
- 5. From traffic to and from southwestern residential areas along Horton Road to Fourth Street and eventually to retail areas on North West Avenue.

<sup>&</sup>lt;sup>1</sup> R2PC, 2025 Long-Range Transportation Plan. Pg. 20.

JACTS is also concerned with the efficient movement of large volumes of traffic within the urban area. Issues involve the north-south movement of traffic on the west side of the City, the movement of traffic from I-94 into the downtown area, access into the downtown area from the east, and movement between the southeast and southwest portions of the City. As noted in the Long-Range Plan "these movement problems are characterized by discontinuous north/south routes, and a lack of continuous east/west routes.

The physical arrangement of the streets and railroads and the physical location of I-94 have resulted in the north-south routes that terminated south of I-94 at or near the Central Business District. Parks, schools, and recreational uses have also prevented the development of continuous routes in the urban area. Because of these obstacles, many motorists travel a circuitous path from one side of the urban area to the other."<sup>2</sup>

#### Roadway Capacity Deficiencies

The 2025 Long Range Transportation Plan includes an analysis of anticipated capacity deficiencies through 2025. These deficiencies are based on a "no-build" scenario which assumes that there will be no improvements to the roadway network beyond those which were committed at the time of preparation of the plan. In this analysis, when existing or forecasted volumes exceed the acceptable capacity of a roadway, a deficiency exists. Factors that affect the level of service of a road, and therefore its capacity, include speed, freedom to maneuver, traffic interruptions, the amount of commercial traffic, and safety. The 2025 Long Range Transportation Plan makes use of "level of service" measures which range from Category A to Category F, where Category A is free flow, Categories D and E are stable flow with some restrictions and speed and maneuver ability, and Category F is a complete breakdown in the flow of traffic creating stop-and-go conditions. For the purpose of the 2025 Long Range Plan, the level of service D was accepted as the minimum acceptable capacity for each link in the roadway network.

#### The Need For New Roads

In addition to the work of the Jackson Area Comprehensive Transportation Study Committees, and the long range plan which is prepared by these committees, 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 to each of Jackson County's Townships, the following Transportation deficiencies were identified:

- There exists a need for efficient traffic movement between the Spring Arbor area and U.S 127 South. Movement between the Spring Arbor area and US 127 South is inefficient, and requires several turning movements. In identifying the need for this transportation movement, the Committee recognizes the challenges in finding a route for such a roadway. This area, the southwest urbanized area of the Jackson Community, includes scattered, but substantial, developed areas, and wetlands.
- 2. There exists a need to link Moscow and Dearing Roads in Spring Arbor Township. Such a linkage would facilitate traffic movement in a north/south direction linking I-94 with U.S. 12 in Hillsdale County. Each of these two roads, Moscow extending north from U.S. 12, and Dearing extending south from I-94, terminate at M-60 approximately one mile apart. Linking the two roads would allow a free flow of traffic without the necessity to use M-60.

<sup>&</sup>lt;sup>2</sup> Ibid. Pg. 20.

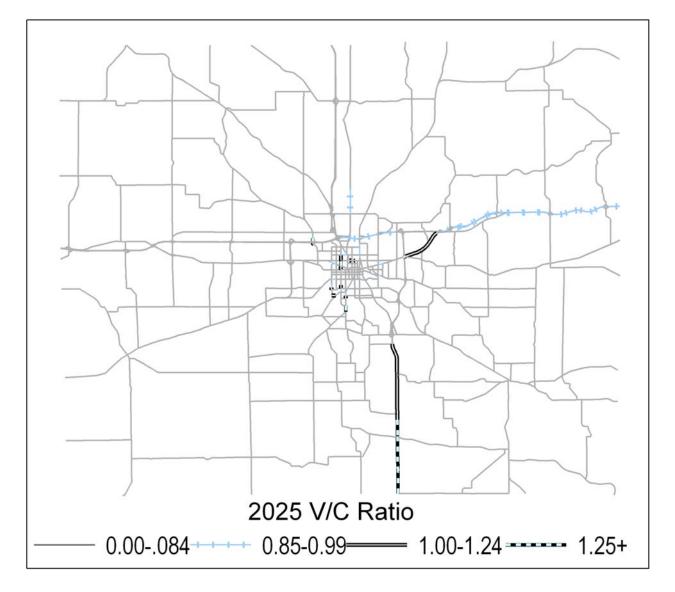
JACTS 2025 Long Range Transportation Plan						
		2025 Deficient	Corridor			
				2025 Volume		
	_	_	Length	to Capacity		2025 <u>Capac-</u>
Roadway Name	From		(Miles)	Ratio	ume	ity
Fourth	S. West	Horton	0.34	1.38	16,851	12,244
US-127	South County Line	Floyd (Start Di- vided)	8.07	1.20	21,581	18,055
M-50 (N. West)	North	Michigan	0.79	1.17	17,698	15,179
I-94 BL	I-94	US-127	2.27	1.12	17,776	15,822
(Ann Arbor)						
Denton	Kibby	Brown	0.21	1.02	9,488	9,312
Daniel	Wildwood	Brown	0.13	0.98	11,217	11,422
Airport	•	Boardman/O'Neil	0.67	0.94	27,844	29,533
Ganson	Backus	Blackstone	0.34	0.94	13,411	14,216
Morrell	Brown	Wisner	0.26	0.94	12,148	12,867
Brown	Morrell	Randolph	0.56	0.94	11,476	12,245
EB I-94	Mt. Hope	Clear Lake	2.72	0.93	34,444	37,236
WB I-94	Jackson County Line	Clear Lake	0.52	0.92	34,280	37,236
EB I-94	Clear Lake	Jackson County Line	0.52	0.92	34,191	37,236
WB I-94	Clear Lake	Mt. Hope	2.78	0.92	34,017	37,236
WB I-94	M-106 (Cooper)	US-127/M-50	1.14	0.91	38,246	42,213
North	Lansing	M-50 (N. West)	0.34	0.91	13,149	14,467
Lansing	Parnell	Morrill	1.34	0.91	12,987	14,244
EB I-94	US-127/M-50	M-106 (Cooper)	0.84	0.90	38,013	42,213
Wildwood	Ganson	Wisner	0.55	0.90	12,101	13,444
EB I-94	Elm	US-127	0.88	0.89	37,465	42,213
WB I-94	US-127	Elm	0.69	0.88	37,272	42,213
EB I-94	Race	Mt. Hope	2.18	0.88	32,939	37,236
EB I-94	I-94 BL (Ann Ar- bor)	Sargent	0.42	0.88	32,715	37,236
WB I-94	Mt. Hope	Race	2.53	0.88	32,682	37,236
M-106 (Cooper)	Porter	Milwaukee	0.75	0.88	13,659	15,493
S. West	Michigan	Griswold/Kibby	1.20	0.88	11,920	13,534
Fourth	Griswold/	Jasper	0.54	0.88	11,192	12,747
WB I-94	Greenwood	M-106 (Cooper)	0.43	0.87	36,514	12 213
WB I-94 WB I-94	Sargent	I-94 BL	0.43	0.87		42,213
	0	(Ann Arbor)			32,517	37,236
EB I-94	M-106 (Cooper)	Elm	0.74	0.86	36,494	42,213
EB I-94	Sargent	Race	2.38	0.86	32,093	37,236
WB I-94	Race	Sargent	2.37	0.85	31,674	37,236
I-94 BL (Michigan)	Roberts	Page	0.92	0.85	23,581	27,891
Francis	Cortland	Biddle	0.36 ficient Corr	0.85 idors"	10,746	12,574
INCIE. These are identi	TE: These are identified in Map 12, "Jackson County, 2025 Deficient Corridors"					

3. There is a need to extend Berry Road at its western terminus to connect with Rives Junction Road. This short segment would improve U.S 127 freeway access to areas south of Berry Road associated with Rives Junction Road. Further traffic enhancement could be achieved by extending Berry further to connect with Maple Lane. This connection would offer improved access to U.S. 127 from the northwest areas of Jackson County.

