



Jefferson County Official Master Plan

Prepared for:
Department of Land Use, Development and Code Enforcement
Jefferson County, Missouri

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INTRODUCTION

INTRODUCTION

The Jefferson County Official Master Plan was developed by the Department of Land Use, Development and Code Enforcement with assistance from the County Commission, County Planning & Zoning Commission, a professional planning consulting team, and the residents of Jefferson County, Missouri. The Official Master Plan was adopted by the County Commission on August 6, 2003. The Official Master Plan became effective with the adoption of the Unified Development Order on April 2, 2008. (Pursuant to the implementation of the Home Rule Charter of Jefferson County, the Department of Land Use, Development and Code Enforcement is now known as the Department of County Services and Code Enforcement and the functions of the County Commission are now preformed by the Jefferson County, Missouri, Council.) The Official Master Plan is created with the general purpose of guiding and accomplishing coordinated development of the county, which will, in accordance with existing and future needs, best promote the general welfare, as well as efficiency and economy in the process of development. As such, the Official Master Plan's policies, strategies, and recommendations are intended to be used as guides to decisions regarding land use, transportation and streets, economic development and public facilities.

It is the intent of this document to encourage and allow a full range of opportunities and living patterns throughout Jefferson County. Choice and diversity are critical to the creation and maintenance of a well-balanced and livable environment for our citizens. Coordinated growth is necessary for Jefferson County to continue to improve and enhance the quality of life of all of our residents. At the same time the uniqueness of Jefferson County is one of our greatest assets. We must strike a balance between the inevitable and necessary change of the County and the need to protect and preserve its native beauty and natural resources. The true strength of Jefferson County is our ability to accommodate many different parts and to mold them into a single community that celebrates its past, present, and future.

Legal Authority for Master Planning:

Jefferson County, Missouri, adopted the Official Master Plan under the authority of the Missouri Revised Statutes (RSMO 64.815)¹ to "... prepare an official master plan of the county for the

¹ Missouri Revised Statutes 64.815 also states, "The official master plan shall be developed so as to conserve the natural resources of the county, to insure efficient expenditure of public funds and to promote the health, safety, convenience, prosperity and general welfare of the inhabitants. The official master plan may include, among other things, studies and recommendations relative to the location, character and extent of highways, railroads, bus, streetcar and other transportation routes, bridges, public buildings, schools, parks, parkways, forests, wildlife refuges, dams, and projects affecting conservation of natural resources."

purpose of bringing about coordinated physical development in accordance with the present and future needs. . . .” Within the context of this authority, the Jefferson County Commission, upon recommendation of the County Planning & Zoning Commission “may adopt the official master plan in whole or in part and may subsequently amend or extend the adopted plan or portion thereof.” (RSMO 64.815).

Nature and Purpose of the Master Plan:

The general purpose of the Official Master Plan is to guide the county’s development so that it occurs in a coordinated, efficient, and effective manner. The Plan is, thus, an advisory document, and it is intended to be updated on a periodic basis and amended more frequently as conditions and/or community preferences change.

On a more specific level, the Jefferson County Official Master Plan is designed to guide the county’s day-to-day activities within the context of long-range future goals. Toward this end, the Official Master Plan:

- ***Has a long-range time frame:*** The term “long-range” refers to the intention that this plan provide for the future needs of the community insofar as it is possible to make reasonable projections and judgments. Although the plan is intended to be long-range, it is important that updates, every five years, be made to the plan to address the changing growth and development conditions in Jefferson County and improved knowledge from special studies.
- ***Is general and should remain general:*** The term “general” means that the Official Master Plan should not address issues in great detail, but instead, outline a desirable future by showing the general location, character and extent of physical development and the relationship of those elements.
- ***Focuses on the physical development of the county:*** Physical preservation and development issues are those involving the coordination of basic development elements of the built and natural environment, such as infrastructure, streets, land use, public facilities, topography, habitat, water resources, etc.

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- **Clearly relates identified issues and goals to proposed policies, strategies, and recommendations:** A plan can exhibit all of the characteristics listed above, but it will not be useful if the recommended actions contained in the plan do not directly address community goals and issues. These goals and issues will be determined later in this document, in Section III, Plan Foundation. The recommendations in the Jefferson County Official Master Plan are intended first and foremost to serve as a guide to decision-making and to provide continuity in addressing issues.

The Master Planning Process:

The participants involved in Jefferson County's planning process have followed a sequence of steps to develop this Official Master Plan. The planning process is made up of six steps and is ongoing in nature. These steps include:

- Issues identification
- Data gathering and analysis
- Goal Setting
- Formulation of alternatives
- Implementation
- Feedback / evaluation

A public participation process was used to guide the preparation of this Official Master Plan. As such, this process relied on the expertise of planners and staff, but also on the input of experts from a variety of fields, members of elected and appointed boards and commissions, representatives of various community interest groups and community residents at-large. The various groups were given several opportunities to participate in the process. Those opportunities included:

- Interviews with key Jefferson County personnel and leadership, developers and citizens.
- A targeted questionnaire distributed to a broad range of citizens, property owners, professionals and developers.
- A community meeting, open to the public, to gather information regarding issues currently facing Jefferson County and goals for the long-term development of the county.
- A community meeting, open to the public, to review and respond to future growth and

development pattern alternatives, prepared in response to information and input gathered.

- Public hearings, before the County Planning & Zoning Commission and the Jefferson County, Missouri, Council, during the adoption process.

In addition to the public input sought and received, a technical analysis of data by the planning team was completed to identify and confirm demographic, economic and social information and trends within the county.

An additional source of information was a previous planning effort that was conducted between 1998 and 2000, but it did not result in the adoption of an Official Master Plan. Over this two year planning period the county created a data book, conducted surveys and interviews, solicited broad citizen input through the "Envision Jefferson County" process, and formed a Official Master Plan Management Group to formulate strategies. The document produced by this previous effort was a basis for this planning effort by providing data analysis, as well as identification of issues, goals, objectives and implementation strategies.

The current planning effort advances the dialogue and tests the direction initiated by the county's previous efforts. Through renewed public outreach, issue and goal discussions, and additional analysis, the 2003 Official Master Plan offers a direction for future growth, as well as an implementation strategy for the vision of the county – "balanced preservation and growth."

Master Plan as a living document

Through land use ordinances, budgetary activities, and other legal and policy documents, the primary implementation tools for the Official Master Plan are put in place. As the community changes and priorities shift, the Official Master Plan and associated planning efforts will need to be adjusted. Thus, the planning process and the Official Master Plan are "living" or dynamic in nature. The intended use of the Official Master Plan is to ensure annual review and minor updates through continual maintenance of information, monitoring of community issues, and follow up on decisions made by the County Planning & Zoning Commission and Jefferson County, Missouri, Council. Thorough evaluations of the Plan should be scheduled on five-year intervals. Such an approach makes the Plan a viable instrument, which is flexible and adaptable to change.

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Plan Implementation as an ongoing activity

Implementation of the Official Master Plan, which begins with the adoption of the plan document, should be an ongoing, day-to-day process. The Plan, by itself, does not bring about change. It merely identifies issues, articulates goals and objectives, defines directions and provides information regarding the future consequences of present actions. Implementation of the Official Master Plan through zoning, subdivision and other regulatory means is directly connected to daily public and private decisions regarding the allocation of public and private resources and the need to coordinate the actions resulting from those decisions.

The final component of the continuous planning process is the acquisition and use of feedback from the community to evaluate the performance of the Official Master Plan and refine its recommendations. The utilization of feedback creates a Plan that is responsive to the needs of the community.

Plan Organization:

The Jefferson County Official Master Plan consists of five primary sections: I) Introduction, II) Existing Conditions, III) Plan Foundation, IV) Recommendations and V) Implementation.

- **Section I. Introduction:** The first section of the Official Master Plan provides a brief overview of the Plan as a process and introduces its purpose.
- **Section II. Existing Conditions:** The Official Master Plan's second section analyzes the various existing conditions (both regional and local) that affect the county's future development. This section addresses topics, such as population, economics, the natural environment, land use and development, land use regulations, major streets and transportation, educational facilities, and public services and utilities.
- **Section III. Plan Foundation:** The third section of the Official Master Plan identifies the strategic issues facing Jefferson County, and it also presents a series of general, long-range planning goals. These issues and goals are community based, meaning that they were derived from a public process. While the previous section of the Official Master Plan provides an analytical, rational framework for planning, this section presents the wants, needs, concerns, and desires of the community at the time the plan was developed.

In this section, growth and development pattern alternatives are presented and analyzed. These patterns illustrate different approaches to the manner in which the county will choose to physically grow and develop in the future. Each alternative was based on a survey of the best practices by other selected counties in the United States. Counties were selected for study based on their similarity to Jefferson County including their metropolitan location characteristics, population and population growth, employment by sector and other factors. The growth and development pattern alternatives were presented to the public for their review and comment. From this information and the public response, the recommendations and implementation strategies were prepared.

- **Section IV. Recommendations:** This is the most significant section of the Official Master Plan. It includes the recommended growth and development pattern (map and text) for Jefferson County. The growth and development recommendations present policies for planning elements, such as growth, development patterns, transportation, public facilities and services, and parks, recreation, and open space.
- **Section V. Implementation:** This section focuses on putting the Plan into action through implementation tools and specific tasks. The implementation tools are currently, or should be at the county's disposal for the implementation of the Official Master Plan, and they provide guidance for the future preservation and development of the county. An implementation matrix is presented that outlines the ongoing, short-term, medium-term and long-term strategies required to implement the recommendations of the Jefferson County Official Master Plan. It should be noted that this planning process does not necessarily create a one-to-one relationship among goals, objectives, recommendations and implementation strategies. Thus, each implementation strategy could respond to or satisfy one or more of the goals of the plan.

Jefferson County:

The Official Master Plan is a living document that should accommodate changes in development patterns and styles. As such, it is appropriate to review and update the Official Master Plan at regular intervals. In accordance with Section 3.4.2.31 of the Home Rule Charter of Jefferson County, Missouri, the County Council must from time to time review the long range plans to assure that they conform to the current policies and goals of the County. This review

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must occur before January 1, 2012 and thereafter not less frequently than once every five years.

Over the past decade, the county has experienced greater than 10 percent growth in population and is expected to continue this trend with population projected to increase 19 percent over the next 20 years. To balance growth and protect the natural and rural character of the county, a plan that responds to the current development climate is necessary. The new Jefferson County Official Master Plan is a performance and design based land use planning system that allows the county to make decisions based on desirable growth, development patterns and the design aspects of a particular development proposal. The Official Master Plan is structured to assist the county and its residents in achieving their goals.

EXISTING CONDITIONS

The Existing Conditions section consists of information regarding past and present county conditions in the form of descriptive text, statistics, analysis, and historical trends. The main focus of this section is regional context, demographics, economics and county features.

Regional Context:

Jefferson County is located in eastern Missouri, south of St. Louis County. Jefferson County borders the Mississippi River and is part of the St. Louis Metropolitan Statistical Area, as defined by the United States Census Bureau. Interstate 55 runs north/south through the county.

Once predominately rural, Jefferson County has experienced over 50 years of continual growth pressures from St. Louis and vicinity, located to the north. This growth has changed and influenced the character of the county, putting pressure on the existing land uses, natural resources and infrastructure.



Figure 1: Regional Context Map – St. Louis Region

Demographics:

The current changes to Jefferson County demographics are directly related to the growth and expansion of the St. Louis Metropolitan Area. Jefferson County is not alone in this respect; other counties throughout the country with similar proximity to major metropolitan areas are experiencing similar demographic changes, as they feel the effects of the metropolitan population moving to the suburbs.

Population

The population of Jefferson County has increased by almost 50% since 1980. This is much higher than the average 4% growth the St. Louis region has experienced during the same 30-year period. The decennial census conducted by the United States Census Bureau shows a double-digit percentage increase in population during each ten-year period since 1970. The most recent ten-year period, 2000-2010, indicates the county grew by 20,634 residents (10.4%). While the county did show growth over the past decade it was the lowest percentage of growth over the past three decades.

Table 1: Population of Jefferson County and the St. Louis MSA, 1980-2010

Area	1980	1990	2000	2010	% Chg 1980-2010	% Chg 2000-2010
Jefferson County	146,183	171,380	198,099	218,733	49.6%	10.4%
St. Louis MSA	2,503,549	2,580,897	2,698,687	2,812,896	12.3%	4.2%

Source: US Census Bureau

Table 2: Population by race, 2010

Total Population	218,733	100.0%
Race		
White	211,007	96.5%
African-American	1,798	0.8%
American Indian	677	0.3%
Asian	1,417	0.6%
Pacific Islander	49	0.0%
Other	836	0.4%
Two or more races	2,949	1.3%
Ethnic Group		
Hispanic	3,408	1.6%
Not Hispanic	215,325	98.4%

Source: US Census Bureau

Race and Ethnicity

According to the 2010 U.S. Census count, the vast majority (96.5%) of Jefferson County can be classified as White. The largest minority, African-American, accounts for 1,798 people or under 1%. The largest ethnic population, at nearly 2% of the total population, was Hispanic.

EXISTING CONDITIONS

DEMOGRAPHICS, ECONOMICS & FEATURES

Gender & Age

According to the 2010 U.S. Census, there are slightly more women, in Jefferson County, than men. This trend was also recorded through the 1980 U.S. Census counts.

Table 3: Population by gender, 1980 – 2010

	1980		1990		2000		2010	
	Male	Female	Male	Female	Male	Female	Male	Female
Count	72,827	73,356	85,034	86,346	98,490	99,609	108,846	109,887
Percentage	49.8%	50.2%	49.6%	50.4%	49.8%	50.2%	49.8%	50.2%

Source: US Census Bureau

Table 4: Population by age cohort, Jefferson County, 2010

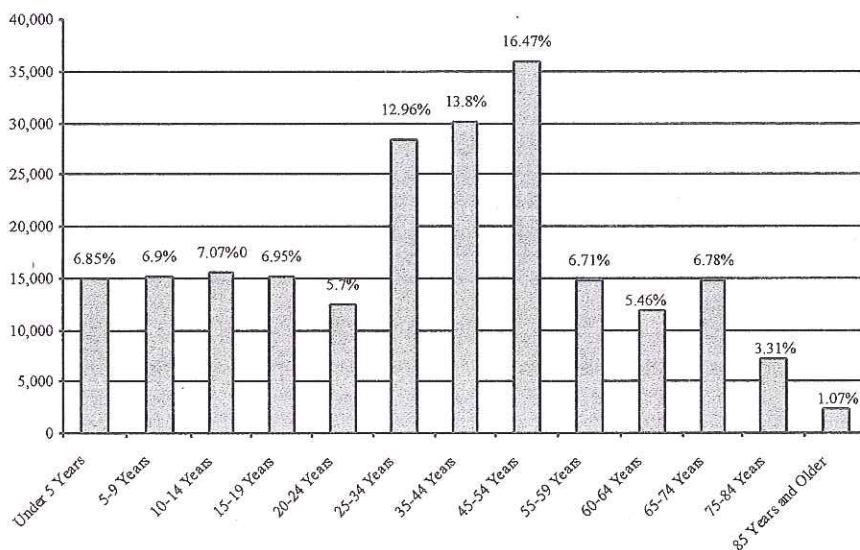
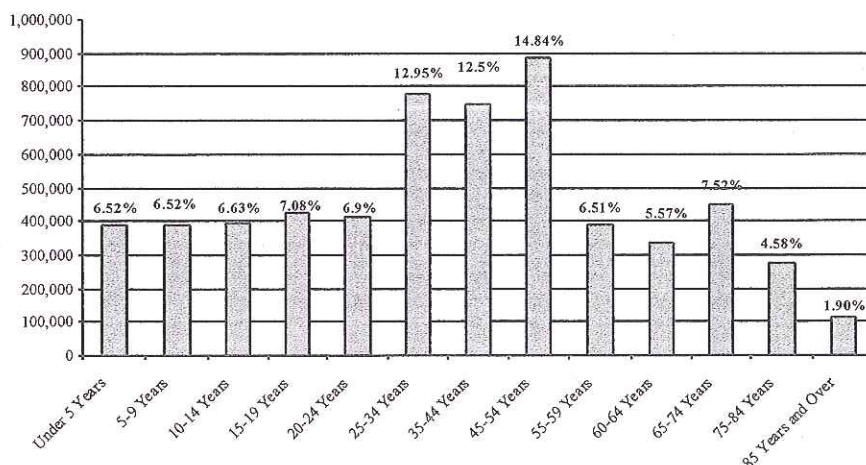


Table 5: Population by age cohort, Missouri, 2010



The age cohorts for Jefferson County show a younger population by percentage when compared to Missouri. Jefferson County has a slightly higher percentage of population in the age categories 0-14. Jefferson County also has a lower percentage in all of the age categories 60 years and above. The percentage of Jefferson County residents over 64 years of age is 11.16%, compared with 14.0% for Missouri. The median age increased from 34.9 in 2000 to 37.8 in Jefferson County. The State of Missouri also saw an increase in the median age from 36.1 in 2000 to 37.9 in 2010.

Population Projections

Similar to the past 30 years, the next 20 years are projected to see a continuation of the growth trend in Jefferson County. It is predicted that the county will see an increase in population to a population of approximately 245,400 in less than ten years. When compared to other counties in the region, Jefferson County falls in the middle -- with a lower growth rate than St. Charles County, but far larger growth rate than St. Louis County. It is evident from the statistical trends that Jefferson County will receive a significant portion of the region's growth.

Table 6: Population Projections, 2000-2030

Jurisdiction	2000	2010	2015	2020	2025	2030	%change from 2000 to 2030
St. Louis	1,016,315	1,021,800	1,020,900	1,016,200	1,008,700	1,004,200	-1.19
St. Charles	283,883	344,700	364,800	385,000	397,200	408,000	45.72
St. Louis City	348,189	310,000	314,500	317,400	323,100	327,400	-5.97
Madison	258,941	271,500	278,600	285,900	293,100	300,300	15.97
St. Clair	256,082	265,800	270,600	274,300	279,600	284,100	10.94
Jefferson	198,099	224,700	233,600	245,400	255,500	263,800	33.17
Franklin	93,807	106,900	116,800	125,500	135,000	144,400	53.93
Monroe	27,619	32,400	34,200	35,500	36,900	38,300	38.67
Total	2,482,935	2,577,800	2,634,000	2,685,200	2,729,100	2,770,500	11.58

Source: East-West Gateway Council of Governments

Housing

The number of households has been on the rise. Between 1980 and 2010, Jefferson County had an increase of 34,576 households, or over 70%. However, in the same 30 years, the average household size has steadily declined. In 1980, the average household size was 3.08 persons per household. The 2010 U.S. Census recorded an average household size of 2.65 persons per household.

Table 7: Jefferson County housing statistics, 2010

	Total Households	Ave HH Size	Total Housing Units	Occupied			Vacant
				Occupied	Owner Occ	Renter Occ	
1980	47,124	3.08	49,984	47,167	39,364	7,803	2,787
1990	59,137	2.87	63,423	59,199	48,086	11,113	4,224
2000	71,567	2.74	75,586	71,499	59,615	11,884	4,087
2010	81,700	2.65	87,626	81,700	66,836	14,864	5,926

Source: US Census Bureau

Table 8: Jefferson County housing units; 2011

Year Built	Number	Percent
1939 or earlier	2,992	3.4%
1940 - 1959	11,269	12.8%
1960 - 1969	9,263	10.5%
1970 - 1979	16,619	18.9%
1980 - 1989	11,792	13.4%
1990 - 1999	17,301	19.7%
2000 - 2004	10,065	11.4%
2005 or later	8,644	9.8%

Source: US Census Bureau - 2011 ACS 1-Year Estimates

county than in 2000.

The housing stock of Jefferson County is relatively new. Nearly seventy-five percent of the housing units in the county, 64,421 units, have been built since 1970. Jefferson County saw a major increase in housing since 1990, with 40.9% of the housing stock existing of houses built over the last 20 years. Jefferson County is estimated to have 87,945 total housing units as of 2011, with an occupancy rate of 93.5%. However, owner occupied housing has decreased from 84% in 2000 to an estimated 81% in 2011, meaning there are more rental homes available in the

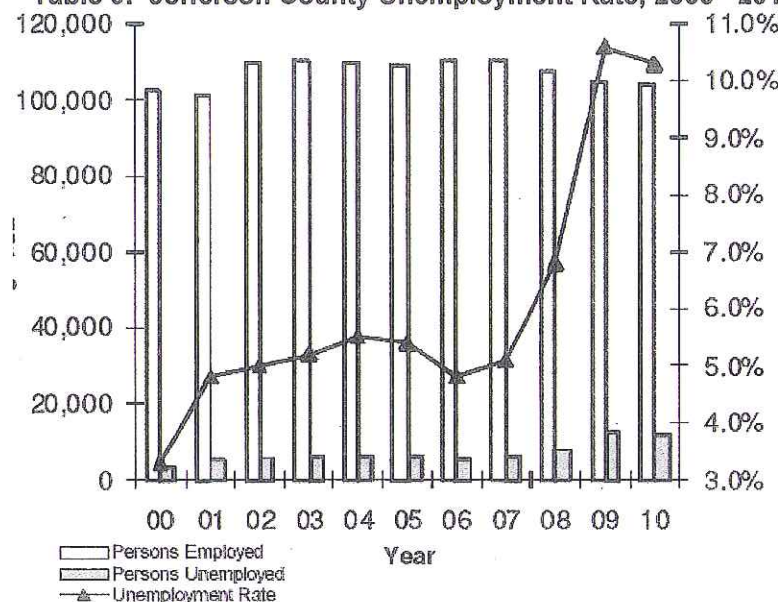
Economics:

Jefferson County has experienced a growing labor force, increased employment opportunities and lower unemployment rates over the last ten years. Many of the employment sectors have experienced growth. These trends have led to an improved economy within the County. The economic data contain features common to a county at the edge of a large metropolitan region.

