

Chapter 4

Madison County Community Profile

The Madison County Comprehensive Plan is based on the information obtained from public comments and available statistical and field data. The ‘Madison County Community Profile’ chapter outlines the necessary background information for understanding the current situation (socio-economic profile and community focus profiles) and reflects the needs and aspirations of the citizens of Madison County (community needs profile). The chapter acts as a guide for future public policy decisions related to the physical growth and development of the unincorporated areas of the County.

This chapter sets the groundwork for the subsequent sections consisting of development policy (Section B), implementation strategies (Section C), transportation plan (Section D), and land use and growth management plan (Section E). The presentation of this background information was necessary in order to determine the past activities and existing conditions that shaped the landscape and influenced decision-making.

The information, data, and comments are organized according to community focus topics that include:

Economic Development	Agriculture	Housing Development
Community Resources	Cultural Resources	Natural Resources
Utilities and Infrastructure	Transportation	Land Use and Growth Management

Each community focus topic contains three portions.

- The first portion, the ‘Summary’, highlights the significant points covered in the sub-chapter.
- The second portion, the ‘*Existing Conditions and Trends*’, consists of detailed analysis information gathered from the following sources: U.S. Census data, field inventories and observations, local interviews, and various documents.
- The third portion, the ‘*Planning Issues*’, provides a general overview of the comments from workshops, focus groups, and the Community Needs Survey. The collected comments and concerns form a clear image of the strengths, weaknesses, and opportunities of living and working in Madison County.

The information presented in this section provides the necessary support for the policy statements found in the subsequent chapters.

Socioeconomic Profile of Madison County

Assessing the population size and characteristics of residents in the unincorporated areas of Madison County adds a critical component to the comprehensive planning process. As the County population grows, there should be greater demands for additional public services, community resources and community facilities, and other opportunities. An understanding of these growth patterns will assist Madison County decision-makers in preparing for the impact of future growth.

It is important to note that the majority of statistics referenced in this chapter are from the 1990 U.S. Census collection, with the exception of projections and estimates made from the 1990 figures, which are noted. Once the 2000 figures for Madison County are made available, they should be referred to for comparisons and as updates to the data below.

Socioeconomic Thumbnail Sketch of Madison County

Characteristics		Rank in State
Population	132,782 persons	10
Population Density	290.8 persons/mi ²	10
Labor Force	67,580 persons	10
Unemployment Rate	4.3 %	44
Per Capita Income	\$17,698	36
Number of Households	49,804 households	7
Family Households	35,650 households	8
Families in Poverty	3,709 households	6

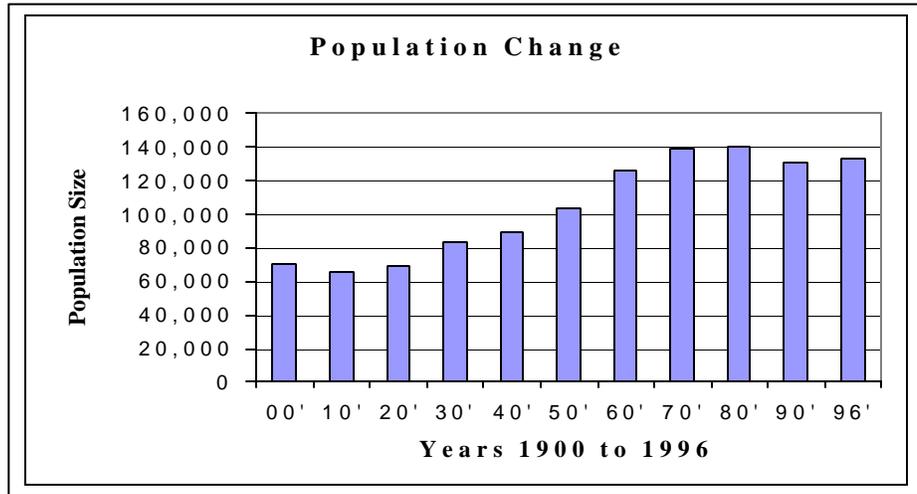
'Rank in State' is based on a total of 92 Indiana Counties.

Source: IUPUI School of Business '1996 Profile' (Based on 1990 U.S. Census data and estimates).

General Population Characteristics and Current Trends

Population trends for the whole of Madison County have not been dynamic over the last two decades, from 1980 to 1999. Slight geographic shifts of the population have occurred due to two types of housing activity: an influx of newcomers from nearby urban areas that settle in the south-eastern portions of the County; and urban fringe development undertaken by ex-urbanites of the County's incorporated areas. At both of these locations, the new low-density residential development patterns threaten existing agricultural practices and natural landscapes have been divided and developed and place a strain on services and infrastructure.

Year	Population
1900	70,470
1910	65,224
1920	69,151
1930	82,888
1940	88,575
1950	103,911
1960	125,819
1970	138,522
1980	139,336
1990	130,669
1996	132,782



Over the past one hundred years, the population of Madison County nearly doubled from 70,470 in 1900 to an estimated 132,782 in 1996. According to current figures, Madison County contains only 2.31% of the estimated 5,840,370 people residing in Indiana. Madison County experienced growth spurts in the 1920s and post World War II due to the discovery and extraction of natural gas resources and developments in the automobile manufacturing industry, respectively. Jobs and other opportunities created by the above-mentioned economic activity drew people to Madison County. Over the last thirty years, the shift from manufacturing to service economies has impacted population figures as fewer people are moving into the County and there are those that are moving out. Between 1985 and 1990, net immigration into the County was lower than net migration out of the County.

The other Counties, located to the north of the Indianapolis metropolitan region, are also experiencing extreme population growth with the development of expansive residential tracks that are in close proximity to the booming regional job market. Madison County is located on the fringe of the activity,

but has been impacted by the increasing demand for residential property in the southern portions of the County. It is anticipated that as the population increases in the southern townships, that the economic and other spin-offs from this activity will spark an overall increase in population throughout the County, but the magnitude cannot be predicted at this time. It is anticipated that the immigration in southern Madison County will balance the out migration from the urbanized areas throughout the County. These trends are further discussed in the ‘Population Change’ paragraph below.

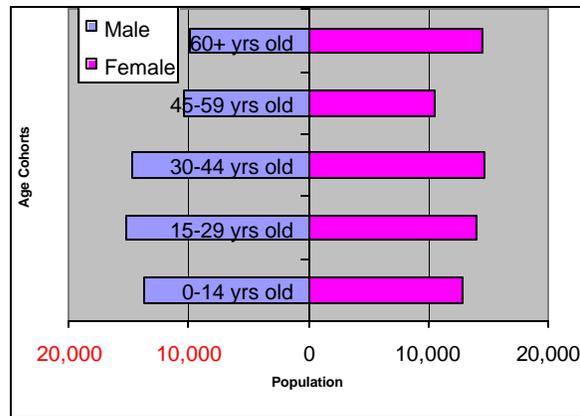
Population Age Distribution

Determining the age cohort distribution of a population provides reliable information about the actual and potential demands and impacts of a particular segment of the population over time. The following table and chart detail the population age distribution of Madison County as determined by the 1990 U.S. Census.

1990 Madison County Age Cohorts

Age	Male	Female	Total	%
0-14	13,746	12,877	26,623	20.4%
15-29	15,151	14,069	29,220	22.4%
30-44	14,794	14,688	29,482	22.5%
45-59	10,360	10,514	20,874	16.0%
60 +	9,891	14,579	24,470	18.7%
Total	63,942	66,727	130,669	

1990 Population Pyramid



(Source: 1990 U.S. Census, Population Division)

The population of Madison County was stable and balanced in 1990, with an even distribution between males and females (except the 60+ cohort) and an even percentage distribution for each 14-year cohort group. The age distribution of Madison County’s population is consistent with overall state trends, only fluctuating plus or minus by a maximum of 3% per age cohort. Predictions have indicated that the County will become an aging community. The 1990 Census bureau estimated that between the years 1990-96, Madison County would experience a 4.4% increase in population for those 65 years and older, and the birthrate would decline by an average of 8%. Naturally these figures will be verified in the 2000 Census. As Madison County’s population continues to age, it is reasonable to predict that there will be increasing demands for different housing configurations, health-care services, specific recreation facilities, and changes in modes of mobility.

Population Density

The 1990 U.S. Census reported a total Madison County population of 130,669 with a density of 289 persons per square mile. Of total County population, 67% (87,438) of residents lived in urbanized areas while 33% (43,231) lived in rural areas. For those residing in rural areas, 6% (2,597) lived on farms and 94% (40,634) were considered non-farm residents. Statewide in 1990, cities, towns, and incorporated areas had grown by 3% over the previous decade while the unincorporated areas experienced a 9.3% increase in population.

Map A-4-6 (insert) illustrates the population distribution and density in the unincorporated areas of Madison County. The population of Madison County is clustered around existing urbanized areas and

along the major transportation routes (I-69, SR9, SR13, SR28, and SR32), where the access is greatest for urban services and amenities, [indicated by the darkest squares]. The light-colored squares indicate areas of low population and where farming predominates on the landscape.

Over the last decade, considerable population growth has occurred in the southern and east-central Townships of Madison County, which has been directly influenced by proximity and access to the greater Indianapolis metropolitan area. With future development activity focused on specific geographic locations in the County, it is critical that existing growth areas are examined for their ability to provide current and future adequate highway infrastructure, sewer treatment plants, water provision, community schools, and other public amenities for a growing population.

Population Change

The nation-wide trend towards an intense urbanization at the turn of the century had been counteracted by the trend of migration to suburban areas that started in the 1950s. More recently, the trend shifted greater numbers past the suburbs (that were annexed) and into the fringe and rural areas. While there is also a trend towards returning habitation to the city core, it has yet to have occurred at a frequency that would balance the migration outwards. **Map A-4-7 (insert)** illustrates that the national and state trends regarding population change and shifts is also reflected in Madison County.

The above-mentioned population shifts and trends are evident around Anderson Township, with a decrease of population out from the incorporated area and into the surrounding Townships. The growth ranges from a 16% increase in Stony Creek Township to a 92% increase in Richland Township over 36 years. Most Townships in Madison County have experienced an increase in population, with the exception of Pipe Creek, which has been in continuous population decline since 1970. The population of Anderson and Duck Creek Townships had declined from 1970 to 1990; however, their populations have begun to rebound since 1990. Richland and Union Townships, having experienced the greatest increase in population, nearly doubled in population number over the 36-year period and are expected to continue to grow. The population increase in the Townships can be attributed to the increased residential and commercial development along the I-69 corridor providing greater access and proximity to the expanding greater Indianapolis metropolitan area.

Population Projection

The IUPUI Business Research Center projected the 1990 Census figures to form an estimate population of the state and each county through to the year 2020. The population of the state exhibited a gradually increasing trend and several of the counties in the greater Indianapolis metropolitan area exhibited rapid growth in population. The projected population for Madison County exhibited a slight increase over the 30-year period (from 130,669 in 1990, to 132,782 in 1996, to 134,210 in 2020). The Research Bureau, however, believes that this predicted slow increase stems from a flaw in their projection methodology and that the base population figures (1990) used for the projection of Madison County were underestimated. The projections were conducted in the early 1990s using economic and social factors, as contributors to the equation may not have considered the true impact of the current climate of economic stability and growth.

The Madison County Comprehensive Plan Planning Team concurs with the Research Bureau's findings, and believes that the community is growing and will continue this trend. The Planning Team advises that the 2000 U.S. Census figures should also be reviewed and the projections re-calculated for a more accurate population forecast. Upon review of the number of housing starts in Madison County over the

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last eight years, the Planning Team believes that the total County population is slowly increasing, especially in the southern and east-central Townships, (as illustrated in **Maps A-4-6 and A-4-7**).

Poverty, Economy, and Income

A total of 15,926 Madison County residents were considered to be living below the poverty level in 1994. This number represents 12.1% of the total population, indicating a 25% increase in poverty since 1980. Of this total, 39% represented children under the age of 18 and 11% were those over the age of 65. The figures indicated that 50% of households headed by single mothers were most likely to live below poverty level. Among families in which a householder worked, only 8% lived in poverty.

Madison County Income and Economy: A Thumbnail Sketch

Characteristics	Number	Characteristics	Number
Median Income of Families	\$33,332	Median Home Value	\$42,800
Median Income of Men	\$30,635	Median Rent	\$250/month
Median Income of Women	\$17,233	Number of Housing Units	29,882
Average Wage Per Job (1992)	\$24,494	Number of Rental Units	12,871
Unemployment Rate	4.3%	Number of Disabled Adults	1870
Collecting Social Welfare (1992)	2,117	Number of Disabled Children	384

Source: 1990 U.S. Census

Household Characteristics

Married Households	28,617	With children	12,958	45.3%
		Without children	15,659	54.7%
Male-led Households	1,499	With children	839	56.0%
		Without children	660	44.0%
Female-led Households	5,688	With children	3,933	69.1%
		Without children	1,755	30.9%
Non-family Household Male	1,109	Living alone	1,045	94.2%
		Not living alone	64	5.8%
Non-family Household Female	4,875	Living alone	4,798	98.4%
		Not living alone	77	1.6%

Source: 1990 U.S. Census

Community Needs

‘How should your community develop? What should it look like? What does it need?’

The following is a general overview of the comments from focus groups, workshops, and the Community Needs Survey. These collected comments and concerns form an excellent depiction of the current land use and quality of life situation in Madison County. The conclusions presented below are very general in nature. The specific needs of the community are presented throughout this profile document in the focus segments and are identified as strengths, weaknesses, or opportunities contained in the ‘*Planning Issues*’ discussions. The summarized comments listed below come from the public meetings held throughout the planning process, and include summarized input that was gathered from public workshops, focus group meetings, Visual Preference Surveys, elected officials, and planning commission members. These comments form the conclusions and considerations that have become the basis for the development of goals, objectives, and strategies to direct the implementation of the Comprehensive Plan.

Community Needs Conclusions -

“We want to better our quality of life.”

- We must improve the conditions of existing streets, drainage capacity, and water quality.
- We must improve the built and natural environment.
- We must develop better recycling programs, recreational opportunities, and child-care services.
- We must become more involved in the decision-making process.
- We must encourage the responsible development of land.

Housing Conclusions -

“We want more choices in dwelling types and levels of affordability.”

- We must develop more single-family dwellings.
- We must limit the number and location of mobile homes.
- We must create incentives to retrofit older homes.
- We must integrate housing provision with economic development opportunities.

Environmental Conclusions -

“We want to conserve our natural and agricultural lands.”

- We must prevent development in woods, wetlands, and other environmentally sensitive areas.
- We must encourage the conservation of natural areas.
- We must eliminate trash burning, junkyards, dumping, and other environmentally irresponsible acts.

Development Conclusions -

“We want to develop our lands more responsibly.”

- We must create subdivision controls and design regulations to guide growth.
- We must encourage a ‘good fit’ and greater mix of uses and denser development.
- We must involve residents and other stakeholders in a development review process by holding informal meetings prior to formal hearings with the developer, planning staff, commission members, and elected officials.
- We must set lands aside for green space and service areas.
- We must develop only where infrastructure and services can support.

Economic Development Profile

While the national economy has witnessed the creation of new skilled and semi-skilled jobs at an unprecedented rate, those new jobs are not equally accessible to all Americans, both in terms of where one lives and the skills and income one needs to claim those jobs. In short, people in rural areas and areas in which manufacturing firms (and jobs) have fled, do not have equal access to the new employment opportunities; neither do those persons with fewer skills, less education, and lower income.

The health of the local economy plays a critical role in defining the quality of life of those living and working in Madison County. In the unincorporated areas of Madison County, it is the vitality and strength of all facets of the agricultural industry that is of primary economic concern. The County leadership should focus and encourage development within and surrounding the municipalities while preserving the majority of the unincorporated areas as community amenities conducive for business recruitment.