4. 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 movement in this area of Jackson County is hampered by Vineyard and Wamplers Lakes and 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 each of these routes. Cost benefit analyses are recommended. In addition, further study is necessary to determine funding for each of these proposed routes. While some federal or state money may be available, local governmental contributions will be necessary. In some cases, these contributions could be substantial.

Map 12 Jackson County 2025 Deficient Corridors



#### Roads and Streets in the City of Jackson

Roads and streets in the City of Jackson are under the responsibility of the City of Jackson Engineering Department. The engineering department reviews data on traffic volumes, pavement condition, and other types of data to determine road and street construction improvement and maintenance projects. Because the City is nearly build-out, few new streets are planned, and attention is given primarily to the maintenance of existing roads and streets. Funding for these improvements involves allocations from City of Jackson sources, and funding available from state and federal sources for trunklines, state funding for general use on roads and streets through Act 51, and monies appropriated from the City of Jackson general fund.

Roads in townships fall under the control of the Jackson County Road Commission. The Road Commission, like the City of Jackson Engineering Department, assess data on county roads to determine construction, improvement, and maintenance needs. Because the area of the townships are growing in population, and travel demands are increasing on county roads, the road commission constantly assesses the need for new roads and road widenings, as routes become laden with higher volumes of vehicles. The Road Commission also maintains a program to monitor the condition of roads and conduct maintenance activities as necessary.

Within the area of the townships, local 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.

New road construction and widenings at the state, city and county road commission levels are conducted on the basis of an examination of travel demand. It is rare that construction takes place absent indication of traffic congestion due to actual increasing traffic volumes.

# Transit

The City of Jackson Transportation Authority (JTA), organized under Michigan Public Act 196, of 1986, provides transportation services to residents of Jackson County. These services include fixed route and demand responsive service in the City of Jackson and surrounding urban area, and rural demand responsive service. JTA also offers specialized and contract service for the senior and disabled population within Jackson County. JTA's fixed route service operates within the urbanized area, and primarily within the City of Jackson. The system has an excellent set of routes which place most residential areas within a two-block distance of a JTA bus route.

# **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 location within the City of Jackson 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**

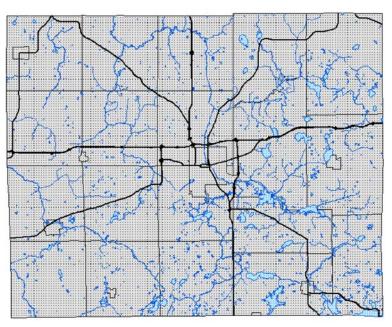
Air transportation services are available at the Jackson County Reynolds Field Airport. Though no major carrier currently offers service through the airport, charter services are available. The airport also serves local businesses and industries.

The airport includes two runways measuring 4344 feet and 3501 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. An \$18 million runway re-alignment is proposed. An airport industrial park is under consideration for construction at the facility.

## Pedestrian and Non-Motorized Transportation

Considerable attention has been given recently to pedestrian and non-motorized transportation within the City of Jackson and the Jackson County area. Efforts have been initiated to work with the state in the acquisition and development of railroad rights-of-way to extend a non-motorized path diagonally. Plans which include the extension of the Falling Waters Trail from Weatherwax Drive west to Concord, and the extension of this trail in a north easterly direction to intersect with the Jackson-Lakeland Trail have been prepared.

These plans may be found in the document "Jackson County Regional Trailways Study, 2002."



Chapter 9 WATER, SEWER & FIRE PROTECTION

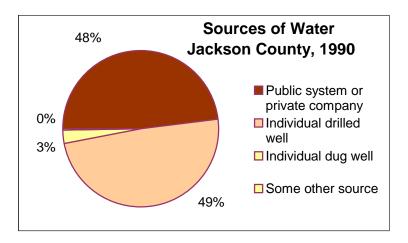
Community infrastructure, the system of roads, municipal water and sewer systems, fire and police protection and schools both define, and are defined by, community growth. As areas are developed with residential, commercial, and industrial uses; infrastructure is necessary to support this development. 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

Municipal water systems exist in the City of Jackson which serves, in addition to the area of the City, areas of Blackman, Leoni and Napoleon Townships; Summit Township; Spring Arbor Township; and the Villages of Brooklyn, Concord, Grass Lake, Parma and Springport; and a small area in Parma Township associated with the City of Albion. Other smaller public systems are located to serve and the State prison facilities in Blackman Township. Map 13, Existing Municipal Water Service Areas, Jackson County, 2004 provides the location of water service areas for Jackson County Communities.

Sources of Water Jackson County, 1990				
	Housing Units			
Public System or Private Company	27,791			
Individual Drilled Well	28,476			
Individual Dug Well	1,547			
Some Other Source	165			
Total	57,979			
Source: U. S. Census				

The major source of ground water for Jackson municipal systems is the Marshall geologic formation. This formation consists of a vast stratum of sandstone which underlies most of Jackson County, and varies from 160 feet to 300 feet in thickness in most areas at a depth of less than four hundred feet below the surface of the ground. Wells penetrating this formation have a potential yield from 600 to over 3,000 gallons per minute. The water produced from this formation of very good quality, but has a high level of hardness. Softening treatment is required for many applications.<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Fargo Engineer Company, "Regional Plan for Water Supply and Distribution, Jackson County, Michigan,"1970.

#### Wellhead Protection Plan

The Jackson Community has prepared a well-head protection plan. The purpose of this plan is to protect ground water supplies through the implementation of measures to assure that contaminants are not introduced in re-charge areas, or in areas deemed vulnerable to contaminant introduction. Areas proposed for well-head protection are identified on Map 14, Delineated Wellhead Areas.

#### Rural Water Supply

Water availability to individual users in rural areas of the County is readily available. Few areas of Jackson County do not offer good quality water sources for wells for individual residences. The availability of water for such purposes has not had any significant impact in limiting growth in rural areas.

One potential problem with ground water sources in Jackson and other counties in southern Lower Michigan is the presence of nitrates. Large amounts of nitrates can cause illnesses in infants. The sources of nitrates include: waste from livestock operations, septic tank/drain field effluent, crop and lawn fertilizer, municipal waste water sludge application (which is no longer practiced in Jackson County), and the occurrence of natural geologic nitrogen. Shallow water wells and sandy unconfined aquifers are particularly susceptible to nitrates in excess of the US Environmental Protection Agency 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 or naturally occurring elements or compounds.