Labor Force

In 2010, Jefferson County had a labor force of 116,155 people and an unemployment rate over 10%. While the 2010 work force still exceeded the 2000 work force numbers by approximately 10,000 people, the 2010 work force number was the lowest since 2001. More importantly the

Table 9: Jefferson County Unemployment Rate, 2000 - 2010



Source: Missouri Department of Economic Development – Labor Market Information & US Department of Labor – Bureau of Labor Statistics

unemployment rate from a decade low in 2000 (3.2%) to a decade high in 2009 (10.6%) and remained at over 10% in 2010 (10.3%). The Jefferson County 2010 unemployment rate was slightly worse than the Missouri and United States unemployment rate of 9.6%. The decrease in the unemployment numbers during the early 2000s in Jefferson County, and the continued suburban growth of the St. Louis metropolitan area, might suggest

that the employment opportunities have increased significantly over the past decade within Jefferson County. However, the market crash of 2008 has greatly affected the job market and labor force of Jefferson County. Table 10 details the employment of Jefferson County by industry.

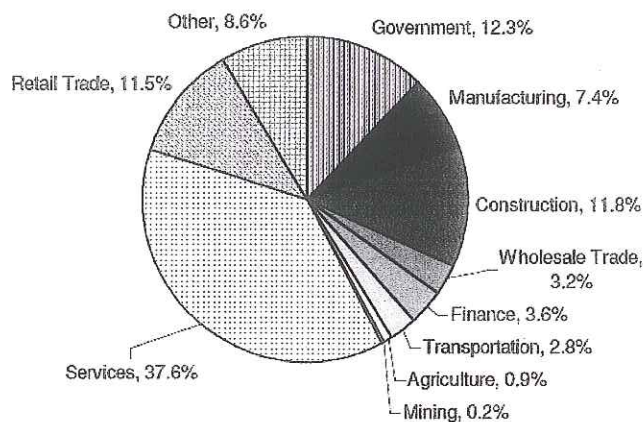
EXISTING CONDITIONS

DEMOGRAPHICS, ECONOMICS & FEATURES

Employment

Employment in Jefferson County is somewhat diverse. The retail and service sector is the largest employer in Jefferson County with over 49% of the population. Manufacturing within Jefferson County accounts for 7.4% of the existing employment, which has decreased from 18.08% of the total employment in 1970. This is directly in line with the national trend of a shrinking manufacturing sector during the past ten years. Other sectors that are over 10% of

Table 10: Jefferson County Employment, 2007



Source: US Census Bureau

the job market are government (12.3%); construction (11.8%); and retail trade (11.5%). The employment percentage for the "Ag, forestry, fish, hunt and mining" industries is representative of Missouri as a state; however, it is lower than the United States as a whole. This is unexpected in view of the amount of rural land that is present in the county and the state. In terms of agricultural industry, the varying and often rugged terrain within Jefferson County and many parts of the state could explain the small amount of employment in the agricultural sector.

Income

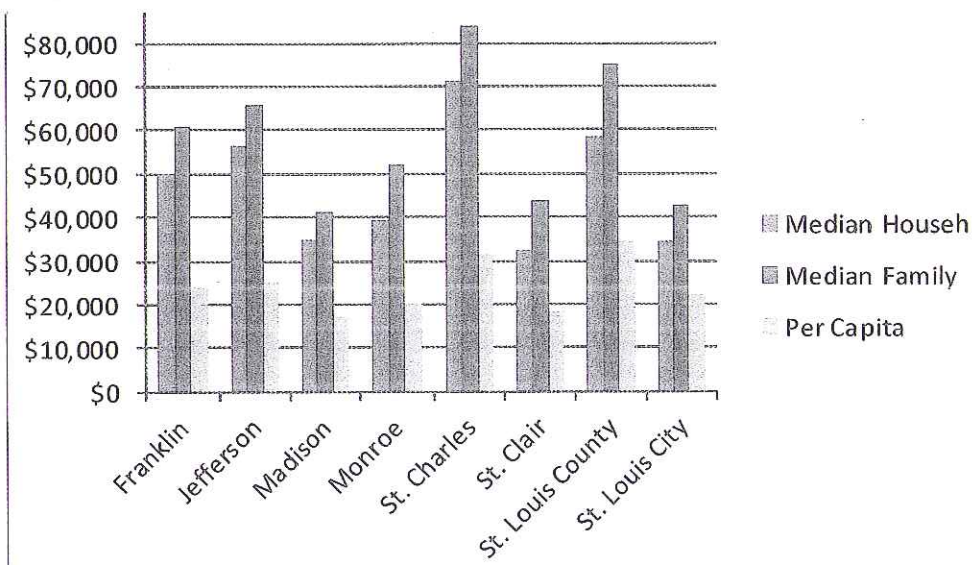
The median household income for Jefferson County residents, according to the 2007-2011 American Community Survey (5-year estimate) was \$56,400. This figure was slightly higher than the median household income for the entire St. Louis Metropolitan Region (\$47,272), but was less than that for St. Charles County and St. Louis County (\$71,458; \$58,630 respectively).

The median family income for Jefferson County residents estimated in 2011 was \$65,950 and the per capita income was \$24,965. These figures exceed the \$58,171 median family and \$25,819 per capita income for the entire St. Louis Metropolitan Region. Jefferson County has seen an estimated \$5,279 increase in median family income while the St. Louis Metropolitan Region saw an estimated \$4,062 decrease in median family income. Jefferson County ranked third in the region in median family income, below St. Charles and St. Louis counties. Jefferson County has also seen an increase in per capita income, ranking 3rd in the region in 2011

estimates after being ranked 6th in the region in 2005. In 2011, 8.1% of Jefferson County families lived below the poverty level, a 2.8% increase from 2005. Jefferson County was slightly lower than the 2011 poverty rate of 10.4% (only a 2.7% increase from 2005) of the families in the St. Louis Metropolitan Region, and 9.6% (only a 2.5% increase from 2005) of the families in the St. Louis Missouri Area (comprised of Jefferson, Franklin, St. Charles and St. Louis Counties, and St. Louis City). This comparison is skewed, however, by the high poverty rate in St. Louis City (21%). But still, Jefferson County has lower poverty rate than most counties in the region, except for Franklin County (8.1%), St. Charles County (3.4%) and St. Louis County (7.2%). These trends are evidence of the economic benefits that Jefferson County has in the past and is currently receiving, due to the shift in population to the suburbs of the metropolitan area.

As defined by the census, the median income level divides a population's income distribution into two equal groups, one having incomes above the median and the others having incomes below the median. Also, as defined by the census, a household includes all the people who

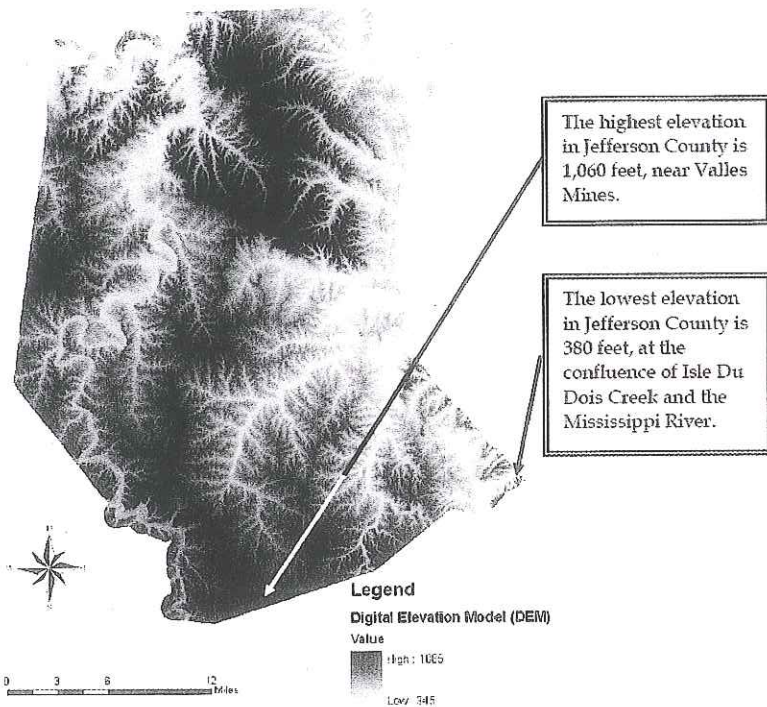
Table 11: Income Comparison of St. Louis Metropolitan Region, 2005



occupy a housing unit as their usual place of residence, and a family is defined as a group of two or more people who reside together that are related by birth, marriage, or adoption.

EXISTING CONDITIONS

DEMOGRAPHICS, ECONOMICS & FEATURES



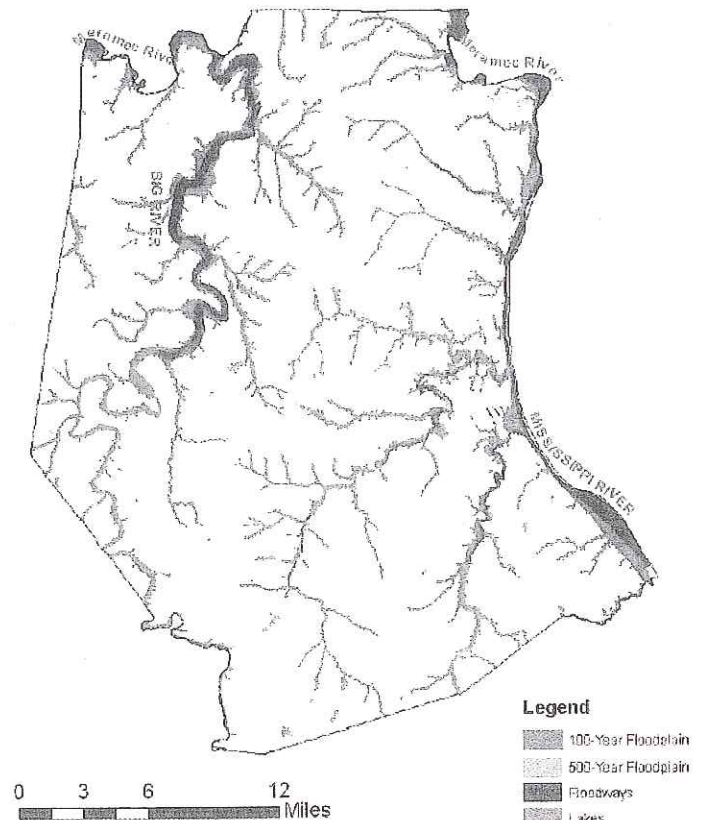
Jefferson County: Topographic Features

The three largest rivers in Jefferson County are the Mississippi River, Meramec River, and Big River. These waterways offer both commercial and recreational opportunities. There are many creeks and streams in Jefferson County that flow into these rivers.

A significant portion of the county is subject to flooding due to the amount of waterways. The largest and most destructive flooding potential is found along the three major rivers. (See the 2009 Jefferson County Data Book, p. 7- 9)

County Features:

Topography varies considerably throughout Jefferson County. Much of the county, however, can be classified as rugged. Large areas, with greater than 20 percent slopes, that exhibit narrow ridges and deep ravines, are common throughout northern and the southern portions of Jefferson County. The central one-third of the county consists of wider/flatter crests and shallower valleys.



Jefferson County: Waterways and Floodplains

Parks and Recreation

Currently, Jefferson County provides approximately 145 acres of parks and recreation space for public use. This is represented in 11 county parks that provide recreation services including hiking trails, passive recreation space, meeting rooms, fishing and boating opportunities. Based on the current Missouri Statewide Outdoor Recreation Plan, the provision of parks and recreation space is significantly low to serve the population of the county. Other park and recreation space is provided by the Missouri Department of Conservation, the Missouri Department of Natural Resources, private and quasi-public organizations, cities and school districts.

Road Network

A dominant feature that has a great impact on Jefferson County and all counties is the road network. On the eastern side of the county lies the primary north/south transportation route, Interstate 55. I-55 connects the St. Louis region to points north like Chicago and south to Memphis and New Orleans. Interstate 44 skirts the northwest corner of the county, connecting the region to areas south and west like Springfield, Missouri and Tulsa, Oklahoma. Internally Jefferson County is connected by a web of state and county roads. State Highways 61/67 and 21 are the primary north/south connectors. Highway 30 runs northeast/southwest through the northwest quadrant of the county. Highways M and MM provide a major east/west connection from I-55 to Highway 30, in the northern portion of the county. The county lacks major east/west connections south of the M-MM corridor. Narrow county roads provide indirect access in much of the southern portion of the county.

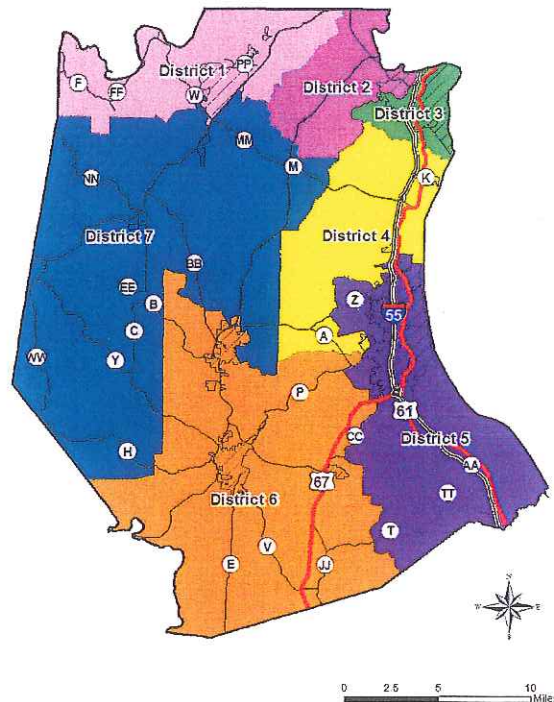
EXISTING CONDITIONS

DEMOGRAPHICS, ECONOMICS & FEATURES

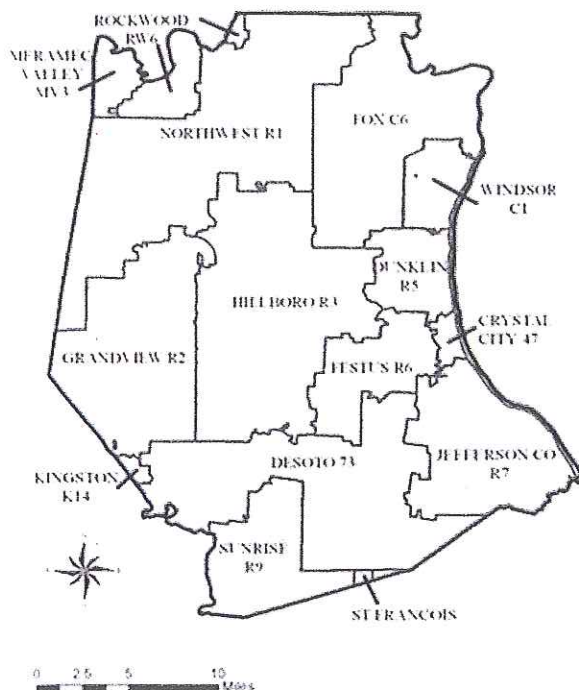
Political Features

Within unincorporated Jefferson County, there are numerous political subdivisions. These subdivisions add additional layers of jurisdictional review. These subdivisions include 7 council districts, 15 school districts, 7 ambulance districts, 19 fire departments and districts, 8 public sewer districts, 10 public and 6 municipal water districts. In addition, there are 13 cities and many other political subdivisions. Coordination between governmental entities has increased over the past 5 years, but there is still a lack of common goals for the future growth and development of Jefferson County among the different entities.

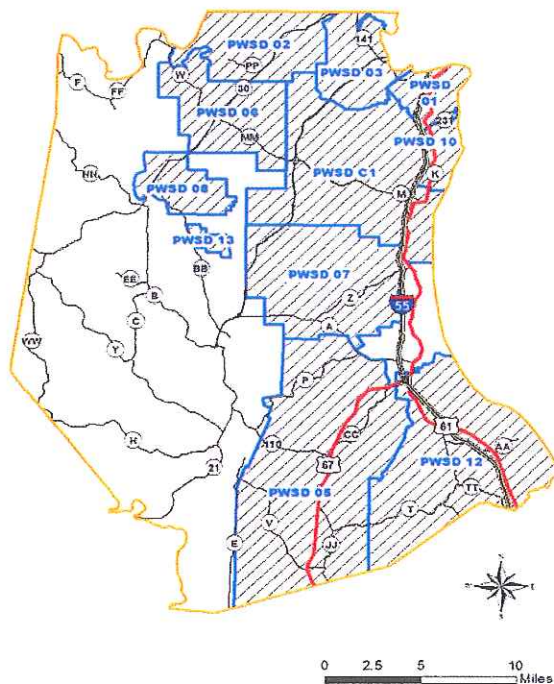
Council Districts, Jefferson County



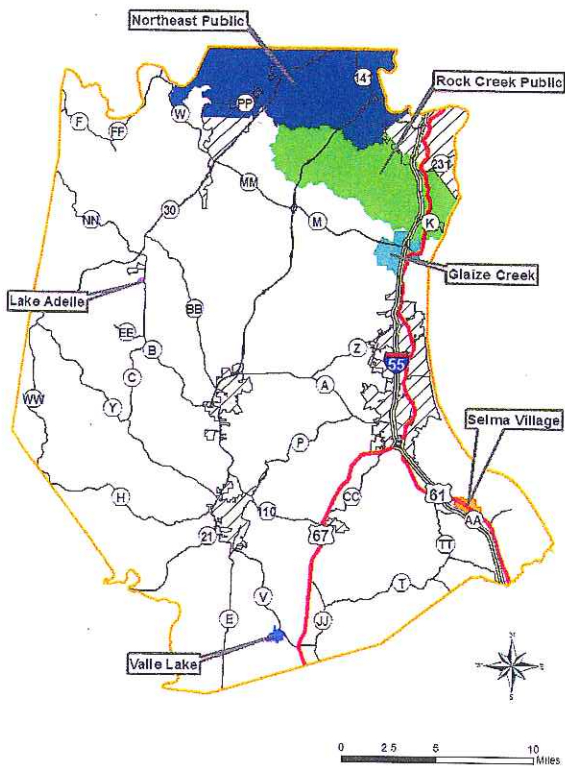
School Districts, Jefferson County



Public Water Districts, Jefferson County



Sanitary Sewer Districts, Jefferson County

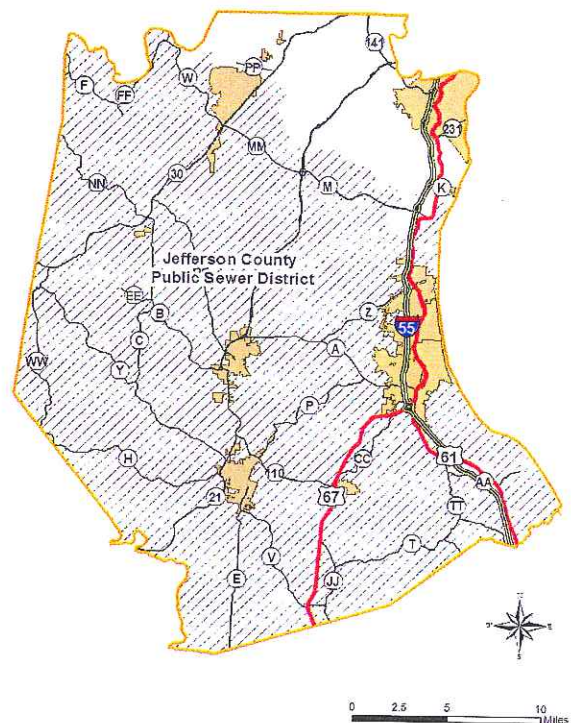


Wastewater Treatment:

The "Jefferson County Watershed Management Report: identifies septic system failure as a significant problem in the county. The report cites a number of reasons for on-site wastewater treatment system failure in Jefferson County, including the soil types within portions of the county not being conducive to treatment system drain fields. Through the growth and development plans and criteria advocated in this plan, many of the on-site wastewater treatment system problems can be remedied by the use of public systems that are more reliable and long lasting.

Nowhere are these possible remedies more evident than within the boundaries of the Jefferson County Public Sewer District, which has rapidly expanded its services in the past several years. This expansion has been vital to the extension of public sewer service to those areas outside of the municipalities and smaller public sewer districts.

Jefferson County Public Sewer District



Summary:

When the data is analyzed, it is apparent that Jefferson County has felt the impact of a metropolitan population shift to the suburbs. This conclusion is supported by the substantial growth in population, the dramatic increase in the number of households in the county and the high rate of owner-occupied houses. Jefferson County is experiencing the benefits of this suburbanization, such as higher median household and family incomes and lower poverty levels. Jefferson County is also experiencing the consequences of suburbanization, such as increased traffic congestion, flooding, decreased water quality, and overburdened schools and public facilities. Since the last amendment to this Official Master Plan in 2013, the county has experienced a steady increase in the number of building permits issued annually, specifically those permits issued for new single-family residences. As previously platted residential lots have been developed, the county has also seen a dramatic increase in the number of newly proposed residential subdivision plats. The above analysis assists in preparing a plan that balances the development pressures (benefits and costs) stimulated by growth. The Official Master Plan sets the direction to achieve that balance.

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It is important for a county to assess its future from time to time. The Official Master Plan guides development within the county and must also be assessed periodically. A county must look at and learn from its past to guide future development. The issues and goals in Jefferson County constitute one part of that assessment process and define the foundation on which the Official Master Plan will be constructed, and they are defined herein.

These issues and goals, identified through the Official Master Plan's public participation process, will guide citizens, developers, county staff and elected and appointed officials in making decisions regarding growth and development within Jefferson County. The goals should not be considered as independent from each other, but rather they are a collection of goals to achieve the vision of quality planned growth and development that will produce a desirable environment for the residents of Jefferson County.

Issues:

The issues have been organized into five categories to better manage and address each goal within the Official Master Plan. Those categories are, *Quality Growth and Development*, *Economic Development*, *Infrastructure and Transportation*, *Environment and Open Space* and *Education and Communication*.