Existing Conditions and Trends

The foundation of economic development consists of retaining and recruiting employers that produce or add value to the basic goods or services that the community requires. The economic development environment must be taken into consideration when making decisions about future land uses and growth in the County. Conditions and trends that should be considered include the various components of the local economy, the location of existing businesses and industries, and the characteristics of the local workforce.

Local Economy

The major sectors that comprise the local economy include agriculture/agribusiness, manufacturing, retail and services, institutional, and natural resource extraction.

- **Agriculture and Agribusiness.** Agriculture and associated agribusiness comprise the most significant basic industry for the unincorporated areas of Madison County. Local farmers continue to produce and market crops and livestock using modern agricultural practices. There are several major food processors that operate within and outside the municipalities of Orestes and Elwood. For more detailed descriptions of agricultural activities in Madison County, refer to the ‘Agriculture Profile’ later in this chapter.
- **Manufacturing.** Most communities in Madison County contain some level of manufacturing activity as a vital part of their economies. The emergence of the local automobile industry created manufacturing and value-added activities that produced durable goods for national and international distribution. These industries positively impact the tax base of the urban areas, as well as provide direct employment opportunities for residents of the urban and rural areas. In recent years, the manufacturing activity in the County has declined, following the national trend of shifting away from heavy industry and leaning towards service sector activities. A recent inventory of industrial sites and corporate headquarters within the unincorporated County reveals aging plants on the fringes of older urbanized areas. Historically, when a site in the unincorporated County is considered for industrial and manufacturing uses it was annexed.
- **Natural Resource Extraction (gravel, limestone, natural gas).** Mineral extraction operations provide limited economic benefit to the community. These operations are generally not personnel intensive (reduced employment opportunities) and usually the extracted raw materials that leave the

community have not been processed or given any added value. Unfortunately, these activities create an impact on the economy that is disproportionately low in comparison with the potentially harmful and long-term impact on the landscape. Due to the impact on surrounding land uses, mineral extraction operations are received with great controversy when proposed. Current examples of land uses in this category include Irving Materials mineral operation at I-69 and State Route 67, a mineral extraction operation west of Summitville, and a proposed Irving Material site in Green Township.

- **Retail and Services.** The retail and service sector of the economy is essential to sustain most aspects of daily life for citizens and creates nearly half of all employment opportunities in communities throughout Madison County. The majority of retail and service establishments are located within the incorporated communities, but the amenities are made available to and can be accessed by all County residents and visitors. Retail and service establishments that are located in the unincorporated areas of the County include those that provide convenience goods for locals and travelers along the major routes and urban fringe (service stations and restaurants), and services that are operated on farmsteads and residential lots (beauty shops to lawnmower repair).
- **Institutional.** Institutions – such as local and state government facilities and educational facilities – are considered essential and basic services required by the community. This sector of the economy requires highly skilled and professional employees, some of which are brought into the community to fill positions (in the medical and legal fields). For the most part, these institutions are located within the incorporated areas and are vital components of the civic townscapes. Some institutions must be located outside highly populated areas, such as the State Reformatory located just outside the Town of Pendleton.
- **Professional and Information Services.** Professional and informational services – such as phone centers, finance, insurance, catalog sale centers, and design firms – have become increasingly important to the local economy. Due to improvements in information technology, these operations are no longer required to reside in the same community as the people/firms they service. Large calling centers can locate in small towns where the employees reside. Small-scale operations can be conducted from employees' homes, located in a more rural area, fostered by Internet access. The unincorporated areas of Madison County can play a significant role in the incubation of this type of business venture.

Business and Industrial Site Locations

The results of the land use survey undertaken in June 1998 revealed several small business clusters in the unincorporated areas of Madison County. Most of these clusters have been created by sprawl from urban areas that should have been annexed. Other than mineral extraction activities, these clusters contain most of the basic industry facilities in the unincorporated County. In addition, small business clusters provide localized services and retail to residents. Currently, these clusters are not completely built out, and have space for additional services and small businesses to locate. These locations are discussed in greater detail in the Land Use and Growth Management Plan (Section E).

Employment

In 1990, Madison County reported a civilian labor force of 63,162 workers. According to the table below, there were 58,937 jobs (1990) held by County residents and those commuting in from outside the County border. The unemployment rate during this period was 4.4%, lower than the statewide rate estimated at 5.7%. The majority of jobs in Madison County are found in the manufacturing and service industries; these jobs comprise approximately 58% of the workforce, while retail holds a close third with

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20% of the workforce. Anderson Township employed the greatest number of workers in Madison County, accounting for over 45% of the workforce.

Industry Employment by Township

	Agriculture, Forestry, and Mining	Construction	Manufacturing	Transportation	Wholesale Trade	Retail Trade	Finance, Real Estate	Services	Public Administration	Total
Adams	83	124	591	132	100	365	44	370	49	1858
Anderson	282	1238	7124	1254	803	5541	1171	8014	1176	26603
Boone	51	33	156	12	0	45	10	47	5	359
Duck Creek	32	4	88	15	22	15	43	47	0	266
Fall Creek	66	213	1445	175	98	756	311	1198	266	4528
Green	27	146	315	96	75	306	101	314	77	1457
Jackson	43	32	333	53	55	188	49	223	33	1009
Lafayette	81	118	811	94	73	492	141	744	63	2617
Monroe	68	216	1530	271	59	858	212	1216	155	4585
Pipe Creek	204	243	2190	203	156	986	276	1298	81	5637
Richland	52	93	979	157	94	478	77	880	70	2880
Stony Creek	59	83	616	98	104	390	94	391	47	1882
Union	33	145	1473	157	104	1006	254	1142	102	4416
Van Buren	57	47	351	81	20	97	17	168	2	840
Madison County Totals	1138 1.9%	2735 4.6%	18002 30.5%	2798 4.8%	1763 3.0%	11523 19.6%	2800 4.8%	16052 27.2%	2126 3.6%	58937

Source: 1990 U.S. Census

Workforce

Madison County employers draw workers from within the County, from the surrounding counties, and from other distant locations. Due to the low availability of local specialty-skilled workers, some employers are required to recruit from the larger region. There is an emerging trend of higher-paid and better-skilled employees living outside the County in the more exclusive areas of Hamilton County. This occurrence has many business owners concerned that this community can attract professionals for employment opportunities, but does not have the same draw to encourage them to reside here.

Conversely, Madison County provides a significant workforce for the Indianapolis Metropolitan area. At least 20% of Madison County's labor force is employed outside of the County, primarily in Hamilton and Marion Counties (refer to table below). For those commuting to jobs outside the County, although the jobs provide employment for residents, the local Madison County economy does not derive the benefits that the business could offer the tax base.

Bedroom communities often struggle to provide adequate services to dwellings without much needed revenues that are generated by local commercial and industrial facilities. Employment opportunities within Madison County have the greatest economic impact when the employee lives and spends their income within the community. Therefore, retaining a trained workforce that lives and works in the community, while encouraging employers to locate closer to their work force, are key facets of economic development.

Commuting To and From Surrounding Counties

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From Madison County To:		Into Madison County From:	
Marion	6,222	Delaware	2,250
Hamilton	3,358	Henry	1,901
Delaware	1,791	Hamilton	1,253
Grant	868	Marion	730
Howard	677	Hancock	491
Hancock	529	Grant	445
Tipton	380	Tipton	292
Henry	274	Howard	>100
Total	14,099	Total	7,362

Source: IEDC 1996, from Indiana state tax returns

Planning Issues

The Planning issues surrounding economic development were identified and discussed during the community participation components of the comprehensive planning process. Throughout the public workshops and focus group sessions, participants were encouraged to list the strengths, weaknesses, opportunities, and threats to the economic development in Madison County. The following is a summary of those discussions.

Agriculture. Throughout the community meetings and discussions, citizens consistently agreed that agriculture must be considered a vital form of industry, since it plays a significant role in the local Madison County and regional economies. Many concerns were raised regarding the reduction of this industry's resource base – the loss of prime agricultural land – and that development pressures make it increasingly difficult to continue the economic viability of agricultural operations. Some of the issues discussed included:

- Regarding agricultural lands as 'developed' by the agricultural industry, not simply as open space for other types of development.
- Investigating ways of increasing the value of agricultural products before they leave the County. This would involve processing operations that would increase the products' value, increase employment opportunities, and increase the tax base.
- Investigating the possibilities of becoming more involved in the marketplace with locally produced soy or other agriculturally based products (from cultivation to finished product).

Balanced Growth. Many of the discussions, stemming from the community focus topics, concluded that there is a great need to balance growth in future developments. Growth needs to be balanced between residential, service, manufacturing, and retail uses. Some of the issues discussed included:

- Ensuring that developments in the unincorporated County areas contain a mix of uses that will facilitate a greater economic benefit from development, reduce stress on transportation facilities (live and work in same community), and act as incubators for small and home-based businesses.
- Ensuring that large residential developments make provisions for retail, service, community resources, and employment opportunities for those living in the developments, as well as creating amenities for those living nearby.

Business Retention, Expansion, and Recruitment. It was concluded throughout many of the community discussions that in order to maintain the viability of the local economy, there must be a mechanism through which current and future businesses can grow. The emphasis was placed on the

efforts to retain existing facilities, to foster the creation of new local industry, and to recruit new ventures from outside of the community. Some of the issues discussed included:

- Permitting mixed-use districts within residential and agricultural areas to foster entrepreneurship and small business creation that will contribute to the local economy and community.
- Encourage neighborhood revitalization efforts in the incorporated areas that have the ability to enhance the overall desirability of the community as a place to live and provide greater appeal for businesses seeking to locate in the County.
- Madison County is well positioned regionally and is centrally located in Indiana and the Midwest. The County is well connected to these above-mentioned areas by a multi-modal transportation system.
- Madison County is an attractive place to live – with its rural atmosphere, good school districts, and low cost of living.
- Maintaining the manufacturing and agricultural sectors will help to further diversify the local economy. Diversification of manufacturing from automotive production and capitalizing on growth trends in the information sector could also assist in this vital need for diversification.
- Incentives, such as grants and tax relief, are common and very useful tools. Incentives should focus on the reuse of sites, downtown revitalization, and remodeling of existing facilities rather than on green field construction. There is no longer any justification that can support urban sprawl.
- Madison County must attract jobs that provide above average pay and require various levels of education.

Infill and Redevelopment of Urban Areas. Madison County citizens raised concerns that growth management decisions must be responsible. A component of any smart growth initiative is the reuse and revitalization of existing structures and properties before proposing development on lands in designated growth areas. Some issues discussed included:

- Infill and redevelopment initiatives should utilize the existing infrastructure that would minimize the financial burden of future development on the developer and the community.
- Brownfield (previously developed industrial lands) programs should be initiated to remove the environmental stigma of manufacturing site reuse.
- Unregulated developments -- such as strip developments, leapfrogging developments, commercial strip malls, and interchange developments -- threaten the overall attractiveness of Madison County's landscape and rural character.

Workforce. Participants in the focus groups meetings and workshops emphasized that the availability of a skilled workforce is a critical component of the economic development problem and solution. Some of the issues discussed included:

- Due to lower unemployment the lower qualifications of available workers leads to significant problems with filling skilled jobs. This issue is complicated by a shortage of housing for new workers in price ranges that they can afford.
- There is a definite scarcity of non-agricultural based jobs in the rural areas.

Agriculture Profile

The majority of land in Madison County has been used for agricultural purposes since the first settlers cut the trees and cleared the land. The County lies in the Tipton Till Plain, considered to be the best agricultural land in North America. Agricultural activity in Madison County has consisted primarily of the production of cash grains such as corn, soybeans, wheat, and hay; and secondarily, the raising of livestock. During the past fifty-years, the trend towards greater urbanization through rural development has resulted in a direct loss of farmland (88,000 acres annually lost, statewide) and an increase in activities that hinder efficient agricultural production.

Continued agricultural production is critical for defining the physical and functional character of Madison County, as well as contributing substantially to the Nation's food supply. The preservation of the County's agricultural industries and rural character has been identified as the highest priority for any community development action that will be taken. It has been determined that Madison County, at the time of compiling this plan, is well positioned to create a variety of flexible programs and policies that will serve to protect this critical industry and this rich landscape-based heritage by ensuring these lands remain intact, protected, and viable.

Existing Trends and Conditions

In 1998, the over 223,000 acres used for agricultural production in Madison County were contained in 738 farms, representing 81% of all County lands. The following tables provide statistics from the 1997 Census of Agriculture showing the change in productivity and agricultural lands available over a 5-year period, and additional figures for sales, farm sizes, and farm operators in 1997. In all cases, the County data is compared with the State average.

Farm Summary Highlights from the Census of Agriculture

Madison County	1992	1998	Change	
Total Number of Farms	848	738	- 110	(-13.0%)
Land in Farms (acres) (1.35% of State)	223,328	223,751	+ 423	(+0.19%)
Average Acreage of Farms	263	303	+ 40	(+15.2%)
Total Cropland (acres)	207,382	208,843	+1461	(+0.70%)
Harvested Cropland (acres)	195,829	208,843	+13,041	(+6.64%)
State of Indiana	1992	1997	Change	
Total Number of Farms	62,778	57,916	-4,862	(-7.74%)
Land in Farms (acres)	15,618,831	15,111,022	- 507,809	(-3.25%)
Average Acreage of Farms	249	261	+ 12	(+4.82%)
Total Cropland (acres)	13,366,034	12,848,950	-517,084	(-3.87%)
Harvested Cropland (acres)	11,834,675	11,716,704	-117,971	(-1.00%)

Crop Production

Crop	1997 Production (in bushels)	1998 Production (in bushels)	Change
Corn	12,258,300	14,790,800	+20.7%
Soybeans	4,814,500	4,810,800	+0.08%
Winter Wheat	381,800	345,300	-9.56%
Hay	13,700	18,400	+34.3%

Source: 1999 Indiana Agricultural Statistics Service

Crop Sales (1997)

Number of Farms by Sales	Madison County	State of Indiana
Farms with annual sales less than \$10,000	279 (39.4%)	25,311 (43.7%)
Farms with annual sales greater than \$10,000	429 (60.6%)	32,605 (56.3%)

Source: 1997 Census of Agriculture

Farm Size (1997)

Number of Farms by Size	Madison County	State of Indiana
Smaller than 50 acres	274 (37.1%)	18,170 (31.4%)
50 to 500 acres	317 (43.0%)	31,012 (53.5%)
Greater than 500 acres	147 (19.9%)	8,734 (15.1%)

Source: 1997 Census of Agriculture

Farm Operators: Primary Occupation and Tenure (1997)

Number of Farms by Operator	Madison County	State of Indiana
Primary Occupation of Operator	Farmer	26,993 (46.6%)
	Other	30,923 (53.4%)
Tenure of Operator	Full Owners	33,840 (58.4%)
	Part Owners	19,019 (32.8%)
	Tenant	5,057 (8.7%)

Source: 1997 Census of Agriculture

The National Agricultural Statistics Service groups Madison County into the Central District for Indiana. The other counties in this district include: Grant County, Howard County, Clinton County, Boone County, Hendricks County, Morgan County, Johnson County, Shelby County, Bartholomew County, Decatur County, Rush County, Hancock County, Marion County, Hamilton County and Tipton County. Refer to **Map A-4-16 (insert)**, which illustrates the Agricultural Statistics Service area.

Shifts in Land Use

Many areas in the United States have and continue to experience a migration trend in which urban and suburban residents shift to rural areas – the ‘exurbs’. This trend has started a cycle of farmland loss through land use conversion. The cycle begins as the rural character of the agricultural areas increasingly attracts new residents. The landscape becomes scattered with individual homes or small developments that create conflicts with the traditional land use, higher land prices, increased traffic, and fewer farming activities. As more residents move into the area, pressures increase on farm operations and economic viability, and the area ultimately becomes primarily residential in use.