# Sewage Disposal

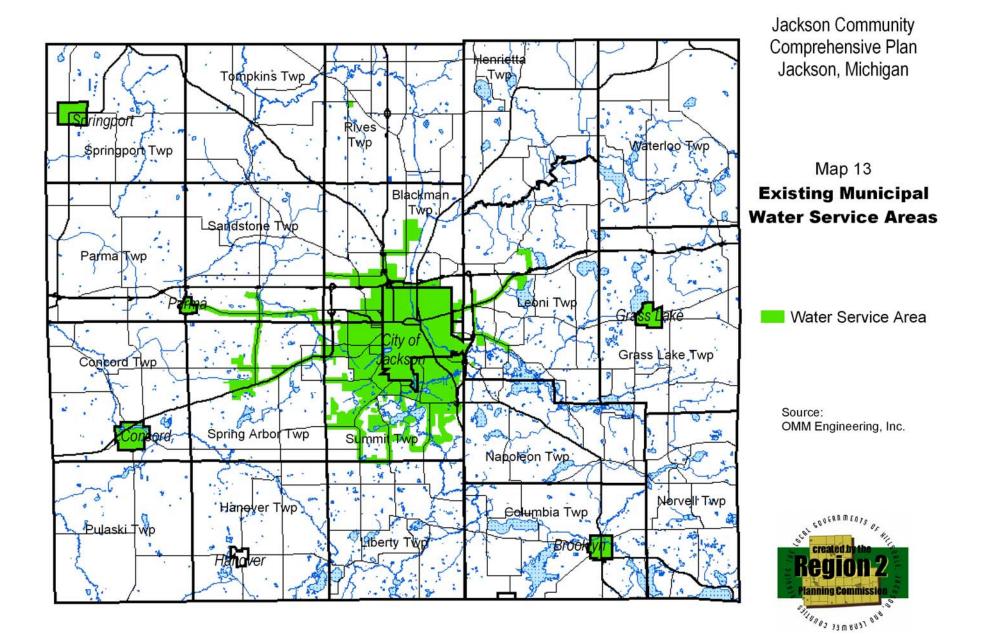
#### Municipal Sewer Service Areas

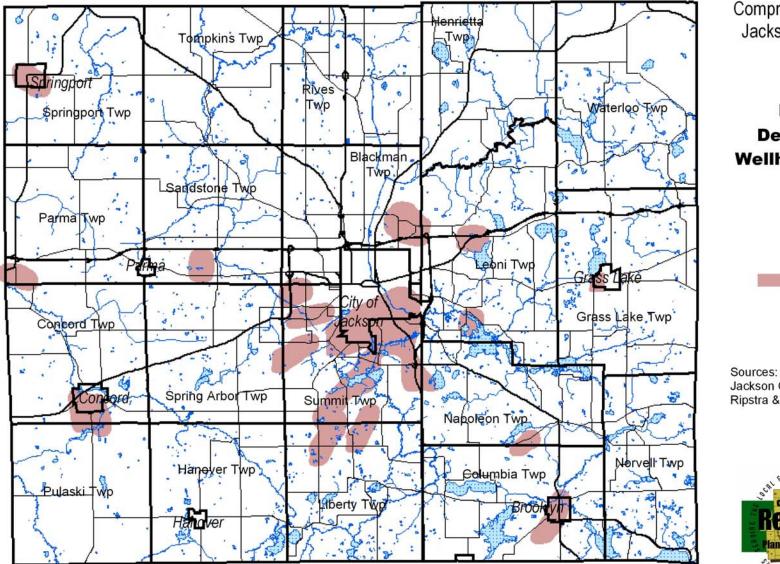
Map 15, "Existing and Proposed Sewer Service Areas, Jackson County, 2004" displays existing and proposed sewer areas for the area of the County, and sewer lines in rural areas. Most of the metropolitan area in Jackson County including the City of Jackson, and portions of Summit, Blackman, Napoleon, and Spring Arbor Townships is served by the City's Sewage Treatment Plant. Areas of Leoni Township, Napoleon Township, Columbia Township, and the Villages of Brooklyn and Grass Lake are served by the Leoni Treatment Plant located in Leoni Township. The Villages of Concord, Hanover, Parma, and Springport operate small systems independently.

Expansion of sewage services is anticipated in the urban area as well as portions of the eastern and western of Jackson County. On the eastern side of the County sewer services are anticipated to be extended to the Pleasant Lake area in Henrietta Township, Little Pleasant Lake which is located in Leoni and Grass Lake Townships, residential areas in Leoni and Napoleon Townships, and the residential area surrounding Lake Columbia in Columbia Township. The system expansion proposed on the west side of Jackson County includes linkages to serve the Villages of Concord and Parma; new sewer service in the Farwell Lake and Village of Hanover areas in Hanover Township; and the Mirror Lake area, and the commercial and industrial area which extends along US-127 South in Liberty and Columbia Townships.

#### On-Site Sewage Disposal

Housing units located outside the area of sewer rely on the use of septic tanks for sewage disposal. In 1990, 23,854 of the County's 57,979 housing units, or 41% of all housing units, were served by septic tanks.





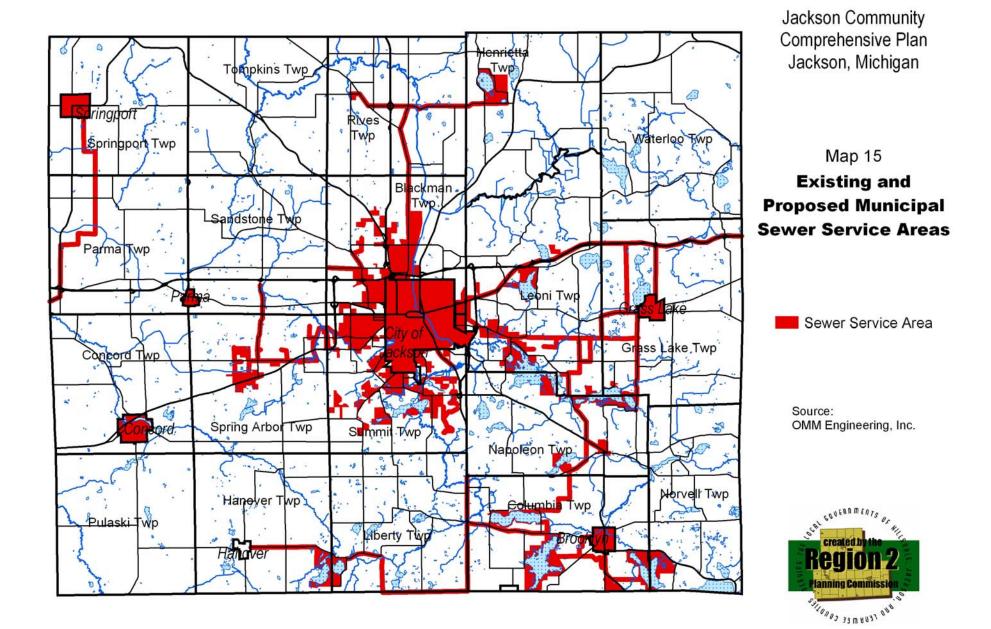
Jackson Community Comprehensive Plan Jackson, Michigan

Map 14 Delineated Wellhead Areas

> Legend Delineated Wellhead Areas

Sources: Jackson County Ripstra & Scheppelman, Inc.



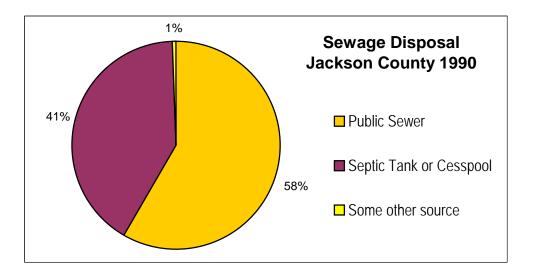


While the use of septic tanks is authorized by the Michigan Department of Community Health, subject to separation distance from wells on individual lots, and to review and approval by the Jackson County Health Department; disposal of sewage through a municipal sewer system is a preferred alternative.

Septic tanks and drain fields require substantial area on an individual lot, and additional area must be provided for the possibility of the construction of a new system. Septic tanks must also be properly maintained, pumped at appropriate intervals. And finally, septic tanks and their associated drain fields may contribute to the introduction of nitrates in ground water supplies.

Map 4, "Soil Suitability for On-Site Disposal", indicates areas in which soils are rated as "severe" for on-site sewage disposal according to the Jackson County Soil Survey. Residential development which makes use of on-site disposal should be discouraged within these areas.

Sewage Disposal Jackson County, 1990			
	Housing Units		
Public Sewer	33,820		
Septic Tank or Cesspool	23,854		
Some Other Source	305		
Total	57,979		
Source: U. S. Census			



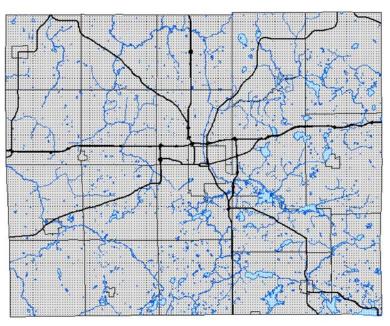
# **Fire Protection**

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, as 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 more timely manner to stations located within the second unit of government.

In 1994 a study, "Metropolitan Fire Services Consolidation, Jackson County", was prepared which evaluated fire protection within the City of Jackson; and Blackman, Leoni, Napoleon, and Summit Townships. These five units of government operate twelve stations. In addition to evaluating station location, the study considered apparatus needs, personnel, dispatch, career firefighters versus part-paid firefighters, administration, and financing. The study concluded that it might be possible to realize a cost savings for departmental consolidations within the area. While this recommendation has not been implemented, the study did result in investigations and agreements for the provision of services with cooperative arrangements among and between these local units of government. A potential may exist for further cost savings with additional agreements or departmental consolidations.



