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November 10, 1997

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# INTRODUCTION

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## Why Plan?

Successful communities don't just happen; they must be continually shaped and guided. A community must actively manage its growth and respond to changing circumstances if it is to meet the needs of its residents and retain the quality of life that initially attracted those residents to the community.

This plan provides a framework for decisions affecting the growth of Clinton County. The Vision and Goals of the plan describe a desired future for the County. The policies and strategies describe the actions that the County will take to achieve the desired future. The plan as a whole will guide public and private growth decisions so the County will realize the following benefits:

- ▶ More effective preservation of agricultural land;
- ▶ Increased predictability for public and private growth decisions;
- ▶ Cost savings from more efficient use of existing infrastructure;
- ▶ Cost savings from reduced demand for new infrastructure;
- ▶ Reduction of sprawl development;
- ▶ Maintenance of the rural character of the County;
- ▶ Better protection of the environment; and
- ▶ Increased support for community prosperity.

This plan is intended for use by elected and appointed County officials, residents and other individuals making investments and other growth decisions in the County. In addition to describing the long range goals of the County, this plan outlines the intent of the County's development standards and establishes a program of specific actions that will help the County achieve its goals.

## What is in the Master Plan?

This Master Plan focuses on land use and development issues facing Clinton County. The Plan:

- ▶ defines a vision for the County's structure;
- ▶ summarizes existing conditions, trends and issues that provide a context for the planning process;
- ▶ establishes goals, policies and strategies to achieve its vision; and
- ▶ outlines the process of monitoring, updating and amending the Master Plan to ensure that it continues to serve the County residents and businesses.

**Chapter Two** establishes a context for planning in the County. Exploring the natural and built environments, demographic characteristics, growth trends, and community values. The geographic conditions that make Clinton County such a desirable place to live also impose some constraints. Primary conditions affecting the County are its highly productive soils, flood prone areas along the rivers and major drainageways, small areas of steeply sloping ground, woodlands along the Wapsipinicon and Mississippi Rivers, and scattered wetland areas. Community values set priorities for community action.



**Chapters Three through Six** are the heart of the Master Plan -- defining goals, policies and specific strategies to achieve the County's vision. These chapters includes the following Master Plan elements: Land Use & Growth Coordination; Transportation; Public Facilities & Services; and Conservation & Resources.

**Chapter Seven** describes the process of maintaining an up-to-date, dynamic Master Plan. It describes the processes for monitoring and amending the plan to ensure that it continues to address vital community issues. Plan monitoring is an on-going process of measuring the County's effectiveness in achieving plan goals and carrying out plan strategies.

Together with the reference information included in the appendices, these chapters comprise Clinton County's Master Plan -- a guide to the future growth of the planning area.

### **How was the Master Plan Prepared?**

Considerable public participation, coordination and cooperation have occurred in creating a consistent and comprehensive document addressing both economic and physical development. Over the course of the preparation of the Master Plan, numerous public workshops, interviews, Planning Commission and Board of Supervisors meetings were held in DeWitt and Clinton. These efforts all had a common purpose of determining and collecting public opinion, ideas and desires for the future of Clinton County.

After receiving initial public participation and collecting information, preliminary goals and policies were developed to provide a basis for discussion and refinement of the Master Plan's focus and direction. The Regional Planning Commission and Board of Supervisors reviewed and provided comments on the preliminary goals and policies in a public meeting and refined the Plan.

### **How Should the Plan be Used?**

The Master Plan is a guide to action. It does not implement itself. By ensuring that individual actions are consistent with the policies of the Master Plan, the County can effectively achieve its goals. For example, the Board of Supervisors will use the Plan's policies and maps to decide whether to approve proposed rezoning. Zoning, subdivision, building and construction codes and standards will regulate development. Some amendments to these regulations will be necessary, however, to more effectively carry out the Plan.

The Master Plan defines policies and recommends measures governing the application, modification and interpretation of these development regulations. The Plan should guide the preparation of detailed facility Master Plans for the County's water, wastewater, flood control and transportation systems. The policies of the Plan also should guide the preparation and update of capital improvement programs and the annual budget (as well as a guide to interpret regulatory provisions). The Plan should be a dynamic document, subject to periodic amendment when conditions within the



County change significantly. Periodic updates of the Plan will be needed to ensure that it continues to meet the needs of County businesses and residents.

## Community Vision

Successful long-range planning can occur only if a community has a vision of what it aspires to be. The following vision statement reflects residents overall desires for Clinton County's future. Developed through a series of community workshops in the 1996 and 1997, this brief statement summarizes the County's vision of an ideal future -- a future that focuses on cooperative efforts to retain valued assets and enhance the quality of life for all residents.

### ❖ Clinton County's Vision ❖

*Clinton County residents will work together to maintain a prosperous farming environment while developing clean, thriving communities where families can earn a living wage and enjoy a wide variety of educational, cultural and recreational opportunities. Clinton County will enjoy orderly, modest growth and develop a more diverse economy based on more stable, higher wage employment, primarily located in the two economic hubs of DeWitt and the Clinton/Camanche area.*

Throughout the Master Plan, the vision is translated into more specific goals, policies and programs. The vision serves as the common thread that weaves the chapters into one consistent document.

This vision reflects a broad spectrum of community values and aspirations. Residents of the County value the mix of rural, agricultural and small town lifestyles. They also treasure the abundant open space and available public services. Concerns about the impacts of growth have increased as residents have witnessed development of agricultural areas, loss the rural character of the area and new growth that is spurring increased demands for County services. The vision reflects a shared belief - - that through effective growth management, the community can address these concerns and maintain healthy, growth patterns.

# CONTEXT FOR PLANNING

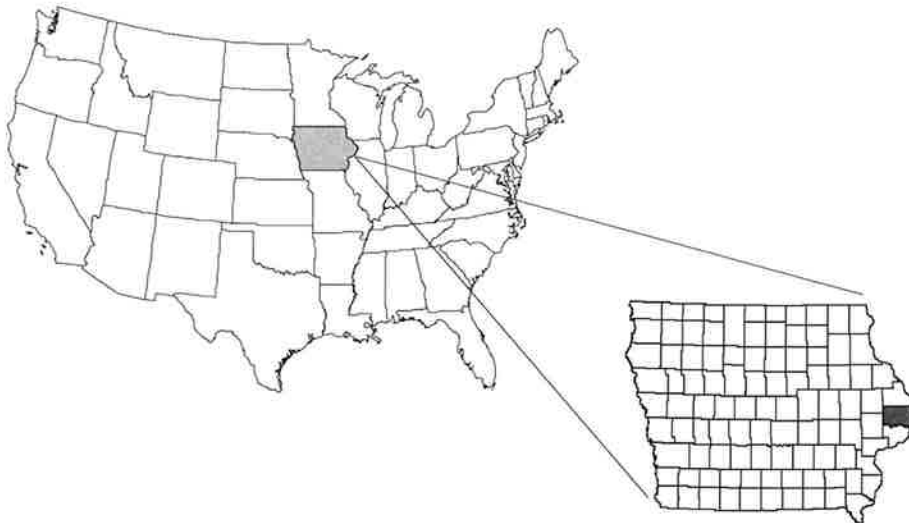
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## Overview

This chapter addresses aspects of the physical environment, growth trends and community values that most directly impact the Master Plan.

Clinton County is located in east-central Iowa, on the western bank of the Mississippi River and the northern bank of the Wapsipinicon River, located between the Chicago, Minneapolis, St. Louis, and Kansas City metropolitan areas. The County is bounded by Jackson County (to the north), Jones County (to the northwest), Cedar County (to the southwest) and Scott County (to the south). Across the Mississippi lie Carroll, Whiteside and Rock Island Counties, Illinois (from north to south). Exhibit 1 shows the general location of Clinton County.

### Exhibit 1: Clinton County, Iowa



Clinton County encompasses 444,800 acres of land and is located about 120 miles from the Chicago metro area, within 30 minutes of I-80 and I-88. East-west access within the County is provided by U.S. 30 (which connects the southern half of the County with Cedar Rapids) and S.H. 136 (for the northern half); north-south access within the County is provided by U.S. 67, which connects Clinton with the Quad Cities area and U.S. 61, which links DeWitt with Dubuque and the quad cities area.





## **Natural Environment**

The natural environment provides both opportunities and constraints for development. Primary environmental factors affecting growth in Clinton County are its highly productive soils (which also constrain the use of on-site disposal systems in some areas), flood prone areas along the rivers and major drainageways, steeply sloping lands along the Mississippi River and in some interior areas, woodlands with high water tables along the Wapsipinicon River, and scattered wetland areas.

Decisions affecting growth and development have long-term impacts on the condition of these resources for future generations. One of the County's challenges is to provide for the needs of residents and businesses without sacrificing the County's natural assets and quality of life.

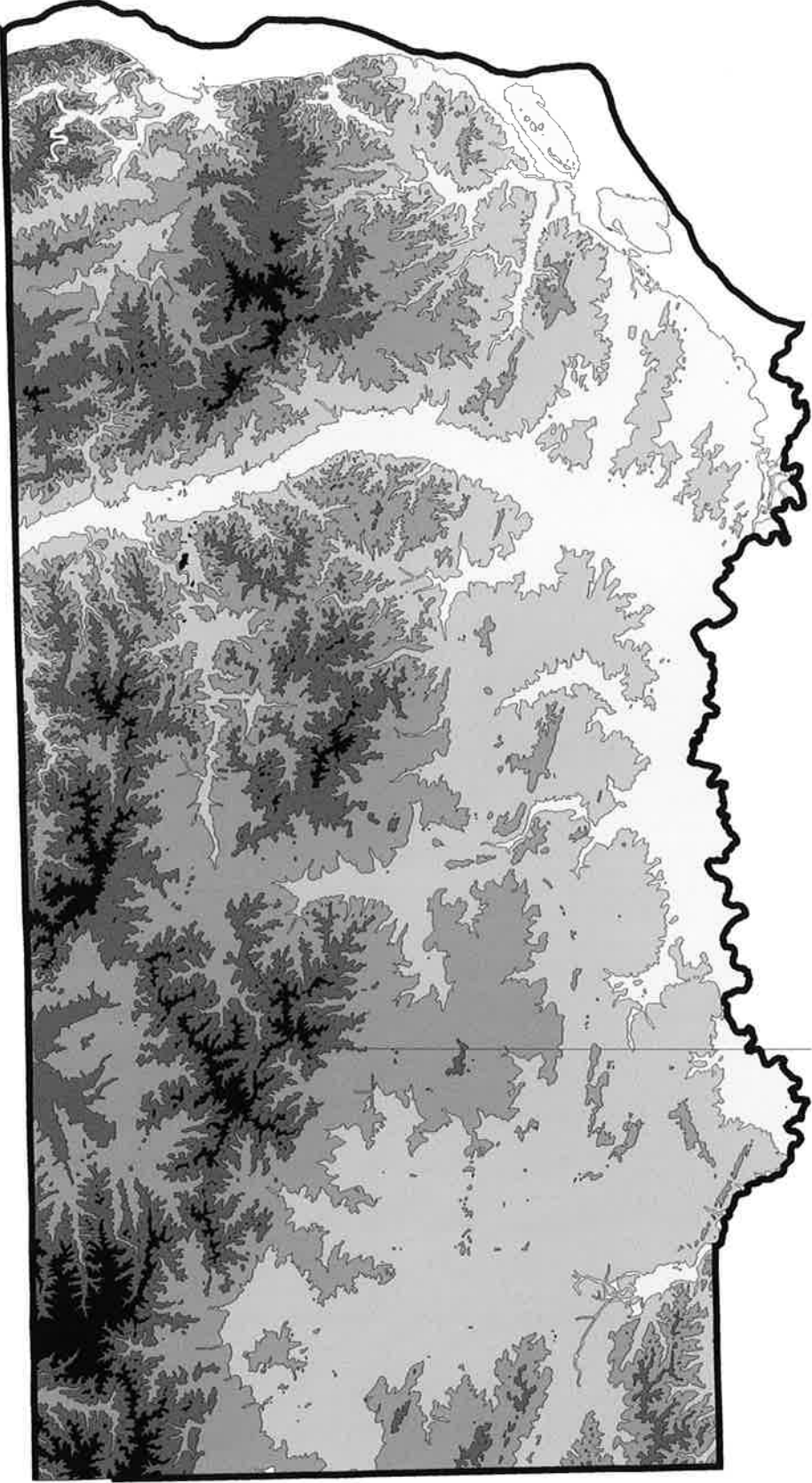
### **Topography**

As shown in Exhibit 2 Clinton County ranges in elevation from 180 to 280 meters (590 to 920 feet) above mean sea level. While most of the County consists of gently rolling hills, there are scattered steeply sloping areas that limit agricultural operations and development potential. Bluffs along the Mississippi River north of Clinton are difficult to access, particularly in wintry conditions. Low lying areas along the Mississippi and Wapsipinicon Rivers in the southern half of the County also constrain development. The most dramatic topography in the County is located along the Mississippi River to the north of Clinton where a high bank provides scenic vistas of the river basin.

### **Hydrology**

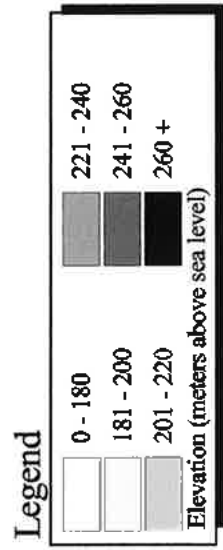
As Exhibit 3 shows, the majority of the County drains in a southerly direction, emptying into the Wapsipinicon River. A nine-mile wide strip of land along the eastern edge of the County is the only area that drains directly into the Mississippi River. The north central portion of the County drains northward into the Maquoketa River. The remainder of the County drains into the Wapsipinicon River from the Brophy, Ames, Silver and Calamus Creek basins.