Once land is converted from agricultural to residential, commercial, or industrial uses, it will lose its value as prime agricultural land permanently. The majority of the land outside the incorporated areas of Madison County can be considered prime farmland. The U.S. Natural Resources Conservation Service (NRCS) considers *prime farmland* to be land that has the quality, growing season, and moisture needed to produce sustained high yields of crops economically. The largest tracts of this uninterrupted available farmland are located in the northern portion of the County. Refer to **Map A-4-17 (insert)**, which

illustrates clusters of like land uses in the unincorporated County. The 'white' areas throughout the County represent large tracts of agricultural land that have yet to be intensely built upon (as of 1998).

Despite the increasing infringement of urbanized areas on farmland, large agricultural tracts still exist and many Madison County residents rely on various farming activities for employment. As reflected in the above tables, during the period of 1992 to 1997, Madison County did not experience the loss of farmland that affected most other areas in the State of Indiana. Although Madison County is one of several counties that surround the Indianapolis Metropolitan area, the development impact on it was much slower than other areas located closer to the center of growth.

Nonetheless, based on local housing growth trends from 1990 to 1998, the loss of farmland to housing is and will be emerging as a significant trend that impacts Madison County. This land conversion trend is especially evident in the southern townships of the County as new subdivisions are developed across the landscape. While searching for a "rural lifestyle," many residents of these subdivisions have inadvertently destroyed the essential components of rural character by building or attracting scattered residential and strip developments.

The data represented in the tables illustrates the continuing trend of agricultural land and activity consolidation. Future regulations or programs must allow the separation of dwellings from productive fields in order to keep these farms economically viable.

Madison County farmers located in the 'traditional' agricultural areas have run into an increasing array of problems. Many have noted that it is difficult to purchase additional adjacent farmland for reasonable prices due to the current demand for residential uses and market prices. Local farmers have also experienced an increase in the number of agricultural activity-related complaints from inhabitants of new residential developments. These residents (many of whom have moved to the country to seek a "rural lifestyle"), often protest against large, slow-moving equipment on County roads, damage to trees and lawns from spraying pesticides and herbicides, farm-generated noise, and odors created as part of normal farming operations.

Towards Agricultural Productivity Protection

Reforming agricultural zoning to allow additional uses alone may not do much to alleviate the pressures brought about by development. There will always be buyers interested in redeveloping agricultural and natural land for residential or commercial uses. At the time of writing, Indiana is one of the few states in the Midwest that does not provide farmland protection programs at the State level.

Some surrounding states have started to enact programs to fight the loss of agricultural land.

- **Michigan** started the Farmland and Open Space Preservation Act, which gives income tax credits to landowners who have signed an agreement that their land shall be solely used for agricultural purposes for a ten-year period.
- **Ohio** State Government created a rural enterprise zone and property tax abatement programs that provide a variety of benefits to farmers that have agreed to preserve their land from development.
- **Minnesota's** State program defers property taxes to property owners that have maintained a parcel of 10 acres or more in agricultural production for a period of seven years.

The overall success of these programs can be evaluated to determine whether their application might obtain equitable results in the Madison County or Indiana context. Other methods of protecting agriculture and rural lifestyles must be explored to find a balance between current agricultural activities and future planned developments.

Planning Issues

The planning issues surrounding agriculture were identified and discussed during the community participation components of the comprehensive planning process. Throughout the public workshops and focus group sessions, participants were encouraged to list the strengths, weaknesses, opportunities, and threats to agricultural land and industries in Madison County. The following is a summary of those discussions.

Protect Prime Agricultural Lands from Development Pressures. Throughout the community discussions the primary issue raised was the protection of agricultural lands and industries in Madison County and in the greater agricultural region. There were concerns for a loss in food production, for a loss of the rural character, and a loss of an economically viable way of life. The following is a summary of the statements made at these meetings by farmers and others intent on saving this land-use:

- Enable farmers to continue agricultural practices that are economically productive by reducing the density of development in prime agricultural areas.
- Maintain the aesthetics of the rural character in the unincorporated areas and protect the associated agricultural heritage.
- Preserve all elements of the agricultural (woodlots) and natural environments (open green space).
- Protect visual aesthetics of the rural landscape by creating specific guidelines for development and infrastructure placement and design.
- Support the future growth of all agricultural industries as a vital element of economic development.

Economic Incentives to Preserve Farmland. Throughout the community discussions dealing with agricultural land and industries protection, a variety of economic incentives used in other areas of the country were mentioned, and their merits debated. The following outlines some of the incentives used in other state programs that may be applicable to conditions in Madison County:

- *Preferential Assessment of Property Tax:* a property tax on agricultural land based on a percentage of its market or true tax value. If the land use changes on the property, tax will immediately increase.
- *Differential Assessment/ Deferred Taxation:* a property tax on agricultural land based on a percentage of its market or true tax value. If the property is sold for development, the difference in the deferred tax amount is due for payment at the time of sale by the new property owner.
- *Differential Assessment/ Restrictive Agreements:* the property owner agrees via a contract to use the land strictly for agricultural purposes and receives a reduced property tax rate.
- *Income Tax Credit:* the property owner agrees via a contract to preserve the land for agriculture for a defined period of years and receives a yearly credit on state income taxes.
- *State Inheritance and Estate Tax:* agricultural property passed on to family heirs for agricultural purposes qualifies for an estate tax cut.

Regulatory Methods of Preserving Farmland. Throughout the community discussions dealing with agricultural land and industries protection, a variety of regulatory methods and preservation tools used in other areas of the country were mentioned and their merits debated. The following outlines some of the regulations used in other state programs that may be applicable to the objectives for farmland preservation necessary in Madison County.

- *Agricultural Zoning.* Agricultural zoning restricts non-agricultural uses from creating conflicts with agricultural practices. The following lists some types of agricultural zoning:

- Regular AG Zoning: agriculture is the primary use, but other uses are not strictly prohibited.
- Large-Lot Zoning: this restrictive zoning only permits one farm-related dwelling on a specific amount of land per acreage owned.
- Sliding Scale Zoning: this flexible system of regulation permits the acreage for sale/development to be a proportion of the original parcel size.

- *Conservation Easements*. A property owner enters into a contract agreement with a private entity to restrict the type and amount of development allowed to take place on the owner's property. A conservation easement prevents further development on any portion of the land.

- *Purchase or Transfer of Development Rights*. In the purchase of development rights, state/local government or a non-profit entity can purchase the development rights belonging to a specific piece of property. The property owner maintains all other land rights and can continue to live and farm the land. In a transfer of development rights, the rights can be bought and sold on an open market. This method allows a developer to transfer development rights purchased in a no-growth zone to another area where growth is permitted.

- *Linkage Programs*. These programs link farmers without heirs (or with heirs that do not wish to continue farming) to younger farmers in the community. The younger farmers may not have the initial capital to purchase the farm, but agree to farm the property under a rental agreement.

- *Agricultural Land Cooperatives*. Local farmers form a corporation and pool the available resources to purchase additional farmland available on the market. The farmers can either take turns farming the properties or designate a farmer per new property.

Housing Development Profile

The location and quality of housing in Madison County plays an important role in defining the character of the economic, social, and physical landscape. As development pressures from the Indianapolis metropolitan area expand northward along the I-69 corridor, the southern portions of the County are viewed as prime locations for residential development. The impact that new housing development will have on the rural landscape is the largest housing issue currently facing the County. The Housing Development Chapter places emphasis on the appropriate location and design of new residential developments, the desired range of affordable housing options, and the necessity for regulations on manufactured homes.

Existing Conditions and Trends

The relationship of housing costs versus household income affects the community, just as the physical condition of the housing stock. Furthermore, the availability of community facilities and services plays a role in the overall pattern of residential development. Existing housing development conditions and trends have been investigated according to general characteristics, current housing stock, housing cost and value, recent residential construction, and regional market trends. Assessments were made using U.S. Census Bureau data (population and housing) and a field inventory that recorded residential land use and dwelling unit condition.

The principal type of development in the unincorporated areas of Madison County is residential development. This development takes two primary forms: traditional single-family dwellings (14,138 units, 1,201 of which are farmsteads) and mobile homes (1,263 units). These housing types are situated on isolated lots, or informally clustered in scattered subdivisions or mobile home parks.

For the most part, residential development has been haphazard, unguided, and unrestrained. Over the last twenty years, poorly planned residential growth has created weaknesses in community development and threatens the rural character. Problems include:

- Productive agricultural and environmentally sensitive lands (rivers, wetlands, woodlots) are lost or heavily burdened by encroaching residential activity.
- Necessary support services and facilities are expensive and increasingly difficult to provide in existing developed areas.
- Residential strip development along county roads has reduced road capacity and has limited land access.
- Rural character in Madison County has diminished, and the potential for creating viable communities is being lost.

General Housing Characteristics

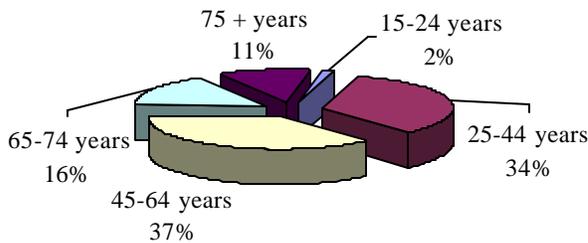
The 1990 U.S. Census reported that 49,804 occupied dwelling units housed the entire population of Madison County (1990 Census of Population of Housing). The average number of persons per household was 2.52, signifying a steady decrease in household size over the last few decades. In the unincorporated areas, 14,368 dwelling units housed 42,440 residents. Although it appears that housing units are scattered throughout the unincorporated area of the County, there is some clustering around the urbanized areas and along major local and state routes where services are available and proximity is greater to the larger metro region. Refer to **Map A-4-22 (insert)**, which illustrates the residential density per square mile in the unincorporated County areas – note that the calculation is based on number of acres per dwelling unit and not the reverse (standard).

Housing Stock and Household Data

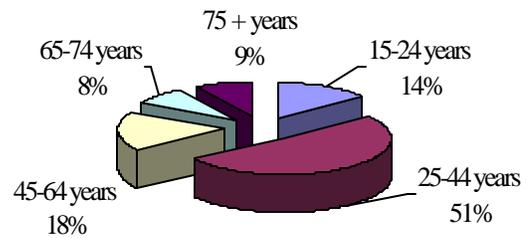
The above tables and charts illustrate general information regarding the existing (as of 1998) housing stock and household characteristics primarily for the unincorporated areas of Madison County (unless otherwise stated). As a summary:

- The age groups 25-44 years and 45-64 years comprise the largest group of homeowners (a total of 71%), while the age group 25-44 years comprised the largest group of renters.
- The median age of homes in the County is 42 years old (constructed in 1957). The figure is only 35 to 31 years in Townships experiencing intense residential growth (Fall Creek, Union, Richland, Green, and Jackson).
- Nearly half of all households reside in Anderson Township (completely incorporated), the largest urban area in the County.
- The large majority of dwelling types in the unincorporated areas of the County are single-family units.
- The large majority of structures and properties in the unincorporated areas of the County were found to be in good condition, with only a few cases of condemnable situations.

Ownership : Age of Household Head



Rental : Age of Household Head



Township	# Hhlds	% Hhlds	Median Age of Homes	Township	# Hhlds	% Hhlds	Median Age of Homes
Anderson	24,520	49.2%	1954	Stony Creek	1,373	2.8%	1956
Pipe Creek	5,244	10.5%	1943	Adams	1,350	2.7%	1958
Monroe	3,735	7.5%	1958	Green	1,016	2.0%	1968
Fall Creek	3,466	7.0%	1964	Van Buren	728	1.5%	1956
Union	3,342	6.7%	1967	Jackson	689	1.4%	1964
Lafayette	2,004	4.0%	1962	Boone	251	0.5%	1954
Richland	1,949	3.9%	1965	Duck Creek	199	0.4%	1948
Madison County Totals					49,866		1957

Source: 1990 U.S. Census Data for all areas of Madison County (for above tables and pie charts)

Dwelling Type	Number	Percentage of Dwellings
Single Family Unit	12,797	82.7%
Mobile Home	1,263	8.2%
Farmstead	1,201	7.8%
Tenant Residence	140	0.8%
Multiple Unit Structure	75	0.5%
Total Dwellings	15,476	

Source: 1998 Field Inventory for unincorporated Madison County.

The following chart illustrates the ratings of structures and properties in the unincorporated areas.

Rating	Structures	% Of Total	Properties	% Of Total
1	12,822	83.1%	13,521	87.6%
2	2430	15.7%	1630	10.5%
3	168	1.1%	249	1.6%
4	5	0.1%	25	0.3%

Rating system: “1” = good condition, “2” = fair condition, “3” = poor condition, “4” = condemnable

Source: 1998 unincorporated Madison County Housing Inventory

Housing Value and Cost

In 1990, the cost of housing in Madison County tended to be moderate with 78% of the owner-occupied housing units valued between \$25,000 and \$100,000. Of the remaining housing stock, 16% were valued at under \$25,000 and only 4% valued at over \$100,000. Based on this information, it would appear that housing is affordable in Madison County for most residents.

It is important to also consider these factors:

- In 1993, the average property tax for residential properties in Madison County was 9.43% -- ranking as the fifth highest property tax in Indiana and above the state average of 8.1%.
- In 1993, the construction costs per home in Madison County averaged \$142,242, while the median value of homes was only \$43,700 (although the median age of homes was 1957 – accounting for depreciation). Construction costs varied by township, but were consistent with the average, ranging from \$111,675 in Van Buren Township to \$172,242 in Monroe Township.
- In 1990, Madison County had a median household income of \$27,435. It was reported that 10.3% of County families and 12.7% of County single-person households were living below the poverty level. Of the single-person households living in poverty, 19.6% were below 18 years of age and 10.1% were 65 years and older.

In addition to the above-mentioned factors, the provision of public utilities essential to conduct daily life and other amenities that contribute to a high quality of life must be identified and factored into the overall cost and value of a home. These would include water and sewer services, solid waster removal, police and fire service, cultural and educational facilities, and safe, well-lit streets. These amenities contribute to a greater quality of life and create more livable communities.

Residential Construction

Between the years 1990 to 1998, only 122 residential demolitions occurred throughout the entire unincorporated area of Madison County. This figure is not significant in comparison with the number of new dwellings constructed during that period. Significant residential construction had occurred, with over 1,700 permits issued for new single-family homes in the unincorporated areas. This figure represents a 3.2% increase in the entire Madison County housing stock since the 1990 U.S. Census.

Along with new residential development, residents in the community invested a considerable sum of money to upgrade and improve existing homes, with new construction and renovation activity totaling \$253,006,030 for the entire County. Naturally, there is a direct correlation between the amount of money invested in each township and the number of housing starts.

Background Information and Community Profile

Madison County Comprehensive Plan

Township	% Of Investment	% Increase	Township	% Of Investment	% Increase
Adams	8.5%	15.35%	Monroe	9.9%	9.87%
Boone	1.1%	9.37%	Pipe Creek	5.7%	7.02%
Duck Creek	1.6%	14.00%	Richland	6.8%	7.46%
Fall Creek	17.9%	11.85%	Stony Creek	4.0%	8.85%
Green	11.0%	23.08%	Union	22.0%	15.18%
Jackson	3.9%	10.70%	Van Buren	1.4%	9.42%
Lafayette	6.2%	8.09%			

The Townships experiencing the greatest percentage in intensity of growth were Green, Adams, and Union Townships. Each of these townships is located in close proximity to major thoroughfares and the greater Indianapolis Metropolitan area. A general increase in housing construction had also occurred around Anderson Township. Refer to **Map A-4-26 (insert)** that illustrates the percent change in housing stock and the actual number of newly constructed residential units per township from 1990 to 1998.