Quality Growth and Development

In discussion with members of the community, many people recognized the need for some level of land regulation and development review to provide the county with organized, high-quality growth and development. This recognition was also evidenced by the responses received from a planning questionnaire, in which 69% of those responding disagreed with the statement that "property values are better preserved by fewer restrictions on property." It is evident, however, that some citizens of Jefferson County are strong property right advocates, as indicated from some of the comments received in the public participation process, and as such, they are skeptical of government regulation of land. Within the issues discussed below, this skepticism is evident.

Several issues were identified that relate to the future development patterns of Jefferson County. The issues included comments against high density developments, comments in favor

of a 5 acre minimum lot size, and general issues related to the provision of housing in the county. Many of the comments received regarding the county's development patterns revolved around the notion of the level of infrastructure required at the time of development. Many people in the current, as well as a past, planning effort felt that a complete package of infrastructure, including sewer, water, streets, emergency services and schools, was necessary to support any level of new development. At the opposite end of the spectrum, some people felt that minimal infrastructure should be provided to coincide with the amount and type of development. An example that was given is the need for only a gravel street to support a pole barn that housed horses, as opposed to a street that met County standards. Others felt that there was an appropriate general level of infrastructure that should be provided in conjunction with any development. There was a general consensus that some level of infrastructure, particularly water, sewer and streets needed to be provided concurrent with development. This point was reiterated in the questionnaire when 90% of the respondents agreed that "development should not occur unless adequate service infrastructure (sewer, water, streets and storm drainage) is present to support the development."

Issues such as lot sizes and preservation of "rural character" were also dominant in many of these discussions. Much of this discussion centered on a need for larger lot sizes to preserve the rural character of the county, and there was confirmation of this point in the responses to the questionnaire. As an alternative to mandating larger lots, citizens discussed permitting more density in specific areas as a trade-off for a developer preserving or protecting rural areas and natural resources such as vistas and woodlands. Many residents of the county expressed a desire against dense development and believe that the previously developed portions of the county (the northern portions), as well as the municipalities, should accommodate any higher density development. Consistent with this thought, many people felt that the remainder of the county should be developed with single family five-acre tracts of land. Others thought that scattered locations of more dense development would best serve the county, not only from a housing standpoint, but also from the provision of services to county residents. The need for large lots and the need for targeted density each received support from the majority of the respondents.

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Some residents of Jefferson County cite the rural pastoral setting as the reason for the current demand for development in the county. They also recognize that the rugged topography, as well as the difficulty of developing in those conditions, as a reason for the county developing later than other counties in the metropolitan area. Other people expressed the opinion that, in the past, developers were not inhibited by rugged topography. Topographic constraints were viewed as physical obstacles to be overcome, rather than indications of resources to be protected. When questioned further, many participants recognized the importance of being sensitive to topographic considerations because they relate to the health of the watersheds and watercourses in the region.

Another issue that was raised multiple times was the need for a variety of housing options within the county. Variety was defined by the participants as single family large lot, single family low density, single family - small lot - maintenance free, multi-family and elder care facilities. A concern about the increasing amount of mobile homes within the county was also voiced. Some people felt that the county had enough mobile homes, and that they should be banned from this point forward. In general, people agreed that having a variety of housing options would be best for the future development of Jefferson County. There were, however, varying opinions on where that housing should be provided. The majority of those completing the questionnaire rejected the concept that a variety of housing should be provided within each new neighborhood.

Economic Development

The most discussed issue regarding economic development was the attraction of jobs and services to the county. Most people felt that job attraction, particularly industrial and office jobs, would be beneficial to the tax base. The participants in the questionnaire confirmed this point when they overwhelmingly, 84% and 80% respectively, agreed that efforts should be made to attract commercial/retail development and job development to expand the tax base and promote economic growth. They also generally agreed that those uses that create jobs had their place within the county, specifically adjacent to the existing industry and jobs. In particular, respondents did not want competition for development with St. Louis and St. Charles counties to dictate the development pattern of Jefferson County.

One of the most vocalized issues was the use of incentives to attract commercial (retail/office) development to Jefferson County. In the public meeting, participants were split on this issue, with some seeing the advantages of using such tools, while others thought that the loss of tax revenue did not justify the benefits of the development. The general feeling was that economic growth, through the provision of new retail, business and general development was good for the future of the county. However, the growth needs to be planned and financially responsible for the county and its citizens. Many felt that the county had not properly used the incentives that were at their disposal. In particular, many people voiced their opposition to the use of Tax Increment Financing (TIF) to assist developers. *It should be noted that, to date, Tax Increment Financing has not been used by the County.*

A related issue was the use of incentives to pay for infrastructure associated with development. Most people agreed that some level of infrastructure was necessary to support new development. Many people, however, felt that developers should pay their own way with respect to infrastructure and the cost of development. The respondents to the questionnaire overwhelmingly echoed the sentiments of the public meeting with 90% agreeing that development and developers should pay for infrastructure costs. As previously stated, it was evident that many of the residents of the county felt that there was the potential for developers in Jefferson County to abuse development incentives, and that benefits promised would not be delivered.

Infrastructure and Transportation

As with the other issues, the comments and opinions regarding transportation were varied and sometimes conflicting. Generally, the transportation issues centered on connectivity. One issue that was raised was the use of "private streets for public use." Some residents raised the question about the public traffic that is allowed on "private streets," maintained by homeowners through the neighborhood and homeowner's associations. Additionally, citizens voiced the desire to place gates at the entrance roads to their subdivision to control access to their neighborhood and create safer streets within. These two issues are at the heart of the argument against connectivity for neighborhoods. However, these issues seem to be localized because,

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when questioned, 58 % of the respondents agreed that neighborhood streets should provide connections to adjacent neighborhoods and local commercial services.

The connectivity of the county, for local and through traffic, was an issue. Many people felt that the current traffic in the county was manageable, but that better connectivity between developed areas was needed. However, most people did not desire connectivity if it compromised safe neighborhoods. People wanted a better connected and quality road network that delineated a hierarchy of streets. It is apparent that connectivity among commercial developments is also an issue. An issue that surfaced several times was the poor condition of many of the roads in the county, particularly the local roads that serve the remote areas.

The topic of transit was raised as an issue. Many people felt that rail transit connecting the county to St. Louis would lessen the traffic congestion within the county during morning and evening rush hour times. People also voiced a desire for transit connections to St. Louis to take advantage of the amenities that the City has to offer, without having to drive and park in the city. Some citizens felt that the county lacks the population, specifically density of population, needed to make rail service financially feasible. It was pointed out that bus service had been tried in Jefferson County, with service to St. Louis, and that the ridership was minimal. Ultimately service was stopped. There was some discussion regarding the opportunities to use alternative modes of transportation, such as public transit, bicycles and walking. Some residents disagreed that these forms of transportation should be incorporated into the transportation network, but 78% of the respondents to the questionnaire agreed that they should be a part of an integrated movement system.

Environment and Open Space

The protection and preservation of the natural environment was a key issue for discussion for many citizens of the county. In general, most people felt that the protection of the environment, including air quality, water quality, stream courses and topography, was important for the protection of the "rural character" and the future livability of Jefferson County. This issue was particularly evident in the results of the questionnaire, in which 88% of the respondents thought that the county should protect environmentally sensitive, topographically constrained, or

significant natural areas from development. Many citizens felt that developers in Jefferson County had already begun to destroy the county's natural environment, and that future development should be more respectful.

A topic regarding the environment that received much discussion was storm water runoff and land erosion. Most of the discussion centered on land development policies and regulations to address erosion during the land development and construction process. The county staff and citizens within the county thought this was a significant issue.

Education and Communication

Related to the issue of economic development and providing jobs in the county, several participants voiced the need to provide county residents with a quality education. Education provides the means for people to compete for jobs at all levels. Education can also be significant because it increases the opportunity for people to work in the county in which they live. An educated workforce may enhance that county's future economic development. The physical development of education facilities was also an issue. The participants were divided on the provision of educational facilities as they relate to new development. Many people felt that new schools, as well as other community infrastructure (fire and police stations), should be built prior to the development that would be served. Others felt that it should be planned for the future and constructed as needed.

One issue that was evident throughout the planning process was the lack of communication among the different jurisdictions within and surrounding the county, including municipalities, other counties, infrastructure districts (sewer and water), and community service providers (police, fire and ambulance). The county itself is seeing an increase in its own departmental communication, specifically in the development processes. However, there is a low level of communication or coordination among the County and the municipalities, sewer districts, water districts and others regarding the development of the county.

Summary

Through the various participatory techniques and research, the five main issues detailed above were identified as priorities for the future growth and development in Jefferson County. Based

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on these issues, planning goals for Jefferson County have been established. The goals, while general in nature, are intended to assist the county in providing: quality growth and development, positive economic development, adequate and timely provision of infrastructure, protection of environmentally sensitive areas and enhanced education and communication within the county.

While this is not intended to be a complete list of the issues prevalent in Jefferson County, it does represent the major issues that evoked discussion among participants. For a complete list of the issues and goals raised from the public meeting, see the Issues and Goals Report and the Questionnaire that were completed as a part of this planning effort. All the comments and statements received have been included, unedited. Copies of the Issues and Goals Report and the Questionnaire can be obtained from the Planning Division of the Department of Land Use, Development and Code Enforcement of Jefferson County.

Goals and Objectives:

Based on the issues identified, the following goal categories (1,2,3...), goals (A,B,C...) and objectives for the county have been developed. The goals and objectives presented in this document serve as a guide to the future physical growth and development of the county, particularly with respect to the decision making and implementation processes. The goals for the county are:

1. **Quality Growth and Development – to promote growth and development that creates a quality-oriented environment, conserving natural resources and providing community amenities.**
 - A. Plan for phased growth in an orderly manner.
 - Ensure that sewer, water, and roads are existing or planned in conjunction with infrastructure levels necessary to serve new development.
 - Establish clear and continuous communication with local jurisdictions and entities whose actions most affect growth in the county – i.e. municipalities, sewer and water districts, school districts, and state transportation officials.
 - Establish development priorities that encourage development in areas with existing capacity for both service infrastructure (water, sewer and roads) and community infrastructure (fire and police protection and schools).
 - B. Promote more compact settlement patterns that maintain overall low densities and preserve the rural character of the county.
 - Implement higher density, more compact development, particularly in areas of the county where environmental conditions and topographical constraints warrant protection and assembly of connected open spaces.
 - Establish design standards that allow a diverse mix of employment, retail and residential uses of all types to occur in a compact manner.
 - Require distinct and discrete centers for all new, compact, higher density developments, capable of expansion and growth in intensity over time, to maximize infrastructure efficiency and reduce disturbance of open land and rural areas.
 - C. Promote application of site designs that are efficient and sensitive to the environment.
 - Implement higher density, more compact development methods in environmentally sensitive areas of the county.
 - Develop watershed management plans that identify specific application of differing development methods, location and mix of associated land uses.
 - Provide mechanisms and criteria for public acquisition or dedication of voluntary conservation easements.

- D. Support existing neighborhoods and develop new neighborhoods that provide quality residential environments.
 - Encourage amenities, such as parks, public or common areas and community or civic uses, easily accessible to all residents of a neighborhood.
 - Plan for and seek opportunities to link neighborhoods to the overall county park system through greenways and trails.
 - Separate non-compatible uses with appropriate buffers, transitions and open spaces.
 - Provide incentives for appropriate maintenance of private property.
- E. Provide convenient locations for goods and services oriented to the local community.
 - Promote a mixture of regional scale commercial, as well as service and employment centers, in common locations with integrated and compatible site design standards.
 - Encourage the location of neighborhood scaled mixed commercial and service-oriented businesses near neighborhoods to facilitate “one stop” access to daily service needs.
 - Encourage mixed-use centers as a part of every large compact, higher density development to accommodate all routine service needs of the surrounding residents.
 - Work with school districts to plan and locate new facilities in coordination with new development – accessible by walking or bicycle for as many students as possible.
 - Plan for housing and retail service centers in convenient proximity to each other.
- F. Provide an economic and physical diversity of housing options, including affordable housing.
 - Provide a wide range of housing options that allow a diversity of housing formats and price levels within new developments.
 - Work with residential developers, in conjunction with economic development efforts, to provide a jobs-to-housing balance appropriate for all income levels.
- G. Ensure maintenance of public safety and protection of public and private property.
 - Reduce the threat of fire damage by discouraging lower densities of development in areas not efficiently served by existing fire protection resources.
 - Phase implementation of community infrastructure (i.e. fire protection, health and emergency care, and police) into development plans for more compact settlements.
 - Limit development in floodplains in order to protect property and lives.
- H. Support the retention of businesses that provide goods and services to the local community.

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- Work with residential developers to design developments compatible with existing businesses.
 - Consider expansion of businesses in their present locations.

2. Economic Development – to attract quality development and jobs to the county.

A. New development, of all scales, shall adhere to the goals and recommendations of the Official Master Plan.

- Promote awareness, discussion, and understanding of the Official Master Plan among various economic development groups in Jefferson County and among industry organizations.
- Establish criteria for site plan review to ensure that commercial and industrial development are compatible with different uses, either within the development site or on sites adjacent to the development site.
- Locate new employment and commercial centers based on projected population and the availability of or plans for service infrastructure.
- Plan for housing and employment centers in convenient proximity to each.

B. Develop policies for the use of development incentives (financial and non-financial) throughout Jefferson County.

- Create a strategy for non-financial development incentives, such as procedural streamlining, community familiarization assistance and networking assistance, with respect to business attraction and existing business retention.
- Adopt policies regarding the appropriate use of tax incentives by the County, as well as support of municipalities using tax incentives.

C. Develop a diversity of job opportunities for residents of Jefferson County.

- Develop a strategic economic development plan for job growth in Jefferson County.
- Facilitate partnerships between businesses and educational institutions to share resources and provide skills training.
- Expand existing large and small businesses to provide a broad range of employment for Jefferson County.

3. Infrastructure and Transportation – to provide infrastructure that adequately serves the existing community, as well as new development.

A. Ensure the provision of required utilities and facilities (sewer, water, streets and storm drainage) in a timely manner to support land use and development plans.

- Formulate a strategy to allocate public expenditures to best further the goals of the Official Master Plan.

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- Long-range plans for community facilities, such as fire, police, parks, libraries and schools, should support long-range growth and development of the county as advocated in the Official Master Plan.
- Ensure that service infrastructure, including sewer, water and roads, are existing or planned in conjunction with community infrastructure levels necessary to serve new development.
- Locate new employment and commercial centers based on projected populations, as well as the availability of or plans for service infrastructure.
- B. Expand the county's parks, recreation and open space system.
 - Pursue local opportunities to link with and support the Mississippi River Trail with bikeway connections to the trail or park developments along the trail's route, the Meramec Greenway Recreational Corridor through participation in the Meramec River Recreation Association, and other recreational trail efforts.¹
 - Consider public acquisition as a strategy for conserving priority natural, archeological or historic resources.
 - Maintain an interconnected park and open space system to acquire, consolidate and preserve important open spaces.
- C. Improve the transportation system throughout the county for vehicular circulation, but also maintain opportunities to enhance or expand alternative transportation choices.
 - Require connectivity in road and pedestrian networks to allow multiple and more direct connections to destinations, particularly in more compact, higher density development areas.
 - Establish transportation network standards that are appropriate for different development densities (i.e. high density, low density and rural).
 - Improve coordination with other transportation infrastructure entities such as the State Department of Transportation and incorporated municipalities.
 - Site more compact, higher density developments in areas with the greatest opportunities to expand transportation alternatives and choices, including potential transit, para-transit, bicycling and pedestrian circulation.
- 4. **Environment and Open Space – to ensure environmentally sensitive development, particularly large-scale development, to promote the conservation of air, water, and other natural resources and maintain the unique character of Jefferson County.**
 - A. Protect watersheds and water resources from pollution runoff, erosion and flooding.

¹ The Mississippi River Trail is a 10-state cycling route under development that currently has over 2000 continuous miles between the headwaters of the Mississippi River and its mouth in New Orleans, including portions in Jefferson County, Missouri. See www.mississippirivertrail.org.

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- Integrate natural elements into development sites and overall development plans, as well as promote site design techniques that minimize total amounts of impervious surface.
 - Manage County land assets, such as community open space or parks, rights-of-way or other public grounds, to reduce impacts on watersheds and water resources.
 - Avoid the placement of potential pollution sources in important groundwater recharge areas, and protect watersheds from potential pollution sources.
 - Increase public awareness of stormwater issues.
- B. Maintain the rural character of Jefferson County through application of differing growth and development techniques as advocated in the Official Master Plan.**
- Incorporate significant natural and environmental assets or topographic characteristics into the overall growth and development of the county.
 - Develop mechanisms and criteria for open space preservation, including public acquisition and voluntary conservation easements.
 - Protect ridgelines and view corridors by adopting rural development design standards.
 - Ensure that protected or preserved open space and significant environmental corridors are linked to provide a continuous network.
 - Foster an understanding of the value of historic and archeological resources, and improve techniques to preserve significant county assets.
- C. Maintain air quality for the health, environment and economic prosperity of the county.**
- Implement development standards that promote the greatest opportunities to reduce vehicle miles traveled within Jefferson County and the metropolitan region.
 - Recruit clean industries to Jefferson County.
 - Support air quality initiatives of local jurisdictions within Jefferson County, as well as metro-wide regional initiatives.
- 5. Education and Communications – to provide quality public awareness and a high level of communication regarding planning and development issues.**
- A. Increase the public's understanding of planning and development regulations, documents and procedures adopted by the County.**
- Make all planning, zoning and development documents available in public venues, public book depositories and on the internet, when possible.

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- Use the media and county resources to increase awareness of county-wide planning issues, goals and on-going efforts.
 - Establish and maintain an ongoing communication mechanism with developers, builders and citizens regarding development standards, procedures and Official Master Plan goals.
- B. Improve and maintain an on-going communication mechanism between County government and other governing entities (i.e. municipalities and other local jurisdictions, surrounding counties, the state and federal government and administrative agencies).**
- Encourage municipalities to develop plans and regulations consistent with the Jefferson County Official Master Plan.
 - Establish clear and on-going communication with local jurisdictions and entities responsible for “community infrastructure” – fire protection, schools, health care, and police – so that long-range planning for these facilities can support the goals of the Official Master Plan.
 - Promote awareness, discussion and understanding of the Official Master Plan among various economic development groups in Jefferson County and with industry organizations.

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PLAN FOUNDATION
GROWTH ALTERNATIVES

In this section of the Jefferson County Official Master Plan, the issues and goals are assembled into workable strategies for implementation. To accomplish this, it is necessary to establish baseline policies, investigate growth and development alternatives that address these policies, advance the goals established in the previous section and direct future actions to implement the most appropriate alternative.

As a starting point for this section, a Best Practices Survey was undertaken (See Best Practices Report available from the Planning Division of the Department of Land Use, Development and Code Enforcement of Jefferson County). The intent of the report was to analyze six counties similar to Jefferson County, Missouri – whether in size, demographics, topography, or relation to a metropolitan area. Each was analyzed for its overall approach to the five primary goal categories of Jefferson County, Missouri (see previous section). In addition, several issue-specific profiles were developed based on programs from other counties that addressed these particular goal categories in a noteworthy and relevant manner.

The Best Practices Survey was the basis for an analysis of growth and development alternatives for Jefferson County. Specifically, the findings of the Survey were presented in a fashion that adapted the several different approaches to the five main goal categories to Jefferson County's specific situation. These alternatives were presented to the public in a forum for discussion, analysis, and determination of a preferred direction. The analysis of the growth and development alternatives provides the direction needed for preparing updates to the 1990 Official Master Plan with the recommendations and strategies provided herein.