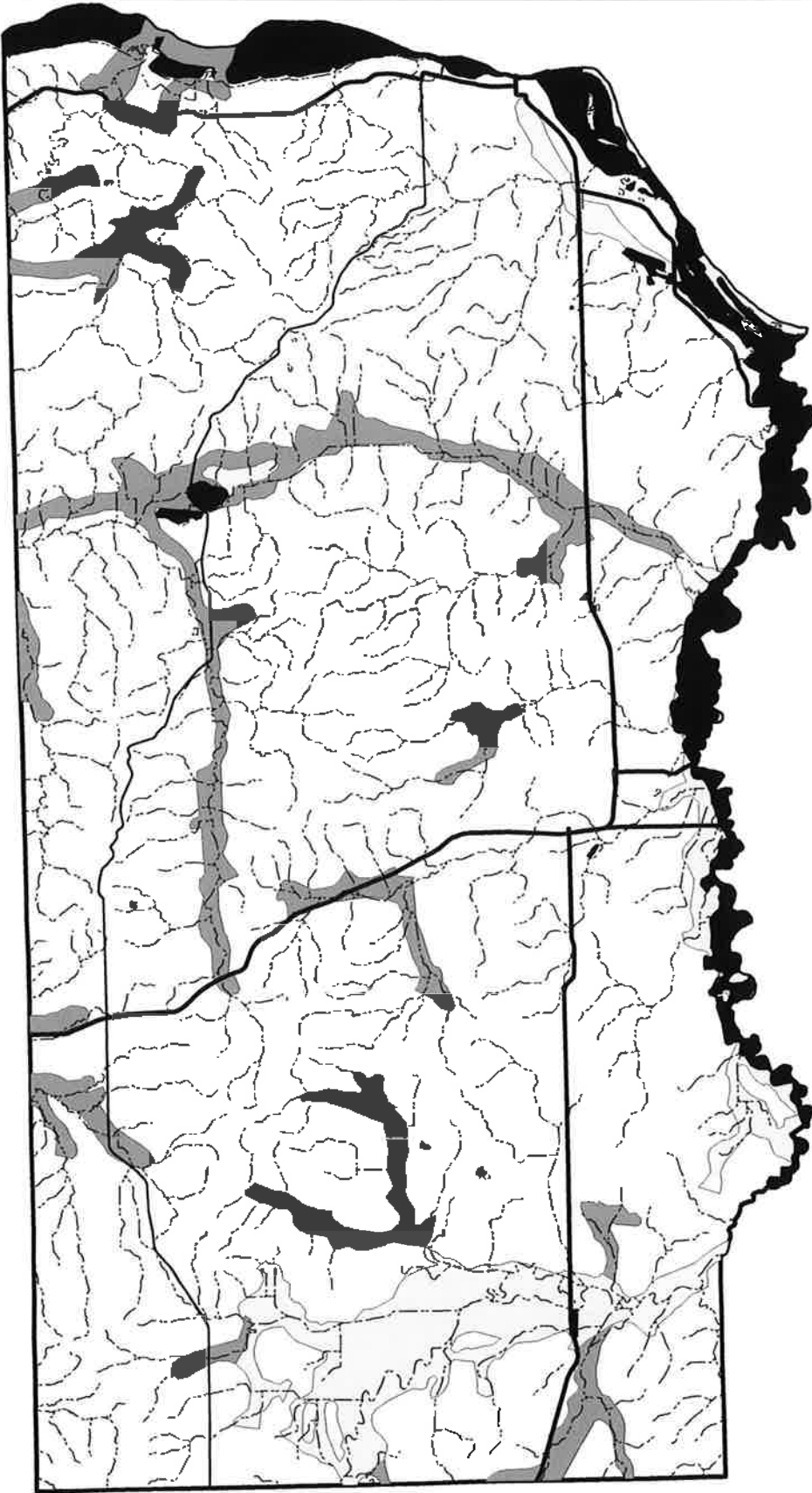
Both the Wapsipinicon and Mississippi Rivers are bounded by broad bands of wetland areas, much of which is located within the 100-year floodplain. The 100-year floodplain is the area that has a 1 percent chance of flooding in any given year. Floodplain areas may be developed, but they are subject to special limitations on structure elevation, fill and foundation design and construction. In addition, floodplain areas often limit the suitability for use of on-site wastewater disposal systems. Several antiquated subdivisions located along the Wapsipinicon River have lots that are unable to pass required percolation tests for on-site systems.



**Exhibit 2: General Topography  
Clinton County, Iowa**

8000 0 8000 Feet  
  
  
 Source: US Geological Survey





### Exhibit 3: Hydrology Clinton County, Iowa



Source: USGS, 1990

#### Legend

---	Streams, Rivers & Waterbodies
■	Wetland Areas
■	Poorly Drained Soils
■	Moderate - Poorly Drained Soils



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Due to the size and low density of Clinton County, many residents rely upon groundwater for domestic needs. While the quality generally is adequate, many areas of the County are susceptible to groundwater contamination. Exhibit 4 maps the relative vulnerability of the County's groundwater supplies to contamination. As the map shows, there is a strong correlation between sinkhole locations and groundwater contamination susceptibility.

### **Soils**

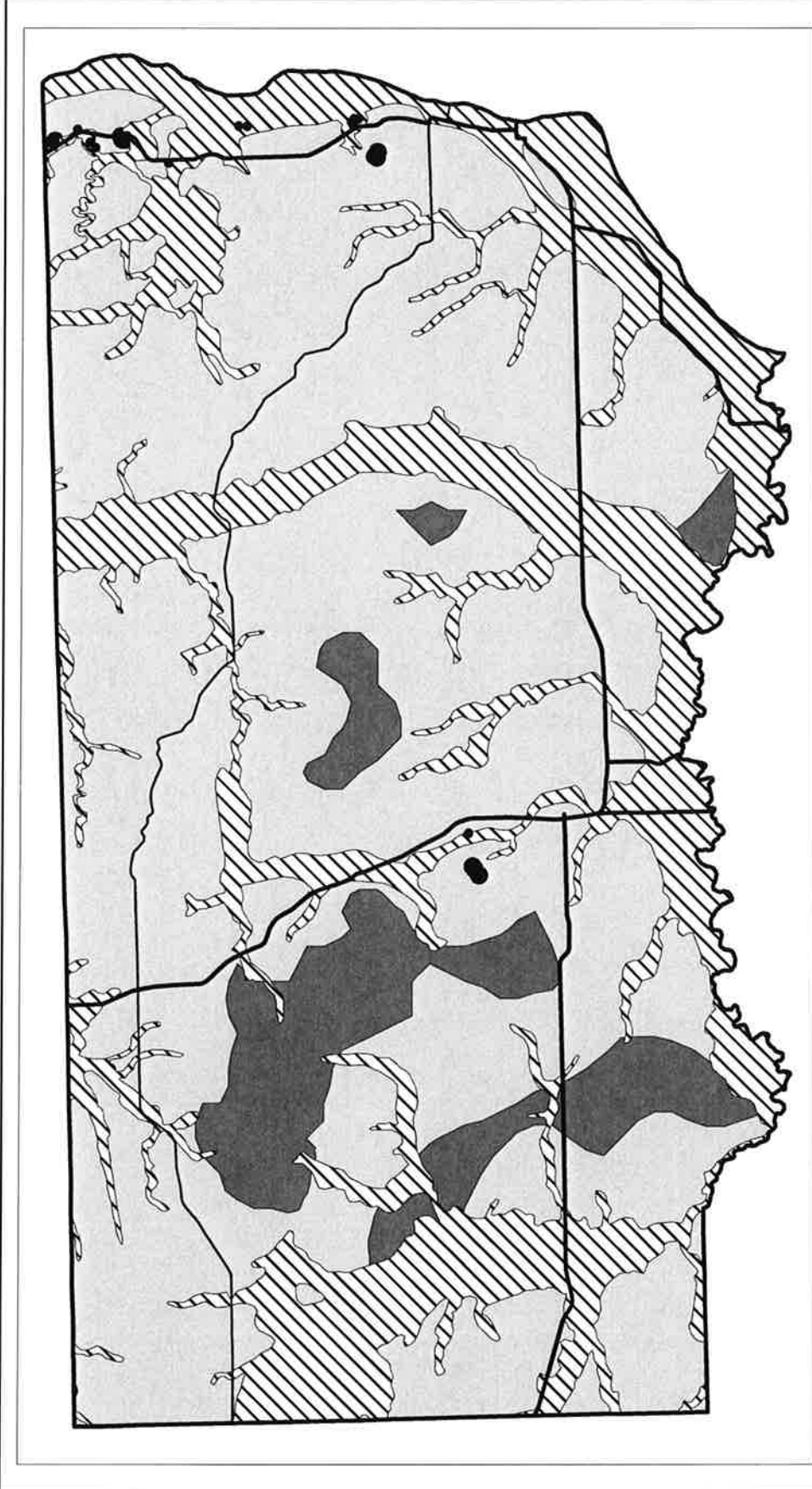
Soils are a vital resource in Clinton County, supporting a variety of agricultural endeavors. The County has placed a high priority on preservation of soils, particularly those with a high corn suitability rating. The U.S. Soil Conservation Service published the Soil Survey of Clinton County, which maps individual soil types throughout the County to provide general guidance about the suitability of soils for agricultural or development purposes. This document is used by the County to minimize the loss of valuable agricultural land due to subdivision and development activity.

Exhibit 5 illustrates the 10 major soil associations in Clinton. While the characteristics of individual soils within each of these associations vary significantly, the exhibits describe the range of characteristics that can be anticipated from any individual soil. In addition to these characteristics, many of the soils create significant development constraints. High shrink-swell potential soils form unstable foundations for roadways or buildings, resulting in cracked foundations and high roadway maintenance costs. Many soils are inadequate for development of on-site wastewater systems due to poor permeability/absorption or poor filtration capabilities.

### **Agricultural Land**

Exhibit 6 shows the locations of agricultural soils in Clinton County with a high corn suitability rating. These are soils for which a combination of historical use and physical characteristics suggests a high potential for agricultural production. While the more site specific soil survey provides better information about the desirability of various parcels for agricultural endeavors, the map shows that most of southern half of the County is dominated by highly productive soils. Once developed for non-agricultural uses, these soils lose their prime agricultural classification.

Clinton County enjoys a valuable combination of temperatures, precipitation and soils required to support highly productive agricultural operations. The County has placed a high priority on the preservation of soils with a corn suitability rating of 60 or greater. However, as shown in the Growth Assessment of this report, development pressures are highest near the most productive lands. Additional efforts may be required to protect the most valuable agricultural lands, while providing for some non-agricultural economic return for property



**Exhibit 4: Groundwater & Sinkholes  
Clinton County, Iowa**

**Legend**

- Sinkholes
- Good bedrock aquifers;  
thin drift confinement
- Good bedrock aquifers;  
moderate drift confinement
- ▨ Alluvial aquifers



### Exhibit 5: Soil Associations Clinton County, Iowa



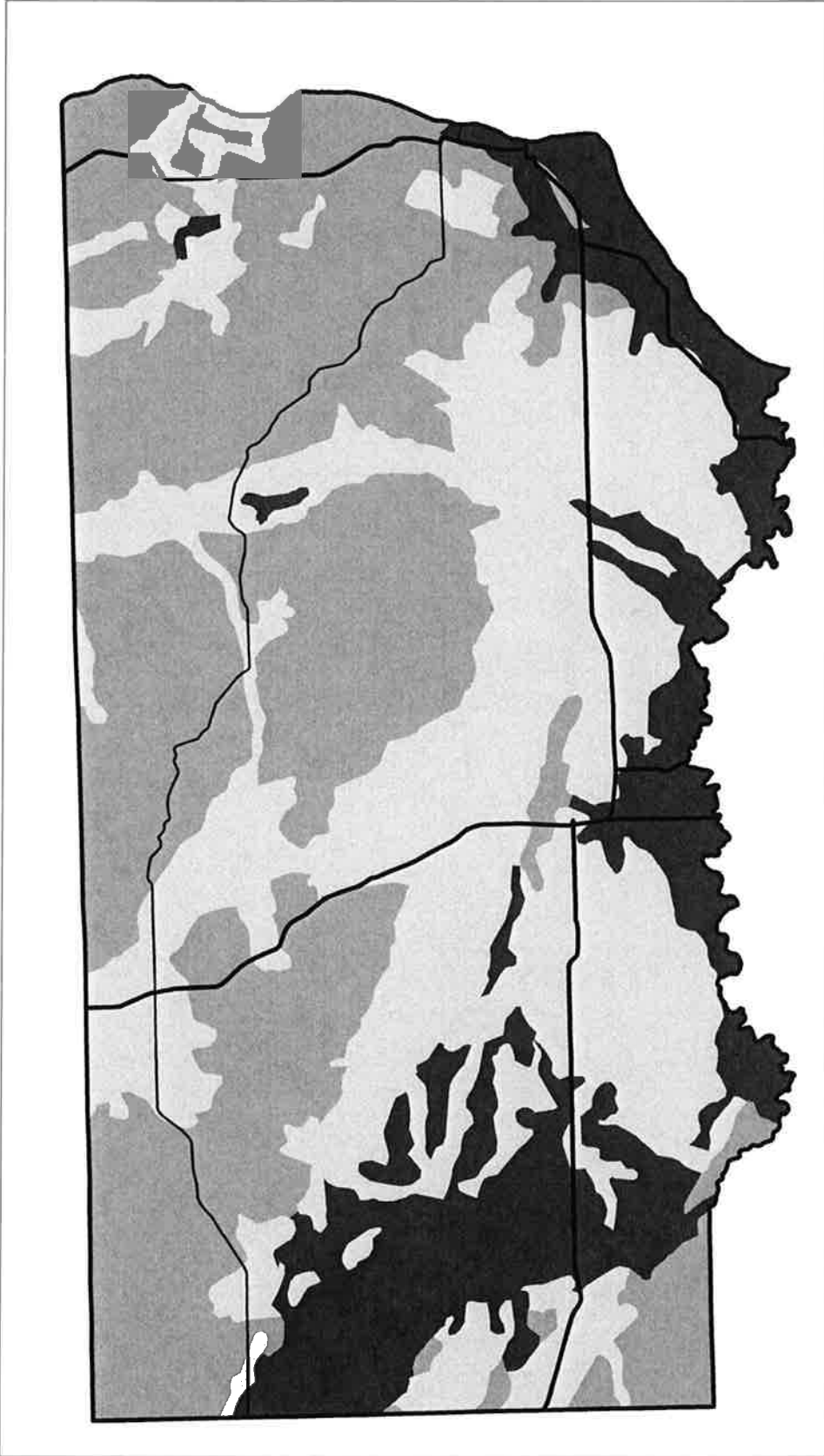
Source: US Dept. of Agriculture, Natural Resources Conservation Service

#### Legend

	Fayette Association		Sparta-Dickinson Association
	Downs-Fayette Association		Finchford-Zwingle Association
	Tama Association		Colo-Chase-Sawmill Association
	Dinsdale-Klinger-Maxfield Association		Ambraw Association
	Atterberry-Tama Association		Walford-Atterberry Association



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**Exhibit 6: Corn Suitability Rating  
Clinton County, Iowa**



Source: US Dept. of Agriculture, Natural Resources Conservation Service

**Legend**

-  Corn Suitability Rating Below 60
  -  Corn Suitability Rating Mixed
  -  Corn Suitability Rating 60+
- Corn Suitability Rating based on major soil association. See Clinton Soil Survey and County's Corn Suitability rating for more detailed information



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owners. Clustering, transfers of development rights, conservation easements and other techniques have proven to be effective techniques to address this issue. However, there is concern in Clinton County that clustering in agricultural areas will lead to increased residential development in areas that should be reserved for agricultural operations.