Regional Market Trends

Results from the 1998 Madison County Field Inventory revealed an increasing density of new homes surrounding the incorporated areas and along State Roads; with the greatest concentration of new homes located in the southern and eastern portions of the County. Trends indicated that increasingly more of Madison County's labor force commuted to the Indianapolis area for work. Marion (5,815), Hamilton (2,302), Delaware (1,855), Grant (969) and Hancock (616) Counties comprised the top five locations where people from Madison County commuted to work. Although approximately 44,461 residents lived and worked in Madison County, 13,575 residents lived in the County but worked elsewhere.

Commuting has had both positive and negative effects on Madison County. The County benefits from its population of commuters by collecting property and income taxes. However, bedroom communities often struggle since the amount of taxes collected from residential property alone is often not sufficient to provide the services required by residents. The costs to provide police, fire, and emergency services and to build new schools for example, is often greater than that which is collected in residential property taxes. In addition, large portions of wages earned by commuters are often spent in the county of employment.

Planning Issues

The planning issues surrounding housing development were identified and discussed during the community participation components of the comprehensive planning process. Throughout the public workshops and focus group sessions, participants were encouraged to list the strengths, weaknesses, opportunities, and threats to housing development in Madison County. The following is a summary of those discussions.

Community Building. By far, the largest housing issue raised was the need to create new communities or establish associations with existing communities when developing residential areas. Most public participants and community experts agreed that future residential developments must:

- Locate in existing, well-serviced areas (most likely, in the urban fringe).
- Create cluster patterns to prevent strip development lining roads and increasing traffic congestion.
- Examine natural and man-made drainage patterns to avoid future flooding problems.

- Incorporate a mix of land uses (schools, retail, services, etc.), either on site or nearby, to better integrate housing with economic development opportunities.
- Incorporate more single-family dwellings with various configurations and increased proximity to amenities.
- Incorporate a mix of household types by constructing various sized units and creating special amenities for single-parent families and seniors.

Affordability. The affordability of housing is also of great concern to the residents of Madison County. A lack of new construction of single-family homes affordable to middle-income and lower-income households has caused several problems. Residents of Madison County need:

- Substantial housing construction that meets low-income requirements.
- Incentives to refurbish the existing housing stock.
- Fewer inexpensive manufactured homes and mobile homes that deteriorate quickly unless properly maintained.
- Increased access to safe and healthy housing for senior citizens and other citizens with special needs.
- Increased upscale housing opportunities that would encourage business leaders and other professionals to live and work in Madison County.

Responsible Development. Community workshop participants agreed that developers must be responsible for the impact of their activities on the landscape. In addition, there was agreement that developers and large contractors should provide essential services and infrastructure on the site at the time of construction. Beyond the existing land use and zoning regulations, additional regulations are necessary to ensure responsible development of land and provision of quality housing products. These proposed regulations should advocate:

- High-quality construction that follows established development principles.
- Development that avoids locating on prime agricultural or environmentally sensitive lands.
- Development located nearby existing services.
- Impact fees to assist in financing the utilities and services required by new developments.
- Standards for road widths and minimum number of entrances for developments.
- Involvement of developers and service providers in the Subdivision Review Process.
- Creating standards for existing mobile home parks, including minimum distances, extreme weather shelters, and storage areas.

It is important to add that the concept of “Conservation Subdivision” was described and discussed during the community workshops. Most participants agreed that this development concept contained a more effective community layout and created a better land-use pattern than current residential arrangements consisting primarily of dead end cul-de-sacs. Participants also expressed preferences for smaller lot sizes, for houses built closer together, and for a system of open spaces that connect residential developments to the greater community. There was some opposition to the discussion of requiring sidewalks and streetlights in residential developments – considered “too urban” – but most participants agreed that those characteristics and other required amenities should depend on the location and context of the development.

Community Resources and Public Safety Services Profile

A community’s quality of life and its ability to attract and retain economic growth depends on the quality and quantity of community resources and public services. The Planning Commission does not have the decision making power over most community resources in Madison County, such as police and fire protection. Nevertheless, the planning process must identify and recognize the entire scope of services and capabilities of these resources for consideration in comprehensive land use, housing, and infrastructure planning. The Community Resources segment addresses, in a general way, the facility and service needs of Madison County and focuses on methods to improve service provider coordination and cooperation in the planning process to assure that development occurs in such a way that it receives adequate and efficient services.

Existing Conditions and Trends

Community resources and public safety services provided in Madison County are essential to meet the educational, social, health, and safety needs of all residents. These services and facilities include: educational systems, libraries, park and recreation areas, law enforcement, fire protection, health care, and social services. Data collected for this segment to create the community resources inventory was gathered from individual service providers, various reports, and group interviews. The information presented in this section refers to the distribution and service area of community and public service facilities. Of note, it is through this inventory of existing community resources and services that deficiencies can be identified to meet current and future demands.

Education

The existing educational facilities appear to be sufficient for the current situation and short-term projected population in Madison County. It was noted that funding was required for maintenance and not for expansion or for new structures. The potential demand for these facilities should be re-examined when large residential developments are proposed in the County. The following is a listing of educational facilities in Madison County.

School District	Urban or Rural Campus	High	Middle	Elem.	1998-1999 Enrollment	Number of Teachers
Anderson	Both	2	3	16	10,693	811
Alexandria	Both	3	1	1	1837	125
Elwood	Urban	1	1	2	2060	167
Frankton/ Lapel	Both	2	2	3	2215	120
Southern Madison	Both	1	1	2	3333	201
Madison Grant	Rural	1	1	3	1719	114

Colleges and Technical Schools	Location	1998-1999 Enrollment	Faculty
Anderson University	Anderson	2,300	111
John H. Hinds Vocational School	Elwood	300	11
Indiana Vocational (IV Tech)	Anderson	500	8ft / 55pt
Indiana Business College	Anderson	225	4ft / 10pt

Library Facilities

Background Information and Community Profile

Madison County Comprehensive Plan

Madison County contains seven local public libraries to serve residents in twelve of the County's fourteen Townships. Jackson and Richland are the only two Townships not served directly by library facilities; however, paid yearly memberships are available for residents through the Anderson Public Library. The Anderson Public Library contains the largest selection of resources in the County, including a collection of 300,000 books and a mobile book service. All library facilities contain meeting spaces that are made available to community groups and promote various activities/functions that are of interest to many residents. A complete listing of Madison County's libraries includes:

Library	Townships/Communities Served	# Of Books Available
Anderson Public Library	Anderson, Union, Stony Creek Townships	300,000
Elwood Public Library	Elwood	50,700
Pendleton Community Library	Fall Creek, Green, Townships	48,000
Alexandria-Monroe Public Library	Alexandria, Orestes, Monroe Township	34,980
Frankton Community Library	Frankton	15,000
Ralph E. Hazelbaker Library	Summitville	11,000
North Madison County Public Library System (includes Elwood, Frankton and Hazelbaker Libraries)	Duck Creek, Boone, Van Buren, Pipe Creek, and Lafayette Townships	80,810

Parks and Recreation

Madison County has a moderate amount of recreational opportunities, but lacks an overall coordination of site location, facility distribution, and amenities available. Only five municipalities within the County maintain and operate municipal parks. There are a number of recreational facilities that are privately owned and most schools provide adjacent playgrounds, fields, and gymnasiums. A few municipalities are drafting or updating park plans that will guide recreational facility development and maintenance over five-year intervals. The State of Indiana maintains Mounds State Park, a 288 acre regional recreational facility, located at the east side of Anderson. The following is a listing of recreational facilities:

Community	Number of Parks	Total Park Acreage	Play Equip.	Ball Diamonds	Trails	Picnic/Shelters	Swimming	Courts	Center	Restrooms	Campground	Park Board
Alexandria	5	19.3	X	X		X	X	X	X	X		X
Anderson	39	850.0	X	X	X	X	X	X	X	X		X
Chesterfield	2	53.0	X	X	X			X	X			X
Edgewood	6	12.0	X	X		X						
Elwood	7	49.3	X	X	X	X	X		X	X		X
Frankton	2	20.0	X			X						X
Lapel	3	30.0	X	X	X	X	X					X
Markleville	Information not available											
Orestes	1	0.33	X			X		X				
Pendleton	1	145	X	X	X	X	X		X	X		X
Summitville	1	0.5	X	X		X		X				
Unincorporated County	0	0										
Mounds State Park	1	288.0	X		X	X	X		X	X	X	X

Police Protection

Background Information and Community Profile

Madison County Comprehensive Plan

The Madison County Sheriff's Department has jurisdiction over all areas in the County with support from the police departments in each municipality.

Departments	Jurisdiction	Officers	Patrol Units
Madison County Sheriff	Madison County	51	10
Alexandria Police Department	Alexandria	11	6
Anderson Police Department	Anderson	130	55
Chesterfield Police Department	Chesterfield	5	4
Edgewood Police Department	Edgewood	5ft / 10pt	4
Elwood Police Department	Elwood	16	6
Frankton Police Department	Frankton	4 ft / 13 pt	2
Lapel Police Department	Lapel	4 ft / 6 pt	2
Ingalls Police Department	Ingalls	2ft / 3 pt	2
Markleville Police Department	Markleville	1 ft / 5 pt	6
Orestes Police Department	Orestes	2 ft / 7 pt	2
Pendleton Police Department	Pendleton	6	3
Summitville Police Department	Summitville	Information not available	

ft = full time / pt = part time

There are several incarceration facilities located in Madison County. The County jail and courthouse, located in Anderson, serve as a temporary holding area and courts for the accused. The two state run maximum-security correctional facilities and new juvenile facility, are located southwest of Pendleton.

Facility	Location	Guards	Inmates
Madison County Jail	Anderson	40	190
Pendleton Reformatory	Outside Pendleton	410	1672
Correctional Industrial Center	Outside Pendleton	286	1260
Juvenile Correctional Facility	Outside Pendleton	Under construction	

Fire Departments

Fire Departments throughout the County are individually operated by the municipality or township. Most of these departments are volunteer departments with the exception of the cities of Anderson, Alexandria, and Elwood. The following is a listing of the fire departments, jurisdiction, and fire fighting capabilities.

Departments	Jurisdiction	Firefighters	Vehicles	Stations
Alexandria Fire Department	Alexandria	10	6	1
Anderson Fire Department	Anderson	141	31	8
Chesterfield Fire Department	Chesterfield	30*	6	1
Elwood Fire Department	Elwood	19	7	1
Frankton Fire Department	Frankton	25*	8	1
Ingalls Fire Department	Ingalls +	10*	4	1
Lapel Fire Department	Lapel +	36*	4	1
Markleville Fire Department	Information not available			
Orestes Fire Department	Orestes	13*	4	1
Pendleton Fire Department	Pendleton +	28*	6	1
Summitville Fire Department	Summitville	36*	4	1
Duck Creek Township Fire Department	Duck Creek	21*	3	1
Adams Township Fire Department	Adams	30*	5	1
Richland Township Fire Department	Richland	28*	6	1

* = Volunteer force +Part of Green Township

Health Facilities

Background Information and Community Profile

Madison County Comprehensive Plan

Access to quality health care is essential for the survival and growth of Madison County. Limited access to health care facilities and personnel may discourage new residents and businesses from moving to the community, and may even force some to leave. The following charts list the health care facilities in Madison County.

Hospitals	Location	Outpatient	Inpatient	Doctors	Nurses	Staff
Community Hospital	Anderson	80,000	6105	120	152	336
St. John's Medical Center	Anderson	342,000	8550	150	290	1,300
St. Vincent's Mercy Hosp.	Elwood	30,000	14,000	85	47	136
St. John's Center for Mental Health	Anderson	1,850	N/A	4	2	30

In conjunction with providing satellite clinics in the community, the hospitals also provide home health care and other outreach services to reach those in need. There are a variety of specialty clinics throughout the incorporated areas of Madison County that treat residents with particular ailments. For the most part, the health care demands of County residents are met in the community, with the exception of very specialized emergency and other rare treatment cases that are handled by the larger hospital facilities in Indianapolis.

As the population of Madison County ages, there will also be an increased demand for living facilities geared towards the elderly. These facilities contain a range of service levels depending on the medical and mobility demands of residents.

Nursing Home Location	Number	Nurses	Beds	Vacancy Beds/rate	Amenities
Alexandria	2	31	154	39 (25%)	Alzheimer's
Anderson	6	83	715	104 (15%)	Alzheimer's/therapy/apartment/trans
Chesterfield	1	15	60	4 (7%)	Information not available
Edgewood	1	18	137	45 (33%)	Speech therapy/gym/tran/apartment
Elwood	2	29	192	65 (34%)	Alzheimer's/therapies
Pendleton	1	Information not available			
Summitville	1	8	34	2 (6%)	Restorative nursing

Note: 'Vacancy' rate represents figures collected in 08/99.

Social Services and Not-for-Profit Organizations

A variety of community services in Madison County are supported and funded by federal, state, or local government, or by nonprofit groups, organizations, and volunteers. Services and facilities, primarily located in the incorporated areas of the County, are made available to persons of all ages. Some services place special emphasis on individuals with unique needs and disabilities. The services and organizations that provide assistance and resources to the citizens of Madison County attempt to cover all facets of community need.

The following lists just some of the service focus areas. Of note, there are several community organizations that provide assistance and service to a variety of special interest groups over many needs categories; for example, the United Way.

- Spiritual
- Educational
- Professional
- Medical
- Emergency Assistance
- Advocacy
- Recreational
- Nutritional
- Mentoring
- Financial
- Social
- Transportation

The Social Science Research Center at Ball State University conducted a Human Services Needs Assessment Study for Madison County in 1997. This valuable resource can be viewed at the Madison County United Way offices. The document outlines the various service providers in the County, their mandate, the service areas and clients, and the adjustments necessary to prevent service gaps. Other service agencies have resource lists available or operate as a referral service for special needs within the community.

Planning Issues

The planning issues surrounding community resources and public safety services were identified and discussed during the community participation components of the comprehensive planning process. Throughout the public workshops and focus group sessions, participants were encouraged to list the strengths, weaknesses, opportunities, and threats to community resources and public safety services in Madison County. The following is a summary of those discussions.

Individuals and families are attracted to a community for a number of reasons. People may move because they desire a high quality education for their children, they wish to have a sense of safety, they enjoy parks and recreational areas, or they can access medical services and other amenities which give their lives a feeling of security and promote prosperity. In order to meet these expectations, planning efforts must assure that community facilities and services are prepared to face the future demands of an expanding Madison County population. A continuation of high public service levels is necessary to protect and enhance the quality of life.

The primary issues facing community resources in Madison County include:

Funding Limitations. Funding for most community resources are primarily derived from federal, state and local government sources. When monies available for community services begin to decline, many marginal services that are not deemed essential for public safety, health, or education, have their funding significantly reduced and even cut. The service providers must then look to alternative sources, such as corporate sponsorship, partnering, and fundraising, to continue operating.

Development Impacts. Although community resources can be quite expensive to provide, they are essential for the health, well-being, and quality of life for a community. The problem with unplanned development on the urban fringe is, while new inhabitants want to take advantage of existing amenities, they are not contributing to financing the services. Historically, essential services such as fire and police protection have serviced these outlying areas through aid agreements, but at an increased cost to those residing in the incorporated areas. The above problem can be alleviated through annexation, but may exceed the capacity of existing services. It was discussed that larger developments should be responsible for providing essential services for their neighborhoods, and that the developer should contribute financially (proportionate to the number of new units or perceived increased demand) for other

community resources. Community resource and public safety service providers indicated their desire to become more involved in the development review process to be able to better assess emerging community needs and advise on preparing planned developments that would not stretch community resources thin.

Access Problems. Access issues are twofold. Some residents of Madison County find it difficult to reach certain services when they must rely solely on public transportation means. The method of transit is either limited to certain hours or to certain geographic areas. While there are several programs in place to alleviate this limitation, the demand for this type of service is greater. Safety service providers operating in the rural parts of the County raised other access issues. They discovered that a considerable number of residential units are built too far from the roadway to adequately service and that there is considerable duplication in the naming and numbering of streets which causes confusion when response time is critical.