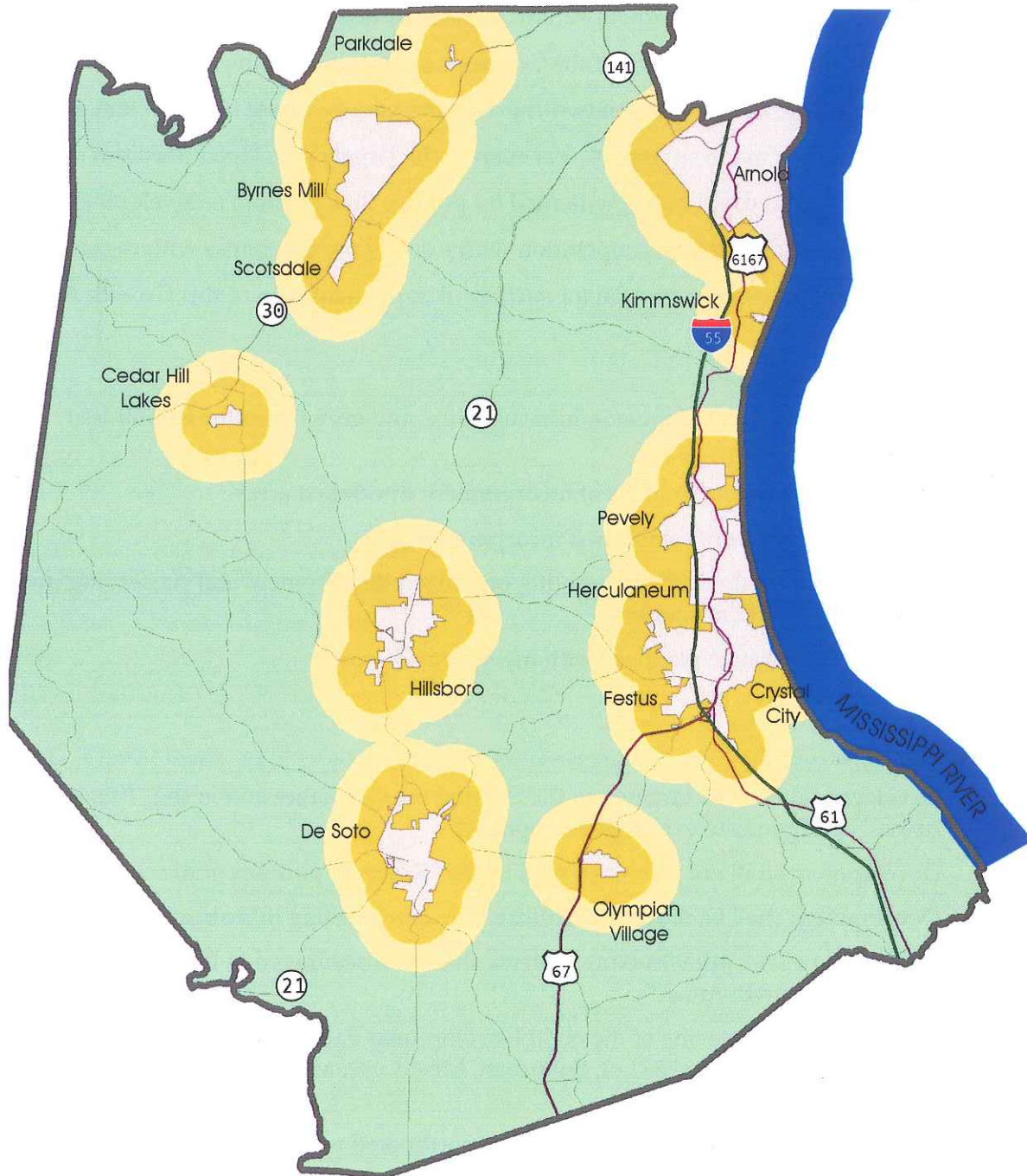
Growth Alternatives and Policies:

As identified in the existing conditions portion of the Official Master Plan, Jefferson County Missouri has experienced rapid growth over the last 12 years. Although census data demonstrates that this growth has occurred primarily in the northern one-third of the county, a continuation of this trend will have countywide impacts. Therefore, three distinct future Growth Alternatives were prepared for consideration. The basis for each alternative is the primary goal voiced by the County and its residents, "balanced preservation and growth." Each of these Growth Alternatives has specific policies that accompany its consideration and will direct future growth in Jefferson County. The three Growth Alternatives are: (1) *Existing Municipality Focus*; (2) *Corridor Focus*; and (3) *Metropolitan Area Focus*.

For the purpose of these Growth Alternatives, Primary and Secondary Growth Areas and a Reserve have been established. In the Existing Municipalities Alternative, the Primary Growth Area is defined as the area within one (1) mile of an existing municipality, and the Secondary Growth Area is defined as the area between one (1) and two (2) miles from an existing municipality. The Reserve is the remaining area of the county. For the Corridor Focus Alternative, the Primary Growth Area is defined as the area within one (1) mile of an existing transportation corridor, and the Secondary Growth Area is defined as the area between one (1) and two (2) miles from an existing transportation corridor. The Reserve is the remaining area of the county. For the Metropolitan Area Focus Alternative, the Primary Growth Area is defined generally as the as the northern one-third of the county, following the M/MM corridor, and the Secondary Growth Area is defined as middle one-third of the county. The Reserve is defined as the southern one-third of the county.

It should be noted that the Development Patterns advocated within the growth policies of each Growth Alternative will be defined in the next section of this chapter.

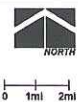
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GROWTH ALTERNATIVES



Growth Alternative 1 - EXISTING MUNICIPALITIES
 Jefferson County, Missouri
 MARCH 2003



Primary Growth Area (0-1.0 mi.)
 Secondary Growth Area (1.0-2.0 mi.)
 Reserve
 Mississippi River



Existing Municipality Focus

The *Existing Municipality Focus* Growth Alternative is a strategy for future growth that gives priority to development in and around the existing municipalities of the county. This is particularly applicable in the southern two-thirds of the county where metropolitan growth pressures have not yet made an impact. Yet even in the largely developed northern one-third of the county, this pattern could be implemented by policies that promote redevelopment and infill development. Additionally, cooperation with existing municipalities with regard to planning and development is essential for successful implementation of this Growth Alternative.

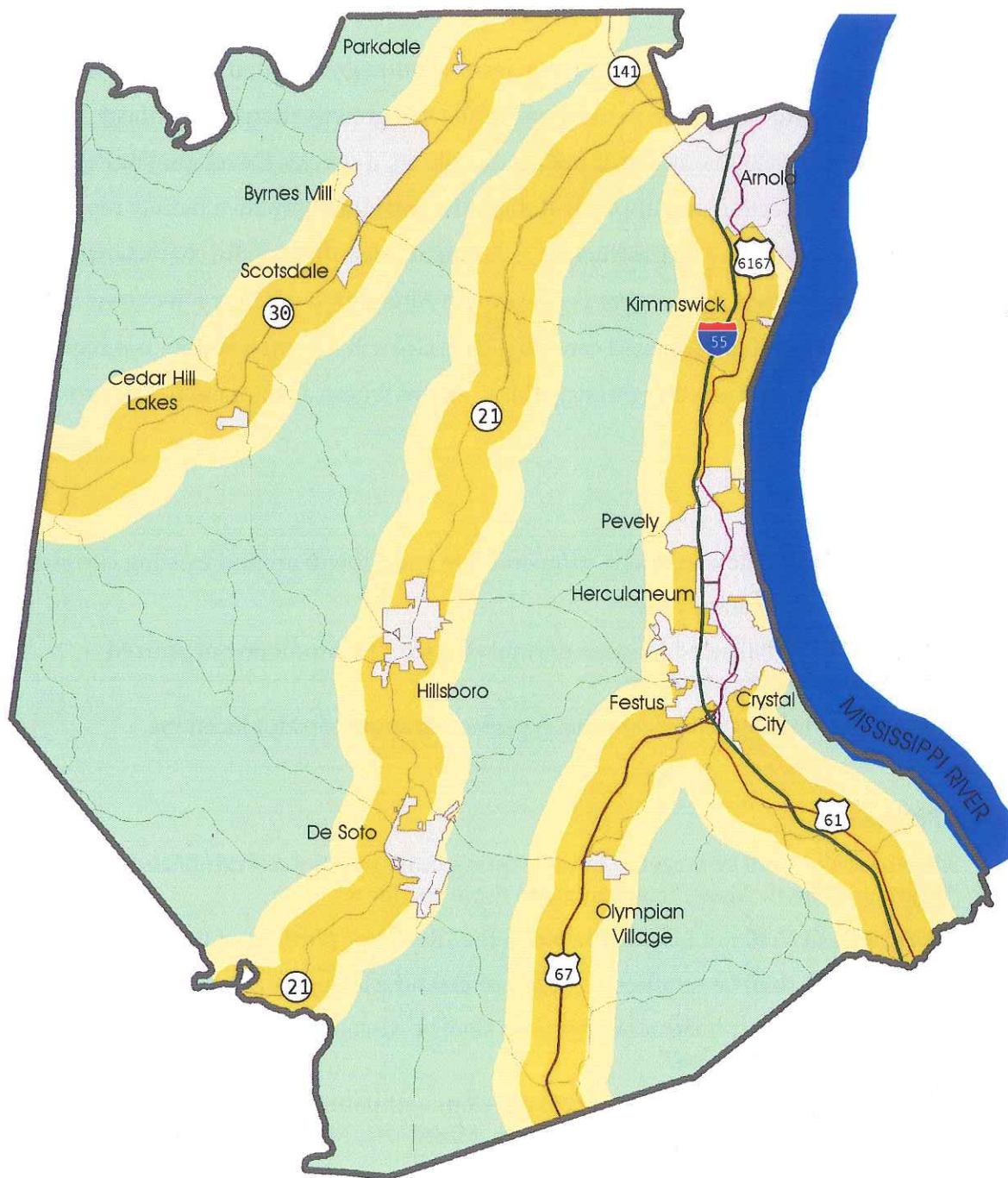
Characteristics

- Targets economic development, infrastructure, and growth around established incorporated areas.
- Builds on the existing markets of incorporated, developed areas.
- Preserves identities of established incorporated areas.
- Balances rural character by promoting organized development and preserving rural areas throughout the county
- Requires cooperative planning with incorporated areas.

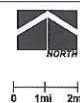
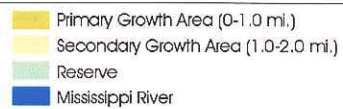
Growth Policies

- Development shall be targeted in the existing municipalities and in the "Primary Growth Areas," contiguous to existing development.
- Development shall not be encouraged in the "Reserve" portions of the county.
- Development shall be required to utilize or extend existing infrastructure systems.
- Septic and private infrastructure systems shall be discouraged in the "Primary and Secondary Growth Areas."
- Development will be one of the eight Development Patterns as defined by this plan - Rural, Rural Cluster, Large Lot, Suburban, Mixed-use, Mixed-use Addition, Infill or Industrial.
- Development within the county shall be coordinated with existing municipalities to which they are in proximity.
- Commercial and employment centers shall be located in either the municipality or the adjacent "Primary Growth Area."

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GROWTH ALTERNATIVES



Growth Alternative 2 - CORRIDORS
 Jefferson County, Missouri
 MARCH 2003



Corridor Focus

The *Corridor Focus* Growth Alternative is a strategy for future growth that gives priority to development in and around existing corridors. While this growth alternative appears to encourage a “strip” development, this is not necessarily so, if specific Development Patterns (discussed in the next section) are applied. Rather, the corridor alternative merely represents a linear approach to growth and infrastructure investment, regardless of the characteristics of that development. Despite this, the *Corridor Focus* Growth Alternative still may have some impact on infrastructure efficiency if not planned carefully. This Growth Alternative does not require extensive cooperation with existing municipalities, except where development is in proximity to municipalities.

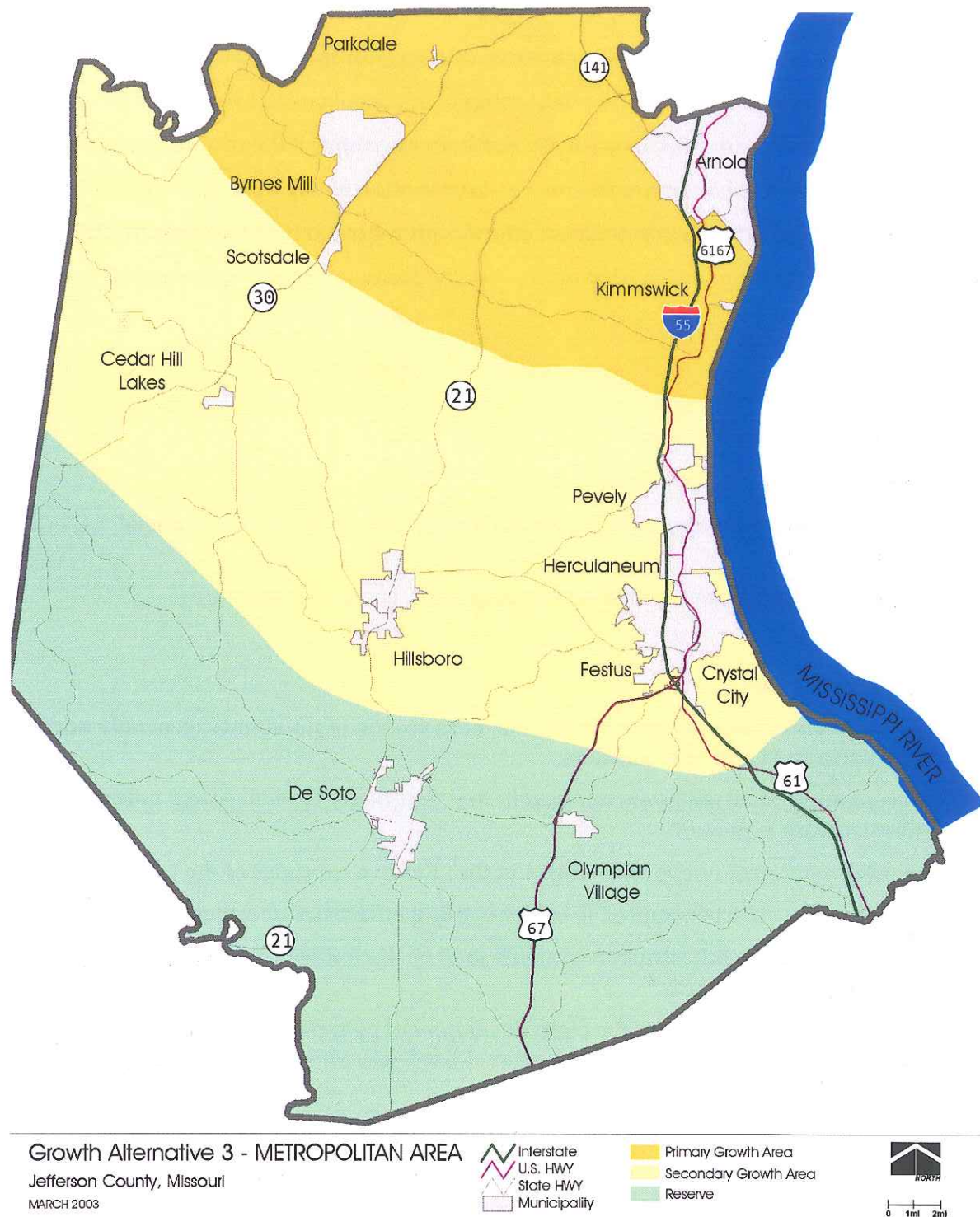
Characteristics

- Targets economic development, infrastructure and growth around existing corridors.
- Allows for county autonomy.
- Maintains fairly balanced location of rural character by promoting organized development along corridors.
- May require infrastructure capacity expansion at some corridor locations.

Growth Policies

- Development shall be targeted in the existing transportation corridors and in the “Primary Growth Areas,” contiguous to those corridors.
- Development shall not be encouraged in the “Reserve” portions of the county.
- Development shall be required to utilize or extend existing infrastructure systems.
- Septic and private infrastructure systems shall be discouraged in the “Primary and Secondary Growth Areas.”
- Development will be one of the eight development patterns as defined by this plan - Rural, Rural Cluster, Large Lot, Suburban, Mixed-use, Mixed-use Addition, Infill or Industrial.
- Development within the county shall be coordinated with existing municipalities to which they are in proximity.
- Commercial and employment centers shall be located in either the municipality or the “Primary Growth Area” immediately adjacent.
- In areas within the corridors, between municipalities or development nodes, residential development will be encouraged.

PLAN FOUNDATION GROWTH ALTERNATIVES



Metropolitan Area Focus

The *Metropolitan Area Focus* Growth Alternative is a strategy for future growth that gives priority to development based on its range and relationship to metropolitan St. Louis. To a large extent, this has characterized the development of the northern one-third of the county due to existing market forces. While this pattern represents less intervention by the County towards Growth Alternatives, it still would require significant efforts with regard to the Development Patterns (presented in the following section) that occur over the life of the plan, if county goals are to be met.

Characteristics

- Reinforces existing patterns.
- Strong identity to metropolitan area.
- Allows for a reactive approach to physical development, as well as economic development.
- Segregates rural character from developing areas, somewhat arbitrarily.

Growth Policies

- Development shall be targeted in the northern section of the county, generally north of the Highway M and MM corridors.
- Development shall not be encouraged in the "Secondary Growth Area," unless service infrastructure is present.
- Development shall not be encouraged in the "Reserve" portions of the county.
- Development shall be required to utilize existing infrastructure systems.
- Septic and private infrastructure systems shall be discouraged in the "Primary and Secondary Growth Areas."
- Development will be one of the eight development patterns as defined by this plan - Rural, Rural Cluster, Large Lot, Suburban, Mixed-use, Mixed-use Addition, Infill or Industrial.
- Development within the county shall be coordinated with adjacent development.
- Commercial and employment centers shall be located at the intersection of county highways, within the "Primary Growth Area."

PLAN FOUNDATION

GROWTH ALTERNATIVES

The Growth Alternatives represent three distinct scenarios for development of the county over the life of the Official Master Plan. Within each of these alternatives, there are three identified Growth Areas. The Primary Growth Area is that area of Jefferson County targeted for development before the Secondary Growth Area and Reserve. All areas of the county can experience development, however, the intensity of development is significantly reduced from the Primary Growth Area to the Secondary Growth Area, and reduced again in the Reserve. The intensity of development is based on the timing and location of infrastructure investments (sewer, water, roads, schools, etc.) and protection of the county's natural resources. The form and function of growth within any particular Growth Area is a result of the Development Patterns selected by the development community and those desired by the county. Natural and rural features can be preserved within any of the three Growth Areas. If the form of development that the county desires supports preserving sensitive environmental features, then preservation can be accomplished. The use of the three Growth Areas (Primary Growth, Secondary Growth and Reserve) is designed to allow the county to accommodate growth and development countywide, while managing it in a fashion to protect and efficiently utilize its resources.

Summary

When presented to County staff and the citizens of Jefferson County at a public meeting, the Growth Alternatives received a mixed review. Most of the people looking at them found things they liked and disliked about each of the alternatives. Many of the participants felt that the Existing Municipalities concept, focusing future development around the existing municipalities, was the best and most efficient use of existing resources. However, most recognized that the continual communication and integration of the planning process and all future development proposals, necessitated by this alternative, was unrealistic, since there are 13 municipalities and other political entities within Jefferson County. Similarly, participants liked the idea of consolidating development around corridors, as promoted by the Corridor Focus alternative. This pattern was seen as the current established development pattern, since most of the development within the county had occurred along the established transportation routes. The corridor approach would be a more defined and efficient use of resources, however, not as defined as the existing municipalities concept. Finally, most participants recognized that the

Municipality Focus was the existing development pattern for the northern section of the county, and they did not wish for that to happen to the rest of the county. While they wanted to make use of the existing infrastructure and established resources from development in the portion of the county north of Highways M and MM, they did not want uncontrolled growth to spread further south and west.

The majority of the people who reviewed the alternatives felt a Preferred Growth Alternative could be prepared by incorporating components from each alternative. As such, the Preferred Growth Alternative advocated in the next chapter, Chapter 4: Recommendations, of this Official Master Plan, combines the best aspects of the three alternatives into one, suitable to implement the planning goals of the county. To implement the Preferred Growth Alternative, appropriate tools need to be defined. The Developments Patterns, as detailed in the next section, are those tools.

Development Pattern Alternatives:

Within any particular Growth Alternative, there are several different Development Patterns that could potentially be implemented. While the Growth Alternative determines the direction of growth and the priorities for infrastructure timing and investment, Development Patterns establish the scale, character, land uses, and design of development.

Development Patterns represent project or area-specific development strategies that aim to integrate and balance the goals and objectives regarding (1) Quality Growth and Development; (2) Economic Development; (3) Infrastructure and Transportation; (4) Environment and Open Space; and (5) Education and Communication - into an overall coordinated system. The selected counties from the Best Practices Survey indicated four distinct methods to accomplish this balance and integration:

1. Large lots, used as holding zones for potential future development (Washington County, MN)
2. Large lots transitioning to suburban patterns (Clay County, MO; Jefferson County, CO)
3. Rural Cluster Development (Washington County, MN; Jefferson County, CO)
4. Mixed-use Centers – new and infill (Chesterfield County, VA; Lancaster County, PA; Jefferson County, KY) where residential densities and different types of land uses are mixed in one concentrated area.

These four methods employed by the several counties studied generally involve the compilations or arrangement of eight different Development Patterns: (1) Rural; (2) Rural Cluster; (3) Large-Lot; (4) Suburban; (5) Mixed-use; (6) Mixed-use Addition; (7) Infill; and (8) Industrial. However, as represented in the Best Practices Survey, dependent on the specific situation and the goals of the community, some counties found it necessary to exclude or limit one or more of these development patterns.

The best or preferred approach for Jefferson County may or may not utilize all eight patterns. In fact, some patterns may conflict with each other or with the county's goals, particularly if

applied randomly or indiscriminately, while others can complement each other in a comprehensive and continually evolving development environment. However, all eight patterns were considered in an alternatives analysis in order to develop a menu of development patterns, as well as associated implementation criteria, for Jefferson County.

Each of the eight patterns is described in detail in this section, including a general description, graphics and illustrations, and a table of planning characteristics and implications, including criteria for implementing the pattern. The characteristics and implications are grouped into eight categories for each Development Pattern:

- (1) Land use patterns;
- (2) Edges and transitions (both between uses within the Development Pattern and between the described pattern and a different Development Pattern.)
- (3) Open space;
- (4) Street network / transportation;
- (5) Service infrastructure;
- (6) Community infrastructure;
- (7) Lot sizes; and
- (8) Criteria for implementation.

Land-Use Patterns may include single-family residential and occasional small-scale commercial in the Rural Development Pattern, a variety of land uses spanning all categories of residential, commercial, community, institutional, utility and industrial in the Rural Cluster, Infill, and Suburban Development Patterns, primarily single-family residential and some commercial and industrial in the Large Lot Development Pattern, a mixture of uses and residential densities in the Mixed Use and Mixed Use Addition Development Patterns, and warehousing and large-scale manufacturing in the Industrial Development Pattern. The decision to allow a particular

land use in a Development Pattern will be a result of how well the proposed land use satisfies the following seven characteristics and implications, including the Criteria for Implementation.

Edges and Transitions refers to how sharply the transition is from rural to urban in a particular Development Pattern and how defined, or undefined, the edge is between different densities typical in a Development Pattern.

The provision of Open Space ranges from community-oriented for the Rural, Infill and Industrial Development Patterns to being a component of the Suburban and Mixed-use Development Patterns.

Street network/transportation refers to the type and quality of roads necessary for a Development Pattern. Major county roads serve as access to the vast majority of lots in the Rural and Large Lot Development Patterns. Major county roads provide access to the cluster and private streets provide access within the cluster in the Rural Cluster Development Pattern. The street network consists of blocks and interconnectivity in the Mixed-Use and Mixed-Use Addition Development Patterns. Streets are hierarchical from private streets within a development to highways connecting county roads in the Suburban Development Pattern, with county roads serving as arterials and often access to the entrance of developments. In the Infill Development Pattern strategies take advantage of the existing street network. Highway access is generally necessary in the Industrial Development Pattern, with the street network internal to the site.