## Demographic Characteristics and Growth Trends

The Growth Assessment explores recent trends in population, housing, and employment. The analysis is based on 1990 census data, except where more recent reliable information is available. Although Clinton County's population and economy have changed since 1990, the Census remains a valuable source of information. Using Census statistics as a baseline, more current, reliable data was sought to provide the most accurate picture of current conditions.

### Population

Exhibit 7 shows Clinton County's population grew in the 1940s and 50s. This growth slowed through the next two decades. Loss of manufacturing jobs in the 1980s led to a 10.6% decrease in population. While Clinton County's population has continued to decline in the 1990's, the rate of decline has slowed down. The County's growth rate has been far more erratic than the state's, due largely to the more dramatic shifts in the local economy. While overall population growth has been stagnant in recent years, the DeWitt area has grown significantly, capturing spill-over growth from the Quad Cities area and generating new manufacturing jobs.

**Exhibit 7: Historical Population Trends**

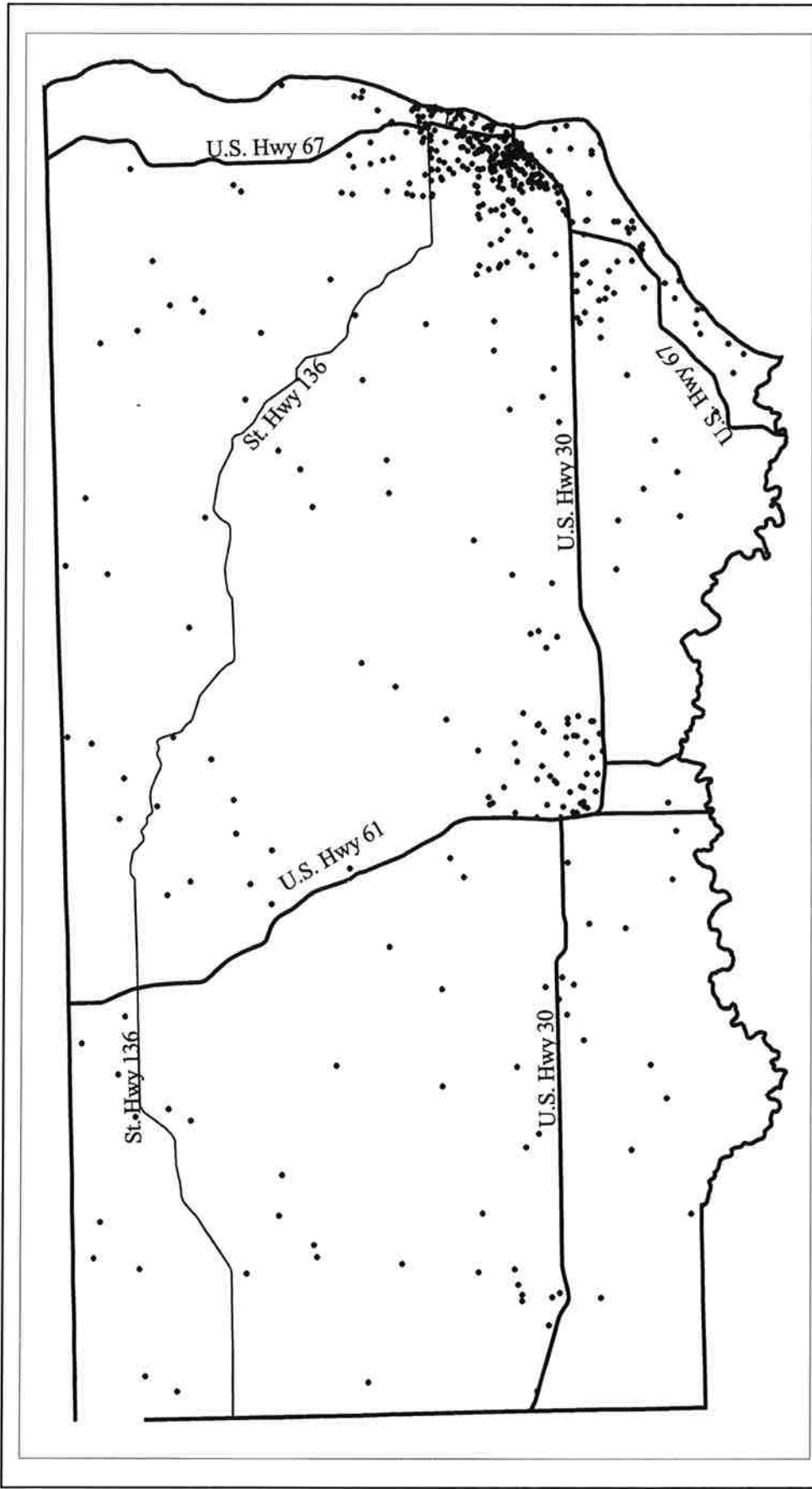
Year	Clinton County		Iowa	
	Population	% Change	Population	% Change
1950	49,664	11.1%	2,621,073	3.3%
1960	55,060	10.9%	2,757,537	5.2%
1970	56,749	3.1%	2,824,376	2.4%
1980	57,122	0.7%	2,913,808	3.2%
1990	51,040	-10.6%	2,776,755	-4.7%
1991	50,973	-0.2%	2,791,313	0.4%
1992	51,254	0.6%	2,807,574	0.6%
1993	51,274	0.0%	2,821,506	0.5%
1994	50,983	-0.6%	2,830,779	0.3%
1995	50,889	-0.2%	2,841,764	0.4%

Source: U.S. Bureau of the Census





Exhibit 8 maps the population distribution within the County in 1990. Clinton is the largest city, followed by DeWitt. Other communities (including; Camanche, Grand Mound, Delmar, Charlotte and Wheatland) comprise a relatively small proportion of the County's population. Since 1970, the City of Clinton has become home to a progressively smaller percentage of the County's total population.



**Exhibit 8: 1990 Population Distribution  
Clinton County, Iowa**

**Legend**  
 Population  
 • 100 People



Source: US Dept. of Commerce, Bureau of the Census, 1990

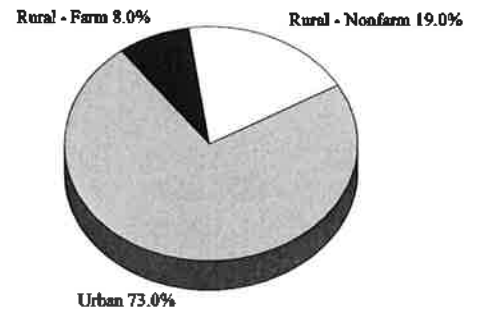


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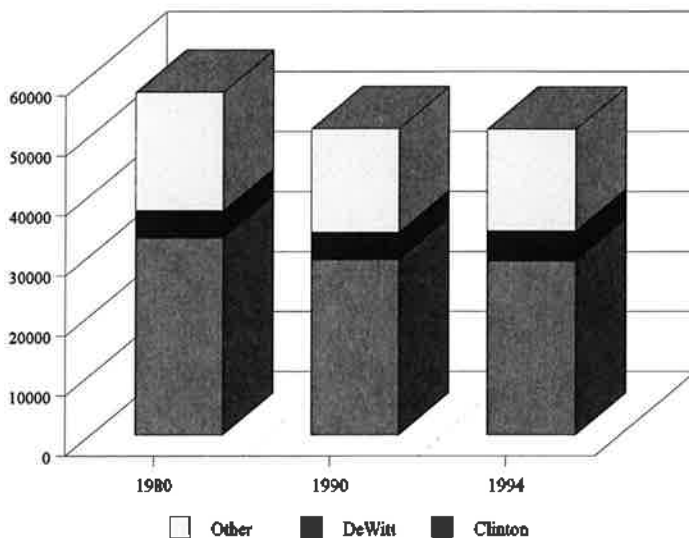
Exhibit 9 illustrates that in 1990, nearly three out of four County residents lived within one of these communities. Eight percent of the County's residents lived on farms, and nineteen percent lived in other non-farm rural areas. Exhibit 10 shows that the City of Clinton has been a dominant factor in the County's population changes, growing faster than the County as a whole during good times and losing population at a faster rate during difficult economic years.

**Exhibit 9: Urban / Rural Population**



Source: U.S. Bureau of the Census 1990

**Exhibit 10: Population by Location**



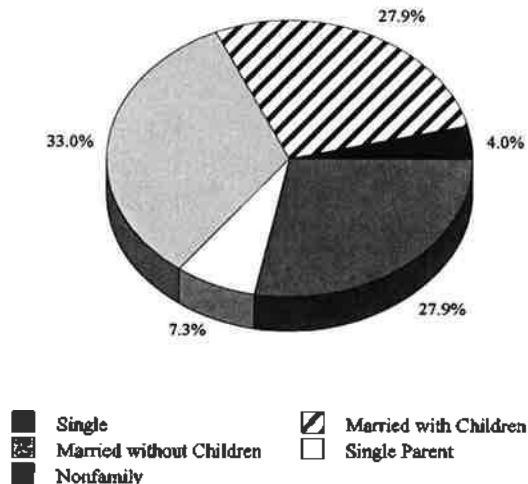
Source: U.S. Bureau of the Census

**Household Demographics**

The number of households in Clinton County decreased by three percent (from 20,345 to 19,757) between 1980 and 1990. The rate of household creation will be slower than during the 1980s. Not only are households forming slower but the type and size of households being formed has changed as well. This shift reflects a decline in the traditional family, which has been defined as a married couple with or without children. The Census Bureau



### Exhibit 11: Household Type and Children Present - 1990



Source: U.S. Bureau of the Census, 1990

estimates the number of traditional families in the County dropped 7 percent between 1980 and 1990, from 76 percent of all households in 1980 to 72 percent in 1990. Exhibit 11 illustrates the mix of households in the County in 1990. Note that there are as many non-family households as there are traditional two-parent households with children. Also important is the fact that 1 in 14 households with children have only 1 parent present.

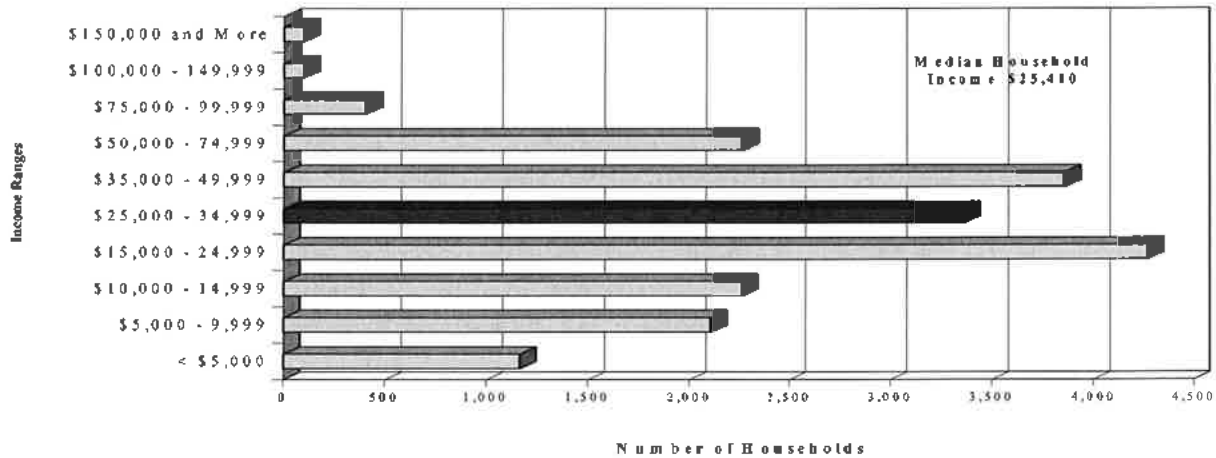
The effects of an aging population and changing family composition have modified household size. In 1990, the number of persons per household was 2.3, down from 2.7 in 1980. By 2000, the number of persons per household is expected to drop further due to more single parent and elderly households, and fewer households with children.

### Income and Poverty

Analysis of the 1989 household income distribution for Clinton County shows that there is a significant low to middle income population, and a very small upper income population. Exhibit 12 shows the income distribution for the County. The median household income for Clinton County increased by 37.2 percent (from \$18,516 to \$25,410) for the County between 1979 and 1989. This 1989 figure was only 85 percent of the national median income of \$30,056. During this same time, the inflation rate for the average U.S. city rose to 58 percent. After adjusting for inflation, Clinton County's households experienced a 21 percent decrease in real income in the 1980s.



**Exhibit 12: 1989 Household Income Distribution**



Source: U.S. Bureau of the Census (27041)

In the 1980s, the County experienced a twenty-five percent increase in the number of people (from 4,312 to 5,411) living on incomes below the poverty level at the same time that the overall population declined by eleven percent. This compares with a 10.5 percent increase in poverty for the nation as a whole. Poverty guidelines are set by the Federal Department of Health and Human Services. Exhibit 13 shows 1990 and 1995 poverty guidelines.

Exhibit 14 shows that the number of children and adults living in poverty increased rapidly in the 1980s, but for seniors the growth was not as high. The number of youths living below poverty increased by over 25 percent; the number of elderly also increased by over five percent. At the same time, the number of working age people living below poverty increased by over thirty percent.