Issues that are specific to each community resource element include:

Education:

- There is a need to reassess future demand when large residential developments are proposed to ensure capacity is not exceeded and service levels are not reduced.
- For large residential developments, local neighborhood grade schools should be considered as a prescribed amenity for the community and an amenity the developer could contribute to financially.
- There are perceived image problems with some school districts.
- There is a need to increase the education and skill levels of the work force so that a smooth transition can be made from heavy to light manufacturing and to the service sector.

Parks and Recreation:

- There are no county-owned parks or trail systems for the residents of the unincorporated County areas.
- Access is limited to Mounds State Park (only car), which prevents some people from visiting the area.

Police and Fire Protection:

- There are communication problems between fire, police, and EMT services due to limitations of current equipment, which can cause response delays and overlap.
- There may exist some overlap of service, but this must be determined through future study.
- Equity issues exist between paid and volunteer staffing.
- Although there is cooperation between departments for emergency response, there currently is no financial compensation mechanism in place for time spent and resources used.
- These service providers indicated an interest in being involved in the development review process to advise on potentially problematic issues early in the planning stages to avoid future service conflicts. They are concerned with road widths and geometries for emergency vehicle access, proper utilities in place to assist at the scene, and road naming that does not confuse response personnel.

Social Service Agencies:

- For many social service agencies, the face of their client base is changing (aging and/or growing in size). These services must also modify their facilities and programs to meet these changing needs, often at great expense when financial resources are unavailable. This issue is particularly critical as the population of Madison County ages, as there will be greater demands placed on health care, transit, and recreational opportunities.
- For some client groups, there are an abundance of services that create duplication or there are inadequate services available. At some point, existing services must be inventoried to determine overlap and gaps.

Cultural Resources Profile

The diversity of cultural resources in Madison County creates a unique rural character and enhances the overall quality of life. In a continuing effort to provide vital cultural attractions and amenities for the residents of Madison County, additional funding must be obtained (from public and private sources) in order to continue the recognition, researching, and inventory of sites and structures. Efforts must be made to avoid land use conflicts caused by locating new development in or near historically significant districts and communities. In addition, gathering and presenting information regarding significant sites and structures will assist in making informed decisions about these resources, as once they are removed from the landscape, these treasures are lost forever. This profile provides the reasoning behind the need to protect, preserve, and restore the unique historical and cultural landscape of Madison County.

Existing Conditions and Trends

Historical and Archeological Resources

Madison County has had a long and rich history that is evident in its landscape – from burial mounds to agricultural artifacts to unique structures. This abundance of historical and archeological resources plays a significant role in defining the rural and cultural character of unincorporated Madison County. The oldest cultural resources, pre-dating recorded history, are ten distinctive mounds and earthworks located in Mounds State Park and built by the Adena and Hopewell Indians shortly after 500 AD. While the incorporated areas of the County contain the majority of the identified historic and cultural resources, this document focuses on the location of and intent to protect those resources in the unincorporated areas of the County.

Several homes, schools, churches, bridges and farms throughout Madison County have been identified as potential nominations to the *National Register of Historical Places*. Sites of particular local interest have been placed on the *Indiana Register of Historic Sites and Structures*. All potentially significant sites and structures were identified and inventoried by the Indiana Department of Natural Resources' Division of Historic Preservation and Archeology and compiled in a 1984 Madison County Interim Report. A total of 2,331 sites and structures Countywide were identified as being historically significant. Of those, 1,643 were located in Madison County's six historic districts (incorporated areas), while **688** were located in the unincorporated areas and distributed throughout the fourteen Townships.

The significance of each entry in the inventory was evaluated based on four separate criteria that included history, architecture, environment, and integrity. Once these assessments were completed, each entry was placed in one of three rating categories. These categories included:

- *(O) Outstanding.* Sites or structures that meet the basic criteria for potential nominations to the National Register of Historic Places. They often ranked high in all evaluation categories.
- *(N) Notable.* Sites and structures recommended as potential additions to the Indiana Register of Historic Sites and Structures. These sites were only significant on the local or state level.
- *(C) Contributing.* Sites and structures that only contribute to the overall appearance and continuity of a historic district, but did not meet the requirements for the National or State Registers.

Entries in the historic districts had two additional categories that included: (R) Reference, and (NC) Non-Contributing. Refer to **Map A-4-35 (insert)**, which illustrates the distribution of outstanding and notable historic sites located in the unincorporated areas of Madison County. Of note, residences and farmsteads were the most abundant historical structures identified in the County. The architectural styles ranged from Gothic Revival to Italianate, and from high Victorian to simple vernacular forms. The most common building materials were wood, brick, limestone, and cut stone.

Historic Preservation

There are many groups throughout Madison County that have interests in promoting the historic preservation effort. Two of the most noteworthy groups are the *Madison County Historical Society* and the *Madison County Historic Homes Commission*. Most cities and towns in the County have one group or several groups that are interested in local historical issues concerning specific structures, main street districts, and persons/families from the community. Some of the Townships also have historical societies that are linked or affiliated with the nearby incorporated areas. Each group is involved in dealing with preservation issues at a varying degree, with some groups more active than others. Certainly, more interest groups are needed to address specific preservation issues and to assist in uncovering adequate funding for preservation projects and ongoing programs. The above-mentioned groups include:

Neighborhood Associations and District Preservation Committees. These groups are often formed by persons residing and working in a historical district who are dedicated to making that neighborhood a better place. These concerned citizens often become the spokespersons for the district and lobby for a responsible development during the decision-making process. These groups have a stake in how development will impact their neighborhood or district and are usually responsible for drafting guidelines that will instruct any proposed change in the area, be it new development, infill, or rehabilitation activity.

Not-for-Profit Preservation Organization. These groups are often more involved in the technical and financial aspects of the preservation effort and are mandated to assist local, community-based groups. The National Trust for Historic Preservation is a private, non-profit, nationwide organization that was created by Congress to undertake preservation efforts. The Historic Landmarks Foundation of Indiana is a private, non-profit, statewide organization created to aid in the preservation and restoration of Indiana's cultural heritage. Both of these organizations also have subsidiary agencies that deal with specific preservation issues, such as main street revitalization, historic barn preservation and adaptive re-use, civil engineering structures renovations, and historic homes and districts.

State and Federal Government Programs. The Indiana State Historic Preservation Officer oversees federal government preservation programs in conjunction with the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology. The Preservation Officer is responsible for compiling the above-mentioned Indiana State Register of Historic Sites and Structures. Other State programs include the Historic Preservation Certification under the Economic Recovery Tax Act of 1981, the Historic Sites and Structures Inventory, the Environmental Review, the Historic District Enabling Act, and other programs which assess various grants and tax incentives for qualified properties and owners.

Cultural Resources

The abundance of and access to cultural resources in Madison County help define the 'quality of life' for the residents. Preserving and celebrating Madison County's cultural heritage is vital to ensuring that the County remains an outstanding location in which to live, work, and raise a family. Madison County prides itself on its rich cultural background.

There are numerous facilities and organizations throughout the County that promote cultural programs. Although most of these facilities are located in the cities and towns, all residents and visitors to the County have access to these facilities and events. The high quality facilities, located in both new and restored historic structures, include opportunities to experience fine arts, dance, theatre, music, and unique seasonal festivals. These facilities and the preservation organizations mentioned above sponsor a wide variety of programs throughout the year that meet the needs of the community. Programs and events include the Little 500 Festival and Race, Victorian Gas Lights Festival, Madison County 4H Fair, and Fall Creek Heritage Fair.

Planning Issues

The planning issues surrounding cultural resources were identified and discussed during the community participation components of the comprehensive planning process. Throughout the public workshops and focus group sessions, participants were encouraged to list the strengths, weaknesses, opportunities, and threats to the cultural resources in Madison County. The following is a summary of those discussions.

Preservation of the Rural Character. At each and every public meeting, participants voiced their concerns about the potential negative impacts of future development on the rural character of Madison County. While some believed that the character was already irreversibly damaged, others in attendance realized that although growth is inevitable, development should continue to occur in a manner that will be respectful of the cultural landscape. The following list outlines the issues raised:

- Preserving our rural and cultural heritage must be a major driving force behind the comprehensive plan.
- Development proposals should be reviewed to determine their potential impact on the landscape. If potential impacts are identified, there should be mitigation procedures in place to prevent adverse effects to the landscape and nearby communities.
- Our cultural values and amenities should be protected and celebrated for generations to come. Many cultural are displayed in the built environment -- on the natural landscape, in the development patterns, and in the way buildings and structures are constructed and decorated. The rural landscape helps characterize Madison County and can be considered symbolic of the community's culture

Historic Resources. It is the culmination of all cultural elements – former schoolhouses, churches, cemeteries, and historic farmsteads – that comprises the historic landscape. Each element is a historic resource that must be identified, recorded, and protected. The largest issue raised with regards to historic resources was the need to continue to identify and protect the various sites and structures of our rural heritage. Some of the discussed options included:

- The County Government should continue to work with the Historic Landmarks Foundation of Indiana to aid in the rehabilitation of County-owned historic structures.
- The various municipal councils and boards should continue to work with state agencies to increase their technical and financial ability to undertake local preservation projects.
- Committees should be formed within local government to review development impacts on the existing historical resources and to review feasibility studies for rehabilitating historic sites and structures.
- Property owners should be given incentives (such as tax abatement, awards programs, etc.) to maintain and enhance their historic structures for the benefit of the community.

Cultural Facilities. Cultural facilities and events bring the community together in celebrations of the past. While Madison County has a number of cultural amenities that offer a variety of programs, concerns were raised that facilities and events were not evenly distributed between the incorporated and unincorporated areas. Some of the key issues raised include:

- Efforts should be made to strengthen the funding of arts programs through increased local support and sponsorship.
- Emerging cultural facilities and events in communities should receive increased local financial and patronage support.
- Events should be publicized to increase awareness and participation of community and County residents, along with those visiting from neighboring areas.
- Scheduling has become an issue with several events planned for the same time. There should be a forum for dialogue to occur between event organizers to prevent time and locational competition for activities.

Natural Resources Profile

The conservation and protection of Madison County's natural and visual resources is essential for retaining the rural character and promoting livability throughout the community. As development continues to encroach into the rural land that surrounds the urbanized areas, there must be a means to integrate environmental considerations into development regulations to ensure that a portion of the natural landscape is maintained for future enjoyment. Since the natural resources in Madison County are protected and governed by several local and state agencies, inter-agency cooperation must be fostered to ensure a comprehensive approach to environmental planning and the proper implementation of protection programs. The following outlines the various elements of the natural environment, the forces that have influenced their creation and/or demise, and the concerns raised regarding future environmental health of the Madison County.

Existing Conditions and Trends

Geology

The bedrock geology of Madison County consists of calcareous sedimentary rocks that date back to the Silurian and Ordovician ages. While the majority of the County is underlain with Silurian age limestone, there are smaller geographic areas that contain dolomite, chert, siltstone, and shale. The central portion of the County, located under the City of Anderson and in a band stretching across the northwest-southeast, consists of older Ordovician age limestone, shale, and dolomite. The underlying bedrock has very little influence on present topography and landforms.

Geomorphology

Madison County has been covered by at least three glacial events over the course of its history: the Kansan, the Illinoin, and the more recent Wisconsin event. During these events, massive sheets of ice, hundreds of miles long and thousands of feet thick, pushed southward from the arctic. The advancing and retreating glaciers thoroughly scoured the landscape, shearing off hills and filling in valleys. Each of the above-mentioned glacial events endured for several centuries. Once the glaciers finally receded, thick layers of gravel, sand, silt, and clay remained -- creating glacial drift or till. The glacial drift in Madison County ranges in thickness from almost negligible to nearly 300 feet deep, creating a perfect growing environment. Since the Wisconsin glacial event, rivers and streams continue to cut valleys into the till plain with average depths of about 40 feet. Glaciation and post-glacial erosion are responsible for the present form of Madison County's natural landscape.

Physiography

Madison County is located in the Tipton Till Plain, along with most of Central Indiana. The Tipton Till Plain is, in turn, part of the larger Central Lowland Province of the United States. The Tipton Till Plain is characterized by nearly flat to gently rolling plains, containing the glacial remains of moraines, eskers, and troughs. Topography throughout the County is predominately flat, except near the major rivers, streams, and other drainage courses. The maximum elevation, of over 1000 feet above sea level, is found in the southeastern part of the County, and the minimum elevation, less than 790 feet above sea level, occurs where the White River exits the County. Although Madison County has a 'level appearance', the elevation change of 200 feet between the highest and lowest points is significant. Of note, the low relief can partially account for the poor water drainage experienced throughout the County, therefore measures must be taken to ensure adequate run-off for proper drainage for a variety of land-use activities.

Soils

Madison County has seven different soil associations, which are divided into three major categories according to distinct characteristics. Refer to **Map A-4-40 (insert)**, which illustrates the geographic extent and coverage of the various soil associations in the County.

- *Group A:* This group contains the **Blount-Pewamo, Brookston-Crosby, Mahalasville-Sleeth, and Carlisle-Edwards-Linwood** associations. These soils were developed largely from glacial deposits. These soil associations have fair to good topsoil, have nearly level to gently sloping topography, have slow water permeability, and have severe building limitations. With these opportunities and constraints combined, this group of soils is prime for agricultural use.

- *Group B:* This group contains the **Morely** and **Miami-Celina** associations. These soils are typically found in bands located parallel to streambeds. These soil associations have fair to poor topsoil, have gentle to strong sloping topography, have moderate water permeability with good drainage, and have slight to moderate building limitations. These soils provide better locations for development than the first group.

- *Group C:* This group contains the **Fox-Eel** associations. This soil association has good to fair topsoil, has nearly level to strong sloping topography, has poor to rapid permeability, and has slight, if any, building limitations. These factors make the Fox-Eel association appropriate for either agriculture or development. Most of this association is located in the flood plain throughout Madison County. When in the flood plain, it becomes inappropriate and potentially hazardous for all future development and some agricultural activity.

Mineral Resources

Mineral extraction operations in Madison County currently mine sand and gravel for concrete products, bituminous mix aggregate, and for road construction materials. Sand and gravel deposits are plentiful throughout Madison County since most river and creek valleys (White River, Killbuck Creek, and Pipe Creek valleys) are partly filled with coarse glacial outwash. Smaller deposits of these mineral resources are located along Fall Creek and in several outwash plains. Other sand and gravel deposits were found southwest of Pendleton, but in limited supply. The major sand and gravel deposits lie between the communities of Anderson and Pendleton. Although limestone underlies a considerable portion of the County, it exists only in shallow deposits that must be extracted through surface mining that is highly labor intensive for potential economic return. The small amount of mined limestone is crushed for concrete aggregate, road stone, and agricultural lime uses. Madison County’s supply of Salamonie Dolomite has the potential to be used for crushed stone, but intensive underground mining operations are also required to achieve acceptable gains.

Hydrology

Madison County lies within the Wabash and White River Drainage Basins.

Basin	Subdivision	Coverage	Drainage Area
Wabash Basin	Wildcat Subdivision	Northwestern corner of County	5% of County
	Mississinewa Subdivision	Northeastern corner of County	
White River Basin	East Fork Subdivision	Southeast corner of County	95% of County
	West Fork Subdivision	Remainder of County	

Waterways flow predominately from either a northeast to southwest or a more general east to west direction in a sub-parallel drainage pattern. In addition, drainage ditches have been constructed where

necessary to improve drainage conditions. According to the U.S. Department of Agriculture, 74% of County lands can be classified as wetlands. However, this does not pose a serious threat to residents since most of these lands are workable and very productive when tile drains are installed. Refer to **Map A-4-42 (insert)** that illustrates the rivers, streams, and other water bodies in Madison County.