Chapter 10 LOCAL PLANNING AND ZONING

The City of Jackson, and each of the townships and villages within Jackson County has the authority under state law to adopt a land use plan and zoning ordinance. Almost all of these local units of government have adopted land use plans, and all units of local government have adopted zoning ordinances. The enabling legislation for cities and villages, and townships are as follows:

- 1. City and village planning commissions and plans are authorized through the **Municipal Planning Act, Act 285 of 1931**.
- 2. Zoning within the city and villages is authorized by the City and Village Zoning Act, Act 207 of 1921.
- 3. Townships are authorized to establish planning commissions and prepare plans according to the **Township Planning Act**, Act 168 of 1959.
- 4. Zoning within townships is authorized by the **Township Zoning Act, Act 184 of 1943**.

Part of the reason for the preparation and adoption of a community-wide comprehensive plan rests in the need for coordination of planning and zoning among and between local units of government. Until recently, the only measure of coordination involved the review of township zoning amendments and rezonings. The Jackson County Zoning Coordinating Committee has this responsibility. This committee is assigned the review of local zoning by the Township Zoning Act in Sections 10 and 11. The Township Zoning Act requires that zoning amendments and rezonings be sent to a zoning coordinating committee following review and the establishment of a recommendation by the township planning commission, but prior to review and action by the township board. In instances where there is no county zoning commission, or county planning commission, the review is conducted by a coordinating zoning committee. This committee is comprised of five county commissioners appointed by the county board of commissioners for the purpose of coordinating zoning with the zoning ordinances of adjacent townships, cities, or incorporated villages which have a common boundary with the township. This system of review is intended to give the township board the recommendations of both its own planning commission, and the Jackson County Zoning Coordinating Committee, when the township board hears and reviews a zoning amendment or rezoning. The review by the zoning coordinating committee is advisory only, but the township board may consider, in addition to the recommendation of its planning commission, the recommendation from the zoning coordinating committee.

Both the Township Planning Act and the Municipal Planning Act were amended in 2001 to promote "greater communication between the township and adjacent municipalities, the County, and/or region and interested utilities and agencies." These amendments require that notification be provided to adjacent communities, the county planning commission, if there is one, and the regional planning agency; as well as to each public utility and railroad company which registers its name and mailing address for the purposes of review with the township planning commission. Each of these reviewing agencies has an opportunity to comment on the plan, and these comments are to be considered by the planning commission and the legislative body considering adoption of the Plan.

# Local Government Land Use Planning

Map 16, Jackson County Land Use Plans in Local Units of Government, identifies local communities which have adopted local land use plans, the maps of which are available in digital form. Generally, as the map shows proposed land uses within local units of government are consistent with the proposed land uses within adjacent units of government in Jackson County.

There are instances, however, where conflicts exist, where intense land uses designated within the Plan of one local unit of government lie adjacent to areas in other local units of government which are not designated for these intensive land uses.

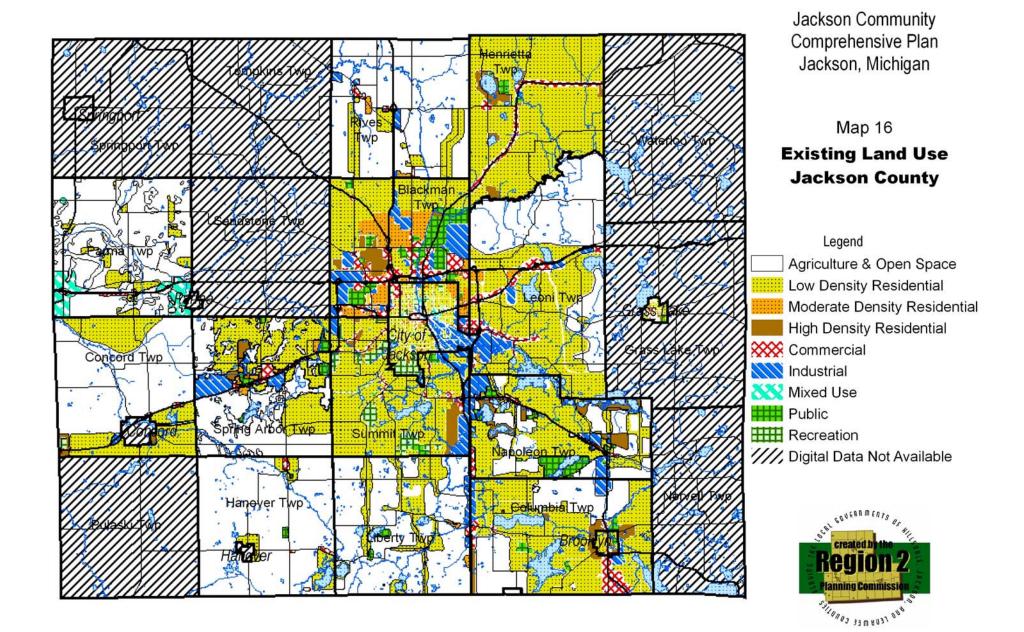
Secondly, there exist in some land use plans very large areas which have been set aside for commercial or industrial development. These areas are of such a scale that they could not reasonably be expected to be developed for this purpose within the planning horizon of the adopted Plan (planning horizons are typically twenty-year periods.) In many cases these very large areas abut the boundary lines of adjacent local units of government and they conflict with the land use proposed in the adjacent unit of government.

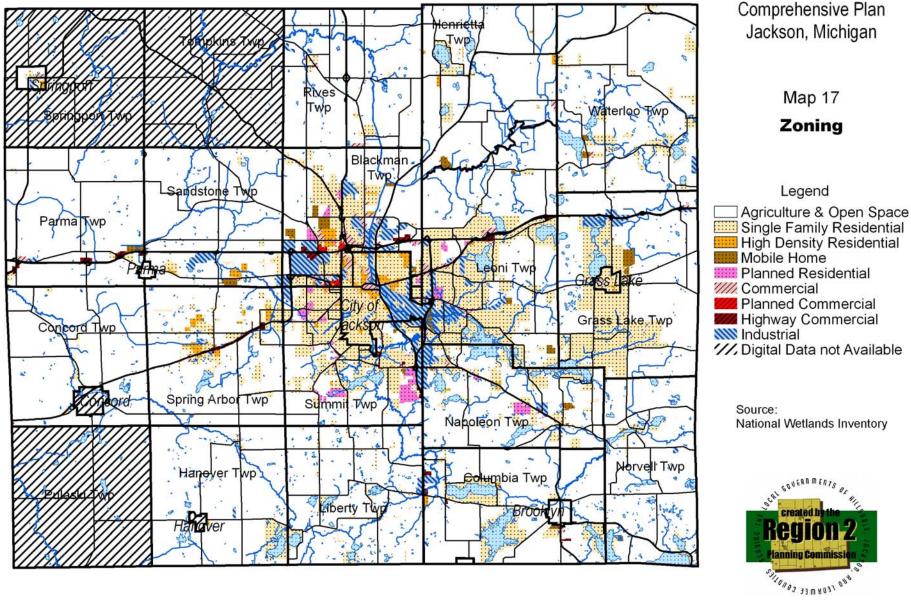
Finally, there are locations in which strip commercial or industrial development is placed along major roads. Some planned strip development is appropriate, especially in areas where such development already exists. Extreme lengths of strip development particularly in areas which are not so developed should be avoided. For these long linear areas, like the large oversized areas as described above, the sheer size of the area does not provide the appropriate direction for future growth and development. Policies and actions to remedy these conditions are proposed in Chapter 11 Land Use Issues, Goals, Policies, and Actions.

# Local Unit Zoning

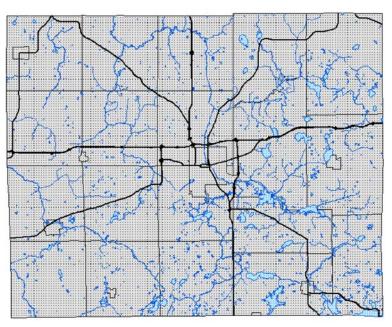
Map 17, Zoning in Local Units of Government, provides a basis for the evaluation of consistency among and between the zoning ordinances of local units of government in Jackson County, for those local units of government which have their zoning ordinance maps available in digital form. This analysis reveals that there are relatively few land use conflicts in zoning among and between local units of government.