**Exhibit 13: Poverty Guidelines**

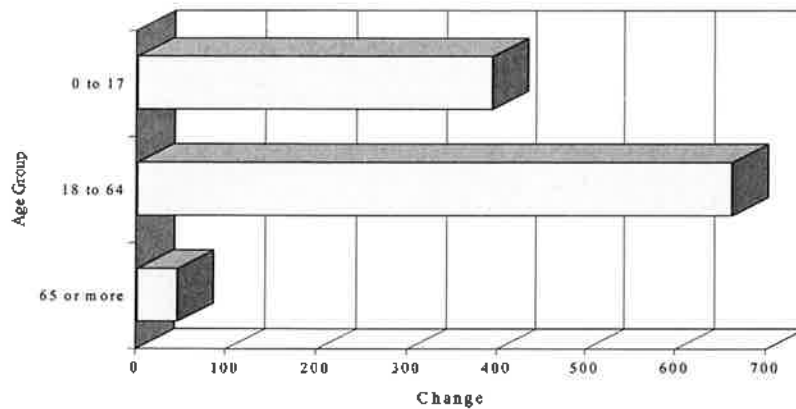
Size of Family	1990	1995
1	\$6,310	\$7,763
2	\$8,076	\$9,933
3	\$9,885	\$12,158
4	\$12,674	\$15,569
5	\$14,990	\$18,408
6	\$16,921	\$20,804
7	\$21,328	\$23,552
8	\$25,480	\$26,237

Source: U.S. Bureau of the Census

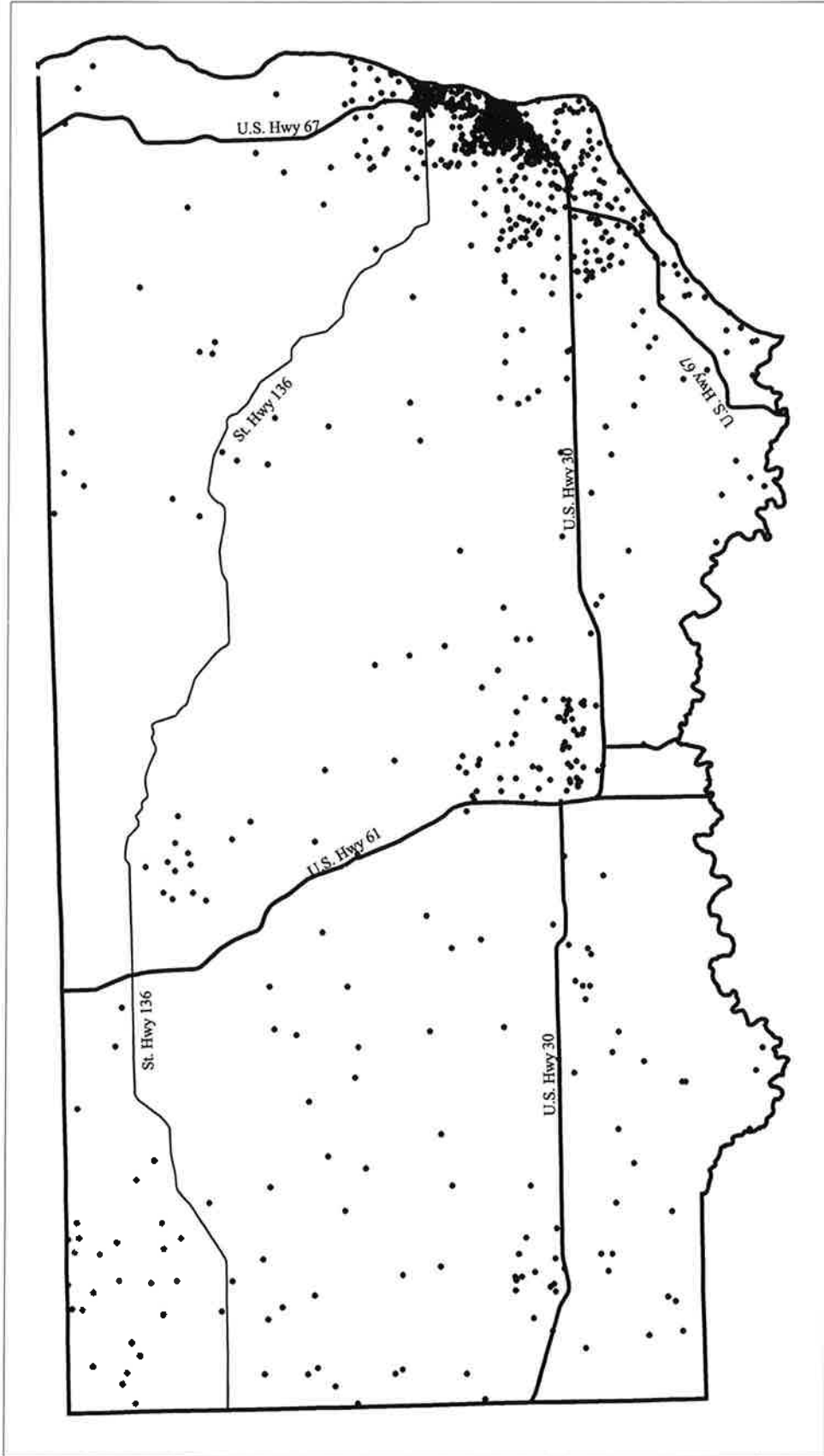


The distribution of people living below poverty is displayed in Exhibit 15. Increased poverty highlights several challenges for the community, including the provision of affordable housing, transportation assistance, and better employment opportunities.

### Exhibit 14: 1979 to 1989 Change in Population Below Poverty



Source: U.S. Bureau of the Census (27060)



**Exhibit 15: 1990 Population Living in Poverty  
Clinton County, Iowa**

8000 0 8000 Feet 

Source: US Dept. of Commerce, Bureau of the Census, 1990

**Legend**  
Population  
• 5 People



12/1996



## Housing

Total number of housing units in the County remained almost consistent with only a reduction of 10 units between 1980 and 1990 (see Exhibit 16). According to the Census, an additional 199 units were permitted in the County between 1990 and 1992. Since 1992, City and County records show 176 housing units have been added.

*Housing demand will continue to grow despite changing demographic trends.*

**Exhibit 16: Clinton County Housing Units by Vacancy Status**

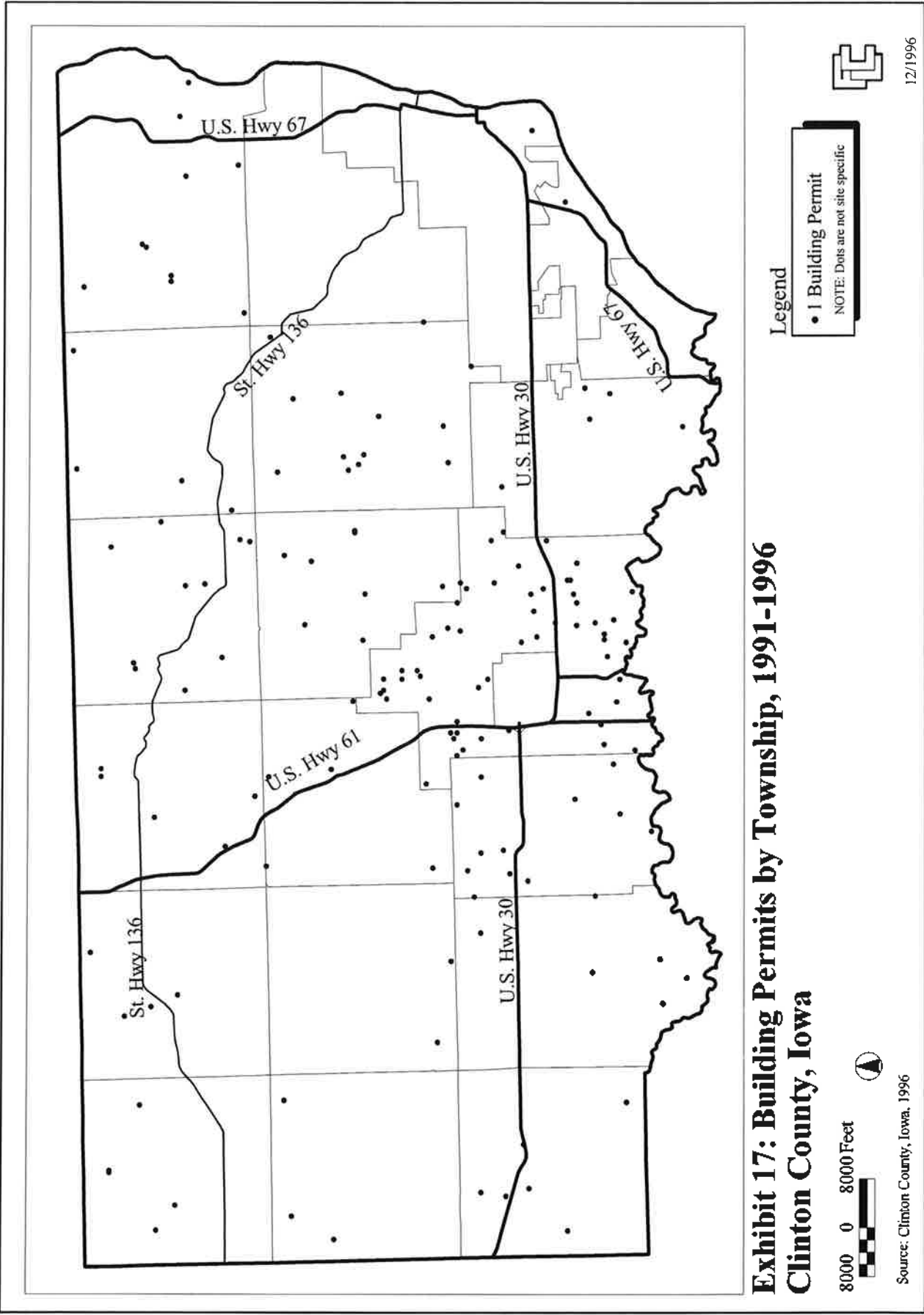
	1980	%	1990	%
Total Units	21,313	100.0%	21,296	100.0%
Occupied	20,354	95.5%	19,757	92.8%
-Owner	14,981	70.3%	14,061	66.0%
-Renter	5,375	25.2%	5,696	26.8%
Vacant	959	4.5%	1,533	7.2%

Source: U.S. Bureau of the Census

Two-thirds of the County's housing units were owner-occupied in 1990, 27 percent renter-occupied, and the remaining units were vacant. Since 1990, vacancy rates have reportedly dropped, particularly in the DeWitt area. The declining populations in the 1980s led to increases in rental units and vacancies. Three quarters of the housing units in Clinton County were single family homes, according to the 1990 census. Multi-family or duplex units comprised 21 percent of the housing stock, and the remaining three percent were mobile or manufactured homes.

Most of the housing structures in the County were built before 1980, with only five percent of the units being constructed between 1980 and 1990. Over forty percent of the units had been built before 1940. Exhibit 17 shows the distribution of housing permits issued in Clinton County since 1992. The DeWitt area townships have experienced the greatest demand, though building is occurring throughout the County.





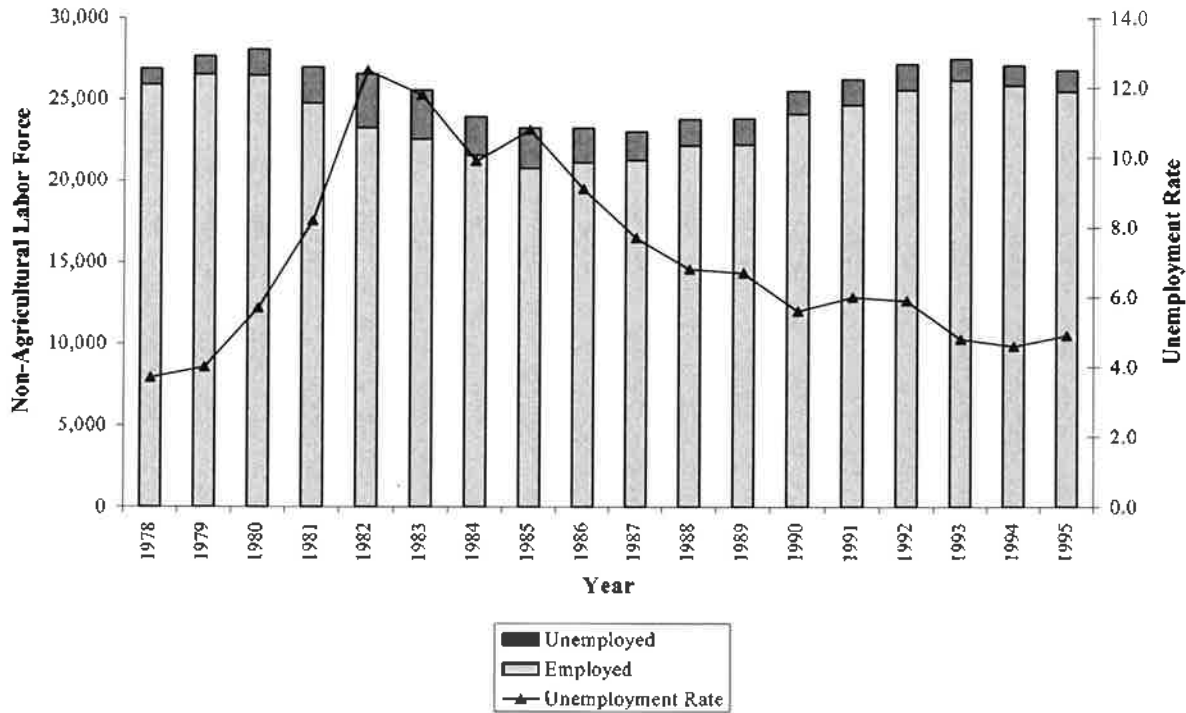


### Employment

Exhibit 18 illustrates the trend in County employment between 1978 and 1995. The table illustrates the surge in unemployment in the early 1980s and the gradual recovery since 1985. In the early 1980's major employers of Clinton County residents either closed completely (Caterpillar, International Harvester, and Clinton Garmet) or had massive layoffs (Dupont and John Deere.) While the unemployment rate has remained below 6 percent since 1992, the Iowa Department of Employment Services reports job losses in 1994 and 1995.

*By 1995 the County unemployment rate was at a decade low of 5 percent.*

**Exhibit 18: Clinton County Employment Changes**



Source: Iowa Dept. Of Employment Services (27476)



Exhibit 19 shows Clinton County's employment trends by industry. There was a dramatic loss in manufacturing jobs in the 1980's from almost 7,000 people employed in 1980 to about 4,200 in 1986. Since 1986, manufacturing has initiated a steady resurgence. Currently, the number of manufacturing jobs has stabilized around 5,500 or about 20% of the total employment. This trend is contradictory to the national pattern of continual reductions in manufacturing jobs.