Madison County contains three major aquifer systems: confined sand and gravel aquifers within the glacial drift, bedrock aquifers, and unconfined outwash aquifers in the form of major river and streams. There are no natural lakes of major significance within the County. Drinking water is supplied primarily by public (municipal) and private (property owner) wells. The wells are generally shallow on the bottomlands and low terraces due to the low water table of the region, but vary in depth on the higher terraces and upland. As supplements to the wells, surface storage facilities, such as reservoirs and towers, are situated in the urbanized areas of the County. Although additional water resource is available from deeper sources, the most potable water is found at depths of less than 400 feet below the surface.

Surface Water

Water quality standards are drafted and enforced to ensure a reliable and safe supply of water for public and commercial/industrial uses, water-based recreation opportunities, and agricultural production. Water treatment plants are designed to treat water to a certain standard, with the exception of certain toxic, taste, and odor producing substances. However, no public water supply in the State of Indiana is endangered by high concentrations of proven toxic or hazardous substances. For industrial uses, water is usually either untreated or highly treated. The prime pollutants of concern for recreational waters are pathogenic bacteria, nuisance algae, or other visually objectionable substances such as oil, sewage solids, and scum. The few instances of oil, scum, and solid sewage pollution generally occur during treatment plant breakdowns or high periods of rainfall in communities with combined sanitary sewer systems and these situations are monitored and remedied immediately. Additionally pollutants enter through surface runoff from paved surfaces, residential areas, and from agriculture. An additional discussion of water provision and treatment can be found in the 'Utilities and Infrastructure' segment.

Air

The Environmental Protection Agency established National Ambient Air Quality standards to protect public health and welfare. The standards guard against six kinds of pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), sulfur dioxide (SO₂), and large particles such as soot or dust. Some of the pollutants have primary standards for both long-term discharges and short-term discharges. The short-term standards are intended to protect people from any adverse health effects associated with acute exposure to air pollution. The long-term standards are established to protect the population from any adverse health effects associated with respiratory problems such as shortness of breath, chest pain, wheezing, and aggravated asthma.

Meteorological events, physical features, industrial activities, farm equipment, and automobiles have been the leading contributors of a decreased quality of air. Despite being in close proximity to the industrially active Indianapolis area and I-69 transportation corridor, the quality of air in Madison County has continued to maintain a satisfactory level. Ozone levels are the only real major concern at this time. While most of the ozone standards in place were directed to protect human health, others are necessary to protect the health of plant life. Ozone in the lower atmosphere interferes with the ability of plants to produce and store food, so that growth, reproduction, and overall plant health is compromised. Plants become more susceptible to disease, pests, and environmental stress. This condition will have a direct effect on agricultural yields of economically important crops, (soybeans and corn), and the overall flora of Madison County.

If stricter regulations are established and emissions continue to increase due to development and congestion, then restrictions on the type, density, and location of development will be in order. Ozone restrictions can inconvenience residents in the short term by requiring inspections of car-exhaust systems and the use of cleaner burning fuels, and mandating more ozone action days during which ozone emission-causing activities are restricted due to climate. The long-term benefits of these actions will mean a healthier natural and built environment.

Climate

The climate of Madison County is characterized as continental. Precipitation is fairly consistent through all seasons, with an average of about 3 to 4 inches per month, or 40 inches annually. Dry periods do not usually have an adverse affect on the top layer of soil, since area soil associations hold moisture well. There is a wide temperature variation between summer and winter which may be explained due to Madison County's distance from the moderating effects of large bodies of water. High temperatures occur during the months of July and August, averaging highs of 90 degrees Fahrenheit. The lowest temperatures occur in January or February, averaging 30 degrees Fahrenheit. The average growing season is 178 days. Records indicate the shortest growing season at 138 days and the longest growing season at 205 days. Little damage has been done to property or crops by high-velocity winds, since they seldom occur in the County. Low-pressure centers and severe thunderstorms have generated high winds and infrequent tornadoes have appeared in Madison County.

Vegetation

The forests of Madison County consist primarily of a beech-maple grouping and a small population of oak-hickory, with an under-story of various herbaceous flowering plants. Forests once covered the entire County area, but the majority of coverage has been removed from the landscape to allow for greater agricultural production. Settlers quickly realized that the soils in Madison County's forests were extremely suitable for farming. Most of the original hardwood forests were harvested for use as veneers and lumber, but many wooded areas were cleared of trees without regard to their market value or potential use. Much of the remaining woodland is in poor condition, since the high quality groves have been cut and those remaining were poorly formed. The grazing of hogs or cattle in these wooded areas further lowers the quality of the trees as continual grazing compacts the soil, slows the growth of trees, and prevents reseeding. The reduction of clear-cutting for development and the protection of the present woodland from livestock are critical steps that must be taken if the landscape is to continue to have some wooded coverage.

Wildlife

Indiana has 54 species of mammals, 82 species of amphibians and reptiles, 336 species of birds and 117 species of fish. The trend in Madison County towards large farms and intensive cropping has drastically upset the balance between food, cover, and water that is required by all wildlife. As fences and row cover surrounding fields were removed to accommodate larger farm equipment, the environment for wildlife was also removed. Row cover is significant to the wildlife population, serving as an excellent material to facilitate nesting and travel, and as a limited source of food. Although the food supply is more abundant in the heavily cropped fields, a lack of cover near food supplies often makes the food unattainable. Additionally, the removal of all or parts of woodlots for development has eliminated winter sheltering and breeding areas for deer. The removal of vegetation and increased residential development along streams has affected some of Indiana's most endangered species (such as bats and various amphibians).

Streams without vegetative banks flow faster and provide less shade due to erosion processes caused by a lack of root structures that hold soil together. Supplying water for wildlife, however, is not a problem in

the County. Most game animals and birds can obtain enough water from rainfall and dew from vegetation, while the majority of water can be found in drainage ditches and in intermittent streams.

Planning Issues

The planning issues surrounding the natural resources of Madison County were identified and discussed during the community participation components of the comprehensive planning process. Throughout the public workshops and focus group sessions, participants were encouraged to list the strengths, weaknesses, opportunities, and threats to the natural resources of Madison County. The following is a summary of those discussions.

Development Impacts. Development activities have impacted the natural landscape from the time the first settlers cleared the forests for farms and houses, bridged the streams, and dug ditches for drainage. Very little of the original landscape remains intact except in areas where most development activities were impossible, primarily along the river corridors. While the pristine natural landscape can never be reclaimed, current and future damage can be avoided if portions of the County can be protected from intense development and the associated pressures. Most public participants and community experts agreed that future developments must:

- Not waste the County's valuable and limited open space or impose on streams and wetlands areas.
- Preserve wood, soil, and water resources on site and not impact or jeopardize these resources on adjacent sites or the entire region.
- Encourage the conservation of natural areas by focusing development around existing urban areas.
- Adhere to the community's determination as to the most desirable use for a parcel of land. From the 1998 Community Needs Survey, 36.7% of respondents wanted the majority of the unincorporated County in agricultural use, 34.2% of respondents wanted areas to be returned or left in their natural state, while only 19.1% of respondents wished the entire area was developed.
- Establish development patterns that do not threaten waterways, environmentally sensitive areas, and productive agricultural lands.
- Involve all other governing and concerned agencies in the development review process.

Improve the Physical and Visual Quality of the Landscape. Throughout the public participation process, issues regarding the overall appearance of the landscape were discussed; particularly the rural character that contains the natural landscape. Several activities were identified that compromise both the physical quality and visual appearance of the rural and urban landscape. The activities requiring close monitoring and other solutions include:

- The conservation of farm fields and natural lands – critical elements of the rural character – for future use and enjoyment.
- Environmental programs to restrict and eliminate trash burning, junkyards, and dumping activities.
- Regulations for septic system maintenance and replacement to prevent failure and localized environmental contamination of soil and water resources.
- Regulations to ensure public and private well water resources are properly accessed and purified.
- The creation of a countywide recycling program that will support solid waste management efforts by diverting materials from landfill sites.

Utilities and Infrastructure Profile

In determining the needs of current and future Madison County residents, the provision of utility service and infrastructure must be assessed for their adequacy, efficiency, and spatial distribution. Utilities and infrastructure must meet high performance levels to serve all current residents and must be efficiently planned to meet future demands by increased residential, commercial, and industrial development. Through the planning process, specific areas of the County must be identified as growth areas and serviced accordingly. The principal utilities provided in Madison County include water supply, wastewater treatment, power, and communications. In most areas of the County, service is either provided by the local municipality, by a larger statewide service provider, or by an on-site (private) system.

Existing Conditions and Trends

Water Supply

Madison and Grant Counties contain the greatest number of public water systems in the State of Indiana, with a total of eighteen facilities. The Anderson Water Utility is the largest local system, supplying 15.7 mgd (million gallons per day) to the over 70,000 people living and working in that community. Countywide, public water usage by the year 2000 is expected to reach approximately 63 mgd. Meetings with city and town utility board members concluded that the proper management and expansion of existing water systems should prevent any serious water shortages in the near future. However, the demand for water in rapidly developing subdivisions will push the existing systems beyond their capacity. Adequate increases in the capacity for future water supplies could be possible if proposed developments are located in areas where there are moderate yield groundwater sources and/or the developments are in close proximity to the necessary infrastructure. Developments must bear the financial responsibility for expanding the systems and services.

Public drinking water is supplied almost exclusively through wells. The majority of the wells located on the bottomlands and low terraces are shallow, but are varied in depth on the higher terraces and uplands areas. This is primarily due to the low water table of the region. In some cases, new well fields may be developed a distance from the towns they serve in order to continue to provide accessible, high-quality water. The development of surface water systems is already limited due to the low volume flows in the major streams of this area. Intensive ground-water development may cause lowered water levels near pumping centers. In addition, high capacity wells located adjacent to streams may interrupt local flow in those streams and receive infiltration from them. Proper well spacing and pumping schedules should be able to maximize the amount of ground water available from the County's aquifer systems.

Surface storage facilities such as reservoirs and towers supplement well service and are located in the incorporated areas. Additional water is available from deeper sources, but most potable water is found at depths of less than 400 feet.

In the unincorporated areas of Madison County, residents provide their water through private wells that are tapped into local aquifers. In most areas of the unincorporated County where current development is dense and residents rely on well and septic systems, problems arise with contamination of the water supply due to septic failure and lack of regulation on well installation and maintenance.

Public Water Sources:

Incorporated Community	City/Town Well	Statewide Utility Provided	Not Served
Alexandria	X		
Anderson	X		
Chesterfield	X		
Elwood	X		
Frankton	X		
Ingalls	X		
Lapel	X		
Markleville			X
Orestes	X		
Pendleton	X		
Summitville		X	

Note: All of the other incorporated areas of the County are covered by adjacent municipal services.

Wastewater Treatment

Wastewater collection and treatment is undertaken in Madison County through a variety of methods which include:

- **Municipal Collection and Treatment.** City or town collection is the most common method, since the larger cities and towns have area collection sewers and wastewater treatment facilities. The municipalities of Alexandria, Anderson, Elwood, Frankton, Lapel, and Summitville provide and maintain this type of service. The municipalities of Markleville and Chesterfield have area collection sewers only. The Fall Creek Regional Waste District treats Markleville’s wastewater, and Chesterfield’s wastewater is treated by Anderson. In some cases, a municipality may service limited areas outside their corporate boundaries for a fee to the user.

- **Regional Wastewater District.** The three southernmost Townships – Green, Fall Creek, and a part of Adams – fall within the *Fall Creek Regional Waste District* (FCRWD, formed 1974), encompassing an area of about 78 square miles. The district was formed to collect and treat wastewater from the State Reformatory and the Towns of Pendleton, Ingalls, and Markleville through a regional wastewater treatment plant located on Fall Creek. While the towns are the primary users of this service, some service extends into parts of the unincorporated County along existing pipes and mains. Since its formation, the FCRWD has experienced increased residential development on the agricultural lands within its service area. Growth from major sub-divisions within the service area has forced the district to re-evaluate the existing sewer system in terms of current collection, capacity, plant capacity, and overall feasibility. At the time of writing, the FCRWD had not extended service mains throughout the entire service area.

- **On-Site Septic Systems.** The majority of residents living in the unincorporated areas of Madison County have on-site septic systems to treat their sewage. It is important to note that septic systems were and are intended as a temporary sanitation measure with service not to exceed ten years. In Madison County, septic systems have an average lifespan of ten years, even with proper installation and maintenance procedures. The underlying soil associations have placed severe limitations on the construction and operation of septic systems. The Madison County Health Department has had numerous opportunities to observe the use of on-site residential sewage disposal systems over the last twenty years. Their findings reveal repeated problems with septic systems located in dense areas of development, especially subdivisions. Roofs, driveways, streets, and other impermeable surfaces in subdivisions present difficulties for septic systems, causing additional run-off or ponding. Problems

with sewage disposal systems usually do not occur until subdivisions are filled to capacity. At that time, correcting the problem is difficult or impossible, due to a lack of available space. The County Health Department recommends that large subdivisions be viewed as ‘communities’ and be responsible to provide for long-term sewage disposal.

Wastewater treatment systems must be evaluated in each of the municipalities and within the FCRWD to determine the impact current development and projected growth through newly constructed rural subdivisions will have on service capacity. These inquiries should also focus on areas with inadequate water treatment or distribution facilities, inadequate sewer collection or treatment facilities, non-compliant treatment systems, and failing on-site septic systems.

Wastewater Treatment Systems - millions of gallons per day

City	Design Capacity	Avg. Discharge Flow	Unused Capacity	% Of Capacity Used
Alexandria	1.2	.9346	.2654	77.88
Anderson	21.25	15.72	5.527	73.99
Elwood	3.22	2.487	.733	77.24
Frankton	.286	.2466	.0394	86.22
Lapel	.36	.1956	.1644	54.33
F.C.R.W.D.	1.96	1.4	.56	71.43
Summitville	.11	.1799	-.0699	100.0 +

Note: All of the other incorporated areas of the County are covered by adjacent municipal services.

Energy

The following lists the sources of power that are required throughout all areas of the County for all land uses:

- **Electric Power.** All unincorporated areas of Madison County are serviced by private electric utility providers and by the City of Anderson in areas located in close proximity. All current and projected development patterns are unaffected by existing electric power distribution since the infrastructure is quite flexible for expansion to serve larger geographical areas and greater densities of users.
- **Natural Gas.** Gas lines do not currently service the entire County, nor is there a plan for an expansion of the gas main network. If a future development requires natural gas provision, it must be located where mains exist or accept the financial burden to provide that service. Electric power and propane provide the best alternatives in areas where natural gas is not available.

Communications

Four telephone companies, six digital wireless telephone system operators, and several entertainment communication (cable and internet service) providers cover the communication needs for Madison County. Most of the wireless providers have extended service along the I-69 corridor, throughout southern and eastern townships, and in the Anderson area. They plan to extend service northward. Some concerns have been raised over the use of multiple area codes and local dialing areas that might fragment the County and hinder future development. Another concern raised was the duplicate radio and cell towers that create visual clutter on the landscape. It is important to note that the current distribution of communication services has not significantly affected development patterns.

Planning Issues

The planning issues surrounding utilities and infrastructure were identified and discussed during the community participation components of the comprehensive planning process. Throughout the public workshops and focus group sessions, participants were encouraged to list the strengths, weaknesses, opportunities, and threats to community utilities and infrastructure in Madison County. The following is a summary of those discussions.

Servicing Defined Growth Areas. It was determined that extensive growth should be accommodated only where community services, utilities, and infrastructure exist or can be easily provided. The areas best suited for growth are located around the incorporated communities in the County. It was also determined that in some cases, considerable upgrading of the utilities and infrastructure must be undertaken before they can adequately service outlying areas. The financial burden of the modifications and expansion should primarily lay with those coming into the community, whether developer or resident, and for the existing users to also pay for their fair share of the upgrade.