In some cases large areas of lands are zoned for industrial and residential purposes. This condition is known as "over zoning". Local units of government may wish to further consider zoning in these areas to provide more ability to direct growth into areas which are appropriate for development and which have necessary public services and utilities. Recommendations regarding zoning practices and potential conflicts among and between local units of government are contained in Chapter 11, Issues, Goals, Policies, and Actions.





Jackson Community **Comprehensive Plan** Jackson, Michigan



Chapter 11 ISSUES, GOALS POLICIES AND ACTIONS

The purpose of this plan is to establish policies to guide the future growth and development of the Jackson Community. These policies, established at the community-wide level, are intended to assist local units of government, including the County's villages, townships, and the City of Jackson as they develop, amend, and implement their community plans, and zoning ordinances.

The policies formulated and adopted as a result of the process in preparing the Jackson Comprehensive Community Plan primarily address land use and development issues which either transcend the boundary lines of local units of government, or are county-wide in nature. This regional perspective is critical. The strength of our governmental structure which is comprised of 19 townships, 6 villages and the City of Jackson, is the ability to deliver local government that is close to the people. Within the planning process this governmental structure provides each local unit the opportunity to determine how its community should grow and develop, and ultimately, the shape and form of the future community. The weakness in this arrangement of local units of government is the tendency to overlook the implications of decisions which have regional significance.

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 simultaneously offers a measure of freedom; and yet also limits the freedom of movement both for the younger and older segments of our population, and to our citizens generally, through traffic congestion. In our urban areas, space is consumed for parking which negates the possibility for the creation of compact pedestrian-oriented development patterns. 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. Physical inactivity and obesity 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.

# <u>Goal:</u> Community plans, development decisions, and ultimately the shape and form of our communities 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 community centers and neighborhood areas as identified in this plan, and the plans of local communities of government in Jackson County, development should be promoted which is compact and which fosters higher densities.
- 2. Sidewalks should be encouraged to be provided in neighborhoods, subdivisions, and site condominium projects; and commercial areas.

- 3. Pedestrian networks are encouraged to be developed which link subdivisions, neighborhoods, business districts, downtown areas, recreational areas; and 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. Within downtown areas of the County pedestrian travel should be given priority over automobile and vehicular travel.
- 6. Local communities should review their commercial zoning districts 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.
- 7. Communities should review their patterns of residential distribution and attempt to promote and strengthen neighborhoods which offer parks, elementary schools, and neighborhood commercial areas within walking distance.
- 8. Several recreation plans for local units of government call 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 adjacent counties.

#### 2. Farmland Preservation

Substantial areas within Jackson County are used for agricultural production. These areas offer Jackson County citizens 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 Jackson County's economy.

As noted in previous chapters of this plan, considerable amounts of agricultural lands have been converted for development in recent decades.

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. Agriculture should also be protected from challenge from residents of **residential** development in agricultural areas who find best farm management practices objectionable, as provided in the Michigan Right-to-Farm Act.

Conversely, the preservation of agricultural lands should not mean that farmers couldn't 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.

Agricultural land preservation has prominence in several Jackson County Townships, while other townships, due to the quality of their soils, or their existing development, prefer less of a focus on agricultural lands preservation. Action on the preservation of valuable agricultural lands may be taken by the county, or townships individually, or collectively within the county. 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 within townships which wish to use them. 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.

Should the county, or Jackson County Townships, wish to preserve agricultural land, consideration should be given to the use of the Michigan Agricultural Preservation Fund for use in the purchase of development rights.

## <u>Goal:</u> Encourage the preservation of farms and farmlands that have value for farming through a range of techniques that promote, protect, and preserve agriculture and agricultural activities. (Amended: December 21, 2006)

#### Policies and Actions

- 1. To reduce the pressure for farmland development, communities within Jackson County must make urban areas healthy, safe, attractive, vibrant, and provide sufficient services.
- 2. The agricultural community shall 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 planning and zoning measures which allow small pockets of densely developed residential areas, off-set by appropriate areas of open space to preserve open space and agricultural lands; and to promote compatibility between these land uses.
- 4. Communities should seek to assist the farmer in efforts to provide and promote farmers markets which offer outlets for locally produced agricultural products.
- 5. The Jackson County Board of Commissioners should review the agricultural preservation ordinances which have been adopted recently in surrounding counties to enable the use of Purchase of Development Rights (PDR) Programs, and adopt such an ordinance if deemed appropriate for Jackson County.
- 6. Jackson County townships should review their land use plans to assure that consideration is given to the protection of lands which are valuable, or intensively used, for agricultural production.
- 7. Local zoning provisions should be reviewed to determine that land uses which support agricultural activities, including such uses as grain elevators, agricultural supply stores, agricultural equipment and machinery and repairs are permitted in proximity to large areas of productive agricultural land.
- 8. Industries which have the potential to use agricultural products produced within Jackson County should be identified and encouraged to locate within the County.
- 9. Townships which desire to preserve agricultural lands are encouraged to consider all available techniques including PDR; the transfer of development rights (TDR) when and if authorized under Michigan Law; agricultural districting where large contiguous tracts can be identified, and the use of conservation easements.
- 10. Local zoning provisions should be enacted to allow the roadside sale of agricultural products; value added activities, including the processing and packaging of agricultural products; and recreational agriculture including such enterprises as cider mills, corn mazes, u-pick operations, and farm tours.

#### 3. Historic Preservation

The community of today grew out of the community of the past. Current development patterns, street networks, neighborhoods, clusters of buildings, and single buildings themselves are reflective of the unique mix of culture and history in which the Jackson Community grew and developed. This unique history gave the community identity and is a reflection of community 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 has resulted in development which is a replica of development which is occurring in communities across the nation. Forces of community development today tend to result in ubiquity. Sameness results in a loss of identity.

As our economy has grown nationally, and the implications of this growth have been experienced locally, both the benefits and the liabilities of such growth become 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.

#### <u>Goal:</u> Jackson County communities shall 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. Jackson County communities 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 application of these credits.
- 3. Local planning commissions should consider the impacts of development decisions on historic and cultural resources.

#### 4. Planning Coordination

There is an important need for coordination and communication in community planning between villages, townships, the City of Jackson, and Jackson County. Such an approach to planning would minimize the artificial "seams" which exist as boundaries between units of government and promote a "seamless" community. Such an effort will reduce conflict between communities resulting from development and will help address regional concerns and issues.

## <u>Goal:</u> Communities shall coordinate their planning and zoning efforts with neighboring communities within, and surrounding, Jackson County.

#### Policies and Actions

1. Zoning recommendations generated from township planning commissions 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. Local planning commissions are encourage to send notices of planning commission meetings and public hearings to adjacent townships.
- 3. When zoning actions require the notification of citizens for public hearings, if the boundary required for notification extends to an adjacent community the residents and occupants of property in the adjacent should be provided notice.
- 4. Local units of government 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 in each of the local units of government that comprise the Jackson Community. A dispersed pattern of affordable housing promotes equity among citizens in the provision of local services. Such a policy promotes the maximization of choice in housing for the residents of the community. As noted in a previous chapter of this report, nearly 26% of all housing units in Jackson County 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. There is a need, therefore, for the maximization of housing choice throughout the Jackson Community.

## <u>Goal:</u> 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 shall be encouraged to include within their projects housing units which are affordable to all income groups.
- 2. Local communities should 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 neighborhood parks; and the development of pedestrian networks to offer walkable access to neighborhood amenities should be provided to support neighborhood improvement.
- 4. Jackson communities are encouraged to 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 community land use should be free from conflicts of interest, and should be conducted in open forums.

<u>Goal:</u> Citizen involvement in community planning and development decisions is critical to the development of vibrant communities, and such decisions

#### should be made in an open community forum designed to engage the participation of citizens.

#### Policies and Actions

- 1. Public hearings should be held for all decisions which impact upon community 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 such as fire stations, schools, and parks.
- 2. Local planning commissioners and governmental leaders should help to educate the public regarding ethical and open decision-making in local government.