Farming lost the second largest amount of jobs, going from 2,334 to an all time low of 1,696 in 1994. The construction industry also saw a loss in jobs of approximately 634 jobs. There was a solid climb in the service industry during the 1980's. The number of people with service jobs increased by almost 2,000 through the 1980's and now has roughly 7,800 people employed in services. This follows the national trend towards

*The service sector gained  
almost 2,000 jobs since 1980*

a service based economy. The retail industry fluctuated through the 1980's between 17 and 19 percent of the total employment and is currently at 17 percent, approximately 5,500 people. Agricultural services and mining were other industries which showed a small gain a total of 150 new jobs. Government employment remained practically constant at 2,500 worker from 1980 to 1995.

The County lost higher paying jobs in the construction sectors and gained lower paying jobs in services. A shift from higher paying construction jobs toward lower paying retail and services jobs will mean less growth in average personal income. While not all service sector jobs pay low wages, continued loss of high paying jobs will encourage residents to commute outside the County to work. Exhibit 20 lists the major employers in the Clinton County area by number of employees. This list shows the importance of manufacturing to the community.

### Exhibit 19 : Clinton County Employment by Sector

Industry	Year														
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
<b>Farm</b>	2,334	2,241	2,163	2,273	2,161	2,066	2,028	1,921	1,905	1,927	1,854	1,749	1,735	1,655	1,696
<b>Agric Services</b>	128	140	133	160	163	164	169	191	167	171	219	(D)	200	229	246
<b>Mining</b>	36	24	16	13	15	24	34	44	24	29	81	(D)	73	60	67
<b>Construction</b>	2,040	1,587	1,392	1,098	1,087	1,139	1,189	1,153	1,419	1,444	1,525	1,590	1,663	1,532	1,406
<b>Manufacturing</b>	6,790	6,561	5,697	5,117	4,805	4,281	4,194	4,314	4,590	4,715	4,811	5,085	5,248	5,442	5,540
<b>Transportation,</b>															
<b>Communications &amp;</b>															
<b>Public Utilities</b>	1,646	1,614	1,426	1,289	1,293	1,252	1,202	1,185	1,188	1,182	1,167	1,211	1,205	1,243	1,342
<b>Wholesale Trade</b>	1,166	956	887	849	872	861	834	797	802	914	810	885	923	916	881
<b>Retail Trade</b>	4881	4,840	4,606	4,441	4,531	4,473	4,316	4,245	4,344	4,349	4,485	4,442	4,440	4,418	4,499
<b>Finance, Insurance and</b>															
<b>Real Estate</b>	1,584	1,511	1,430	1,376	1,368	1,365	1,357	1,328	1,330	1,322	1,334	1,344	1,252	1,271	1,286
<b>Services</b>	5,955	5,907	6,058	6,305	6,444	6,382	6,510	6,752	6,936	7,178	7,380	7,646	7,905	7,798	7,891
<b>Government</b>	2,753	2,653	2,629	2,592	2,635	2,714	2,753	2,729	2,801	2,807	2,883	2,796	2,643	2,703	2,490
<b>TOTAL</b>	<b>29,313</b>	<b>28,034</b>	<b>26,437</b>	<b>25,513</b>	<b>25,374</b>	<b>24,721</b>	<b>24,586</b>	<b>24,659</b>	<b>25,506</b>	<b>26,038</b>	<b>23,585</b>	<b>24,114</b>	<b>24,356</b>	<b>24,407</b>	<b>24,454</b>

### Percent of Total Employment

Industry	Year														
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
<b>Farm</b>	7.96%	7.99%	8.18%	8.91%	8.52%	8.36%	8.25%	7.79%	7.47%	7.40%	7.86%	7.25%	7.12%	6.78%	6.94%
<b>Agric Services</b>	0.44%	0.50%	0.50%	0.63%	0.64%	0.66%	0.69%	0.77%	0.65%	0.66%	0.93%	(D)	0.82%	0.94%	1.01%
<b>Mining</b>	0.12%	0.09%	0.06%	0.05%	0.06%	0.10%	0.14%	0.18%	0.09%	0.11%	0.34%	(D)	0.30%	0.25%	0.27%
<b>Construction</b>	6.96%	5.66%	5.27%	4.30%	4.28%	4.61%	4.84%	4.68%	5.56%	5.55%	6.47%	6.59%	6.83%	6.28%	5.75%
<b>Manufacturing</b>	23.16%	23.40%	21.55%	20.06%	18.94%	17.32%	17.06%	17.49%	18.00%	18.11%	20.40%	21.09%	21.55%	22.30%	22.65%
<b>Transportation,</b>															
<b>Communications &amp;</b>															
<b>Public Utilities</b>	5.62%	5.76%	5.39%	5.05%	5.10%	5.06%	4.89%	4.81%	4.66%	4.54%	4.95%	5.02%	4.95%	5.09%	5.49%
<b>Wholesale Trade</b>	3.98%	3.41%	3.36%	3.33%	3.44%	3.48%	3.39%	3.23%	3.14%	3.51%	3.43%	3.67%	3.79%	3.75%	3.60%
<b>Retail Trade</b>	16.65%	17.26%	17.42%	17.41%	17.86%	18.09%	17.55%	17.21%	17.03%	16.70%	19.02%	18.42%	18.23%	18.10%	18.40%
<b>Finance, Insurance and</b>															
<b>Real Estate</b>	5.40%	5.39%	5.41%	5.39%	5.39%	5.52%	5.52%	5.39%	5.21%	5.08%	5.66%	5.57%	5.14%	5.21%	5.26%
<b>Services</b>	20.32%	5.39%	5.41%	5.39%	5.39%	5.52%	5.52%	5.39%	5.21%	5.08%	5.66%	5.57%	5.14%	5.21%	5.26%
<b>Government</b>	9.39%	21.07%	22.91%	24.71%	25.40%	25.82%	26.48%	27.38%	27.19%	27.57%	31.29%	31.71%	32.46%	31.95%	32.27%
<b>TOTAL</b>	<b>88%</b>	<b>84%</b>	<b>83%</b>	<b>82%</b>	<b>82%</b>	<b>82%</b>	<b>82%</b>	<b>82%</b>	<b>83%</b>	<b>83%</b>	<b>93%</b>	<b>94%</b>	<b>94%</b>	<b>94%</b>	<b>95%</b>

Source: U.S. Bureau of Economic Analysis (27481/7d01)



**Exhibit 20: Major Employers in Clinton County**

Name	Employees	Product/Service
International Paper Co.	774	Folding Cartons
Custom-Pak, Inc.	686	Plastic Containers
ADM-Clinton	560	Corn Milling
Quantum-USI Div.	474	Polyethylene Resins
E.I. DuPont deNemours Co.	385	Clysar Polyolefin
Guardian Glass	280	Glass Production
Ralston Purina Co.	228	Pet Foods
Collis, Inc.	225	Wire Products
Lamson & Sessions Co.	200	Plastic Electrical Fittings
IPSCO Steel	200	Seamless Steel Pipe
Waldorf Corporation	158	Cartons for Packaging
Champion Int'l Corporation	153	Gable Top Paperboard Cartons
Data Dimensions	150	Data Entry/Data Scanning
Arcadion Corporation	115	Nitrogen Chemicals
Rose's Wood Products	74	Bedroom Furniture

Source: Iowa Department of Economic Development 1996

While farming remains important to the County, Exhibit 21 illustrates, that the number of individuals farming has declined. Approximately half as many persons farmed in 1990 as did in 1970 in the County. In 1990, farmers only made up less than eight percent of the total population of Clinton County. Since 1978, the number of farms has also declined while the average size of the farms has increased. Exhibit 22 shows these trends as well as the fact that 13 percent fewer acres were farmed in 1992 than in 1978.

**Exhibit 21: Clinton County Farm Population**

Year	Persons	% of Total Population
1970	7,652	13.5%
1980	5,896	10.3%
1990	3,866	7.6%

Source: U.S. Bureau of the Census



**Exhibit 22: Number and Size of Farms in Clinton County**

<b>Year</b>	<b>Number of Farms</b>	<b>Average Size of Farm (acres)</b>	<b>Total Acreage</b>
1978	1,655	256	423,680
1982	1,570	254	398,062
1987	1,437	262	376,952
1992	1,362	270	368,114

*Source: U.S. Bureau of the Census*

# LAND USE & GROWTH COORDINATION

## Overview

New growth brings new challenges to Clinton County. This chapter identifies key issues, establishes the County's land use and growth coordination goals and describes how these goals will be achieved. In addition to establishing a future land use plan that provides abundant opportunity for projected growth, this chapter outlines the County's policies and strategies to ensure that the quality of life is maintained or enhanced for the County's existing and future residents.

The land use and growth coordination chapter establishes a framework for the remaining chapters in this Master Plan. Public facility and resource conservation needs arise from the type, intensity and location of development. Consequently, the recommendations of this chapter are closely related to the recommendations of subsequent chapters. By carrying out the recommendations of this chapter, Clinton will help create a County that offers more opportunities for its residents and fosters community participation and pride.

## Key Issues

**Controlling Urban Sprawl** - Residents are concerned that urban and suburban development (particularly residential development) is beginning to spread out over the County. Key concerns about sprawl are the potential service implications and the loss of valuable agricultural land. Sprawl development consumes agricultural land and increases the area of conflict between agricultural uses and residential development. The County's Growth Management Plan needs to provide better guidance for the timing and intensity of land use and development decisions.

**Maintaining Rural Character** - Outside the City of Clinton, the County has a rural atmosphere. Even the other communities in the County have a small town character that reflects the predominantly rural character of the unincorporated areas. This character, which is important to the area's quality of life, is perceived to be threatened by suburban development in some parts of the County.

**Providing More Job Opportunities** - While unemployment is very low in Clinton County, there is concern that a lack of stable, higher wage jobs is resulting in a loss of talented younger citizens. Lower wage jobs and an increasingly transient labor force have a destabilizing effect on the County. While the agricultural sector will remain important, an increased supply of high-wage, non-farm jobs is desirable.

**Encouraging Growth of Small Communities** - Clinton County has many smaller cities and unincorporated communities. Growth outside the Cities of Clinton, Camanche and DeWitt should be encouraged to locate in these communities where facilities and services are available. In communities where facilities are not adequate, the County should discourage growth until a means of providing adequate facilities has been adopted.

## Land Use and Growth Management Goals & Policies



**Goal 1.1: Achieve a balanced mix of land uses, arranged to avoid conflicts and maximize public service and facilities efficiencies.**

- Policy 1.1.1: Use the land use categories in Exhibit 23 for future land use planning. Each category may permit land uses and intensities from more than one zoning district. The "Uses" column lists examples and should not be considered all-inclusive. Intensities establish the maximum gross density for each residential land use category. Residential densities are expressed in dwelling units ("du's") per gross acre of a project, including streets and other dedications areas.
- Policy 1.1.2: Use the Future Land Use Map in Exhibit 24 to guide land use and development decisions. The map illustrates the distribution and type of future land uses. Zoning decisions should be consistent with the adopted Future Land Use Map and the other policies of this plan. While the map may indicate that an urban or suburban density is appropriate, the County should consider the adequacy of infrastructure before granting urban or suburban intensity zoning.
- Policy 1.1.3: Maintain an official Future Land Use Map that is updated to include plan amendments as they occur.
- Policy 1.1.4: Allow, through the development regulations, the development of up to one single-family dwelling on any lot or parcel that was legally created prior to the adoption of this Plan.
- Policy 1.1.5: Allow the establishment of higher density development than specified in Exhibits 23 and 24 through the planned development process, provided that planned developments have adequate public facilities.
- Policy 1.1.6: When establishing subdivisions, base minimum lot sizes and densities on net acres, after the deduction of areas within floodplains, slopes greater than 30 percent and wetlands.





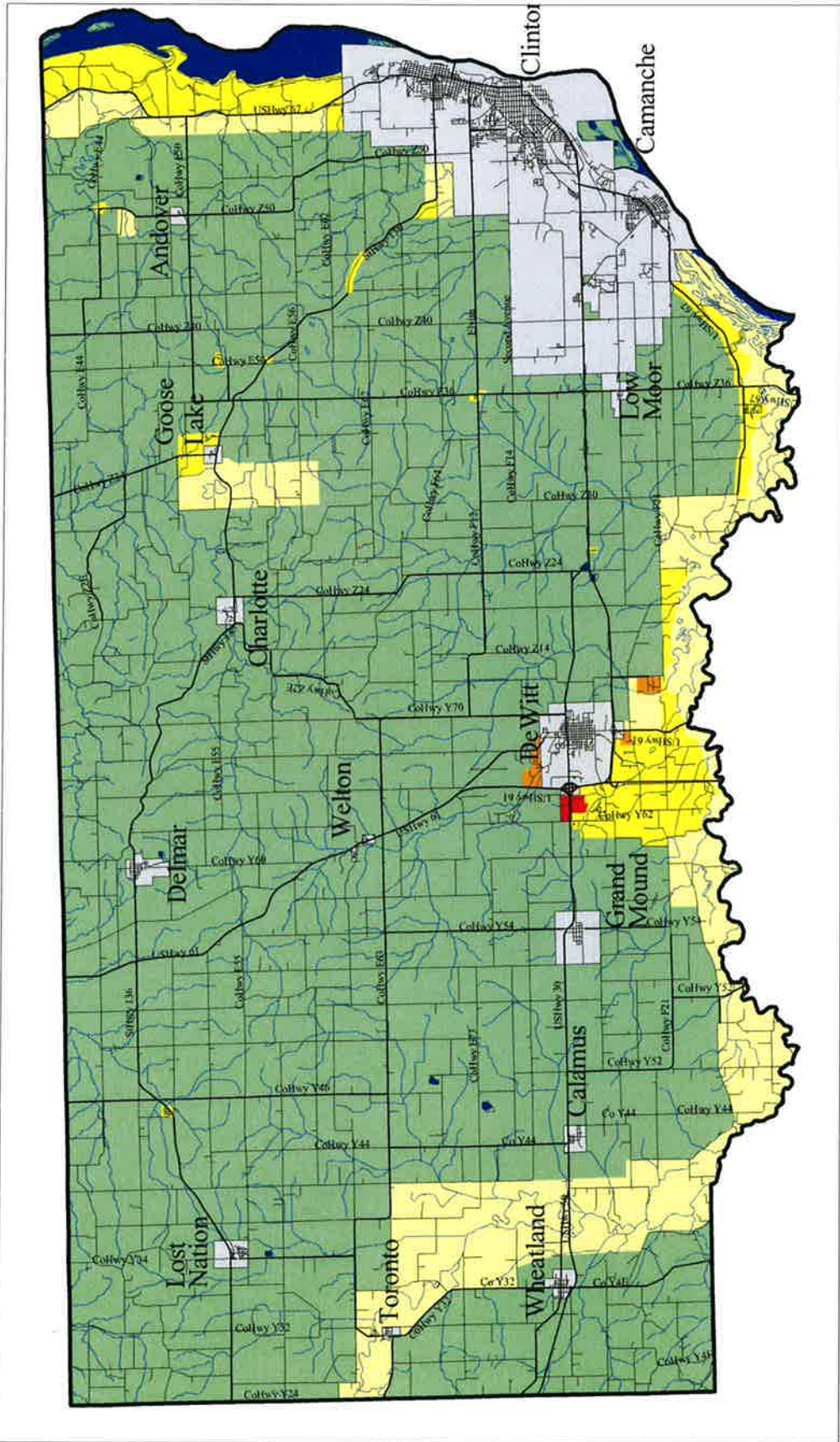
**Exhibit 23: Future Land Use Categories**