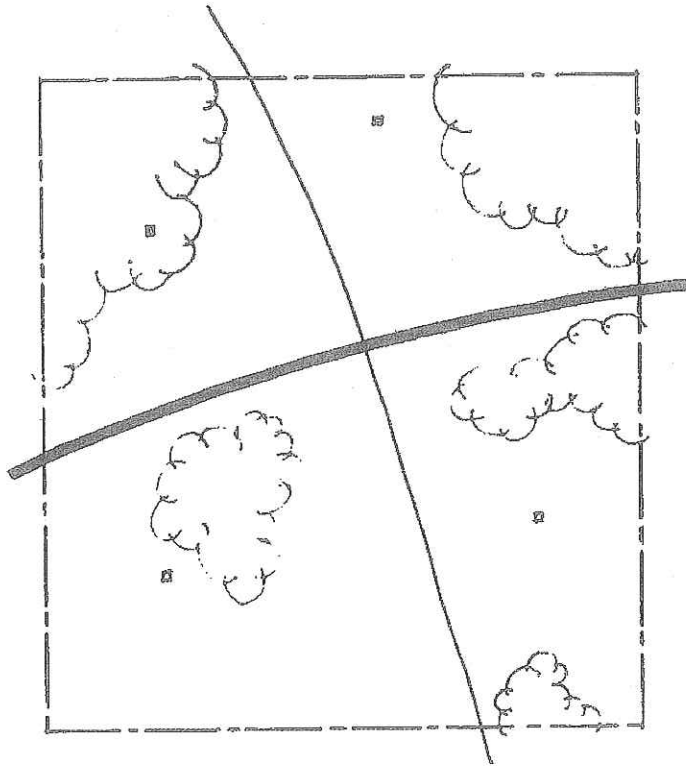
Service Infrastructure refers to sewer and water service either being on-site waste disposal and wells or common systems such as central wastewater collection and treatment and water distribution. Adequate roads are often referenced as a service infrastructure, however in this section roads are listed as a separate characteristic.

Community Infrastructure refers to services that should be supplied or nearby in that Development Pattern. These services include fire protection, provision of ambulances, police protection, adequate schools, and parks.”

It is important to recognize a different categorization between “service infrastructure” and “community infrastructure.” Service infrastructure describes facilities that are immediately necessary to serve new development, such as sewage treatment and water. Community infrastructure represents the types of facilities that serve a broader range of users on a “community-wide” basis. These include things such as fire and police protection, schools, and parks and recreation. They are separated due to the different impacts that development has on these facilities and the strategies required to implement services in a planned manner.

Rural Development Pattern:

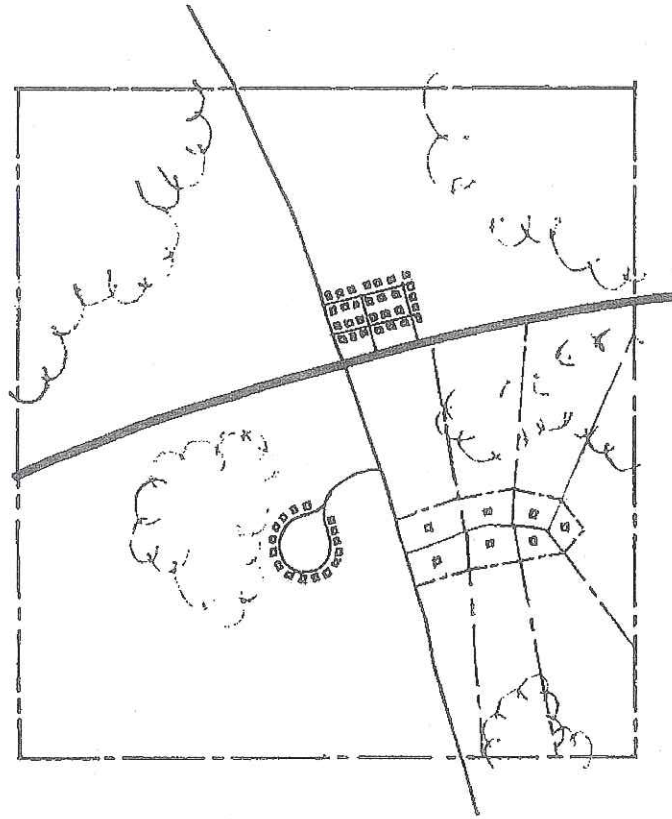
Rural Development Patterns are characterized by large expanses of open space. Buildings are far removed from public streets and from other buildings on adjacent lots. Vegetation typically remains in a natural state. Land uses require and expect lower infrastructure service levels.



Land Uses	Primarily single family residential, with occasional small-scale commercial development at intersections to serve the rural residential base. A wider range of accessory land uses is acceptable due to the remoteness of most structures from adjacent landowners.
Edges / Transitions	Edges of rural areas can be defined by a sharp transition from rural to urban – particularly if the adjacent development pattern is a “Mixed-use.” Alternatively, edges of rural areas may be more ambiguous with increasing levels of density or intensity of development, as in the case of adjacent Large Lot or Suburban Development Patterns.
Open Space	Due to the openness of this Development Pattern and the dispersed population, formal open space is generally not needed. Open space is primarily under private ownership, unless significant natural resources warrant public acquisitions or protection.
Street network / Transportation	The street network is primarily major county roads and private lanes serving as access to very few lots. Connectivity is provided only by major county roads. Automobiles are needed for most trips and transit or para-transit service is not practical.
Service Infrastructure	Water is provided by wells, and sewer is provided by individual septic systems
Community Infrastructure	Fire, police, schools, parks and other community infrastructure is typically supplied by existing, although remote facilities.
Lot sizes	Lots range in size, generally no smaller than 5 acres.
Criteria for Implementation	<ul style="list-style-type: none"> ♦ Planned or future expansion of public infrastructure (streets, water, sewer) is practically difficult or costly, at least in the short-term. ♦ Land uses require and expect lower infrastructure service levels. ♦ Areas lack proximity (either in distance or physical connection) to existing employment or shopping areas. ♦ Areas maintain proximity to many natural assets, such as rugged topography, significant tree stands or bodies of water. ♦ Can be used as a holding zone for future development if long range infrastructure investment is feasible.

Rural Cluster Development Pattern:

Includes small clusters of buildings (generally 10 to 20 buildings) with clusters separated by large expanses of open space. Building clusters may be close to public roads or removed from public roads and accessed by connecting private lanes. Vegetation typically remains in a natural state. Land uses require and expect lower infrastructure service levels, although clusters can make private infrastructure development more efficient.

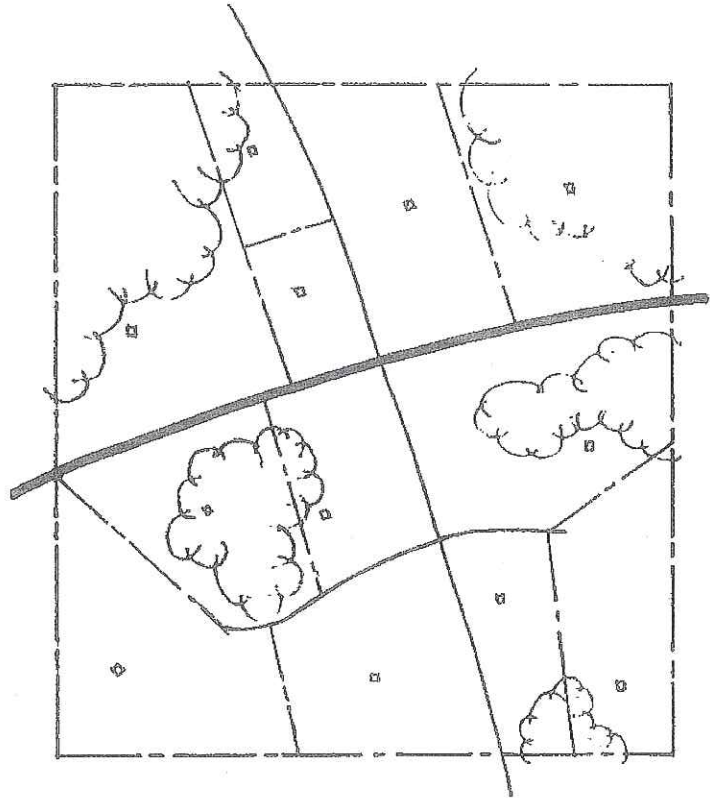


RURAL CLUSTER DEVELOPMENT PATTERN

Land Uses	Primarily single-family residential, but may include other uses such as neighborhood-oriented commercial uses and additional residential formats such as duplexes, townhouses, or accessory apartments. Clusters could be organized around a small community establishment, generally designed to support residents of that cluster.
Edges / transitions	Within the cluster, edges are characterized by a sharp distinction between developed sites and natural areas. The outer edges of the cluster, made up of natural areas, should blend with the rural character of surrounding adjacent areas.
Open Space	Open space surrounding the cluster is typically perpetually preserved from future development. This open space may be owned by individual lot owners, a common ownership association among lot owners, or dedicated to the public depending on circumstances and site design. The open space remains in a natural state, although more formal open space may be designed within the Cluster. Alternatively, some open space may be reserved for future development if consistent with the overall Cluster plan or a long-term Mixed-use plan.
Street network / Transportation	Access to the Cluster is primarily by major county roads and private lanes serving as access to the lots within the Cluster. Connectivity is strong within the cluster, but connectivity outside the cluster is provided only by county roads. Pedestrian access is possible within the cluster. Trips outside the cluster must be taken by automobile, although larger clusters could warrant occasional infrequent transit or para-transit service.
Service Infrastructure	Generally, an individual or shared cluster system of wells and septic. Occasionally, public service infrastructure may be available or reasonably extended to clusters, particularly in Primary or Secondary Growth Areas, where clustering preserves identified natural assets.
Community Infrastructure	Fire, police, schools, parks and other community infrastructure is typically supplied by existing, but remote, facilities.
Lot sizes	Variable from approximately 4000 square feet to 1 acre, but with large amounts of open space surrounding the cluster. It is anticipated that single-family, detached residential structures will be on lots no smaller than approximately 6,500 square feet. Other uses, such as neighborhood-oriented commercial, duplexes and townhouses may be located on lots as small as 4,000 square feet. Layouts that preserve open space with covenants and easements on private individual lots, rather than through common open space, will be no smaller than 5 acres. Overall densities remain in the same range as Rural or Large Lot development pattern, dependent on whether public service infrastructure is available or can be efficiently extended.
Criteria for Implementation	<ul style="list-style-type: none"> ♦ Planned or future expansion of public infrastructure (streets, water, and sewer) is practically difficult or costly, at least in the short term. ♦ Land uses within the cluster generally require lower infrastructure service levels and may benefit collectively from sharing some private infrastructure resources on a small scale. ♦ Areas lack proximity (either in distance or physical connection) to existing employment or shopping areas. ♦ Areas maintain proximity to many natural assets, such as rugged topography, significant tree stands or bodies of water. ♦ Requires a long-term mechanism for preserving open space, whether through covenants, easements, common ownership or dedication. ♦ Most appropriate where significant topographical or natural features are worthy of preservation. ♦ Areas served by existing or conveniently extended public service infrastructure may be clustered with <i>overall</i> net densities in the 1 unit to 2 through 5 acre range. ♦ Areas not served by public service infrastructure should be clustered to maintain an <i>overall</i> net density in the 1 unit to 5 to 10 acre range.

Large Lot Development Pattern:

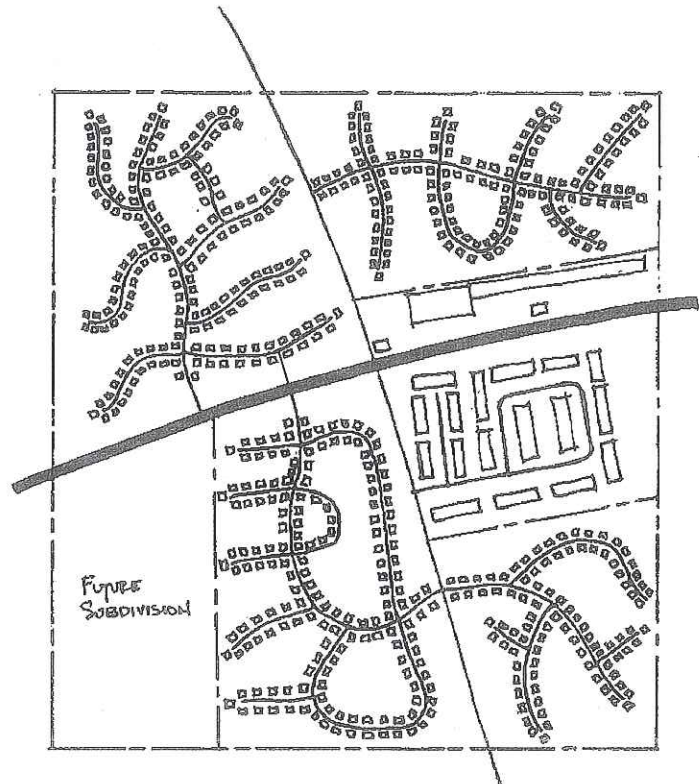
This pattern creates the perception of large expanses of open spaces with buildings removed from the public roads and from each other. Private ownership patterns and setback regulations tend to limit uses from coming in conflict with each other.



Land Uses	Primarily single family residential. Some commercial or industrial development may begin to occur in strips along major roads, particularly at the more dense end of the Large Lot range (i.e.: 2 acre lots).
Edges / Transitions	At the larger, less dense end of this pattern, edges and transitions function similarly to Rural Development Patterns. These edges and transitions can either be sharp – as in the case of a transition to a “Mixed-use” – or less distinct, with small changes in density in adjacent areas. At the smaller, more dense end of this Development Pattern, edges and transitions become vague as the Development Pattern attempts to assimilate qualities of different development patterns (urban and rural) in one pattern. Buffers and separation generally characterize edges and transitions among uses within this pattern.
Open Space	Open space is generally disjointed, as it is provided primarily by large individual private lots. Significant natural resources may warrant protection or public acquisition of open space in isolated locations. Public open space may exist as part of a formal, community-wide planning effort, but it is typically not integrated with any commercial or residential development.
Street network / Transportation	The street network is primarily major county roads and private lanes serving as access to a single or small collections of lots. Connectivity is provided only by major county roads. Automobiles are needed for most trips, and transit or para-transit service is not practical. Increasing density will generate increased traffic on these roads, creating potential demand for future widening of major roads.
Service Infrastructure	Generally individual systems of wells and septic.
Community Infrastructure	Fire, police, schools, parks and other community infrastructure is typically supplied by existing, although remote facilities. Large Lot patterns, particularly in the 2 to 5 acre range, can begin to burden existing community infrastructure. New facilities must be phased in as subdivisions increase, but they may be difficult to provide efficiently.
Lot sizes	Variable in the 2 to 5 acre range.
Criteria for Implementation	<ul style="list-style-type: none"> ♦ Traffic impact becomes a primary determinant of development projects as vehicle miles traveled increase with this pattern. ♦ Private service infrastructure must be carefully evaluated in terms of cumulative impacts and long-term maintenance. ♦ Community infrastructure (fire, schools, parks) must be provided by existing remote facilities, with careful attention to cumulative effects in service levels. ♦ Generally not appropriate for areas with significant natural features worthy of preservation. ♦ Generally not appropriate for targeted Growth Areas due to the sustaining low-density pattern that consumes developable land and resources more rapidly. ♦ Can be appropriate in the Growth Area where adequate services such as public water, sewers and roads are not existing and are not economically feasible within the next 20 years, and where the topography allows only low-density development.

Suburban Development Pattern:

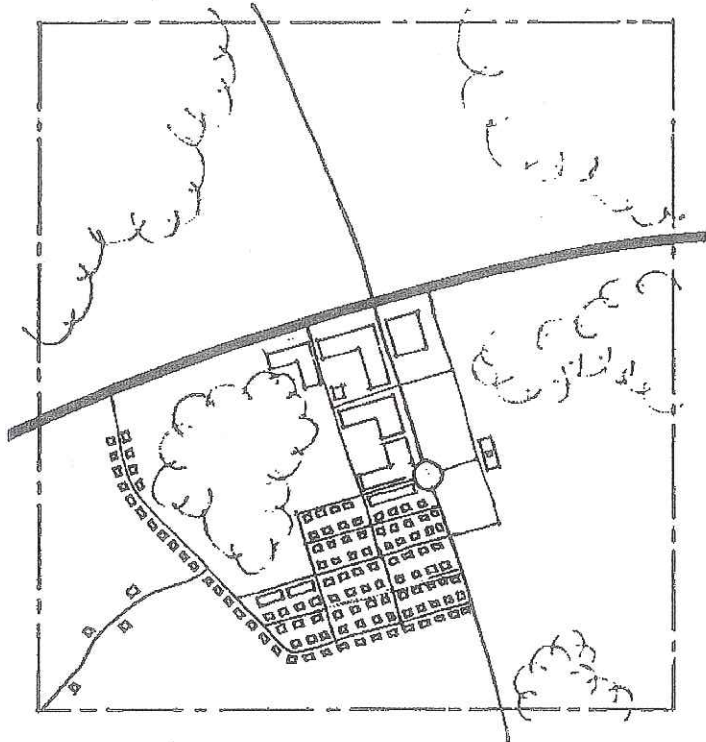
This pattern is characterized by single family subdivisions located away from major roads. High-traffic roads are generally used for non-residential uses or multi-family use. Single family homes should be buffered from the impacts of high traffic roads. In contrast, single-family subdivisions are oriented internally, with few major entrances to local roads and buffers surrounding the subdivision near collector or arterial roads.



Land Uses	A variety of land uses exist in the Suburban pattern spanning all categories (residential, commercial, industrial). These land uses are separated based on broad classifications of uses. Non-residential development tends to occur in large strips along major roads.
Edges / Transitions	Generally within Suburban patterns, buffers or berms further separate each individual site. These areas may be either natural or manicured. Edges between Suburban patterns and other Development Patterns are generally difficult to define, because this pattern attempts to assimilate qualities of different Development Patterns (urban and rural) into one pattern.
Open Space	Open space is more formal, often designed as part of individual site landscape plans. Private open space consists of medium or large yards, common subdivision grounds or landscape areas as part of non-residential site plans. Private open space can be disjointed, due to its individualized design and purposes – (i.e.: designed to serve specific lots or developments). Public open space may exist as part of a formal community-wide planning effort, typically removed from commercial sites and occasionally incorporated in residential subdivisions.
Street network / Transportation	The street network is hierarchical, including local, collector and arterial streets, with county roads functioning as arterial streets. Arterial streets carry the majority of traffic, requiring detailed engineering (width, turning lanes, etc.). Connectivity is generally only provided by collector or arterial streets. This factor, combined with the separation of uses on functional classes make pedestrian, transit or para-transit access impractical. Most trips require an automobile.
Service Infrastructure	Sewer and water service may be common systems – typically municipal extensions but they also may involve development of private systems. Larger lots, however, (minimum of 2 acres) may be able to support well or septic use if state standards are met.
Community Infrastructure	Fire, police, schools, parks and other community infrastructure can be supplied by existing, but remote facilities, if sufficient capacity exists. New facilities must be phased in as subdivisions increase, but may be difficult to provide efficiently.
Lot sizes	Lot sizes are variable. Overall density typically remains between 3 and 6 units per acre.
Criteria for Implementation	<ul style="list-style-type: none"> ♦ Traffic impact is a major determinant of development, as vehicle miles traveled and congestion increase with this pattern. ♦ Typically triggered by immediate availability or short-term practicality of service infrastructure investments. ♦ Community infrastructure (fire, schools, parks) must be provided by existing remote facilities or developed over time as subdivisions increase. ♦ Generally, not appropriate for areas with significant natural features worthy of preservation.

Mixed-Use Development Pattern:

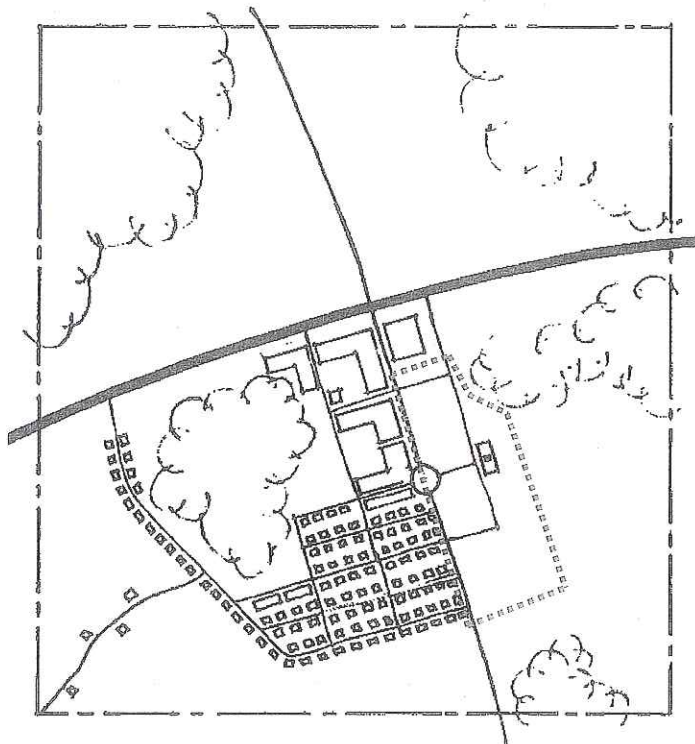
The Mixed-use represents a more compact Development Pattern. It encourages a mix of land uses made compatible by design elements such as building forms, streetscape, and public spaces. The mix often features mutually supported uses, allowing the opportunity for the Mixed-use to be self-supporting, at least for typical daily needs of the residents. Each Mixed-use has a central core, where more intense and diverse uses occur. Mixed-use designs can vary widely based on their settings, including smaller rural mixed-use areas in remote settings and larger urban mixed-use areas within or adjacent to existing municipalities.