#### 7. Sewer and Water Extension

Extension of utilities affects the location of urban growth. Where such utilities are extended into undeveloped areas, growth at higher densities is afforded. As such, 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 community.

## <u>Goal:</u> The extension of sewer and water services shall be consistent with adopted regional, community and local plans.

#### Policies and Actions

- 1. Sewer and water lines should only be extended into areas identified for higher densities in the community land use plan and the land use plans of local units of government.
- 2. All extensions of utilities should be subject to public hearings open to citizens within the community 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 a community implies more than simply a place to live, work, engage in commerce, and play. Communities are places of social interaction, where people meet face to face. Communities provide the structure necessary for cultural growth and development.

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

### <u>Goal:</u> 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: city, township, and village halls; schools; libraries; museums; and churches should be identified, mapped, and protected.

- 2. Indoor and outdoor places of public assemblage and opportunity for public gathering should be promoted within our community centers.
- 3. Communities should inventory, promote, and maintain their public spaces, and promote their use and safety.

#### 9. Urban Development

Urban development decisions 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 community, and society as a whole. Costs and benefits for the community, and for society, can be applied to these decisions and the form which they take upon the landscape. Urban development consumes land, requires infrastructure support, the level of which depends upon the location and density of development. At a minimum, such development requires transportation improvements. In Jackson County a good system of paved routes extending into rural areas exists. Jackson's rural transportation routes have the capacity to handle additional traffic volume. As density increases, additional services are required. Currently, sewer system extensions are proposed on both the east and western parts of Jackson County. These systems are proposed to be extended into areas of the County where densities are sufficiently high, and on-site sewage disposal problems have become apparent. 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; that is, they cost more, and generate less revenue, than compact development provides.<sup>1</sup> Lower density development also has costs which incur to society. 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 citizens living within those areas the ability to have an impact on their community and to participate in decision-making which affects the future of their community.

#### <u>Goal.</u> Further study is proposed within Jackson County to evaluate the benefits and costs of low-density urban development to the community, and to society. In the interim, growth is encouraged in existing population centers and in 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 a minimum of two rural townships, and one suburban township.
- 2. Research should be conducted to determine how to implement urban beautification measures and to identify what is meant by, and the means to implement, "cool cities" concepts in existing urban areas.
- 3. Information on the implementation of smart growth principals should be assembled and presented to local units of government for possible use in local planning and zoning efforts.

4. Local units of government should be encouraged to review and update their land use plans, based upon the recommendations contained within the Jackson Community Comprehensive Plan, and to implement their plans.

#### 10. Overzoning and Strip Commercial Development

In some cases, the local plans and zoning ordinances which have been prepared for local communities within Jackson County include very large areas, or areas that are located along transportation arterials for homogeneous land uses. The purpose of land use plans, and their 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 thoroughfares, their ability to direct growth into areas, is diminished.

#### <u>Goal:</u> Local units of government are encouraged to review their land use plans and zoning ordinances 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. Local units of government should make determinations regarding the amount of land necessary to accommodate future population levels.
- 2. Local units of government are encouraged to review their ordinances 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, particularly commercial, are located along arterials, and the area proposed for commercial use exceeds substantially the area projected to accommodate future population levels, 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 Jackson's citizens. Surface water in the form of Jackson County's lakes, rivers, and streams afford residents recreational opportunities and aesthetic appeal. Ground water offers domestic water supply. The quality of well water is important to health and property value.

Two plans have recently been completed regarding these issues. One of these, the Upper Grand River Watershed Plan, proposes a series of actions which may be taken to promote surface water quality. The actions recommended include the preservation of wetland areas, the imposition of natural native vegetation immediately adjacent to bodies of water, the application of best management practices in agriculture, and other measures to address non-point source pollution.

The second plan, the Wellhead Protection Plan has been prepared to identify geographic areas which should be protected from the introduction of contaminants, to assure the maintenance of ground water quality for municipal wells. The Wellhead Protection Plan calls for the development of land use regulation in these areas to minimize the potential for pollution of ground water.

<u>Goal:</u> The measures proposed in the Upper Grand River Watershed Management Plan, and the recommended measures proposed in the watershed plans for the River Raisin, the Kalamazoo River, and the Huron River should be implemented within each watershed.

#### Policies and Actions:

- 1. An education program to inform citizens of practices that have the potential to positively or negatively impact on surface water quality should be prepared and presented to Jackson County citizens.
- 2. The Jackson County Health Department should continue to evaluate water quality in surface and ground water supplies to assure the health safety and welfare of county residents as problems are identified a determination should be made as to whether additional land use regulation is necessary.
- 3. Best management practices should be applied.
- 4. A program should be developed and implemented to plug abandoned or unused wells.

#### 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.

#### <u>Goal:</u> Wetlands shall be preserved in Jackson County.

#### Policies and Actions:

- 1. Information contained within this Plan which provides the location of wetland areas should be used by local unit of government planning commissions as they prepare future land use plans.
- 2. Citizens of Jackson County should be advised as to the importance of wetlands in the appropriate functioning of the natural system.
- 3. Local planning commissions should attempt to preserve wetland areas as they review development proposals.
- 4. Local units of government are encouraged to use open space provisions within zoning ordinances to preserve existing wetland areas.
- 5. 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.
- 6. Local units of government are encouraged to consider the adoption of ordinances to protect wetland area of less than five acres in size.

#### 13. Preservation of Open Space

To many citizens in Jackson County, the rural areas of the County are appealing because of the open space which exists there. Many residents have, in fact, selected home sites in rural areas 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.

#### <u>Goal:</u> Preservation of Open Space shall be encouraged.

#### Policies and Actions

- 1. Local units of government are encouraged to apply cluster-zoning provisions to preserve open space and maintain rural character.
- Policies contained within this report to encourage development to be located within existing urban and developed areas and to encourage higher densities should be implemented.

#### 14. Economic Diversity

The susceptibility of Jackson County's economy to economic cycles has been identified in Chapter 5 of this plan. There is a need to promote the establishment of business and industries which will diversify the local economy.

<u>Goal:</u> Jackson County, and the local units of government within it, should support existing Jackson County 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 citizens with good-paying jobs; and promote Brownfield Redevelopment and offer industrial park development in suitable areas.

- 1. Priority should be given to assisting existing Jackson County 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 Jackson County residents.
- 3. Priorities should be given to the redevelopment of Brownfield areas, with appropriate consideration to surrounding land uses.
- 4. The County should capitalize on its location along the I-94 corridor, a North American Free Trade Agreement route, to open the area to foreign markets.
- Local units of government and the Jackson Enterprise Group should coordinate efforts during the preparation of local land use plans, and at periodic intervals when the Enterprise Group assesses its mission, participates in strategic planning, sets goals, or develops work programs.
- Industrial development should occur in areas where industrial development currently exists, provided the necessary utilities are available to accommodate additional development.
- 7. The proposed industrial development site located northeast of the State Prison of Southern Michigan should be developed as a full service industrial park.

#### 15. Innovative Planning and Zoning

Within the field of community planning new planning techniques and implementation measures are being developed nationally to 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.

## <u>Goal:</u> National trends in urban and rural planning should be monitored and new techniques in planning and zoning should be identified and made available to local planning commissions.

#### Policies and Activities:

- 1. Staff assistance should be provided to local planning commissions as they develop land use plans and innovative zoning ordinance provisions.
- 2. As local units of government develop innovative measures to address land use problems which are common to other Jackson County local units of government, these measures should be shared.

#### 16. The Movement of People and Goods

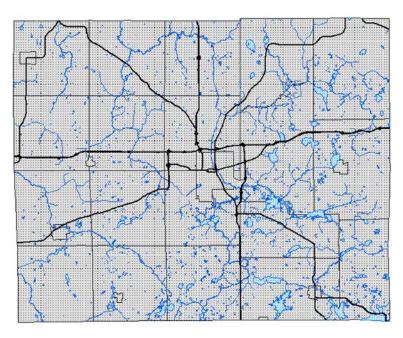
Although Jackson County's transportation system moves people and goods with efficiency and very little congestion, there is a need to continually monitor and improve the system. Jackson County's road and street infrastructure requires maintenance and continual replacement according to a schedule that will maintain system integrity. As noted in Chapter 8, land use and transportation are mutually dependent, and must be planned as a unit for the community to thrive and develop. In addition, new roads and road connections are necessary to improve traffic movement.