Land Use	Maximum Density* & Size Restrictions	Uses
Agriculture	1 du / 40 acres	Identifies agricultural land to be protected from encroachment and conversion to urban uses. Up to one 2-acre non-farm parcel may be created per 40 acres, provided the balance of the property is formally dedicated** to agricultural use.
Rural	1 du / 5 acres	Large lot single-family residences with access to adequate water and street improvements. Sub-urban or urban residential densities may be allowed through the planned development process if all improvements are provided as required for those land use categories.
Sub-Urban Residential	1 du / 2 acres	Single family units with allowable density based on the availability of public services.
Urban Residential	4 du / acre	Single family units connected to centralized water and wastewater systems. This category is limited to areas with access to centralized water and wastewater systems.
Rural Support Services***	Maximum 5 acre district size	Limited commercial uses serving the needs of rural residents. Located only within ¼-mile of the intersection of two paved streets. Uses include small retail, agricultural support operations and neighborhood services.
Highway Commercial***	Maximum 10 acre district size	Commercial retail, hospitality and highway services uses located within ½-mile of the intersection of a state highway and a paved roadway.
Employment***	NA	Industrial, light manufacturing and wholesale services, where compatible with surrounding land uses and infrastructure.

\* Densities may be increased through the planned development process.

\*\* Formal dedication shall be defined through the development regulations to include agricultural easements or any other restriction of non-agricultural development to which the County is a party.

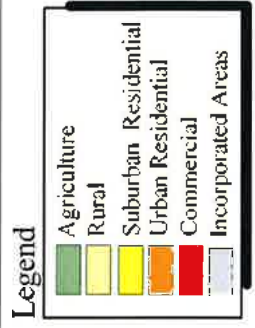
\*\*\* Compatibility standards must be adopted through the development regulations to ensure that business types, traffic generation and hours of operation are compatible with surrounding uses and infrastructure.



**Exhibit 24: Future Land Use  
Clinton County, Iowa**



Source: Clinton County





**Goal 1.2: To grow in areas that can be served efficiently by existing or planned infrastructure.**

Policy 1.2.1: Ensure that development complies with the infrastructure standards provided in Exhibit 25 before rezoning property or amending the land use plan. Infrastructure shall be considered available if it is constructed and available for access, privately funded and guaranteed through an appropriate surety instrument, or publicly funded for construction within two years. A “✓” indicates that the facility or improvement is required as a condition of development.

*Note that further discussion of infrastructure improvement requirements is provided in the Transportation and Community Facilities elements.*

Policy 1.2.2: While Clinton County encourages non-farm development to locate within cities, more intensive development of designated agricultural and rural areas may be appropriate subject to the following conditions:

- a. marginal or poor agricultural land that is not environmentally sensitive;
- b. access to adequately constructed, paved roads;
- c. public and/or private facilities and services are present or planned, including water and/or sanitary sewer systems;
- d. employment centers and commercial areas are nearby;
- e. where it is least disruptive of existing agricultural activities;
- f. the development is sufficiently buffered from less intensive land uses and farm operations;
- g. there is a demonstrated demand for such development; and
- h. development is located and designed to make efficient use of energy resources, public facilities and services, and land resources.

Policy 1.2.3: Require a Future Land Use Map amendment in conjunction with the rezoning and subdivision of property to develop at densities that exceed those shown in the Future Land Use Map. Rezoning and plan amendment may occur concurrently.



**Exhibit 25: Public Improvement Requirements**

Facilities/ Improvements	Future Land Use						
	Ag.	Rural Res.	Sub. Res.	Urb. Res.	Rur. Supt.	Hwy. Comm.	Emp.
Legal Access	✓	✓	✓	✓	✓	✓	✓
Grants of Rights-of-Way and Easements	✓	✓	✓	✓	✓	✓	✓
Paved Access							
Arterial		✓	✓	✓	✓	✓	✓
Collector Road				✓	✓	✓	✓
Local Road				✓	✓	✓	✓
Chip Scaled Access							
Arterial	✓						
Collector Road		✓	✓				
Local Road							
Gravel/Dirt Access							
Arterial							
Collector Road	✓						
Local Road	✓	✓ <sup>1</sup>	✓ <sup>1</sup>				
Curbs, Gutters & Sidewalks				✓ <sup>2</sup>			
Electricity	<sup>3</sup>	✓	✓	✓	✓	✓	✓
Wastewater							
Centralized Service				✓ <sup>4</sup>	✓ <sup>4</sup>	✓ <sup>4</sup>	✓ <sup>4</sup>
On-Site Systems	✓	✓	✓				
Water							
Centralized Service			✓ <sup>5</sup>	✓	✓ <sup>5</sup>	✓ <sup>5</sup>	✓ <sup>5</sup>
Individual Well	✓	✓					
Local Park & Rec. Facilities				✓ <sup>6</sup>			
Fire Protection							
Fire Flow <sup>7</sup>			✓	✓		✓	✓
2.5-Mile Radius				✓ <sup>8</sup>			



### Notes for Improvements Standards Matrix

- 1) Local roads need not be paved or chip-sealed unless the average daily trip counts on the roadway is projected to exceed 400 trips. For local streets projected to carry more than 400 vehicles per day at full development, the County will determine the most appropriate surface.
- 2) Requirements for these improvements may be waived by the County along local streets and where the minimum lot size is ½ acre or more.
- 3) Connection to public electric utility is required if service is available. However, alternative sources of power may be provided.
- 4) On-site disposal systems may be authorized by the County, provided centralized water service is provided and no wastewater facilities are located within 1,250 feet of the proposed development. If centralized water service is provided, the County may approve the use of on-site systems on lots of two or more acres.
- 5) Centralized service requirements may be waived by the County for developments with a minimum lot size of two (2) acres, provided the applicant demonstrates the availability of safe and adequate water for the proposed use.
- 6) Local parks are not required for any development with a minimum lot size of two (2) acres or more. The County's development regulations may provide for contribution of a fee-in-lieu of dedication applicable to small scale developments.
- 7) Where centralized systems are unavailable or inadequate to provide required fire flow, the applicant will be required to construct and dedicate a standpipe or other suitable water source for fire protection as approved by the County.
- 8) Proximity to a fire station may be increased to 10 miles, provided the minimum lot size is two (2) acres or more.

**Goal 1.3: To provide a variety of housing opportunities in the County in appropriate locations.**

Policy 1.3.1: Ensure that the Future Land Use Map provides adequate development potential for a variety of housing types required to meet the housing needs of present and future residents. When evaluating need, the County should consider the availability of housing within incorporated communities.

Policy 1.3.2: Locate residential development in platted subdivisions with adequate public facilities.

Policy 1.3.3: Limit residential development on lots smaller than 2 acres to areas with centralized water and/or wastewater systems and paved access. Such developments should occur through the planned development process to ensure that long term maintenance and operation of infrastructure will be provided.



Policy 1.3.4: Allow for the creation of urban density residential districts within rural or suburban residential areas through the establishment of planned development districts where urban services can be provided in accordance with Exhibit 25.

Policy 1.3.5: Limit residential development having a gross density greater than 4 units per acre to incorporated cities, which have land zoned for such use and the necessary public utilities and services.

**Goal 1.4: To ensure that appropriate commercial and industrial development occurs in unincorporated areas.**

Policy 1.4.1: Limit rural support services development within the rural areas to businesses providing for local retail, service and agricultural needs. Other than home occupations, such businesses should be located within ¼-mile of the intersections of two paved streets.

Policy 1.4.2: Direct commercial development serving regional commercial needs to existing cities having areas zoned and served for such development.

Policy 1.4.3: Allow existing industrial uses to be maintained, expanded, and/or redeveloped. Allow new industries to be sited in unincorporated areas under the following conditions:

- a. the area has access to paved arterial roads;
- b. adequate water and wastewater facilities are provided to serve the proposed industrial use, including provision of water for fire suppression;
- c. proposed development will not be incompatible with existing residential development;
- d. not more than 25 percent of the proposed development will consist of soils with a CSR of 60 or more.

Policy 1.4.4: Allow highway oriented businesses to locate in close proximity (within ½ mile) to the intersections of state highways with paved streets.

Policy 1.4.5: Support economic development efforts of Clinton, Camanche and DeWitt.

# TRANSPORTATION

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## Overview

The Transportation Element identifies key transportation issues facing the community and establishes goals, objectives, policies and strategies addressing those issues. As Clinton County seeks to meet the mobility needs of future residents, it will foster growth patterns that provide transportation choices that are affordable and accessible for all segments of the community. The street system should effectively serve the anticipated populations while being sensitive to the natural built environment.

System expansions must be within the fiscal means of the County and should provide the flexibility to evolve as needs and technology change. The location and design of new facilities should be compatibly integrated into the community fabric -- protecting the character of individual neighborhoods and the community as a whole. Transportation system planning is an ongoing process that should be flexible, comprehensive and open to public participation.

## Key Issues

**Enhancing Transportation Linkages** - By improving major transportation linkages (*e.g.*, upgrading Highway 30 to four lanes and enhancing rail service), Clinton County can capture a greater share of regional commerce. Transportation linkages within the County will become increasingly important to provide mobility for seniors. If DeWitt continues to generate employment without increasing affordable housing supplies, there is likely to be increased demand for transportation of lower income workers from the City of Clinton and rural areas.

**Maintaining Roadways** - Much of Clinton County's roadway system is unpaved. The County has found that rural roadways are more cost effective to maintain as unpaved surfaces if traffic remains below 400 vehicles per day. To limit capital and operational costs and their impacts, this Plan recommends that densities in agricultural areas be kept low enough to minimize the need to pave most of the street network.

**Establishing the Future Roadway Network** - The future roadway network established in this Plan identifies the approximate alignments and functional classifications of major roadways needed to serve planned development. The design of the future roadway network is a dynamic process -- planned roads must be adjusted to reflect approved development. Conversely, the County should assess the impacts of proposed development to ensure that it can be safely accommodated on the planned roadways system. Ongoing traffic monitoring and periodic system modeling will need to be conducted to identify needed roadway improvements and to adjust priorities for capital improvements. Exhibit 26 defines the functional classifications of streets recommended in this Plan.



**Exhibit 26: Functional Street Classes**

Street Classification	Function	Character of Street
Principal Arterial	Link communities and urban centers; carry high volumes of traffic at relatively high speeds.	Continuous traffic flow along paved streets; access tightly controlled; where required, traffic signals are times to maximize traffic volumes at design speeds.
Major Collector	Link important uses within the County to each other; carry moderate volumes of traffic at low speeds; collect the traffic from local streets.	Continuous paved roadway through a township; designed to carry traffic to arterial streets. Access from individual residential lots is limited, new rural, suburban and urban residential development will not provide direct access from individual lots smaller than 10 acres.
Minor Collector	Link local roads; carry low volumes of traffic at low speeds; collect traffic from local streets.	Continuous un-paved roadway through a township; designed to carry traffic to paved collector or arterial streets. Minor collectors will become major collectors when average daily traffic exceeds 400 vehicles per day. Access from individual residential lots is limited, new rural, suburban and urban residential development will not provide direct access from individual lots smaller than 10 acres
Local	Provide access to individual lots; carry low volumes of traffic at low speed.	Discontinuous; designed to discourage use by through traffic; stop signs at most intersections. Unpaved, except within urban density subdivisions.

**Transportation Goals & Policies**

**Goal 2.1: To maintain a transportation system that safely and efficiently meets the needs of residents and business.**

Policy 2.1.1: Design and construct all existing and proposed roads in accordance with **Exhibit 27**, the policies of this Plan and adopted improvement standards.

Policy 2.1.2: Maintain street design and construction standards based on the Functional Street Classification map in Exhibit 28. The map should be updated periodically to reflect changing traffic conditions.

Policy 2.1.3: Maintain a rural street system that minimizes long-term capital and operations costs, while providing safe and convenient access for rural residents and farmers.

Policy 2.1.4: Require new developments in the County to provide for the long-term maintenance of internal street systems unless they fall on a section line or on a designated collector or arterial road.



Policy 2.1.5: Allow the use of shared driveways for up to six residential lots, provided such shared driveways are built and maintained to provide adequate emergency access.

Policy 2.1.6 Prohibit subdivisions that eliminate or inhibit the development of access to adjacent parcels.

**Exhibit 27: Design Characteristics by Functional Street Classification**

Design Characteristic	Functional Street Classification			
	Principal Arterial	Major Collector	Minor Collector	Local
Traffic Lanes	2 to 4 12' lanes	2 to 4 11' lanes	2 11' lanes	2
Design Capacity (average vehicles per day)	based on configuration	<6,000	<400	<100
Minimum Right-of-Way* (feet)	100	66 to 80	66 to 80	60
Typical Speed Limit* (miles per hour)	35 to 65	30 to 55	25 to 45	25 to 45
Pavement Type	paved	paved	paved or gravel	gravel
Driveway Access	limited	limited, 300 ft. minimum separation	limited, 300 ft. minimum separation	unlimited

\* Right-of-way and speed limits depend on terrain, visibility, road alignment and adjacent development.