Land Uses	Land uses in this pattern are mixed, although transitions among intensity of uses are established according to a master plan. Design compatibility of buildings, rather than of particular uses, generally controls how the land use mix is to occur. This pattern also enables a variety of residential styles, including single family homes, townhouses, and apartments all in a variety of designs – often in close proximity to each other.
Edges / Transitions	Within this pattern, edges and transitions between the different areas of the Mixed-use area are established design elements that bring areas together through common designs, such as street designs, building locations, or landscape materials, rather than with buffers and separation. The edges on the outside of the Mixed-use area may be sharp, as in the case of the edge between a Mixed-use area and rural area or natural area – or they may be gradual, as in the case of a Mixed-use area adjacent to Large Lot or Suburban Development Patterns.
Open Space	A range of open space is necessary for this pattern, and it is integral to the plan design. It includes more compact and formal open space in the Mixed-use core, including plazas, court yards or small parks - and more expansive or natural open space at the edge or outlying areas, including natural areas, greenways or larger parks.
Street network / Transportation	The street network is interconnected with block sizes, approximately 1,500 feet in length, unless topography or other natural areas require interrupting this pattern. Central areas with the greatest diversity of uses, and representing the commercial core, have smaller block lengths in the 400 to 500 foot range to facilitate more connections and dispersion of traffic. Pedestrian access, transit and para-transit service may be efficiently implemented in this pattern.
Service Infrastructure	Water and sewer in the Mixed-use core is on a common system, either public or private. Although some of the edges maintain sufficient open space to allow individual systems, the compact nature of the overall Mixed-use pattern generally makes it economically beneficial and more practical to access the common system in these areas as well.
Community Infrastructure	If the Mixed-use area is at a scale that cannot rely on existing remote facilities, community infrastructure must be designed into the plan. Typically, it is phased in as the Mixed-use area matures, often requiring constructions in the later phases, where a critical mass of residents and businesses have become established.
Lot sizes	Lot sizes vary within the Mixed-use area and even on individual blocks. Generally they range from 2,000 square feet (townhouses in the Mixed-use core) to 2 acres (estates on edges of the Mixed-use area). Overall densities for Mixed-use areas generally vary from 4 to 8 dwelling units per acre (rural mixed-use), but can reach 8 to 24 units per acre (urban mixed-use).
Criteria for Implementation	<ul style="list-style-type: none"> ♦ Generally must involve between 40 acres and 160 acres if it is a new mixed-use area. (See “Infill” or “Mixed-use Addition” for using this pattern in established areas.) ♦ Must be located in an approved location, capable of facilitating ultimate build out of the Mixed-use area, in terms of access for streets and utilities. ♦ Must occur according to an overall Mixed-use Master Plan that adapts to the terrain and natural features of the specific site. ♦ Must have access to or establish a common water and sewer system ♦ Typically phased over time (10 to 15 years) – allowing community infrastructure (i.e. fire, schools, parks) to be phased in as mixed-use area matures. ♦ Mixed-use area has a defined center and edge encompassing a radius of ¼ to 1 mile, facilitating potential pedestrian connections from all areas. ♦ Interconnected streets required, particularly in the central area. ♦ Commercial and civic activities are concentrated in the central area of the Mixed-use area. ♦ Non-residential square footage correlates to residential development. ♦ A variety of residential types and formats are provided in each phase of the Mixed-use area.

Mixed-use Addition Development Pattern:

A Mixed-use Addition is a supplement to an established Mixed-use area or an existing municipality. This pattern represents the natural expansion of existing municipalities or other compact settlements. It can contain a mix of uses, but types of uses are generally dictated by the existing adjacent Development Pattern. When additions reach a certain critical mass in size and intensity (40 acres or more), it is preferable that it be established as a new Mixed-use area rather than feed off the existing Mixed-use area.



Land Uses	Land uses can be mixed, although the make-up of uses will be determined based on proximity to existing adjacent uses. Uses should be either an extension of the adjacent land uses or complimentary to adjacent land uses. Typically, the make up of uses is determined through an amendment to an existing Mixed-use plan or an existing municipal plan.
Edges / Transitions	Edges or transitions are intentionally nondescript in this pattern, as it seeks to mimic and complement an existing Development Pattern.
Open Space	Open spaces should be seamlessly connected or related to the open space system of adjacent areas. Development can be clustered in more compact forms next to existing municipalities or mixed-use areas, in exchange for permanent preservation of outlying areas.
Street network / transportation	Street networks should continue patterns established in adjacent areas. In no case, however, should the pattern in a Mixed-use Addition further erode connectivity. For example, in the case of an addition to an existing Mixed-use edge, where connectivity is less than the Mixed-use center, the street pattern should maintain or increase the connectivity to facilitate transitions to future development.
Service Infrastructure	Water and sewer is provided by extension of an existing common system
Community Infrastructure	Generally, Mixed-use Additions are contingent on the existing Mixed-use areas having adequate community infrastructure in place with excess capacity to serve the Mixed-use Addition.
Lot sizes	Lot sizes are compatible to the existing established pattern.
Criteria for Implementation	<ul style="list-style-type: none"> ♦ Must occur immediately adjacent to existing municipalities or Mixed-use areas. ♦ Relies on sufficient existing community infrastructure (i.e. fire, school, parks) ♦ Must relate and be complementary to existing Development Patterns and uses. ♦ Relies on extension of common sewer and water service and the existing street pattern. ♦ At some critical mass, either in land area or intensity of non-residential uses, it must be established as a new Mixed-use area, unless the addition is consistent with amendments to an existing Mixed-use plan or municipal plan.

Infill

Development Pattern:

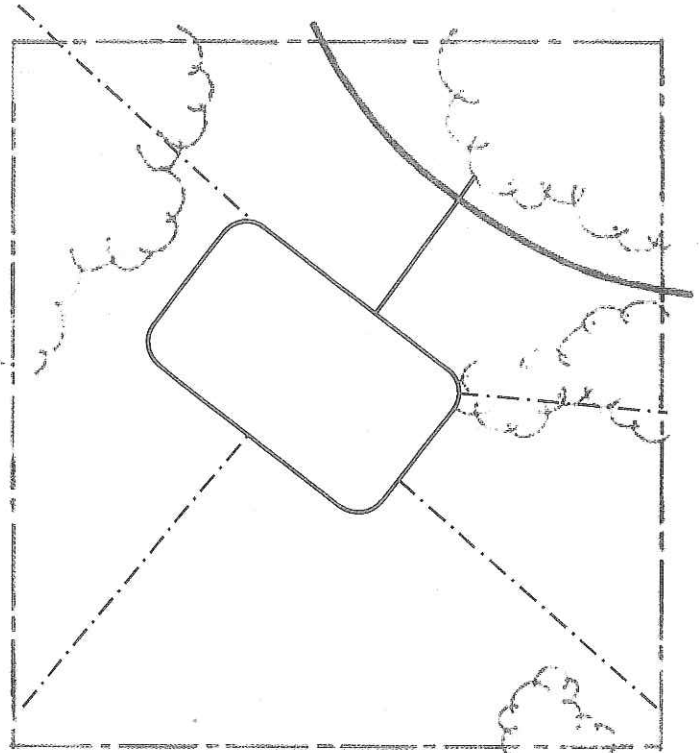
Infill represents development inside existing municipalities or other previously developed areas. Although this is typically a site- or project-specific strategy rather than a “Development Pattern,” an infill strategy does impact and can complement some of the other Development Patterns. Additionally, Infill can take advantage of underutilized sites and enhance or reestablish existing Development Patterns. Infill can occur with all types of uses (residential, commercial, industrial) and can include a mix of uses within individual projects. Infill typically takes advantage of efficiencies that result from proximity to existing complementary land uses or infrastructure.

Land Uses	Variable depending on project.
Edges / Transitions	Designed specific to adjacent land uses.
Open Space	Open spaces, if any within a particular site, must be related to the open space system accessed by adjacent areas. Typically, Infill strategies are more effective if sites can rely on an area-wide open space system, rather than requiring each individual site to be responsible for some independent level of open space.
Street network / Transportation	Repeat and maintain the connections of adjacent street patterns. Typically, Infill strategies take advantage of underutilized capacity of existing network – both for vehicles and pedestrians.
Service Infrastructure	Capitalize on existing service infrastructure.
Community Infrastructure	Capitalizes on existing community infrastructures.
Lot sizes	Variable depending on specific project. Generally compatible to adjacent lot sizes or patterns.
Criteria for Implementation	<ul style="list-style-type: none"> ♦ Criteria for Infill sites is contingent on the specifics of each particular site and may also be subject to municipal requirements, if in incorporated areas. ♦ Requires high level of design to integrate new development with existing land uses and patterns. ♦ May require use of incentives to accommodate real or perceived obstacles to Infill development – incentives may involve land use bonuses, such as greater density, design bonuses, such as open space, or parking reductions/economic incentives, such as fee waivers or tax incentives.

Industrial Development Pattern:

The Industrial Development Pattern represents development that is not compatible with other uses because of the large amounts of land required or the incompatible nature of the use. Industrial types of uses should be congregated into districts that can be buffered or separated from other non-compatible uses.

Additionally, these types of uses rely on a direct, improved transportation system because of the traffic, typically heavy trucks, that they generate.



Land Uses	The land uses in this category require separation from other uses, because of their size or the incompatible nature of their uses. Uses generally include warehousing, shipping and receiving and large-scale manufacturing.
Edges / Transitions	Generally within this pattern, buffers or berms further separate each individual site. These areas may be either natural or manicured. Edges between Industrial patterns and other Development Patterns (specifically residential) require extensive buffering to reduce the impact on the adjacent areas.
Open Space	Open space is more formal, often designed as part of individual site landscape plans. Private open space consists of medium or large yards, common park grounds, or landscaped areas. Private open space can be disjointed, due to its individualized design and purposes – (i.e. designed to serve specific lots or developments). Public open space may exist as part of a formal community-wide planning effort, typically removed from these types of industrial sites.
Street network / Transportation	Good highway access is necessary due to the large trucks and heavy traffic volumes required by the development type. Because of the size of the park, the street network is typically internal, serving each development site. Industrial Development Patterns typically require large amounts of parking, due to the traffic generated by the use and the number of employees.
Service Infrastructure	Sewer and water service may be common systems – typically public utility extensions, but they also may involve development of private systems.
Community Infrastructure	Fire, police, schools, parks and other community infrastructure can be supplied by existing, but remote facilities, if sufficient capacity exists. New infrastructure facilities may be phased in as developments that support industrial activity increase (i.e. commercial and residential development).
Criteria for Implementation	<ul style="list-style-type: none"> ♦ Traffic impact becomes a primary determinant of warehousing development projects as vehicle trips and congestion increase with this pattern. ♦ Typically triggered by immediate availability or short-term practicality of service infrastructure investments. ♦ Community infrastructure (fire and police) must be provided by existing remote facilities or developed over time, as development increases. ♦ Generally, not appropriate for areas with significant natural features worthy of preservation.

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RECOMMENDATIONS

RECOMMENDATIONS

GROWTH PATTERN & POLICIES

Growth Alternatives, including Existing Municipality, Corridor Focus and Metropolitan Area Focus, developed in the previous section of this plan, were refined into a Preferred Growth Alternative by the citizens and leaders of Jefferson County. The Preferred Growth Alternative is a composite concept that achieves a balance of growth with preservation of existing natural features and protection of the rural character of the county. To achieve this balance, a combination of the three alternatives was employed.

Preferred Growth Alternative

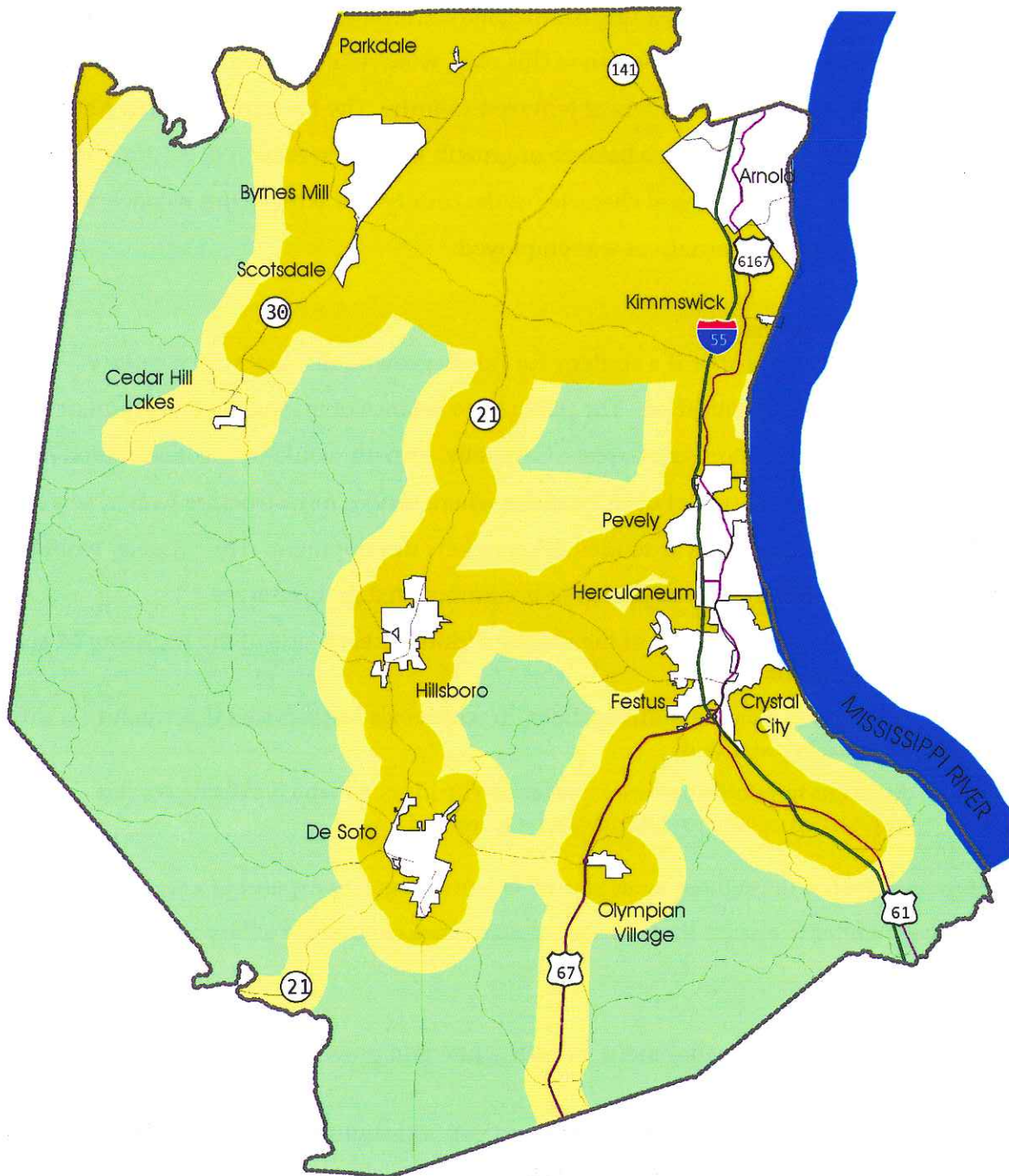
The *Preferred Growth Alternative* is a strategy for future growth, through which county development priority is established. The pattern is a balance of managing development and preservation of natural features and areas. Generally, growth would be accommodated in areas adjacent to existing development or in locations where service infrastructure (water, sewer and roads) is either present or easily extended to serve new development. This strategy would encourage that growth and development be accommodated in three areas:

- The northern one-third of the county including, each side of the Highway M and MM corridor.
- Adjacent to existing municipalities, in which existing service infrastructure is present and can be extended.
- Adjacent to established transportation corridors, in which existing service infrastructure is present and can be extended.

Development within these three areas should be encouraged to expand in a logical and progressive manner to ensure that service infrastructure can extend to any new development.

Characteristics

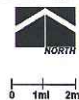
- Targets economic development, infrastructure and growth around currently developed areas.
- Creates efficiencies in the provision of service and community infrastructure.
- Builds on the existing markets of incorporated, developed areas.
- Preserves identities of established incorporated areas.
- Balances rural character by promoting organized development and preserving rural areas throughout the county.
- Requires cooperative planning with incorporated areas.
- Organizes and builds on the existing corridor Development Pattern.



Preferred Growth Alternative
Jefferson County, Missouri
AUGUST 2003

Interstate
U.S. HWY
State HWY
Municipality

Primary Growth Area
Secondary Growth Area
Reserve



RECOMMENDATIONS

GROWTH PATTERN & POLICIES

Growth Policies

In addition to the growth and development policies outlined in the previous section, the following policies are specific to the Preferred Growth Alternative as recommended for Jefferson County:

- Development shall be targeted to infill sites and sites adjacent to existing development, which are designated as "Primary Growth Areas."
- Development shall not be encouraged in the "Reserve" of the county.
- If development does occur in the "Reserve," it should be rural in nature with reduced levels of service and community infrastructure.
- Development within the "Primary and Secondary Growth Areas" shall be required to utilize or extend public infrastructure systems, including water, sewer and roads.
- Septic or on-site wastewater treatment systems shall be discouraged in the "Primary and Secondary Growth Areas and lots with existing systems in these areas should be connected to public sewer when physically and financially possible."
- Development will be one of the eight development patterns as defined by this plan - Rural, Rural Cluster, Large Lot, Suburban, Mixed-use, Mixed-use Addition, Infill or Industrial.
- Development within the county, that is in proximity to existing municipalities, shall be coordinated with the municipality.
- Commercial and employment centers shall be located in either the municipality or in the "Primary Growth Area," immediately adjacent, and it shall have direct access to a County, State or Federal highway.
- Residential development that has access to established transportation corridors shall be encouraged.

Within the Preferred Growth Alternative described in the previous section, any of the Development Patterns may be applied, provided they meet the goals of the Official Master Plan. In order to accomplish this, application of the various Development Patterns must not only provide for the orderly growth called for by the Preferred Growth Alternative, but they must also occur selectively, to address individual site conditions, such as topography and transportation access, that make the characteristics of each Development Pattern appropriate.

Each Development Pattern profiled in the previous chapter achieves a distinct character, which produces diverse benefits and impacts, and the appropriate application of any Development Pattern is dependent on the development site and its relationship to the surrounding area. In other words, simply because an area is located in a Primary Growth Area as indicated in the Preferred Growth Alternative, does not necessarily mean that wide-spread or intense development will occur. Rather, it indicates that the area is a priority for the county to apply one of the eight Development Patterns for future growth – spanning from Rural or Rural Cluster to the Suburban or Mixed-use Patterns.

This plan calls for an evaluation, particularly in Primary Growth Areas, and an analysis of options for a variety of Development Patterns. This will enable the county to achieve a balance and mixture of land uses as growth occurs, rather than static and similar uses that have characterized some of the past development that the county considers undesirable. For example, in areas of recognized and valuable natural resources or difficult topography, a Mixed-use, Rural Cluster, or Rural Development Pattern may be the most appropriate. Application of these Development Patterns allows the county to assure that the required infrastructure can be efficiently provided, and the impacts of development can be steered away from those critical resources or challenging site conditions.

While the Preferred Growth Alternative represents contemporary policies and goals towards broad growth issues in the county, the Development Patterns identify design, scale and characteristics for how that growth can best occur and still meet the goals for Jefferson County. This section will identify application criteria and policies for each Development Pattern in relation to the Preferred Growth Alternative.

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DEVELOPMENT PATTERN APPLICATION

Development Pattern Application Criteria:

The criteria listed below explain how each Development Pattern relates to an over-all blueprint for Jefferson County's growth. This section establishes which Development Patterns are appropriate in the Primary Growth Areas, Secondary Growth Areas and Reserve. This section also establishes criteria that make those Development Patterns appropriate in a particular area. Collectively, these criteria create a countywide development framework to meet the goals of this Official Master Plan, provided that application also occurs consistent with the characteristics of each Development Pattern profiled in this section. These patterns shall be implemented through land regulations and design standards. The design, scale and characteristics of the Development Patterns should, therefore, occur as advocated in this Official Master Plan.

Primary Growth Area -

In the Primary Growth Area, all eight of the profiled Development Patterns are applicable, provided that the following site criteria exist:

Rural Development Pattern: In the Primary Growth Area, the Rural Development Pattern is limited to –

- Areas where low-level service facilities exist, such as gravel roads or septic systems.
- Areas that, by reason of topography, natural features or floodplains, cannot provide efficient infrastructure or support more intense development
- Areas with special rural vistas or important natural features, as identified by a special study for less intense development such as a watershed study or natural features inventory.
- Areas where growth pressure is expected beyond 10 years, and the area needs to be held for future development.
- Any area on the extreme edges of the Mixed-use Development Pattern.

Rural Cluster Development Pattern: In the Primary Growth Area, the Rural Cluster Development Pattern is appropriate in –

- Areas where low-level service facilities exist, such as gravel roads or septic systems.
- Areas that, by reason of topography, natural features or floodplains, cannot provide efficient infrastructure or support more intense development

-
- Areas with special rural vistas or important natural features, as identified by a special study for less intense development such as a watershed study or natural features inventory.
 - Areas where growth pressure is expected beyond 10 years, and the area needs to be held for future development.
 - Any area on the extreme edges of the Mixed-use Development Pattern.
 - Any area where existing infrastructure access or capability for immediate expansion and connection, market pressures for residential development, natural constraints or valued rural characteristics co-exist.