# <u>Goal:</u> As the County 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.

- Local units of government and the Region 2 Planning Commission staff should work with the Jackson County Road Commission to identify transportation improvement projects in rural areas, including the construction of new roads; to reduce traffic congestion; promote efficiency and safety; promote economic development; and to adequately serve developing areas of the County.
- 2. Land use plans adopted by Jackson County Townships, Villages, and the City of Jackson should serve as the basis for the identification of transportation problems and improvement.
- Projects reviewed for federal funding by the Jackson Area Comprehensive Transportation Study (JACTS) Committees the Jackson County Road Commission, and the City of Jackson Engineering Department should include an assessment as to the impact of improvements on land use, and the consistency with this, and local, land use plans.
- Improvement and maintenance schedules should be prepared for roads and streets in Jackson communities and rural areas based upon an assessment of pavement condition, and according to a schedule necessary to assure replacement based upon life expectancy.

- 5. Traffic engineering entities at the state, county, and city levels should take measures to assure the optimum system performance possible through signal timing and traffic operations.
- 6. The transportation system should be optimized for traffic safety.
- 7. There exists, within the planning horizon, a need for new road construction in the following locations:
  - a. A Southwest connector is needed to link the Spring Arbor area to U.S. 127 south through the southwest Jackson urbanized area.
  - b. A connector is needed between Moscow and Dearing Roads in Spring Arbor Township to facilitate north-south traffic movement in this area.
  - c. There is a need to extend Berry Road at its western terminus to Rives Junction Road.
  - d. Additional improvements may be necessary in the area of Michigan International Speedway to accommodate traffic on race weekends.

Further study is needed to first, determine feasibility, and second identify specific routes for each of these new roadways. In addition, a means of funding must be identified for these new construction projects, and the purchase of land necessary to make them possible. Where possible, existing rights-of-ways should be considered for the route to minimize negative environmental and social impacts associated with new road construction.



Chapter 12 THE PLAN

The Jackson Community Comprehensive Plan is intended to provide guidance for the future growth and development of the Jackson County area. The Plan was prepared in accordance with generally accepted practices for the development of comprehensive plans.

- 1. The Plan is long-range. The Plan provides a policy guide for growth and development from the date of adoption of the Plan in 2005, through the year 2025. It is intended to provide a long-range vision for the Community 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 the Plan 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. The Plan can be amended following the adherence to legal requirements as established in state law. Communities, and the events which affect them, are subject to change over time. The Plan is not intended to be static, but can be revised as needed to respond to change in circumstance.
- 4. The Plan is a statement of policy. It is advisory in nature, setting forth the vision for the future.

#### **Greenways Plan**

Map 18, "Greenways Plan" for the Jackson Community, identifies a network of greenways proposed throughout Jackson County. This network generally follows wetland areas, drainage ways, and forested lands. The network recognizes these areas as a part of Jackson County'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 this area is not necessary. Some very lowdensity development can be incorporated without damage to the integrity of the greenway. Roads and highways transect the network at numerous locations throughout the County. 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. In some locations the width of the greenway is 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 Jackson County. In some instances greenways may help to define urban areas and separate these urban areas from rural areas of the County.

For all of the foresaid reasons and simply so citizens have the opportunity for contact with nature, the implementation of the Plan would significantly improve the quality of life in Jackson County.

#### The Agricultural Preservation Area Map

Map 18a, the Agricultural Preservation Areas Map identifies areas of Jackson County that meet agricultural preservation criteria. These criteria include:

- 1. The location of prime and unique soils as defined by the Jackson County office of the Natural Resources Conservation Service (NRCS). Soils classified as prime or unique for agricultural production by NRCS.
- 2. The location of large parcels of land, those of eighty (80) acres or more in size. Preservation activities have a greater chance of success in such areas.
- 3. The location of active agricultural lands based upon the Michigan Resources Inventory System (MIRIS).
- 4. The location of areas outside existing and proposed sewer service areas.
- 5. The location of agricultural and open space areas on township future land use plans. Agricultural preservation activities are supported in these areas. Conversely, agricultural activities are not appropriate in areas projected to be of value for development purposes.

Map 18a, the Agricultural Preservation Areas Map represents a generalized composite of these criteria, identifying lands within Jackson County which should be preserved and protected for agriculture. (Amended December 21, 2006)

#### The Land Use Plan

Map 19, the Land Use Plan sets forth a spatial vision for the future growth and development of the Jackson Community. It is intended, generally, to promote future development within areas which are currently developed. These areas tend to contain the infrastructure necessary to support growth and development. They are areas where higher densities and intensities of land use are to be encouraged. The Plan recognizes the importance of making the urban areas which exist within the County better places to live. The Plan focuses cultural amenities within these areas, and encourages beautification and redevelopment programs, and special attention to the provision of parks in neighborhood areas, and the provision of a network of pedestrian and bicycle pathways. Generally, as a matter of governmental policy development within rural areas is to be discouraged.

The Plan identifies industrial, commercial, residential and agricultural and open space areas. Industrial areas are clustered within the community at locations where existing industrial land uses already exist, and where infrastructure is sufficiently provided, or proposed to be provided to accommodate these intense uses. As such, industrial areas are located along major transportation arteries which afford access to jobs for the residents of Jackson County, as well as transportation to other regions of the state and nation for receipt seat of materials for the production process, and the distribution of goods and products produced in the Jackson area.

Proposed commercial areas follow existing patterns of commercial development, and allow for commercial expansion within, and adjacent to, these commercial areas. Continued growth and development of small commercial areas in rural villages and population settlements is encouraged. Small commercial development which would serve neighborhoods, though not shown on the Plan Map, are encouraged to be developed. The Plan supports the development of commercial areas which are intensive and compact in which many commercial services are offered

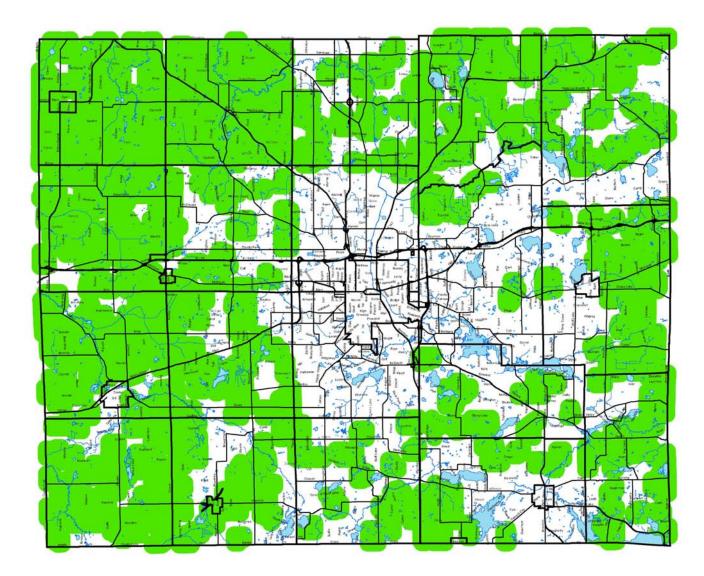
to customers within in a small area. This pattern of commercial development will reduce the need for automobile travel.

The principles which have been applied to the location of industrial and commercial uses on the land use plan also apply to residential uses. Generally, areas proposed for higher intensity residential development are located in areas of existing residential development. These areas are associated with the urban area of the City of Jackson, and urbanizing portions of Blackman, Leoni, Spring Arbor, and Summit Townships.

Additional urban development is proposed in lakes areas where sewer systems exist or are planned, and in the Village areas of Brooklyn, Concord, Grass Lake, Hanover, Parma and Springport. Further development is proposed in the unincorporated areas of Michigan Center, Spring Arbor and Vandercook Lake.

Residential development in rural areas will continue, but should not be encouraged. Within rural areas local townships should pursue and encourage clustered housing with secured, permanent open space to be preferred over large lot single family development.

Existing agriculture should be encouraged in rural areas of the County, particularly where there are prime soils, or productive farms.