Rural Subdivisions. Rural areas within the County have experienced intense impacts due to residential development. The majority of these developments are located beyond the service boundaries presently drawn by city or town water provision and waste treatment systems. The subdivision development has generally occurred on half-acre lots that use septic systems for waste disposal. It has been determined that this lot size is inadequate to provide other disposal options when the septic system fails and that many systems placed at such a high density can lead to other environmental problems, such as aquifer contamination. Wastewater treatment facilities must be constructed or extended from approved systems (municipal plants or FCRWD) that will have the available capacity to service emerging developments in designated areas.

High Standard of Service Provision and Infrastructure Location. It was determined that current and future utilities and infrastructure must meet a high standard of service provision that is consistent with the standards set for all areas within Madison County and with services provided in neighboring counties. One way to ensure equal distribution would be to require developers to create the infrastructure as part of the overall development package or to pay for the required improvements to existing utilities and infrastructure. Another method of ensuring high standards in service provision would be to consider local growth and development projections when upgrading utilities and infrastructure to ensure the current and future demands are adequately met.

It was also determined that there should be standards and regulations put in place to restrict the size and location of communications towers, primarily for radio and cell telephone services. It is critical that these structures do not interfere with agricultural productivity and do not negatively impact the rural character and natural aesthetics of the landscape.

Provider Involvement in Development Review Process. It was determined that the utility and infrastructure service providers should be involved in the development planning and review process to gather input and to outline the limitations. Greater coordination should exist among service providers to ensure that infrastructure and facilities are installed at the same time (to avoid delays) and in a methodological fashion for future servicing. Through this process, the utility providers can communicate the potential capacity impacts that development could have on existing services and offer time and money-saving alternatives. In essence, this approach creates an opportunity for greater communication, which will lead to better service and more responsible development.

Transportation Profile

Transportation and land use have been intertwined since the earliest evolution of communities. Not unlike many areas in the United States, sprawling development patterns have also drastically changed the unincorporated areas of Madison County. Urban and suburban sprawl not only destroy thousands of acres of prime agricultural and natural land, it also requires new travel patterns for commuting to work, school, shopping, and to all other facets of daily life. Unfortunately, alternative modes of travel, such as walking, bicycling, and riding transit, are no longer viable options given such disperse development patterns. Travel by the automobile has become the dominant, and often the only, mobility option for most people.

This profile provides a summary of the **Transportation Plan (Section E)** of the Madison County Comprehensive Plan. Implementation of the plan will guide the future development of the transportation system and the land uses it serves. The intent of this profile is to illustrate that the provision of a more balanced multi-modal system of transportation will promote alternative land uses and better travel patterns.

Existing Conditions and Trends

Overview of Transportation System

The conditions noted below came from a variety of sources including the 1990 U.S. Census, traffic volume counts, corridor and intersection studies, interchange studies, land use data, and other studies or data collected from local, state, and federal sources. A more detailed analysis is located in the **Transportation Plan (Section E)** of the Madison County Comprehensive Plan.

Roads: Madison County has an extensive network of roads that provides linkages to local urban, inter-County, and interstate connections. The unincorporated County road network is comprised of approximately 930 miles of roadway in a predominantly grid road pattern associated with square mile sections of land. Roadways in the incorporated areas are maintained by municipalities, with the exception of boundary roads that adjoin with the unincorporated areas of the County where maintenance is determined by inter-local agreements. State highways and the Interstate are owned and maintained by the Indiana State Department of Transportation (INDOT). The local road network is extensive and travel patterns tend to be greater on north/south links due to the nature of the County's geography, the road network, and development patterns.

Rail: Rail service in Madison County is provided by the CSX, Norfolk-Southern, and Indiana Central Western Railroad companies. This system has good connections to regional and national hubs for extended service. CSX owns the primary north-south link in the County known as the Indianapolis-Cleveland line. Norfolk-Southern operates the main east-west line through northern Madison County. Both of the above-mentioned companies provide service connections to the City of Anderson. Indiana Central Western has a small local line that services the grain elevators in the Town of Lapel.

Air: The County has three small airports that service local traffic. Alexandria and Elwood have very small airports which service local recreational pilots, while Anderson's commercially rated airport handles a considerable amount of traffic flow through the facility each year. Anderson Aviation operates out of this facility and provides local and national freight service. The Indianapolis International Airport, located near the junction of Interstate 70 and Interstate 465, is an approximately one hour drive from most

locations in Madison County. The majority of commercial passenger service to state, national, and international airports is provided by this facility.

Transit: Madison County has two transit providers within its jurisdiction. The CATS transit system services only the City of Anderson and has both fixed route and demand response service. The TRAM system is a demand response service operated by the Madison County through a private provider and covers the entire County.

Out-migration from Urban Cores

Demographic and economic data from the 1990 U.S. Census illustrates a greater dispersion of population and more complex travel patterns than figures for 1980. This analysis is supported by trends in the County between 1970 and 1990, in which a sizable proportion of the local population moved from the urban areas (Indianapolis, Anderson and smaller municipalities) into the unincorporated areas of Madison County. The impact of Anderson's out-migration has been significant in Richland, Adams, Union, and Fall Creek Townships. (Refer to **Map A-4-7** Population Change) A significant portion of this population has requested new housing in the form of manufactured and single-family homes located on re-zoned parcels of agricultural land adjacent to the County roadway system. In most cases, each new residential property requires a driveway cut, and thus increases traffic and congestion on local roads. It appears that the present roadway network may become obsolete long before the operating efficiency naturally diminishes, particularly if land use locational decisions do not support a system of functionally classified roads.

Influence of Indianapolis Metropolitan Region

According to state statistics and local traffic data, an increasing number of vehicle trips are being made to the Indianapolis metropolitan area on a daily basis. Vehicles traveling to the larger metropolitan area come not only from Madison County, but also from the adjacent counties of Hamilton, Henry, Delaware, Grant, and Hancock. Unfortunately, the growth in travel demand and the resultant commuting patterns have impacted most county roads as well as the federal, state, and urban networks of the Indianapolis Metropolitan area and its associated traffic in Green and Fall Creek Townships. County roads were not designed to handle higher traffic volumes, and there are no financial resources available to make any necessary capacity improvements. A substantial percentage of the higher volume traffic loading comes from out-of-county commuters that use the local network to make their connections to the larger urban, state, and federal road network.

Interstate 69 Corridor

Growth along the I-69 Corridor has become a great concern, specifically near and adjacent to the interchanges. Unfortunately, this pattern is expected to escalate as the Indianapolis metropolitan area and Madison County become more economically inter-dependent. Requests concerning development potential and land availability have increased substantially for commercial and industrial uses at the interchanges, and large tracts of land are under development at this time. Considering the potential and expected inter-county travel patterns, planning efforts must be focused toward a more comprehensive approach towards transportation and land use, with particular attention paid to potential impacts on the rural landscape of the County.

Growth Dispersion

Increased growth is anticipated for Stony Creek and Green Townships due to their close proximity to the Indianapolis metropolitan area. As growth in eastern Hamilton County and northern Hancock County

moves east and northward, the effect of that expansion will flow into western and southern portions of Madison County, especially to areas near the Hamilton-Madison County line around I-69 and State Roads 13, 38, 37, and 67. Based on several data sources, it is estimated that expanded travel patterns will continue to increase, along with growing numbers of vehicle trips to the larger metropolitan area via the interstate, state, and county roads.

Economic Development

The primary selection factor for locating new business and industry has been highway access. In relation to Madison County, the transportation system needs to be upgraded to better facilitate the movement of goods and services. Meaningful truck routes, adequate transfer terminals, and quick access to regional markets are part of this transportation/economic development issue. For economic reasons, transportation resources must be protected and preserved in terms of their carrying capacity and ease of access. As the I-69 Corridor becomes more developed, concerns were raised as to whether this vital transportation route and interchanges will be compromised due to unplanned growth patterns and thereby losing a local competitive advantage. Thus, it is imperative that existing roads be maintained and protected in terms of their ability to function at a high level of service without excessive expansion.

Congestion and Circulation

As development increases along main travel corridors, so does the congestion created along the corridor and at the site of the development. Increased development has not only raised the number of daily vehicle trips, but also the number of turning movements on and off the corridor. Due to excessive drive cuts, alternating lane configurations, poorly designed and spaced signals, and poor land use planning, the operating efficiency of most corridors has been severely compromised. As a result, consideration should be given to the drafting of plans that will provide more intensive guidance on road access and internal circulation to allow the roadway and adjoining land uses to benefit one another in an integrated system.

Planning Issues

The planning issues surrounding transportation were identified and discussed during the community participation components of the comprehensive planning process. Throughout the public workshops and focus group sessions, participants were encouraged to list the strengths, weaknesses, opportunities, and threats to the transportation system in Madison County. The following is a summary of those discussions.

Scattered and Fragmented Development: The most critical issue identified was the need to manage growth better through effective controls. Throughout the public participation process, participants noted that growth was fragmented, poorly planned, and was destroying the rural character and agricultural nature of the County. While this issue was a concern to almost all participants in the process, there were substantial differences in opinion ranging from no growth to managing growth better. The following represent the issues raised concerning future development in relation to transportation:

- Development should be concentrated in the urban areas of the County to reduce the travel times required to access services. Designated growth areas are necessary to insure orderly development patterns that reduce the cost of road infrastructure and the conversion of rural lands and open space.
- County roads were not designed to carry large volumes of traffic, with the exception of primary and minor arterials and some collectors. Intensive land use development will require improvements to the transportation network.

- Fragmented development and segregated land uses reduce the likelihood of providing alternative travel modes for access to most daily activities.
- Clustered, mixed-use development is preferred over strip and special use development so alternative modes of travel can be encouraged.
- Roadway networks should be laid out in grid patterns to disperse traffic, to encourage accessibility, and to promote alternative modes of travel.
- There should be better coordination between governmental agencies, private entities, and the public to accomplish desired developments.

Access & Corridor Preservation: Accessibility is the key to moving people and goods. Modern development patterns require even greater accessibility because of its scattered and fragmented nature. All of the state highways in the County, particularly those linking the County to the metropolitan area, are being threatened by increasing single-family home or business access demands. In many instances, providing additional direct access points would increase congestion and air emissions; both are contrary to the public safety interest and health. Community meeting participants discussed some of alternatives that may be investigated that will provide access into these facilities other than directly through permitted driveways. Other issues brought forth in this area included:

- Access onto county roads should be considered based on its impact to the surrounding area. This should be accomplished using an accepted plan of land use and transportation, and not just on a case-by-case basis. Access and corridor preservation must be considered together when making land use and transportation decisions impacting a travel corridor.
- State highways and certain high-use local roads must be protected.
- Primary emphasis should be given to traffic flow over access on higher functionally classified roads, such as highways and arterials. Traffic flow should have priority over access at signalized intersections whenever possible.
- Subdivisions should be encouraged to use a grid street network (rather than cul-de-sacs and dead ends), with multiple ingress and egress points to increase access. Subdivisions should also develop site plans that include alternative transportation features, such as sidewalks, bikeways, and trails.

Interstates & Interchanges: Interstate 69 and the connection created from State Road 109 South to I-70 are vital for the prosperity of the County. Community meeting participants agreed that development at all interstate interchanges in Madison County has happened in a piecemeal fashion with no overall consideration to area land planning, mixed use, circulation patterns, modal alternatives, or mechanisms to control development. Interchanges 34, 26, 22, and 19 have been compromised to some extent in terms of future access to Interstate 69; and Exits 34 and 26 have been extensively developed. Only development at Exit 19 (State Road 38) has been made using a comprehensive approach with policies in place to control access and land development adjacent to the interstate corridor. Some of the issues discussed included:

- Growth around the interstate interchanges must be controlled in terms of how it occurs and potential impact on the flow of traffic, both on and off the interstate.
- Interchange areas should have stricter guidelines for growth and should make space available for future use of alternative travel modes, (rail, bus, or ridesharing).
- Other designated growth areas should be developed before the interchange areas, unless the only choice is an interchange location.
- There is a need for greater coordination of development issues for those communities along the I-69 Corridor.

Alternative Travel Modes: One of the areas consistently noted and identified throughout the planning process was the need to consider alternative transportation modes. During the public input sessions, comments were made that communities should become less dependent upon the automobile, as many

daily needs could be met through walking or bicycling. Most participants agreed that the County should investigate the merits of the issues noted below:

- Development patterns should afford the opportunity for alternative modes of travel, including walking, bicycling, transit, and carpooling.
- Roadway design should incorporate features that are pedestrian friendly by implementing traffic calming measures, narrow streets, and greater accessibility through creative land use design.
- Boulevard designs are preferred for corridors that carry high traffic volumes
- Commercial development should be designed with multi-modal access.
- Subdivisions should be required to have sidewalks.
- Regional connections for bike and pedestrian travel should be undertaken and consideration should be given to the development of a commuter rail to Indianapolis, carpooling, and express bus service.

Financing Transportation Improvements: Financing growth has been a controversial topic throughout the community meetings. As development pushes more intensely into Madison County and its communities, the decision as to who should pay for improvements has become a complex issue. Government no longer has the ability to assist with high development and infrastructure costs, except in rare instances to benefit the public good. One of the biggest concerns voiced by participants at the public meetings was the cost and responsibility of who should pay for development and infrastructure maintenance. Some of the issues discussed included:

- Travel facilities should be designed and maintained at a higher level than in the past.
- Development costs should be the responsibility and burden of the developer, not simply placed on the existing taxpayer base. Amenities such as sidewalks and trails should also be provided and paid for by the developer.
- Right-of-way for future corridor growth, access, and alternative travel should be dedicated at the time of development to the appropriate governmental jurisdiction.
- Alternative financing mechanisms should be explored where possible, such as consideration for a better redistribution of the state gas tax between local and state government, or an increase in the gas tax that would be primarily dedicated to local jurisdictions.

Environmental: There were many negative impacts identified in the community meetings that stem from the increased use of the automobile. Two of the primary environmental concerns (from increased automobile use and associated scattered development patterns) are the degradation of both air and water resources. Of specific concern to Madison County is the Clean Air Act and recent amendments that could potentially impact the nature of travel and development. The new standards place Madison County in the metropolitan region with regards to non-attainment status on air quality. This, in effect, has the potential to not only limit growth but also restrict the amount of federal dollars available to assist with any new road construction to add lane miles. Issues addressed by the public included:

- Transportation corridors should be tree lined with an emphasis on aesthetics and pedestrian use.
- Subdivisions should require sidewalks that have street trees in the public right-of-way or a dedicated community association right-of-way.
- Greenbelts should be maintained around and between urban nodes or cores for alternative travel paths and environmental reasons.
- Linear greenways should be developed for alternative travel and to connect land uses and developments within communities and between communities.
- View sheds of important natural and built sites should be protected.

Refer to **Map A-4-54 (insert)** for Transportation areas of concern in Madison County.

Land Use and Growth Management Profile

The current landscape of Madison County obviously differs from the landscape of thirty, or even one hundred years ago. Changes to our landscape are arriving at an increasing pace and manifesting themselves in development patterns that could damage the overall character and livability of the area. The task facing the elected officials, decision-makers, and citizens of Madison County is to establish ways of retaining the most important characteristics of the area in the face of change by managing and monitoring those forces that can be controlled through responsible land use and growth management practices. The purpose of rural growth management is to properly anticipate the wide-ranging effects of urban and ex-urban development on rural resources and to address how such development can be properly integrated on the landscape.

The landscape of unincorporated Madison County is very fragile and subject to development pressures that may undermine its character. This landscape is complex, composed of farms, wood lots, and other forms of open space; small towns historically rooted in the natural resource economy; isolated pockets of settlements; and growing numbers of homes on tracts ranging from one to twenty acres. The future development and conservation of the landscape presents the most serious challenges for land use decisions and growth management.