Large-lot Development Pattern: In the Primary Growth Area, the Large-lot Development Pattern is limited to:

- Transition areas from any future Mixed-use Development Pattern, provided it is limited in scope, supports the Mixed-use, has immediate access to the Mixed-use center, and transitions to Rural Development Pattern outside the area.
- Areas where low-level facilities exist, such as gravel roads or septic systems, and they are not reasonably expected to be upgraded within the next 20 years.
- This pattern is generally not applicable in Primary Growth Areas due to the typically low density pattern that consumes developable land and resources more rapidly and with effects that remain for a long period of time.
- May be applicable in areas where the topography allows only low density development or where a lack of infrastructure exists (e.g. gravel roads instead of highways or septic systems instead of sewers) and are not reasonably expected to be upgraded within the next 20 years.

Suburban Development Pattern: In the Primary Growth Areas, the Suburban Development Pattern is appropriate in -

- Areas with access to services. Characteristics of access are adjacency and strong transportation connections (vehicular or pedestrian).
- Transition areas from any future Mixed-use Development Pattern, provided it is limited in scope, supports the Mixed-use, has immediate access to the Mixed-use center, and transitions to Rural development Patterns outside the area.

Mixed-use Model Development Pattern: In the Primary Growth Area, the Mixed-use Development Pattern is encouraged in-

- Areas where existing service infrastructure access or capability for immediate expansion and connection, market pressures for both residential and commercial development, natural constraints or valued rural characteristics co-exist.

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- Areas without immediate access to existing municipalities that serve as a community and commercial center.
- Any new development in the Primary Growth Areas not associated with or adjacent to existing development shall begin with the Mixed-use Development Pattern.

Mixed-use Addition Development Pattern: In the Primary Growth Area, the Mixed-use Addition Development Pattern is appropriate in -

- Any area immediately adjacent to an existing municipality or an established Mixed-use Pattern, where existing service infrastructure can be extended and necessary community infrastructure exists to serve the proposed development.

Infill Development Pattern: In the Primary Growth Area, the Infill Development Pattern is encouraged in -

- Any area where existing infrastructure capacity is under-utilized, and sufficient community infrastructure exists to serve the proposed development.

Industrial Development Pattern: In the Primary Growth Area, the Industrial Development Pattern is appropriate in -

- Areas with easy and convenient access to good transportation facilities, including highway, rail and air.
- Areas with reasonable location with respect to labor supply, raw material resource and markets.
- Areas with an adequate amount of developable land, free from foundation and drainage problems, with a sufficient reserve for future growth.
- Areas with an adequate and reliable supply of utilities, including water, sewer and power.
- Areas that are protected from encroachment of residential and other non-compatible land uses.
- Areas that minimize obnoxious external effects on neighboring land uses and the environment.

Secondary Growth Area -

In the Secondary Growth Area, the Rural, Rural Cluster, Large Lot, Suburban, and Mixed-use Development Patterns are applicable, provided that the following site criteria exist:

Rural Development Pattern: In the Secondary Growth Area, the Rural Development Pattern is encouraged in -

- Areas where low-level service facilities exist, such as gravel roads or septic systems.

-
-
- Areas that, by reason of topography, natural features or floodplains, cannot provide efficient infrastructure or support more intense development
 - Areas with special rural vistas or important natural features, which have been identified by a special study for less intense development by an area plan.
 - Areas where growth pressure is expected beyond 10 years, and the area needs to be held for future development.
 - Any area on the extreme edges of the Mixed-use Development Pattern.

Rural Cluster Development Pattern: In the Secondary Growth Area, the Rural Cluster Development Pattern encouraged in -

- Areas where low-level service facilities exist, such as gravel roads or septic systems.
- Areas that, by reason of topography, natural features or floodplains, cannot provide efficient infrastructure or support more intense development
- Areas with special rural vistas or important natural features, which have been identified by a special study for less intense development by an area plan.
- Areas where growth pressure is expected beyond 10 years, and the area needs to be held for future Development Patterns, consistent with that anticipated pressure (i.e. not current large lot / possibly not suburban).
- Any area on the extreme edges of the Mixed-use Development Pattern.
- Any area where existing infrastructure access or capability for immediate expansion and connection, market pressures for residential development, natural constraints or valued rural characteristics co-exist.

Large-lot Development Pattern: In the Secondary Growth Area, the Large-lot Development Pattern is limited to:

- Transition areas from any future Mixed-use Development Pattern, provided they are limited in scope, supports the Mixed-use, have immediate access to the Mixed-use center, and have transitions to Rural Development Patterns outside the area.
- Areas where sub-standard facilities, such as gravel roads or septic systems exist, and they are not reasonably expected to be available within the next 20 years.
- Areas that can efficiently connect to existing service and community infrastructure of established Suburban or Mixed-use Development Patterns.

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Suburban Development Pattern: In the Secondary Growth Area, the Suburban Development Pattern is limited to -

- Areas with access to services. Characteristics of access are adjacency, strong transportation connections (vehicular or pedestrian), presence of sufficient service, and community infrastructure.
- Transition areas from any future Mixed-use Development Pattern, provided they are limited in scope, support the Mixed-use, have immediate access to the Mixed-use center and have transitions to Rural Development Patterns outside the area.

Mixed-use Development Pattern: In the Secondary Growth Area, the Mixed-use Development Pattern is encouraged in-

- Areas where existing service infrastructure access or capability for immediate expansion and connection, market pressures for both residential and commercial development, natural constraints or valued rural characteristics co-exist.
- Any new development in the Primary Growth Areas, not associated with or adjacent to existing development shall begin with the Mixed-use Development Pattern.

Reserve

In the Reserve, the Rural and Rural Cluster Development Patterns are applicable.

Rural Development Pattern: In the Reserve, the Rural Development Pattern is appropriate throughout the Reserve.

Rural Cluster Development Pattern: In the Reserve, the Rural Cluster Development Pattern is appropriate in-

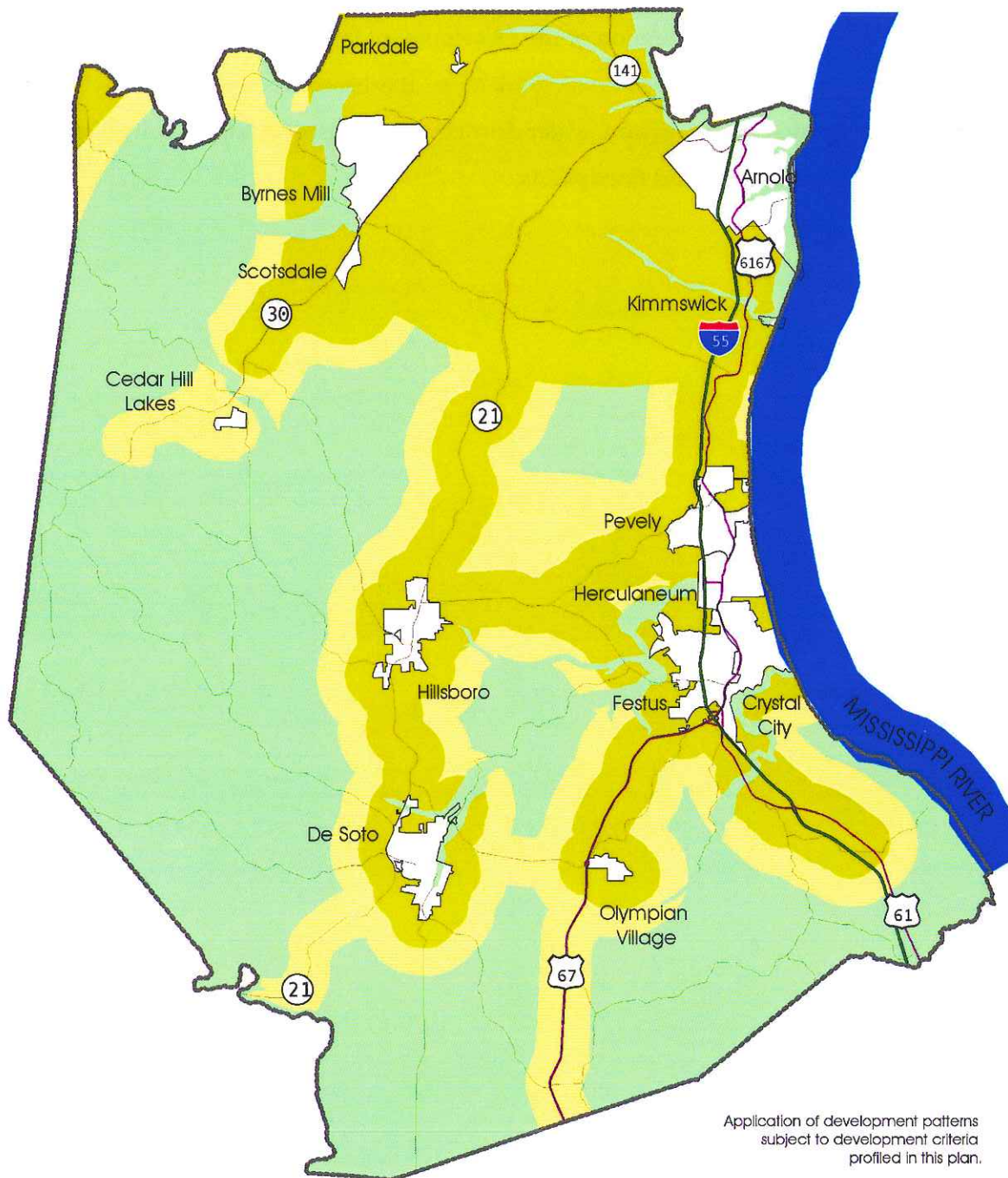
- Areas served by existing or newly created public service infrastructure. They may be clustered with a maximum net density of 1 unit to 2 acres.
- Areas not served by public service infrastructure should be clustered to maintain a maximum net density of 1 unit to 5 acres.

Development Framework Map:

The following illustrates the application of the Development Patterns according to the above criteria in a conceptual Development Framework Map. It is based upon data identifying roads and other transportation infrastructure, water districts, sewer districts, topography, watersheds, existing municipal boundaries and floodplains.

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DEVELOPMENT PATTERN APPLICATION



Development Framework
Jefferson County, Missouri
August 2003

Interstate
U.S. HWY
State HWY
Municipality

All Development Patterns
Mixed-use, Suburban,
Large Lot, Rural Cluster, Rural
Rural & Rural Cluster



Industrial Uses:

Many of the Development Patterns can accommodate future industrial land uses – namely the Mixed-use, Mixed-use Addition, Infill, and Suburban – when used in the context of the application criteria. The inclusion of industrial land uses should be encouraged as a part of the mix of uses, when its occurrence is compatible with the design and scale of the particular Development Patterns. However, occasional large scale and more intense industrial uses are incompatible with any of these patterns, making for an awkward or disruptive land use pattern. Within the Preferred Growth Area, the General Industrial Development Location Criteria (Page 76), have been created to plan for and accommodate this type of Industrial Development Pattern within Jefferson County. The application of these criteria would, in essence, create special districts appropriate for potential industrial expansion or more intense industrial uses that may not be compatible with any of the Development Patterns.

All industrial development should still be in accordance with the overall goals of this Official Master Plan with regard to quality growth and development, efficient infrastructure, efficient and multi-modal transportation and environmental or rural character stewardship. The development techniques and alternatives discussed throughout this plan and should continue to be applied to the extent that they support industrial growth. Examples would be the eco-industrial parks profiled in the best practices report or mixed-uses, such as restaurants, day-care, or recreational facilities that support the industrial workforce at the location. Industrial uses and growth in other areas of the county should continue, provided that they meet the design, scale and criteria profiled in the Development Patterns.

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DEVELOPMENT PATTERN APPLICATION

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IMPLEMENTATION

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IMPLEMENTATION TOOLS & MATRIX

Implementation of the Official Master Plan for Jefferson County is not the culmination of the planning process; rather it is part of the continual planning cycle of input, analysis, evaluation, plan development, and action. Although actions of implementation produce results, those results become yet another input into the planning process. The Official Master Plan is a long-range plan; therefore implementation is incremental and cumulative – occasionally involving a large-scale project, however more frequently involving small projects and the day to day decisions effecting the growth and development of the county.

Putting the plan into action occurs through private development applications, county investments and improvements, private partnerships that serve as community catalysts to organize citizens and private funds, and local businesses starting, growing, and changing. The decisions that put the plan into action come from a variety of sources – both public and private – and from a variety of perspectives – regulatory, fiscal, and strategic. Jefferson County's role in implementation touches all of these categories and there are many tools in the implementation "toolbox".

Implementation Tools:

Implementation tools available to Jefferson County include: the Unified Development Ordinance (land development regulations including zoning and subdivision regulations, and site design standards or design guidelines); public infrastructure extension policies; capital improvement programming; impact analysis; strategic alliances with other public and private implementing entities; and tax incentive policies. Each of these tools serves a slightly different purpose. Yet, the tools must maintain a strong connection to planned goals in order to ensure an integrated and continuing implementation process.

Unified Development Ordinance: Under the Missouri statutes, counties are authorized to develop regulations over private land activities to further common goals and implement a Master Plan. Primarily this regulation involves subdivision of property, zoning of property, and site design and development standards. Although the various types of land development regulations derive their authority from several statutory sources and for a range of public

purposes, more commonly they are being codified in a “unified development ordinance”. A unified ordinance facilitates use and administration for citizens and public officials.

Subdivision Regulations – Regulation of the division of land is a major regulatory means of implementing the Master Plan. In contrast to zoning, subdivision regulations deal with ensuring that ownership patterns, infrastructure, and streets are laid out in a consistent and efficient manner promoting the long-term vision of the community through the platting process. The adoption of subdivision regulations and the approval of plats that are designed according to the regulations establish long-term patterns within the community which are not easily changed or altered. Therefore, subdivision regulations have an inherent and immediate link to a long-term Master Plan.

Missouri statutes, RSMo § 64.825, provide that counties may regulate subdivisions, in order to “protect the public health and general welfare,” addressing the following:

- the proper location and width of streets, including grade and improvement standards;
- the proper location of building lines;
- the proper location of open spaces;
- safety;
- recreation;
- congestion of population, including minimum width and area of lots; and
- the manner and extent of water, sewer, and other utility services.

From this list, it is evident that subdivision regulations can greatly influence how effectively the goals of the Master Plan are achieved. Goals such as transportation choice, walkable neighborhoods, efficient infrastructure, and open space and recreation opportunities that add to quality of life are dependent on these key aspects of subdivision regulations. Ultimately, subdivision regulations will determine how smoothly a community makes the transition from non-urban to urban areas – both over areas and over time.

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Zoning – While subdivision regulations determine the physical framework of the community, zoning arranges the development within that framework. Zoning is the act of establishing districts and regulations governing the use, placement, spacing, and size of lots and structures. Application of zoning district standards is more flexible than subdivision standards, in that zoning may change more easily with market conditions, demographic trends, or political priorities. The physical patterns established by subdivision regulations are less flexible than the location and type of land uses established through zoning.

Missouri statutes, RSMo § 64.850, provide that counties may establish zoning regulations, in order to “promote the health, safety, morals, comfort or general welfare” of the community, addressing the following:

- the height, number of stories, and size of buildings;
- the percentage of lots that may be occupied;
- the size of yards, courts and other open spaces;
- the density of population; and
- the location and use of buildings, structures and land for trade, industry, residence or other purposes.

Under the authority granted by the state statutes, counties may adopt such rules as subdivision regulations and zoning orders to govern the subdivision and use of land. While both the statutes and subdivision regulations affect a county’s ability to achieve the long-range goals of a Master Plan, the cumulative effect of decisions made under the zoning order have the greatest impact. Therefore, it is imperative that the zoning regulations and the decisions made pursuant to these regulations be consistent with the Jefferson County Official Master Plan.

Site Design, Performance Standards and Design Guidelines - Site design, performance standards and design guidelines are the most specific portion of zoning and guide how sites are developed within established zoning districts. An alternative form of implementing these types of design and performance standards and guidelines is through an overlay district. Overlay districts are regulations in addition to those required by the specific zoning district and can be applied across

all zoning districts if the zoning order allows. These standards and guidelines fall within the zoning authority granted, RSMo § 64.855, to counties in that they incorporate the elements discussed above to be addressed in zoning ordinances, but also determine the standards by which development sites relate to and achieve the “character of the districts”, as defined by the state statute. Thus, in addition to generally applicable site design standards that are incorporated in a zoning ordinance or unified development ordinance, more specific standards and guidelines may also be adopted as part of an area-specific planning effort, either as supplemental regulatory standards or as advisory design guidelines. Whether regulatory or advisory, site design standards typically address the following elements of development:

- open or public space design;
- landscape materials;
- streetscape design;
- site access and internal site circulation – both vehicular and pedestrian;
- on-site parking and loading standards;
- storm water facilities;
- signs; and
- building orientation, relationships, design, and materials.

Collectively these elements will dictate aesthetic impacts of development, but more importantly to Official Master Plan goals, these elements will determine how individual sites function within the overall context established by the subdivision regulations and zoning districts. Within the Jefferson County Unified Development Ordinance, being prepared subsequent to the Official Master Plan, a section addressing site design, performance standards and design guidelines, as they relate to various zoning categories, will be included.

Capital Improvement Programming: A long-range capital improvements program (“CIP”) is generally a five-year plan that directs resource allocation for capital projects which can include: streets, sewers, water, storm water or parks facilities. The long-range CIP should reflect the size, approximate location and estimated costs of improvements needed to serve anticipated growth for the next fifteen to twenty years. This plan is not a detailed engineering document,

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but it should provide enough specificity to determine the costs that are required to remedy existing deficiencies and the costs that provide new capacity that will be necessary to serve the demand created by new development. The CIP includes a financing plan for multi-year projects and a schedule for high priority projects. A key component of the CIP is a one-year adopted capital improvements budget.

A CIP is an important implementation tool not only because it assists in planning the most cost-effective facilities, but it also allocates government's limited resources in order of priority to create the greatest impact or catalyst for private development. All of this must be done in furtherance of the long-range goals of the Official Master Plan.

Impact Analysis: Review of proposed developments at a subdivision or rezoning level should include: an analysis of on-site and off-site design impacts such as traffic generation; road maintenance; storm and waste water; emergency services; and open space/park/trail provision. For projects of a pre-determined size or in specified locations, review could also include environmental, conservation and other physical impacts.

An impact analysis can serve a number of implementation functions. In coordination with the UDO standards, and with an approved Capital Improvements Program, an impact analysis can determine the adequacy of public or "quasi-public" facilities to serve a proposed development. Any identified deficiencies between development impacts and planned capital facilities should then be used to phase in growth consistent with the ability to handle those impacts. Alternatively, these deficiencies may be used to identify the potential need for public/private partnerships and to assist in structuring strategies to approximately share the cost of the construction of new infrastructure facilities between new development and the existing citizenry.

Public Infrastructure Extension Policies: Each new development has a measurable impact on the level of service provided by existing or proposed infrastructure. As part of the planning process, the county can incorporate level-of-service standards for specific facilities and services (water, sewer, storm water, streets) and require that all new development ensure that adequate facilities

exist to serve the proposed new development. As detailed in the Development Patterns section, different developments warrant different infrastructure service levels. Citizens should expect service level standards to vary in Primary Growth Areas, Secondary Growth Areas, and Reserve.

Strategic Alliances with Other Public and Private Implementing Entities: As indicated above, implementation of the Plan is not the sole responsibility of the County, and many other entities will share roles and responsibilities – both individually and collectively. However, one of the most important functions of a Master Plan is to identify areas where these entities share roles and responsibilities, and to align efforts towards a common vision. Thus, strategic alliances between the County and other public and private entities becomes a powerful tool for plan implementation. Given Jefferson County's position within the St. Louis metropolitan area, alliances could involve other public entities such as local school districts, water or sewer districts, as well as other municipalities and regional authorities, such as the East-West Gateway Coordinating Council and state transportation and environmental officials. More important to Jefferson County may be the alliances or partnerships with developers or landowners where private resources advance plan goals when public resources are lacking.

Development Incentives and Tax Incentives: When both public and private resources are not sufficient to implement plan goals, development incentives and tax incentives, such as Tax Increment Financing and Missouri Chapter 353 Tax Abatement, can be a useful tools to generate plan implementation that would otherwise not occur. When used in a limited and targeted approach, these incentives will give a relative advantage to development that clearly furthers planned goals – thus yielding an equal or greater public benefit than the tax revenue forgone by the taxing jurisdictions. Tax incentives authorized by statute for use by the County include: tax abatement, where property taxes are frozen at pre-development levels; Tax Increment Financing, where increased property taxes are directed to defray development costs; and special districts, where private landowners can agree to finance facilities or services beyond those provided by the local government through assessments or other tax structures. Although the statutory grant of authority for use of development and tax incentives is limited and specific, it is often helpful to develop specific localized policies for their use. This enables a closer relationship to plan goals as well as provides guidance for private planning efforts as to when the use of such incentives would be considered.

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Implementation Matrix:

The following strategies are intended to guide the county's implementation of the 2003 update to the Jefferson County Official Master Plan. The strategies detailed in this section are the direct result of the goals and objectives identified previously in this plan. As such they are organized into the five major goal categories of the plan: Quality Growth and Development; Economic Development; Infrastructure and Transportation; Environment and Open Space; and Education and Communication. Specific strategies are provided for each category within a responsibility and phasing plan. There are three suggested phases: Short Term (0-2 years), Medium Term (2-5 years) and Long Term (5+ years). For those strategies that should become policies or practices of the County and others, an "on-going" category has been established. The primary responsibility for each particular strategy is indicated by the following code:

- (S) - Jefferson County Staff
- (E/AO) - Elected and appointed officials in Jefferson County including the County Commission and County Planning & Zoning Commission.
- (C) - Citizens and citizen task forces in Jefferson County
- (D/LO) - Developers and land owners in Jefferson County
- (B/I) - Businesses, industries, and business and industry organizations
- (OGA) - Other government entities and agencies such as municipalities, state or federal government, sewer and water districts, fire districts, and school districts.
- (UDO) - Unified Development Ordinance – this indicates that the strategy will be addressed in the Unified Development Ordinance to assist in implementation of the plan, or that the Unified Development Ordinance could be amended in the future for strategies that require further policy discussions.