Jackson Community Comprehensive Plan Jackson, Michigan

Map 18a

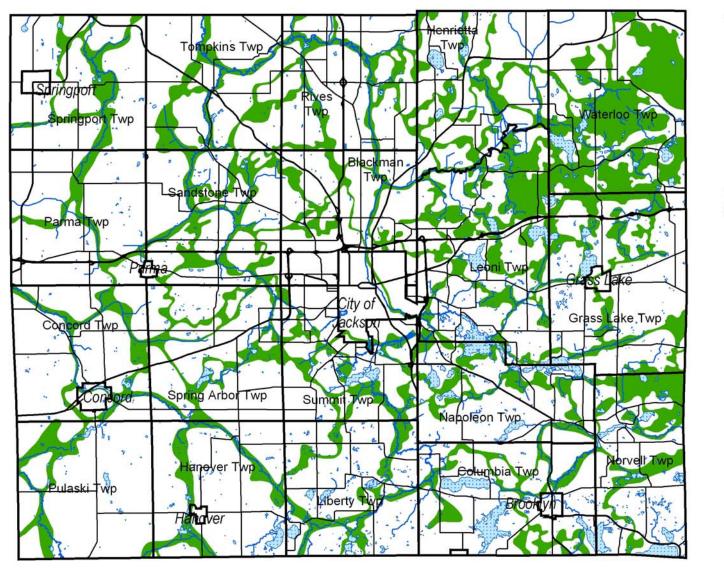
#### Agricultural Preservation Areas



Source: Jackson County Natural Resources Conservation Service



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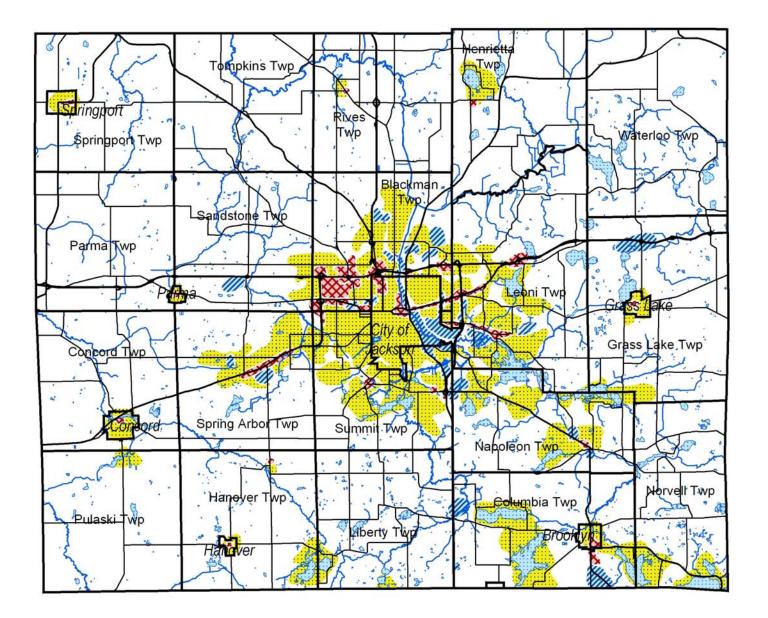


Jackson Community Comprehensive Plan Jackson, Michigan



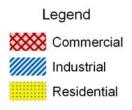




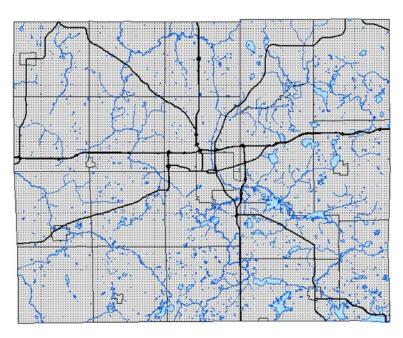


Jackson Community Comprehensive Plan Jackson, Michigan

Map 19 2025 Jackson County Land Use Plan







Chapter 13 PLAN IMPLEMENTATION

This Plan, the Jackson Community Comprehensive Plan, was prepared with virtually all of the local units of government of Jackson County as participants. Each of these local units of government contributed funds to finance the completion of the Plan. Each of the units participated in the Community Planning Committee Meetings and a plan has been formulated which meets the approval of Community Planning Committee Members.

Just as the Plan was prepared in an environment of cooperation, its implementation will depend upon the combined effort of each of the local units of government within Jackson County.

This chapter offers a path to the implementation of the Jackson Community Comprehensive Plan. It defines the roles and responsibilities of each of the local units of government that were involved in the preparation of the Plan. It incorporates actions that the private sector can take to assist in implementation. Finally, and perhaps most importantly, the means of citizen participation and involvement in the refinement and implementation of the Plan over time.

#### Jackson Community Planning Committee

#### Plan adoption

The initial step in the implementation of this Plan is the adoption of the Plan. The Plan will be adopted by the Jackson Community Planning Committee following a formal public hearing. The Plan has been prepared with the input of citizens and stakeholder groups in the County.

#### Data Availability and Accessibility

Data which has been assembled for use in the preparation of this Plan will be made available to local units of government to assist in their planning efforts.

#### Meetings of the Community Planning Committee

The Jackson Community Planning Committee will continue to meet on a regular basis to address existing and future land use issues. These meetings will offer a forum for the discussion of inter-governmental problems and opportunities in land use.

#### Annual Plan Review

The Plan will be reviewed on an annual basis to determine if revisions or amendments are necessary. A major review of the Plan will be conducted every five years.

#### Jackson County

#### County Zoning Coordinating Committee

The County Zoning Coordinating Committee will continue to review zoning ordinance amendments, and rezonings to assure coordination among and between local units of government. The review will include a staff report prepared by the Region 2 Planning Commission which addresses these issues.

#### County Bonding Authority

The Plan will be used as a basis of infrastructure expansion. Jackson County, through the use of its bonding authority to finance projects, will include in its review of requests for County issuance of bonds to finance infrastructure projects, a determination of consistency with this Plan.

#### Jackson County Health Department

A request will be made for the review of the Plan by the Jackson County Health Department, with particular emphasis on matters relating to environmental health.

#### Jackson County Road Commission

A request will be made of the Jackson County Road Commission that the rationales for County Road improvements include a determination of consistency with this Plan, and the land use plans of local units of government.

#### Jackson County's Townships, Villages, and City

Local units of government will be encouraged to review their locally adopted plans for the possible incorporation of data and plan recommendations contained within the Jackson Community Comprehensive Plan. Local units of government are encouraged to notify neighboring communities of planning and zoning decisions on parcels which may have an impact in adjacent communities.

When the 300' notification requirement extends into adjacent communities, notice shall be provided to property owners and residents.

Local planning commissions are encouraged to share land use and recreation plans with neighboring communities.

The Community Plan should be consulted when communities consider infrastructure improvements. Such improvements should be consistent with the Plan, and should be subject to a determination of consistency.

Local units of government are encouraged to prepare capital improvement plans.

Local plans should be reviewed annually to determine if modifications or amendments are necessary, and plans should be updated every five years.

#### **Region 2 Planning Commission**

The Community Planning Committee should work with the Region 2 Planning Commission to develop an on-going series of planning and zoning workshops on selected topics.

The Commission should update its model zoning ordinance to incorporate zoning ordinance provisions which apply to problem land uses.

The R2PC should prepare a monthly or bi-monthly newsletter to address local planning issues.

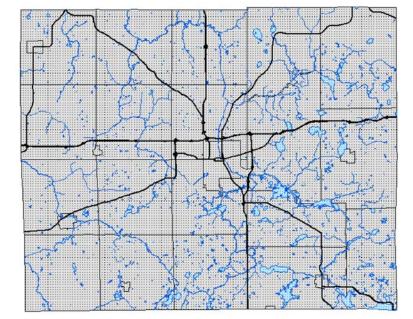
#### **Private Sector**

Land conservancy organizations may wish to use conservation easements as a means of implementing plan provisions consistent with their mission statements.

Business interests, community organization, and citizens are encouraged to participate in community planning by attending and participating in, meetings of the local planning commission.

The public is encouraged to participate in all community planning efforts.

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