This portion of the ‘Community profile’ is discussed in greater detail in the separate **Land Use and Growth Management Plan (Section E)** of the Madison County Comprehensive Plan. The implementation of the Land Use and Growth Management Plan will direct future development towards the cities and towns and designate specific growth areas that provide protection for continued agricultural activities and the natural environment. These directives will be met by using strategies that will provide the means to support in-fill development in urban areas and responsibly build-out areas lost to sprawl, and to ensure the responsible development or conservation of all incorporated areas.

Existing Conditions and Trends

Current Land Use Composition

Madison County contains a total of 289,920 acres (453 square miles) of land, 87.3% (253,231 acres) of which lies in the unincorporated areas. In June 1998, the Planning Team conducted a land use and housing condition inventory of all land parcels on record for the unincorporated County. Each parcel was classified according to its principal use (a copy of the land use map reflecting the survey results in enclosed in Section D). As illustrated in the table and chart below, the survey results indicated that the unincorporated areas of Madison County remain primarily agricultural in terms of land use. The agricultural uses were more common in the intact agricultural plains in the north, central, and west portions of the County (refer to **Map A-4-17** in the ‘Agriculture Profile’ of this chapter). Residential development more frequently occurred in the areas to the south and east of Anderson. It is important to note that of the 12% (29,500 acres) representing residential land uses, almost 92% (or 27,200 acres) are low-density (detached) residential units intermixed throughout the agricultural areas or sprawled along county roads. It is this form of development that has fragmented the large agricultural zones and is in need of regulation and standards. The small amount of industrial and commercial land use occurs in isolated clusters along state highways or within municipal urban areas not annexed.

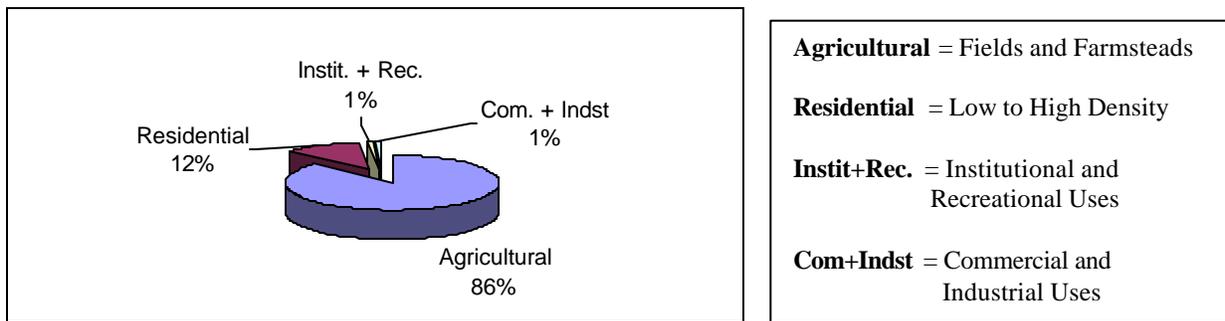
Background Information and Community Profile

Madison County Comprehensive Plan

Land Use Classification Unincorporated Madison County	Total Acreage	% of Acreage
Agriculture: Field, Pastures & Woodlands	151,396	59.79%
Agriculture: Farm House & Fields	68,336	27.0%
Residential: Low Density Patterns	27,184	10.74%
Residential: Medium and High Density Patterns	2,305	0.91%
Institutional	1,300	0.51%
Industrial	918	0.36%
Commercial	890	0.35%
Recreational	854	0.34%

Source: 1998 Field Inventory

1998 Land Uses in Unincorporated Madison County



Land Use Analysis: Development Influences in Madison County

Land use analysis considers the factors that influence the intensity, the location, and the distribution of development on the landscape. Once these influencing factors are identified, districts or zones that contain an individual set of influences can be drawn. Refer to **Map A-4-57 (insert)** that illustrates the development influences.

- **Urban Areas.** Urban areas (municipalities) tend to have a gravitational effect. They are filled with a variety of services – such as shopping, medical facilities, and work places – that are convenient locations for people and businesses to locate. There are also negative urban characteristics – including crime, traffic congestion, and environmental contamination – that can have a repelling effect on development. A combination of these attracting and repelling influences creates the ring of development on lands that surround municipalities. The City of Anderson appears to be the major contributor of this sprawl as it extends services outward.
- **Availability of Utilities and Infrastructure.** The presence or future availability of utilities highly influences development location decisions, especially uses that require specialized or intensive infrastructure for operations (commercial and industrial). Since most utilities (water, sewer, power, and communications) are cost and labor intensive to install and maintain, they are usually concentrated in areas where there is a clustering of customers that makes the service provision efficient. Utilities and related infrastructure are provided in urban areas and are financed through property tax assessment. In many cases, utilities have been extended outside the corporate boundaries to service developments in these areas. This encourages sprawl development around urban areas. Utilities offered by the City of Anderson have sparked growth surrounding the corporate boundary. The most significant contributor is the Fall Creek Regional Waste District offering sewer service in Fall Creek, Green and part of Adams Townships.

- **Transportation Corridors and Interchange Nodes.** From footpaths to interstate highways, transportation systems have highly influenced the location and form of development. Similar to the ring of development surrounding urban areas, transportation corridors attract development, especially at interchanges where traffic is at a much higher intensity. This factor is reflected in the increased growth in the southern and east-central portions of the County that are connected to metropolitan areas by I-69 and, to a smaller degree, by state roads 9, 13, 28, 32, 37, 38, and 67.
- **Natural Features.** Geographic and environmental features often have a significant impact, both positive and negative, on the desirability and practicality of development or particular land use. Some natural features act in association with each other. Soil types, drainage, water bodies, wetlands, aquifers, minerals, fossil fuels, slopes, forestland, soils, and visual aesthetics directly influence development plans and decisions. Lands with steeper slopes, less arable soil types, and water bodies in stream and river valleys are considered to have a reduced viability for crop agriculture and a greater desirability for residential development. There has been significant development along the White River, Pipe Creek, and Fall Creek valleys.
- **Socio-Cultural Reasons.** Development location decisions are influenced by sociological and cultural factors such as, school district preferences, work force availability, local heritage, general population characteristics, and perception of community values. Although marginally influential, the impact of social and cultural elements may not always be apparent when assessing the physical landscape.

Regional Development Trends

In 1994, Madison County was considered part of the Indianapolis Metropolitan Statistical Area. As a whole, the Indianapolis Metropolitan Area has experienced significant growth in population – a 5.4% increase between 1980 to 1990, and a projected growth of 8.3% from 1990 to 2000. Based on development and growth trends in the late 1990s, the population of the Metro areas is expected to boom with estimations around a 31% increase by year 2020 (approximately 2 million persons). The fringe counties of Boone, Hendricks, Hamilton, Hancock, Morgan, and Shelby have received the greatest amounts of development and population growth in the metropolitan area. This regional development trend will present the greatest development impact initially in the southern-most Townships of Madison County.

Planning Issues

The planning issues surrounding land use and growth management were identified and discussed during the community participation components of the comprehensive planning process. Throughout the public workshops and focus group sessions, participants were encouraged to list the strengths, weaknesses, opportunities, and threats to land use and growth management in Madison County. Past and future land use decisions have and will influence all of the development and resource issues raised in each of the community focus topics outlined throughout this chapter. The following presents a summary of the interrelationship of those focus issues on land use and growth management.

The ultimate challenge will be to manage the growth and development of the unincorporated areas of Madison County in such a way to:

- Preserve the critical mass of resource land needed to sustain the County's resource base in agriculture.
- Direct residential and commercial/industrial development in the unincorporated areas to locations that are most accessible to current and future jobs, community services, and various amenities.

- Configure development in unincorporated areas to minimize public facility and service costs; in other words, development should be allowed close to urban areas where utilities and infrastructure exist.

Every form of input suggested that community members are concerned about current growth trends and impacts on Madison County. At every opportunity, participants voiced their concerns about development being wasteful of the County’s limited open space. Discussions in workshops produced development priorities that favored in-filling municipalities and sprawl areas around municipalities while giving a high priority to the protection of farmland and natural resource areas. Citizens and leaders felt that growth could be accommodated in the community if the land was used wisely and more responsibly. The following conclusions and considerations summarize the planning issues that became a basis for development of goals, objectives, and strategies for the **Community Development Policy** (Section B) and for the completion of the **Land Use and Growth Management Plan** (Section E).

- We are still in a position where growth is manageable.
- We want to develop our lands more responsibly.
- We need to involve residents and other stakeholders in the development review process.

Where Should Growth Occur?	Response	Response	Desirable Use of Available Land?
Surrounding Small Towns	26.6%	37.3%	Agriculture Activity
Rural North Madison County	21.3%	33.9%	Left in Natural State
Around Anderson	21.1%	18.9%	New Businesses
No Growth	15.7%	9.9%	New Homes
South of I-69	15.3%	Source: 1998 Madison County Community Needs Survey	

Economic Development. Most participants in the community meetings believed that continued growth and development throughout all sectors of the economy was necessary to maintain a viable local economic base. Emphasis should be placed on land use planning that prepares for and encourages responsible development practices that are associated with sound economic growth. The community discussions focused on:

- Promoting agriculture, as it is an industry that must be protected from development pressures that make it increasingly difficult to continue operations in an economically viable manner.
- Growth should strike a balance between the commercial, industrial, and residential sectors of the economy to create quality mixed use developments. Growth areas must be designated to promote the above-mentioned developments in the appropriate locations.
- Priorities for growth should also focus on urban infill and redevelopment activities in order to reduce sprawl from further encroaching on the rural landscape.
- The land use regulatory process could be improved to encourage entrepreneurship, starter businesses, and home-based businesses in the unincorporated areas of the County.
- The land use regulatory process could be streamlined to greatly improve upon the timeliness for development approvals during the expansion phase for businesses, and as a means to encourage business recruitment opportunities.

Agriculture. Throughout all community discussions, the primary planning and land use issue raised was the lack of protection for prime agricultural land from development pressures. Development has adversely influenced agriculture because sprawling, semi-urban development impacts the landscape and force land costs to rise so high that land cannot be economically purchased/leased exclusively for

farming. Discussions focused on the ability of land use planning to specifically address these issues through growth management initiatives and development (zoning and subdivision control) regulation. The greatest concern was the that loss of farmland to development would create the following impacts:

- Erode the vitality of the most important basic industry for the unincorporated areas of Madison County; thus creating a net loss of income opportunity for the community.
- Place an increased burden on the local tax base due to a higher demand for necessary services and infrastructure.
- Deteriorate the rural character of the County derived from the agricultural landscape.
- Interfere with the ability to continue agricultural production on remaining farmland.

Housing Development. The greatest housing issue raised during the meetings was the need to create ‘communities’ when building new housing developments. Housing developments must function as communities or portions thereof, with a full range of amenities and urban services provided. Participants at the community meetings were concerned that housing was not available to all special-needs groups and for all income levels. Participants also felt that housing opportunities must be created that will encourage higher income households to reside in the County. This is a vital component of economic development efforts. Some issues discussed included:

- Developing design and safety standards for existing mobile home parks.
- Researching the applicability of implementing conservation subdivision designed developments in the unincorporated areas of the County.
- Improving the standards for developing residential subdivisions.
- Requiring contractors to license and carry insurance so they are responsible for what they build.
- Investigating the applicability and use of impact fees to financially assist in the provision of community services to new developments.
- Requiring a level of standards for the provision and construction of roads, sidewalks, and public utilities, to mention a few.
- Developing a better review subdivision or residential development process to involve the various service providers in the County.
- Ensuring better code enforcement applicable to all properties.

Community Resources and Public Safety Services. Although participants at the community meetings discussed the entire spectrum of service provision problems, they focused on the extreme cost incurred to provide services from established urban centers to the unplanned outlying areas. Most participants were frustrated that developers and residents of these semi-urban developments do not bear the financial burden of extending services. This type of development puts a strain on resources that are already at capacity. It was determined that there is a need for growth management initiatives to keep development compact and located near existing urban areas.

Some of the critical issues pertaining to public safety included:

- Concerns were expressed that many of the existing residential developments in the unincorporated areas of the County have design flaws that make emergency response difficult. These elements include:
 - single-entry access to developments, long private lanes, and no fire hydrants.
 - awkward roadway configurations making maneuvering difficult for emergency vehicles.
 - confusing road naming and numbering systems that prevent efficient emergency response times.
- Community resource and public safety service providers indicated their desire to participate in the development review process to ensure their services are better planned as part of any future expansion initiatives.

Cultural Resources. The preservation of Madison County's rural character was the most significant land use issue discussed. Community meeting participants felt that growth within urban areas was desirable and that limited development in rural areas may be necessary. Most participants felt strongly that suburban sprawl was not acceptable. Unrestrained development was considered to be responsible for damaging the cultural landscape and historic structures. The following list identifies tools that can be implemented to preserve the rural character of the unincorporated County:

- Growth management initiatives.
- Cultural resource management programs.
- Residential developments that adhere to conservation subdivision design principles.

Natural Resources. Historically, most development practices have had a great impact on the natural environment. Only a few portions of Madison County's original landscape remain untouched (primarily the lands along the river corridors and a few scattered woodlots). Citizens in the discussion groups were not necessarily interested in reclamation, but certainly wanted to stop development activities that would cause future damage to the natural and rural landscape. The primary concern raised was the accelerated loss of open space and habitat, "leap frog" development, and the failure to reuse ground that had already been impacted.

Some of the other issues discussed included:

- The environmental regulations in place were not adequately enforced and that development still negatively impacted the environment.
- Local government should take some responsibility for protecting natural resources – a role traditionally left to the state and federal governments. Increased responsibility could take the form of assisting state agencies in enforcement, involving interested groups in the development review process, and adopting local ordinances to increase landscape and resource protection.
- The integration of the following resource planning tools into development regulations:
 - Erosion control and drainage ordinances.
 - Strict sewer provision requirements for new developments.
 - Dumping, land filling, burning, and junk enforcement.
 - Well drilling standards and driller/operator licensing.
 - Wetlands protection and stream buffering.
 - Conservation subdivision design practices that conserve open space.
 - Smart growth practices that focus development around existing urban areas.

Utilities and Infrastructure. Throughout all community meetings, the most common utilities issue discussed was the need to limit development to locations that are already serviced; this would take place primarily in and around urban areas. The other critical issues discussed included:

- Mechanisms must be put into place for assuring major development occurs with the provision of adequate urban utilities and infrastructure.
- Existing utilities and infrastructure need immediate improvements in certain areas of the unincorporated County, especially the conversion from septic to sewer system. Existing utilities and infrastructure could also be used more extensively (closer to capacity) before considering expansion.
- Development should not be permitted in locations where the provision of the appropriate facilities has negative impacts on the surroundings.
- Developments are not paying for their fair share of utility and infrastructure expansion costs.
- Utility providers should be involved in the development review process for all new projects.
- Investigate the potential of imposing impact fees on future developments to finance service costs.

Transportation. The transportation system has greatly influenced land use development patterns in the unincorporated County areas. Generally, decisions about land use development and transportation networking (roadway, sidewalk, trail, and track) occur during the platting process, thus they should be planned simultaneously. Most of the issues and deficiencies were identified either in the public meetings or through the collected technical data. The issues included:

- To preserve the integrity of transportation corridors; there should be fewer curb cuts permitted for new development.
- Unmanaged growth adversely impacts the road network. Most participants were opposed to urban sprawl for the following transportation related reasons:
 - County roads were not designed to carry high volumes of traffic.
 - Fragmented development reduces the likelihood of alternative transportation uses.
 - Reduced travel distances and number trips are possible with more compact development practices.
 - Orderly development patterns reduce the cost of road infrastructure outlays.
 - Residential developments should have adequate access to and from the transportation network.Some of the issues raised included:
 - Multiple entrance subdivisions with grid pattern streets were preferred.
 - Street names and addresses should be more distinguishable to reduce confusion.
 - Development impacts on the local road system should be the financial responsibility of the developer.
 - Development patterns should encourage the use of alternative transportation modes and include sidewalks and trails.
 - Transportation system standards in development regulations must be revised.