The organization of the strategies into implementation time frames suggests that some strategies are more important than others. This is an intended consequence of the matrix in that Jefferson County is facing development pressure now. To adequately address those pressures certain strategies and policies need to be implemented immediately. Those strategies and policies that address issues that have an immediate impact on the growth and development of the county are recommended for earlier implementation than those pertaining to the longer-term viability and health of the county.

		Implementation Time Frame					
	Responsibility	On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	Achieved	Goals Achieved
Quality Growth and Development							
➤ Evaluate future development applications by applying Growth and Development Pattern criteria (Page 72) in the Official Master Plan.	(S), (E/AO)	❖					1. (all), 2.A.,3.A., 3.C., Goal 4.(all), 5.B.
➤ Prepare specific land use plans for watersheds, identifying specific application of Development Patterns and specific location and mix of various land uses.	(C), (S), E/AO), (D/LO)	❖					1. (all), 2.A., 2.C., 3.B., 3.C., 4.(all), 5.(all)
➤ Adopt site design standards specifically tailored to the eight Development Patterns profiled in this Official Master Plan.	(UDO), (S), (E/AO)					❖	1.A., 1.B., 1.C., 1.F., 2,A, 3.C., 4.A., 4.B., 5.A.
➤ Require developers to provide infrastructure improvements concurrently and consistent with the level of development.	(UDO), (S), (E/AO)					❖	1.A., 1.B., 1.C., 1.D., 3.A., 3.C.
➤ Create zoning districts that allow cluster or more compact development “by right” – that is, the zoning district and site design standards establish a threshold that developers shoot for rather than uncertain and ambiguous waivers to conventional standards.	(UDO), (S), (E/AO)					❖	1.A., 1.B., 1.C., 1.D., 1.E., 1.F., 3.C., 4.(all), 5.A.
➤ Support municipalities’ efforts to develop incentive policies for infill development in areas with existing infrastructure capacity.	(E/AO), (OGA)	❖					1.A., 1.E., 1.G., 3.A., 3.C., 4.(all), 5.B.
➤ Use a public/private partnership to facilitate construction of demonstration projects incorporating more compact, design-oriented development at a rural scale.	(S), (E/AO), (D/LO)	❖					1.A., 1.B., 1.C., 1.D., 4.B., 5.A.

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		Implementation Time Frame					Goals Achieved
		On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	Achieved	
<ul style="list-style-type: none"> ➤ Create and adopt site development standards that encourage innovative site design techniques and overall Development Patterns that minimize impervious surface and reduce or eliminate grading and clearing of development sites. 	(UDO), (S), (E/AO)					☒	1.B., 1.C., 2.B., 4.(all)
<ul style="list-style-type: none"> ➤ Adopt a Capital Improvements Program that reflects parks and open space goals through its investment strategies. 	(E/AO), (S)					☒	1.D., 3.B., 4.(all)
<ul style="list-style-type: none"> ➤ Direct developers to site development and infrastructure planning techniques that reduce development costs, increase quality and maintain affordable housing. 	(UDO), (S), (E/AO)	☒					1.B., 1.C., 1.F., 3.A., 4.A., 4.B.
<ul style="list-style-type: none"> ➤ Create and adopt criteria and acceptance standards for dedication of public park and open space lands with development proposals. 	(E/AO), (S)					☒	1.D., 3.B., 4.A., 4.B.
<ul style="list-style-type: none"> ➤ Promote and establish standards for common usable open space in residential neighborhoods within walking distance of most residents. 	(E/AO), (S)					☒	1.D., 4.B.
<ul style="list-style-type: none"> ➤ Work with school districts to plan and locate new facilities in coordination with new development, and make them accessible by walking or biking to as many students as possible. 	(E/AO), (S), (OGA)	☒					1.B., 1.C., 1.D., 1.E., 3.C., 4.C., 5.B.
<ul style="list-style-type: none"> ➤ Create and adopt criteria for site plan review to ensure that commercial and industrial development are compatible with different uses either within the development site or on sites impacted by the development site. 	(UDO), (S)					☒	1.B., 1.E., 2.A., 2.C., 3.C., 4.B.

		Implementation Time Frame					Goals Achieved
		On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	Achieved	
<ul style="list-style-type: none"> ➤ Link protected or preserved open space or significant environmental corridors, particularly between potentially incompatible development sites or Development Patterns. 	(E/AO), (S)			❖			1.C., 1.D., 1.G., 3.B., 4.(all)
<ul style="list-style-type: none"> ➤ Develop appropriate design standards to ensure the compatibility of residential neighborhoods and employment centers. 	(UDO), (S)					❖	1.B., 1.E., 2.C., 3.C., 4.C.
<ul style="list-style-type: none"> ➤ Adopt improved site design standards for manufactured housing to ensure quality living environments as well as affordability. 	(UDO), (S)					❖	1.F.
<ul style="list-style-type: none"> ➤ Use Cluster Development Patterns to ensure that property near floodplains is protected by enforcing relevant requirements of the UDO and creating incentives for the use of cluster designs. 	(S), (D/LO)	❖					1.B., 1.C., 1.G., 3.B., 4.A., 4.B.
<ul style="list-style-type: none"> ➤ Create neighborhood design standards that allow developments to provide a wider range of housing options in the neighborhood or in close proximity to each other. 	(UDO), (S)		❖				1.B., 1.F.
<ul style="list-style-type: none"> ➤ Prepare and adopt area or neighborhood plans, along with any supplemental design standards, that clearly further plan goals and relate to the character of the areas surrounding the development site. 	(C), (S), (E/AO), (D/LO)	❖					1.(all), 3.A., 3.C. 4.B., 5.A.
<ul style="list-style-type: none"> ➤ Create an archeological and historical survey for the county and identify assets worthy for nomination on a state or national level. Consider a program for local designation and incentives for historical preservation. 	(C), (S), E/AO), (D/LO)				❖		2.A., 3.B., 4.B.
<i>Economic Development</i>							

		Implementation Time Frame					Goals Achieved
		Responsibility	On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	
➤ Facilitate coordination of all countywide economic development activities with the intent of providing better service to potential businesses and better marketing for the county.	(S), (E/AO), (OGA), (B/I)		❖				1.E., 2.A., 2.C., 5.B.
➤ Develop an economic development strategy plan in association with the goals of the Official Master Plan.	(S), (E/AO), (OGA), (B/I)		❖				1.E., 2.A., 2.C., 5.B.
➤ Organize roundtable discussions of the Official Master Plan among economic development organizations in Jefferson County.	(S), (E/AO), (OGA), (B/I)	❖					2.C., 5.(all)
➤ Identify and create development-ready industrial sites through watershed plans or other area plans.	(C), (S), E/AO), (D/LO)			❖			1.C., 2.(all), 3.A., 5.(all)
➤ Create strategies to attract eco-industrial development ¹ and consider this type of development in association with the Mixed-use or Suburban Development Pattern where appropriate, or alternatively as part of the Industrial Development Pattern.	(S), (B/I), (E/AO)		❖				1.B., 1.C., 1.E., 2.(all), 3.C., 5.B.
➤ Develop appropriate design standards to ensure the compatibility of residential neighborhoods and employment centers.	(UDO), (S)		❖				1.B., 1.E., 2.C., 3.C., 4.C.
➤ Seek EPA funding for identification and remediation of "brownfield" sites.	(S), (B/I), (D/LO)			❖			1.C., 2.(all), 4.(all), 5.B.
➤ Support the growth of the job base within municipalities of Jefferson County through cooperation with municipalities or endorsement of municipal economic development efforts.	(E/AO)	❖					1.C., 2.(all), 3.C., 4.(all), 5.B.

¹ See Best Practices Report – Section 2, "Prince Charles County, MD."

		Implementation Time Frame					Goals Achieved
		On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	Achieved	
➤ Use an adopted County policy regarding the use of tax incentives to support municipal economic development efforts and county efforts where appropriate.	(E/AO)		❖				2.(all), 5.B.
➤ Establish performance standards for any on-going eligibility for financial economic development incentives.	(E/AO)		❖				2.(all), 5.B.
➤ Support efforts of The Economic Development Corporation of Jefferson County that further the goals of this plan.	(S), (E/AO), (C), (OGA), (B/I)	❖					2.(all), 5.B.
➤ Encourage the use of state and federal historic tax credits for rehabilitation of eligible buildings and structures.	(S), (E/AO), (C), (D/LO), (B/I)	❖					1.D., 2.A., 4.B.
<i>Infrastructure and Transportation</i>							
➤ Prepare and adopt a five-year Capital Improvements Program for major County projects and ensure that projects are in conformance with the Official Master Plan.	(S), (E/AO), (OGA)	❖					1.A., 3.(all), 4.(all)
➤ Establish transportation network standards that are appropriate for different Development Patterns – i.e. Rural, Suburban, and Mixed-use.	(S), (E/AO), (OGA), (D/LO)					❖	1.B., 1.C., 3.A., 3.C., 4.C.
➤ Develop land use plans in coordination with the CIP and long-range transportation plans.	(C), (S), E/AO), (OGA)		❖				1.(all), 2.A., 2.B., 3.(all), 4.(all), 5.A.
➤ Target public investment in areas of the Primary Growth Area where more compact Development Patterns are most appropriate.	(S), (E/AO)	❖					1.(all), 2.B., 3.A., 3.C., 4.B., 4.C.
➤ Develop a long-range transportation plan for the county, consistent with the goals of the Official Master Plan and taking into account future Growth and Development Patterns.	(C), (S), E/AO), (OGA)					❖	1.A., 1.B., 1.C., 1.D., 3.A., 3.C., 4.C.

		Implementation Time Frame					
	Responsibility	On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	Achieved	Goals Achieved
➤ Conduct a study regarding the issue of interconnectivity and public maintenance of subdivision streets in order to resolve the issue of connectivity of private streets.	(S), (E/AO), (C), (D/LO), (B/I)		❖				1.A., 1.B., 1.C., 1.D., 1.G., 3.A., 3.C., 4.C.
➤ Require developers to provide infrastructure improvements concurrent with development and consistent with the level of development.	(UDO), (S), (E/AO)					❖	1.A., 1.G., 3.A., 3.C., 4.B.
➤ Encourage site development and infrastructure planning techniques that reduce development costs, increase quality, and maintain affordable housing.	(UDO), (S), (E/AO)		❖				1.(all), 2.A., 3.A., 3.C., 4.A., 4.B.
➤ Work with the state Department of Transportation for implementation of “context sensitive design” techniques ² into road projects – particularly on completion of Highway 21.	(S), (E/AO), (OGA)	❖					1.A., 1.B., 2.A., 3.C., 4.B.
➤ Coordinate with municipalities and encourage development of plans and regulations consistent with the Official Master Plan	(S), (E/AO), (OGA)			❖			1.(all), 3.(all), 4.(all), 5.(all)
➤ Work with East-West Gateway Coordinating Council to coordinate regional transportation goals and opportunities into county transportation plans.	(S), (E/AO), (OGA)	❖					1.B., 1.E., 3.A., 3.C., 4.(all), 5.B.
➤ Create zoning districts that allow cluster or more compact development “by right” – that is, the zoning district and site design standards establish a threshold that developers shoot for rather than uncertain and ambiguous waivers to conventional standards.	(UDO), (S), (E/AO)					❖	1.A., 1.B., 1.C., 1.E., 1.F., 2.A., 2.B., 3.(all), 4.(all)

² See Best Practices Report – Section 3, "Also of Note."

		Implementation Time Frame					Goals Achieved
		On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	Achieved	
➤ Encourage innovative site design techniques and overall Development Patterns that minimize impervious surface.	(UDO), (S), (E/AO)		☐				1.A., 1.B., 1.C., 1.D., 3.A., 3.C., 4.(all)
➤ Pursue federal grants for demonstration transportation projects in conjunction with the application of more compact Development Patterns.	(S), (E/AO), (OGA), (D/LO)			☐			1.A., 1.B., 1.C., 1.D., 3.A., 3.C., 4.C., 5.B.
➤ Design transportation facilities that preserve the rural and natural features, historic and cultural resources, and improve community appearance.	(S), (E/AO), (OGA)	☐					3.A., 3.C., 4.(all)
➤ Link protected or preserved open space or significant environmental corridors, particularly between potentially incompatible development sites or Development Patterns.	(E/AO), (S)			☐			1.C., 1.D., 1.G., 3.B., 4.(all)
➤ Provide and encourage multiple and alternative transportation connections, both within new development and between growth nodes and municipalities, to ease the pressure for continual widening and expansion of existing corridors.	(S), (E/AO), (D/LO), (UDO)	☐					1.A., 1.B., 1.C., 1.D., 1.E., 3.A., 3.C., 4.C.
➤ Develop plans for future transportation corridors – particularly east/west corridors – to provide alternatives and avoid overloading any one corridor. Such plans should be integrated with land uses and include alternative transportation modes and capacity from their inception.	(C), (S), (E/AO), (OGA)				☐		1.A., 1.B., 1.C., 1.E., 3.A., 3.C., 4.(all)
➤ Maintain appropriate capacities on major transportation corridors – including alternate transportation facilities – by coordinating transportation improvements with adjacent development.	(S), (E/AO), (OGA)			☐			1.A., 1.C., 1.E., 3.A., 3.C., 4.B.

		Implementation Time Frame					Goals Achieved
		On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	Achieved	
➤ Ensure that corridors connect growth nodes by coordinating transportation improvements between nodes with development of the nodes.	(S), (E/AO), (OGA)			❖			1.A., 1.C., 1.E., 3.A., 3.C., 4.B.
➤ Implement recommendations of the Jefferson County Water System Management Report.	(S), (E/AO), (OGA)		❖				1.C., 3.A., 4.A.
➤ Implement recommendations of the Jefferson County Wastewater Management Report.	(S), (E/AO), (OGA)		❖				1.C., 3.A., 4.A.,
➤ Implement recommendations of the Jefferson County Stormwater Management Report.	(S), (E/AO), (OGA)		❖				1.C., 3.A., 4.A.,
➤ Investigate and implement methods to ensure that new development shares financial responsibility for impact on public services and facilities.	(S), (E/AO)			❖			1.A., 3.A., 3.C.
➤ Prepare or revise existing level of service standards for infrastructure development and require that new development adhere to the standards for basic services including water, sewer, and roads. Standards should not be uniform across all Development Patterns (i.e. Rural, Rural Cluster, or Large-lot Development Patterns should be characterized by rural service levels).	(S), (E/AO)					❖	1.A., 1.B., 1.C., 3.A., 3.C., 4.(all)
➤ Develop a program for addressing any deficiencies in level of service standards for existing areas to be brought up to standards through capital improvements.	(S), (E/AO)			❖			1.D., 3.A., 3.C.
➤ Establish criteria to require existing neighborhoods to connect to public infrastructure.	(S), (E/AO)					❖	1.D., 3.A., 4.A.

		Implementation Time Frame					Goals Achieved
		On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	Achieved	
<ul style="list-style-type: none"> ➤ Create an incentive system (procedurally, financially, or through development bonuses) for developing in more compact, mixed-use patterns that ease overall infrastructure burdens. 	(S), (E/AO)					❖	1.A., 1.B., 1.C., 2.B., 3.A., 3.C., 4.B.
<i>Environment and Open Space</i>							
<ul style="list-style-type: none"> ➤ Encourage innovative site design techniques and overall Development Patterns that minimize impervious surface and reduce or eliminate grading and clearing of development sites. 	(UDO), (S), (E/AO)	❖					1.C., 4.A., 4.B.
<ul style="list-style-type: none"> ➤ Prepare specific land use plans for watersheds identifying specific application of Development Patterns and specific location and mix of various land uses. 	(C), (S), E/AO), (D/LO)	❖					1.(all), 2.A., 2.C., 3.B., 3.C., 4.(all), 5.(all)
<ul style="list-style-type: none"> ➤ Require new development to respond to constraints imposed by topography and views through application of the criteria and Development Patterns of the Official Master Plan. 	(S), (E/AO), (D/LO)	❖					1.B., 1.C., 3.B., 4.(all)
<ul style="list-style-type: none"> ➤ Encourage site development and infrastructure planning techniques that reduce development costs, increase quality, and improve transportation options. 	(UDO), (S), (E/AO)					❖	1.A., 1.B., 1.C., 3.(all), 4.(all)
<ul style="list-style-type: none"> ➤ Promote more environmentally sensitive and aesthetically pleasing stormwater management systems such as constructed wetlands and biofilters. 	(S), (D/LO)	❖					1.B., 3.A., 4.A., 4.B.
<ul style="list-style-type: none"> ➤ Prioritize infiltration as the primary stormwater treatment strategy to limit or eliminate the need for structural treatment facilities. 	(S), (D/LO)	❖					1.B., 3.B., 4.A., 4.B.

	Responsibility	Implementation Time Frame					Goals Achieved
		On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	Achieved	
➤ Regulate runoff and erosion during the development process to limit or eliminate non-point source contamination of water resources.	(UDO), (S), (E/AO)					❖	4.A., 4.B.
➤ Require site development techniques that reduce the grading and clearing of sites.	(S), (D/LO)					❖	1.B., 1.C., 4.(all)
➤ Promote or require maintenance and replacement of natural vegetation and native plants throughout the development process.	(S), (D/LO), (E/AO)					❖	1.B., 1.C., 4.(all)
➤ Develop strategies to mitigate and prevent the impact of on-site wastewater systems on watersheds.	(S), (E/AO)					❖	1.D., 1.G., 3.A., 4.A.
➤ Continue a public awareness program on stormwater issues consistent with the EPA Phase II stormwater guidelines.	(S), (C)	❖					1.G., 4.A., 5.A.
➤ Use the media and county resources to increase awareness of stormwater issues.	(S), (B/I)	❖					1.G., 4.A., 5.A.
➤ Develop a volunteer citizen involvement program for stormwater education and management.	(S), (C)	❖					4.A., 5.A.
➤ Conduct an inventory of significant environmental and natural features. At a minimum this inventory should include steep slopes, floodways, wetlands, intermittent streams and stands of mature forests.	(S), (C)					❖	1.B., 1.C., 4.(all)
➤ In the absence of a comprehensive environmental feature inventory, require site inventories for all development applications in order to determine the application of appropriate Development Patterns.	(S), E/AO)					❖	1.B., 1.C., 4.(all)

		Implementation Time Frame					Goals Achieved
		On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	Achieved	
	Responsibility						
➤ Identify important watershed areas and natural drainage ways and restrict the nature of development in those areas. Promote these areas as part of a linear parks and trails system.	(S), (E/AO), (D/LO)					❖	1.C., 1.D., 1.G., 3.A., 4.A., 4.B.
➤ Develop rural design standards to be applied to Rural, Rural Cluster, and Mixed-use Development Patterns.	(UDO), (S)					❖	1.B., 1.C., 3.B., 4.A., 4.B.
➤ Develop mechanisms and criteria for promoting and accepting conservation easements.	(S), (E/AO), (D/LO)			❖			1.C., 1.D., 3.B., 4.A., 4.B.
➤ Incorporate open space identification and public funding as part of the Capital Improvements Program.	(E/AO), (S)	❖					1.C., 1.D., 3.B., 4.A., 4.B.
➤ Employ context sensitive design techniques on all county road projects.	(S), (E/AO)			❖			1.A., 1.B., 2.A., 3.C., 4.B.
➤ Create and adopt a master plan for parks that is consistent with the Official Master Plan and that strengthens common goals.	(C), (E/AO), (S)		❖				1.D., 3.B., 4.A., 4.B.
➤ Create a plan that promotes the shared use of the floodplain as a natural greenway and trail system and make it a part of the Parks Master Plan.	(E/AO), (S)		❖				1.C., 1.G., 3.B., 4.(all)
➤ Conduct public outreach sessions on strategies and benefits of reducing the amount of property used for solid waste landfills.	(C), (S)			❖			4.(all), 5.A.
➤ Expand recycling program and target business and industry for potential partnerships as sources, processors, and markets for recycled materials.	(S), (E/AO), (B/I), (C)			❖			2.B., 2.C., 4.(all)
➤ Increase public awareness on solid waste management strategies including "reduce, reuse, recycle," and purchasing recycled products.	(S), (B/I), (C)	❖					4.(all), 5.A.
<i>Education and Communication</i>							

		Implementation Time Frame					Goals Achieved
		On-going	Short Term 0-2 yrs.	Medium Term 2-5 yrs.	Long Term 5+ yrs.	Achieved	
➤ Conduct public outreach sessions to promote the concepts of the Official Master Plan to the public.	(S), (E/AO)	❖					1.A., 1.B., 1.C., 5.A.
➤ Include municipalities in future watershed planning efforts.	(S), (E/AO), (OGA)	❖					1.A., 1.C., 1.D., 4.A., 5.B.
➤ Perform regular reviews of the Official Master Plan, and conduct more detailed evaluation and assessments of the Plan at five-year intervals, with public involvement.	(C), (S), (E/AO), (B/I), (D/LO)	❖					5.A.
➤ Use the media to increase citizen's awareness and understanding of countywide growth and development issues.	(S), (B/I)			❖			1.A., 1.B., 1.C., 5.A.
➤ Establish County staff as a resource for growth and development questions by the public.	(S)					❖	1.A., 1.B., 1.C., 5.A.
➤ Create internal work group representatives in all affected departments to communicate on development applications.	(S)					❖	5.B.
➤ Provide a countywide guidebook for developers on planning goals, development standards, and procedures in unincorporated Jefferson County.	(S), (OGA)			❖			1.A., 1.B., 1.C., 5.A., 5.B.
➤ Identify ways to incorporate future school district goals, such as future site acquisition in Growth Areas, into development plans when such goals will further Official Master Plan goals.	(S), E/AO), (OGA)			❖			1.A., 1.D., 1.E., 3.C., 5.B.
➤ Bring together representatives from various sectors of the economy through a series of community forums to develop leadership, coordination and community cooperation towards implementation of this plan.	(S), (E/AO), (OGA), (B/I), (D/LO)		❖				1.A., 1.E., 2.A., 2.C., 5.B.