**Goal 2.2: To secure adequate rights-of-way and facility improvements to serve development and maintain acceptable levels of service.**

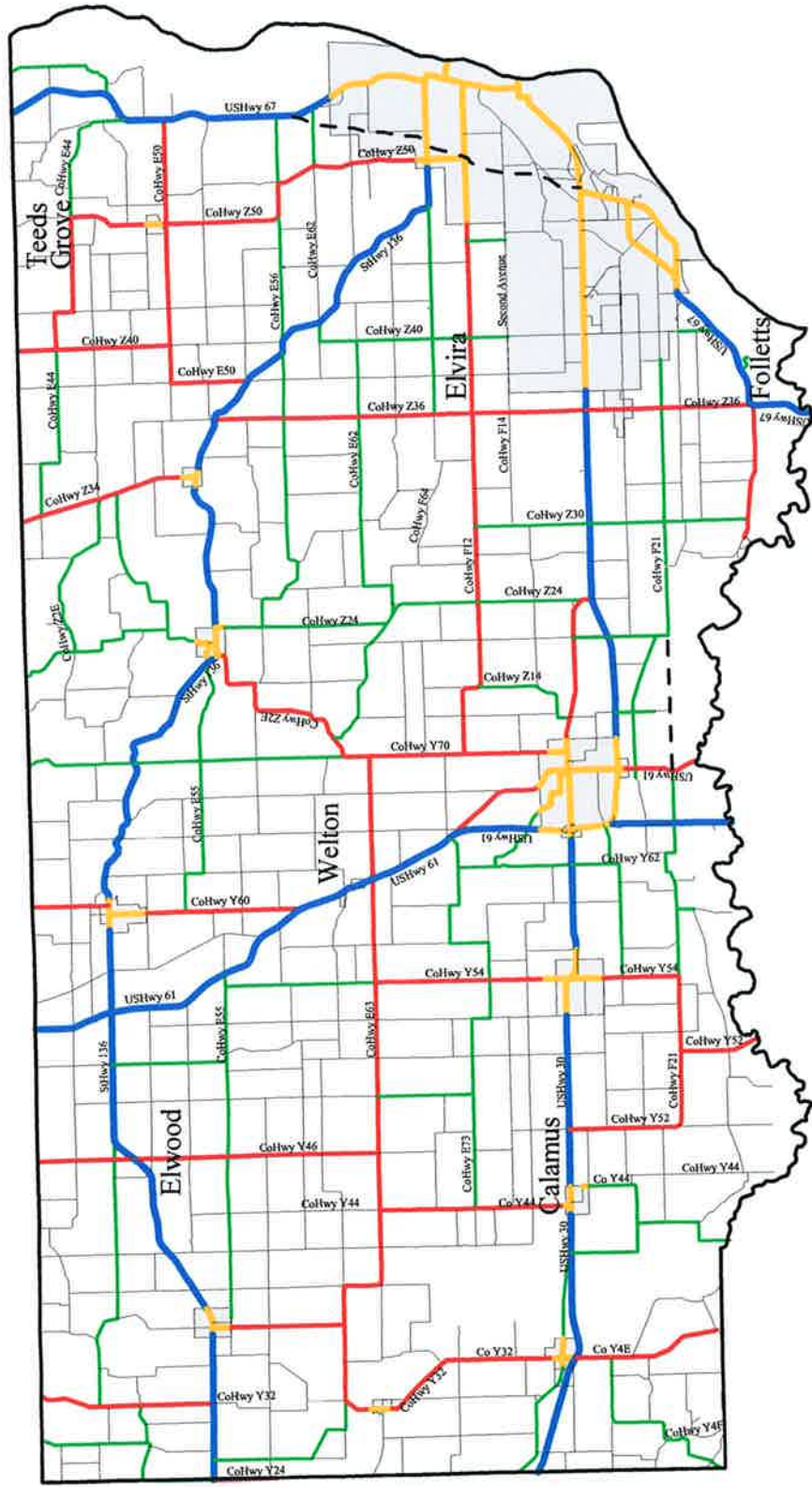
Policy 2.2.1: Ensure that safe and adequate roadway facilities are provided concurrently with new development.

Policy 2.2.2: Require dedication of rights-of-way and other access easements necessary for needed transportation facilities as identified in the Functional Street Classification map.

Policy 2.2.3: Require roadway improvements to be constructed to County standards as defined for each street classification.



- Policy 2.2.4: Limit development that would increase average daily traffic on a minor collector street to more than 400 vehicles per day. Such development should be allowed if the County has planned the upgrade of the street to a major collector within 5 years.
- Policy 2.2.5 Require secondary access for any development that takes primary access from a road projected to carry more than 200 vehicles per day.



Legend

- Minor Roads
- Minor Collectors
- Major Collectors
- Arterials
- Proposed Roads
- City Arterial

# Exhibit 28: Functional Road Classifications Clinton County, Iowa

8000 0 8000 Feet



Source: Clinton County

# **PUBLIC FACILITIES AND SERVICES**

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## **Overview**

Public services and facilities are both conveniences and necessities that ensure the health and safety of the County's residents. If, how and when these services and facilities are provided has a large influence on the character, quality of life and economic health of the County.

## **Key Issues**

**Maintaining Low Crime Rates** - While the County currently enjoys a very low crime rate, residents are becoming increasingly concerned about security. Workshop participants were particularly concerned about juvenile crime and recommended increased youth activities as an important means of reducing juvenile crime.

**Improving City/County Communication** - Clinton County should continue improving communication with cities and other agencies providing services within the County. Better communication can improve the public sector's efficiency in providing services.

**Maintaining Quality Educational Facilities** - Clinton County school districts provide high quality educational opportunities for local youths. As growth occurs, maintaining adequate capacity will challenge local districts. The County's plan should promote quality educational systems by coordinating development decisions with local school districts' abilities to transport students and provide adequate classroom capacity.

**Maintaining Adequate Funding and Adequate Facilities** - Increased suburban development in unincorporated areas has brought increased demand for road upgrades and other services (e.g., sheriff, parks, trails). The size of the County and the scattered nature of new growth constrain the County's ability to provide these services with available resources. The plan should establish target levels of services for different areas of the County and ensure that new development is consistent with the capacities of planned facilities.

## **Public Facilities and Services Goals & Policies**

**Goal 3.1: To provide public facilities and services at levels which support a desirable "quality of life" for current and future residents.**

Policy 3.1.1: Require new development to provide or contribute to funding necessary public facilities and services.

Policy 3.1.2: Provide facilities and services in locations compatible with planned uses, populations and needs.

Policy 3.1.3: Ensure that the County's public facility requirements promote urban development within the County's communities, rather than in rural areas.



**Goal 3.2: To implement the Plan through the coordinated and consistent actions of the County, cities and other service providers.**

Policy 3.2.1: Coordinate with the cities within Clinton County to promote consistent application of the Plan in unincorporated portions of the County.

Policy 3.2.2: Prohibit the provision of services to new development that is not consistent with the Plan and development regulations.

Policy 3.2.3: Coordinate street and drainage improvements projects with other service providers to meet the demands from planned development more efficiently. Prior to constructing improvements, ensure that needed utility improvements are coordinated so new pavement will not need to be disturbed for planned utility upgrades.

**Water and Wastewater Supply**

**Goal 3.3: To balance the demand for expanding urban development with the efficient provision of facilities and services.**

Policy 3.3.1: Require the development of centralized water service for all new development at all urban densities, as well as suburban densities where adequate groundwater is not available.

Policy 3.3.2: Facilitate the creation of rural water districts in developed areas experiencing water quality problems. Encourage non-farm residents to join rural water districts as soon as possible after district creation. Future development in the districts will be required to join as development takes place.

Policy 3.3.3: Require all urban density development to be connected to a centralized wastewater system. Where centralized water service is provided and soils provide adequate drainage and filtration, the County may approve the use of on-site wastewater systems for lots that are 1 acre or larger.

Policy 3.3.4: Facilitate the creation of rural sanitary sewer districts in developed areas experiencing septic system problems. The boundaries of such districts should be based, whenever possible, on existing watershed areas. Require non-farm development to join a sanitary sewer district as soon as possible after its creation.

Policy 3.3.5: Require new development to fund water and wastewater systems required to meet the needs of proposed development.



Policy 3.3.6: Require new development to over-size facilities to serve adjacent development when the adjacent development is expected to require service. Reimburse developers for constructing oversized facilities through appropriate fees or assessments on subsequent users.

**Goal 3.4: To ensure that water and storm drainage systems are adequate to meet basic and emergency needs of development.**

Policy 3.4.1: Require water supply and distribution systems for urban developments to meet existing and future domestic demands, as well as providing for adequate fire flow.

Policy 3.4.2: Require urban development to be designed so that stormwater runoff will not be increased from such development during any storm with a 4 percent or lower probability of occurring within any year (*e.g.*, the 25-year or greater storm).

#### **Parks and Recreation Facilities**

**Goal 3.5: To secure a system of public and private open spaces through the County that serves as a visual and recreational amenity.**

Policy 3.5.1: Evaluate the development of a regional park. Capital and operations costs should be funded through joint ventures with other public and private entities.

Policy 3.5.2: Retain non-farm lands with high aesthetic or environmental value (*e.g.*, ridgelines, steep slopes, flood plains, woodlands and wetlands) as public or private open space. Private open space areas may be held in conservation easements where appropriate. Public dedication or purchase should be required for key trail linkages and lands that are identified for inclusion in the County park system.

Policy 3.5.3: Require the dedication and development of private neighborhood park land for all urban development. Such parcels should provide a minimum of two acres of play area for residents. Maintenance of such facilities shall be provided by homeowners associations.

Policy 3.5.4: Coordinate with other recreational service providers to provide opportunities for all County residents to participate in indoor and outdoor recreational programs.



### **Emergency Services**

**Goal 3.6: To foster cost-effective services and facilities that enhance the lives of County residents.**

Policy 3.6.1: Promote coordination and cooperation among all law enforcement agencies.

Policy 3.6.2: Coordinate the design, location and construction of stand-pipes and fire hydrants with fire districts as needed to protect new development.

Policy 3.6.3: Support the provision of responsive, high-quality emergency medical services. Ensure that urban developments have adequate access to emergency medical services, particularly developments serving senior populations.

### **Educational Facilities**

**Goal 3.7: To maintain high quality school systems.**

Policy 3.7.1: Coordinate with appropriate school districts to ensure that proposed developments can be adequately served by existing schools and student transportation systems.

Policy 3.7.2: Encourage providers of education services to improve educational opportunities for all age groups.

# CONSERVATION AND RESOURCES

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## Overview

The quality of life valued by citizens of Clinton County derives in large part from the balance between the developed areas, prime agricultural land and open spaces. To ensure that this balance is maintained, this Plan identifies conservation policies that will provide for sustainable use and long term enjoyment of the County's natural resources. Without adequate direction, prime soils, groundwater sources and valuable open space lands may be lost.

## Key Issues

**Preserving Family Farms** - It is unclear whether the increasing size of farms is related to a loss of family farms, the increased capacity of farming equipment, or a combination of factors. However, many residents feel that the family owned and operated farm is an important element of the County's character that the County plan and policies should support. The advancing age of many of the County's farmers will inevitably lead to some transitions in operation and ownership. While the County is not involved in these transitions, it should ensure that land use policies and regulations do not hamper family farm operations.

**Protecting Woodland and Riverine Environments** - The Mississippi and Wapsipinicon Rivers provide distinct, yet equally valuable assets for County residents and visitors. Both offer opportunities for fishing, camping and hunting. The high bluffs and steep hillsides of the Mississippi also offer spectacular views, while the undeveloped stretches of the Wapsi evoke the unsettled wilderness. Both rivers are valuable for environmental and recreational purposes, providing habitat that attracts wildlife and the people who enjoy it. The County does not have the resources to secure significant natural areas along these rivers. Consequently, the County must balance private development interests with the public welfare, when evaluating the location, design and intensity of development in these river corridors

**Protecting Groundwater Resources** - While most areas of the County enjoy relatively easy access to safe and abundant groundwater, this resource is not immune from contamination. Wastewater systems and farm operations pose significant risks to groundwater quality. The County will continue to support best farm management practices to minimize the threats from farm chemicals. Managing wastewater treatment and disposal from residential development and animal confinement operations will require on-going vigilance on the part of the County and system users to protect the water on which rural residents will continue to rely.

**Protecting Air Quality** - Most of Clinton County enjoys high quality air. However, there have been historical tradeoffs between the desire for industrial/manufacturing jobs and air quality. As the County evaluates industrial proposals (including commercial animal confinement operations), it will need to consider the impact on the air quality for nearby residents.





**Providing for Appropriate Use of Mineral Resources** - The County has several areas that are appropriate for sand and gravel or limestone extraction. Access to these materials is needed to support growth and development. However, if excavation sites are not well managed, they can erode the value of adjacent properties. The County should continue to provide for mineral extraction, but ensure that operations are designed and managed to provide safe access, adequate roadways, dust control and buffering from adjacent development. Buffering should mitigate noise and visual impacts.

## **Conservation and Resources Goals & Policies**

### **Natural Environment**

**Goal 4.1: To sustain high quality air, water and land resources.**

Policy 4.1.1: Locate future development (other than bridges and low intensity recreational facilities) outside flood hazard areas where feasible. Where development is allowed in the floodplain, require it to be elevated, floodproofed and located outside the floodway.

Policy 4.1.2: Ensure that local flood management programs meet or exceed regulatory requirements of the Federal Emergency Management Agency, and applicable state regulations.

Policy 4.1.3: Design local flood management programs to preserve public and private options, while protecting life and property from stormwater runoff from the one-hundred year storm event under planned development conditions.

Policy 4.1.4: Stress retention of natural drainage patterns in flood control programs. On-site stormwater management strategies, such as flood easements, flood proofing and detention systems, should be used, where necessary, to protect the lives and property of residents and businesses.

Policy 4.1.5: Promote the use of best management practices among County farmers.

Policy 4.1.6: Require large animal confinement, manufacturing and mineral extraction facilities to mitigate water quality, noise, odor and traffic impacts of development.

Policy 4.1.7: Protect large animal confinement, manufacturing and mineral extraction facilities, whether developed or planned, from incompatible urban development.



**Goal 4.2: To protect sensitive natural resources, including floodplains, heavily forested areas, steep slopes, wetlands and other areas.**

Policy 4.2.1: Preserve natural features to the greatest extent practical through the design of all developments in unincorporated areas.

Policy 4.2.2: Protect environmentally valuable land, including forests, steep slopes, wetlands, stream banks and wildlife habitat areas, from inappropriate urban development. Where facilities are adequate to support urban development, encourage the clustering of residences to preserve larger expanses of open space.

Policy 4.2.3: Preserve scenic and historic areas through zoning and flexible design standards. Use the planned development process for all urban density developments.

Policy 4.2.4: Establish a system of accessible greenbelts along the Wapsipinicon and Mississippi Rivers, as well as their major tributaries. Provide for the development of a continuous trail system along these waterways. Some trail segments may be appropriate adjacent to the waterways, but separate trails that parallel the waterways should be considered based on their aesthetic value, safety and cost-effectiveness.

Policy 4.2.6: Coordinate with private property owners and other agencies to preserve environmentally sensitive areas in green belts (open spaces) for use as wildlife refuges and passive recreational areas.

**Agriculture**

**Goal 4.3: To preserve agricultural lands.**

Policy 4.3.1: Discourage development of productive agricultural soils for non-farm uses.

Policy 4.3.2: Recognize that normal agricultural and environmental nuisances come with rural living and minimize the impact of development in rural areas on agricultural operations.

Policy 4.3.3: Recognize agricultural land as a principal natural resource of the County, and preserve productive agricultural soils.

Policy 4.3.4: Preserve agricultural land designated on the Future Land Use map as agricultural, whether crop or pasture, having a corn suitability rating (CSR) in excess of sixty (60) on at least twenty-five percent (25%) of a site proposed for non-farm development.



**Corn Suitability Rating:** The corn suitability rating provides an index for ranking the suitability of soil for row-crop production in Iowa. Corn suitability ratings range from five (5) to one hundred (100), with one hundred (100) reserved for those soils: (a) located in areas of most favorable weather conditions for Iowa, (b) that have high yield potential, and (c) that can be continuously row-cropped. The corn suitability rating is based on the Soil Survey of Clinton County, Iowa and the Clinton County Soil Survey Report Supplement which lists the corn suitability rating for each soil type listed in the Soil Survey.

Policy 4.3.5: Ensure that large feedlots, farrowing pens, other confinement operations and poultry farms not associated with a farm are designed, constructed and operated to minimize negative impacts on the public health, safety and welfare. Require such operations to provide mitigation plans as a condition of approval.

Policy 4.3.6: Permit agricultural service related businesses and industries in unincorporated areas if compatible with adjacent uses, located on less productive soils (*e.g.*, CSR is less than 60) and located along a road that is adequate to support projected traffic demands.

Policy 4.3.7: Support educational and demonstration project that increase public awareness of the benefits of soil conservation

# IMPLEMENTATION

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## Overview

Clinton County's Master Plan is intended to be a dynamic document -- one that responds to changing needs and conditions. To assess the Plan's effectiveness in responding to changing conditions, the County will need to monitor actions affecting the Plan. As a result of these monitoring efforts or private development requests, the County will need to amend the Plan periodically. However, Plan amendments should not be made lightly. Supervisors and Planning Commission members should consider each proposed amendment carefully to determine whether or not it is consistent with the Plan's goals and policies. In addition, the cumulative effect of several minor changes may be a change in policy direction. For this reason, Master Plan amendments must be evaluated in terms of their significance to overall County policy.

This chapter describes the processes to annually review, monitor and amend the Plan and the Future Land Use Plan Map. The detailed amendment process will be incorporated into the County's development regulations.

## Annual Review & Monitoring

Prior to development of each budget, the Board of Supervisors should:

- ▶ measure the County's success in achieving plan goals through the recommended strategies of the Plan Implementation Program discussed at the end of this chapter;
- ▶ propose strategies to be pursued under the coming year's budget;
- ▶ identify unlisted strategies that will achieve Plan goals;
- ▶ evaluate growth trends and compare those trends to Plan projections; and
- ▶ summarize development actions which affect the Plan's provisions.

This annual review should include statements identifying the County's progress in achieving the goals of the Plan, the impact of the Plan on service provision, and proposed programs to help achieve the Plan's goals. The annual review should be used as a tool to help set budgetary priorities.

## Land Use Amendments

The Future Land Use Map is intended to serve as a guide for public and private development and land use decisions. The intent of this Master Plan is for the County to adopt a formal amendment process that will be codified in the County's development regulations. Land use amendments are anticipated as growth occurs and market conditions change. While land use amendments may occur more frequently than policy changes, they should not occur more than twice per year. By limiting opportunities to amend the future land use plan, the County will reduce the potential for incremental land use changes to result in unintended policy shifts.



## **Policy Review & Amendment**

To ensure that the Master Plan remains an effective guide for decision-makers, Clinton County should conduct periodic major evaluations of the plan goals and policies. These evaluations should be conducted every three to five years, depending on the rate of change in the community, and should consider the following:

- ▶ Progress in implementing the Plan;
- ▶ Changes in conditions that form the basis of the Plan;
- ▶ Fiscal conditions and the ability to finance public investments recommended by the Plan;
- ▶ Community support for the Plan's goals and policies; and
- ▶ Changes in State or federal laws that affect the County's tools for Plan implementation.

The major review process should encourage input from merchants, neighborhood groups, developers and other community interests through the Planning Commission. Plan amendments that appear appropriate as a result of this review would be processed according to the adopted Plan amendment process.

## **Relationship to Budget**

The annual budget is one of the most potent tools for plan implementation because it sets priorities for action each year. Capital and operational funding decisions should directly reflect the goals and policies of this Master Plan. The Plan should serve as the basis for the staff's recommended work programs and a focus for the Board's discussion of priorities from year to year. County staff should review the Plan goals and implementation programs and recommend appropriate strategies to achieve the Plan goals in a manner that is consistent with Plan policies.

If specific Plan recommendations are not funded, the Board should evaluate whether they should be omitted from the Plan. When there is a conflict between budget priorities and the goals and policies of this Plan, the Board should consider whether those goals or policies remain valid. If they are valid, then the Board should reevaluate budget priorities.

## **Capital Improvements Programming**

The County should maintain and regularly update long-range and five-year capital improvements programs (CIPs).

The long-range CIP is an important planning tool to ensure that the County has planned the most cost effective facilities and to determine whether the County will have the capability to fund needed public facilities. The long-range CIP should reflect the size, approximate location and estimated costs of improvements needed to serve anticipated growth for the next 15 to 20 years. This plan is not an engineering document, but should provide enough specificity to determine which costs are required to remedy existing deficiencies and which costs provide new capacity that will be demanded by new development. The long-range CIP should establish the basis for the County's development



fees. The long range CIP should be updated at least once every five years or when significant changes to the base systems modify the County's long term capital investment strategies (e.g., changes in service areas, significant changes in the Future Land Use Plan, changes in service demand or delivery patterns).

The five-year CIP should list short term projects needed to maintain existing levels of service, with each project being assigned a budget and a time frame for completion. The CIP also should delineate the proportion of project costs that is designed to provide new capacity and the proportion that is required to fund existing deficiencies. This delineation will enable the County to quantify the capital costs associated with new development and to monitor the expenditure of development fees. The five-year CIP should be updated annually to reflect the County's budgetary decisions.

## **Development Regulations**

On a day-to-day basis, the development regulations (zoning and subdivision regulations) are the most important tools for Plan implementation. The Future Land Use Plan and the growth related goals are achieved through a myriad of incremental decisions about specific development projects. Because the Master Plan does not carry the force of law, the County must carry out many of the Plan policies through its subdivision and zoning authority. Updates to these development regulations should be consistent with the Master Plan to ensure that incremental actions on development requests support the Plan's goals, policies and recommendations.

## **Plan Implementation Program**

The Master Plan requires on-going action to achieve its goals. Exhibit 29, the Plan Implementation Program, provides an initial listing of tasks required to carry out the goals and policies of the plan, which are listed in Chapters 5-12. This program should be updated on an annual basis to reflect County accomplishments and to incorporate new program proposals. The Plan Implementation Program is a tool for establishing budgetary priorities. Programs that are not funded in the recommended years should be evaluated for removal from the list or to be shifted back for later implementation. Programs that are completed should be removed from the list. The Plan Implementation Program is intended to be the most dynamic component of the plan. Through annual updates, the County can ensure that the plan continues to serve the community effectively.



**Exhibit 29: Plan Implementation Program**

<b>Item</b>	<b>Task</b>	<b>Strategy</b>	<b>Policy Reference</b>	<b>Schedule Years</b>
1	Update zoning districts to be consistent with Plan land use categories. Each land use category may accommodate more than one zoning district.	Dev. Regulation	1.1.1	1997-98
2	Rezone areas that are inconsistent with the Plan. Provide a window of opportunity for development under current zoning for projects in the "pipeline."	Rezoning	1.1.2	1998-99
3	After the rezoning process, update the Future Land Use Map to remedy inconsistencies with the zoning map. Note that smaller commercial and employment zones need not be reflected on the Future Land Use Map if they meet the locational criteria established in the plan.	Future Land Use Map Amendments	1.1.3	1999
4	Adopt provisions in the development regulations to allow some use of non-conforming lots.	Dev. Regulation	1.1.4	1997-98
5	Adopt improvement standards consistent with Exhibit 25.	Dev. Regulation	1.2.1, 1.3.2 - 1.3.5, & 3.1.2 - 3.1.3	1997-98
6	Adopt criteria for Plan amendments and for planned development at urban or suburban densities within planned agricultural and rural areas.	Dev. Regulation	1.2.2 - 1.2.3, 1.3.1	1997-98
7	Adopt criteria for rezoning to commercial and industrial districts that are consistent with Plan criteria.	Dev. Regulation	1.4.1 - 1.4.6	1997-98
8	Refine road improvement standards to be consistent with the Plan.	Dev. Regulation & Construction Stds.	2.1.1, 2.1.2 & 2.2.3	1997-98
9	Establish standards for private street maintenance and a standard improvements maintenance agreement assigning homeowners responsibility for internal street maintenance for internal subdivision streets.	Dev. Regulation & Improvements Agreement form	2.1.4 & 2.1.5	1998 - ongoing



Item	Task	Strategy	Policy Reference	Schedule Years
10	Adopt adequate public facilities requirements to ensure that adequate streets and rights-of-way are provided or guaranteed before demands from new development.	Dev. Regulation, CIP & Improvements Agreements	2.2.1 - 2.2.4	1998 - ongoing
11	Evaluate the adoption of development fees to cover capital costs for streets, parks and other public facilities.	CIP, Dedication Requirements & Dev. Fees	3.1.1	1999
12	Instruct County staff to review capital improvements programs from other service providers and to solicit comments on the County's CIP.	Inter-governmental coordination	3.2.1 & 3.2.3	ongoing
13	Require issuance of certificate of compliance prior connection of temporary or permanent electric service.	Certificate of Compliance	3.2.2	1999
14	Update water, wastewater and drainage improvements requirements to be consistent with the Plan.	Dev. Regulation	3.3.1, 3.3.3, 3.4.1, 3.4.2 4.1.2 - 4.1.4	1997-98
15	Help structure grants and provide legal assistance for the creation of water and wastewater improvement districts as needed. Pursue grants for upgrade of wastewater systems for Toronto and Elvira as the first and second priorities.	Improvement District Formation	3.3.2 & 3.3.4	ongoing
16	Continue discussions with the City of DeWitt for the extension of water and sewer service to perimeter subdivisions to the north, south and west.	Inter-governmental coordination	3.3.2 & 3.3.4	ongoing
17	Adopt funding and over-sizing policies for water and wastewater systems to be applied to all urban and selected suburban subdivisions.	Dev. Regulation	3.3.5 & 3.3.6	1997 - 98
18	Study the feasibility and public support for a regional park. The study should evaluate the location, size, types of improvements and funding mechanisms/ burdens preferred by County residents.	Regional Park Study	3.5.1	1999 - 2000
19	Adopt standards for reservation and/or dedication of environmentally sensitive areas for open space and trails purposes. Prior to adoption of a trails dedication requirement, adopt a trails plan as part of the master plan.	Dev. Regulation Trails Plan	3.5.2, 4.1.1	1997 - 98





<b>Item</b>	<b>Task</b>	<b>Strategy</b>	<b>Policy Reference</b>	<b>Schedule Years</b>
20	Adopt park dedication and improvement requirements for urban developments. Allow payment of a fee-in-lieu of dedication if the subdivision is located within one-quarter mile of an existing or planned recreational facility.	Dev. Regulation	3.5.3	1997 - 98
21	Participate in discussions with local communities, school districts and colleges to identify and secure opportunities for all County residents to participate in indoor and outdoor recreational facilities.	Inter-governmental coordination	3.5.4	Ongoing
22	Maintain mutual aid agreements with local communities and evaluate opportunities to improve the quality and cost effectiveness of public safety services.	Inter-governmental coordination	3.6.1	Ongoing
23	Coordinate with fire and emergency medical services to ensure that appropriate levels of services can be provided to all County residents.	Inter-governmental coordination	3.6.2 & 3.6.3	Ongoing
24	Provide school districts with the opportunity to comment on all major subdivision proposals.	Dev. Regulation	3.7.1	1997 - 98
25	Coordinate with school districts, colleges and other public and private agencies to identify needs and opportunities to enhance public education.	Inter-governmental coordination	3.7.1 & 3.7.2	Ongoing
26	Coordinate with local farmers, as well as appropriate state and federal agencies to promote education about best farm management practices that minimize the need for application of fertilizers, pesticides and herbicides.	Public Education	4.1.5 & 4.3.7	Ongoing
27	Establish environmental impact report requirements for animal confinement, manufacturing and mineral extraction operations in unincorporated areas	Dev. Regulation	4.1.6 & 4.3.5	1997 - 98
28	Ensure that zoning protects agricultural, manufacturing and extraction operations from development of incompatible adjacent uses.	Dev. Regulation	4.1.7	1997 - 98
29	Adopt buffering standards to ensure compatibility between adjacent land uses.	Dev. Regulation, Local right-to-farm provisions	4.1.6, 4.1.7, 4.3.2, 4.3.5	1997 - 98



<b>Item</b>	<b>Task</b>	<b>Strategy</b>	<b>Policy Reference</b>	<b>Schedule Years</b>
30	Strengthen agricultural preservation provisions of zoning and subdivision regulations through implementation of the agricultural land use category, buffering and continued protection of high CSR soils.	Dev. Regulation	4.3.2 - 4.3.6	1997 - 98
31	Consider adoption of a local right-to-farm ordinance.	Dev. Regulation	4.3.2 - 4.3.6	1998