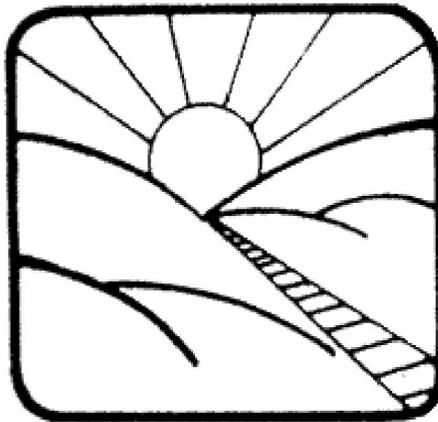


# **City of Eureka**

## **Comprehensive Plan**



**Prepared by**

**Richard Shearer & Associates**

**October 2003**

# City of Eureka

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# Introduction

## Purpose of the Plan

This Comprehensive Plan for the City of Eureka is intended as an update to the city's 1991 Comprehensive Plan and to be a general plan to guide the future development of the city. It is to be used as a policy plan by the Planning and Zoning Commission in reviewing development applications. It outlines the city's planning goals and objectives and outlines a long-range plan for the city. This section of the plan provides background information on the city's location, natural environment and history.

## Location

Eureka is in southwest St. Louis County, touches Jefferson County on the south, and is a short distance east of Franklin County. The city is approximately 24 miles southwest of downtown St. Louis. St. Louis County is in the east central part of Missouri immediately across the Mississippi River from Illinois. Eureka lies in a large bend in the Meramec River. While the city is generally on the north side of the river, due to the curving of the river, the city limits also touch the river on the east and northeast sides of the city. Eureka lies approximately 18 miles west of the Mississippi River. Eureka is part of the St. Louis Metropolitan Statistical Area, the fourteenth largest metropolitan area in the United States. A location map is included in Figure 1.

## Surrounding Cities and Counties

Eureka has a common boundary with the City of Wildwood to the north. The City of Pacific is a short distance west of the city. There are some significant pockets of unincorporated St. Louis County next to the city on the south and east. Eureka has a common boundary with Jefferson County on the south and southeast, and Franklin County is approximately two miles west of the western city limits.

## History

### *Prehistory*

Native Americans roamed the Eureka area before 5000 B.C. They were attracted by rich hunting and fishing opportunities in the area. These individuals gathered chert (a rock similar to flint) and fabricated it into domestic items. Dating of artifacts of this period have found them to be 7,000 to 9,000 years (made between 5000 and 7000 B.C.). The first known residents of the area were Native Americans of the Shawnee tribe that lived on the banks of the Meramec River.

# Eureka Comprehensive Plan

Figure 1  
Location Map



Richard Shearer  
& Associates

Saint Louis

May 2003



*Early History*

In 1541, Spaniards were the first Europeans to explore the area around Eureka. Hernando de Soto claimed the area for Spain and Rene-Robert Cavalier LaSalle later claimed the area for France. King Louis XIV decided that a large area, including Eureka, should be explored in 1658, and French explorers from Quebec began searching for potential locations of trading posts in the Mississippi River Valley. In 1682, the French formally took possession of a large portion of the United States that they named Louisiana. H.R. Schoolcraft wrote in “A View of the Lead Mines of Missouri,” (1819), that the first reference to the Meramec River by Europeans was by a French Priest, Father Gravier after he journeyed down the Mississippi River in 1699. He wrote of the “River Miaramiguoa,” his interpretation of the Native Americans’ name for the river. His journal indicated that the name meant “the river of ugly fish” in the Native American language (probably a reference to the catfish and bullhead in the river).

In 1720, lead mining began in the area. Sieur Renault received the first land grant in what is now Jefferson County where the Big River joins the Meramec River, just south of the end of Eureka Road. In 1763, the governor of French Louisiana granted Gilbert Antoine Maxent the exclusive right to trade with Native Americans on the Missouri River and west bank of the Mississippi River. Maxent sent Pierre Laclède to set up a trading post in Upper Louisiana. In November of 1763, Laclède found a terraced area on the west bank of the Mississippi River for the post, 12 miles south of the confluence of the Missouri River. Laclède named the post for King Louis IX.

The French had a profitable trade with the Native Americans. Auguste Chouteau traded with the Native Americans over a path that later became Manchester Road. St. Louis might have remained small in these early years except that King Louis XV ceded the land east of the Mississippi River to England. French residents of Illinois moved to Missouri, with French traders moving to St. Louis and French farmers moving to Ste. Genevieve. Except for a brief period when the area was deeded to Spain, the territory remained under French control until acquired by the United States in 1803 as part of the Louisiana Purchase.

*Initial Settlement*

In the 1850’s, railroad building was prominent in St. Louis County. In 1853, the Missouri Pacific Railroad extended to the present day City of Pacific. It is reported that Eureka received its name from railroad builders who rounded a bend on the east side of the city, spied level land with no rocks to move and cried “Eureka!” The area was platted as a village in 1858 by Strodt and Shands of St. Louis.

***St. Louis City and St. Louis County***

By 1875, the City of St. Louis was a thriving city. By contrast, St. Louis County was a large, sparsely populated rural area. County residents petitioned the City of St. Louis to annex the entire county. In 1876, city residents rejected this petition and set permanent boundaries for the city. This action allowed more than 100 villages and cities to incorporate within the county over the next 125 years. In 2003, there were 91 municipalities in the county, some the result of consolidation of two or more villages.

***Early City Growth***

By 1890, Eureka contained approximately 100 homes, two churches, a post office, freemasons' hall, three stores, a school, two blacksmiths, a wagon maker, a saloon, and a fresh air camp for poor and orphaned city children. During 1900, the Children's Industrial Farm began which became Camp Wyman. In 1926, Route 66 was routed through the area along old Manchester Road. This highway which ran from Chicago to Los Angeles spawned a number of roadside businesses. In 1932, the highway was rerouted through Eureka. Much of this highway was obliterated by construction of I-44.

***Incorporation as a City***

In 1954, Eureka incorporated as a 4th class city encompassing approximately 2.7 square miles. Subsequent annexations have increased the city to approximately 9.35 square miles. In 1970, the Six Flags-St. Louis Amusement Park was constructed. This theme park is a major tourist attraction in the Midwest with an average of two million visitors each year. Six Flags has greatly influenced the Eureka area.

**Plan Contents**

This comprehensive plan contains several elements which were prepared after a thorough examination of existing conditions, the development of goals and objectives, and the preparation of a draft plan which was reviewed by the Planning and Zoning Commission. These elements include an introduction, socioeconomics, natural environment, land use, housing, economic development, transportation, community facilities, infrastructure, and parks and recreation. With the exception of the introduction, each plan element begins with a review of existing conditions relative to the element. Most elements then include a goal and objectives followed by a plan.

# Socioeconomics

## Population

### *Population Growth*

Eureka's population grew from approximately 817 people in 1950 to 7,676 in 2000. Significant growth in total population occurred between 1950 and 1980. During the 1960s, the city's population more than doubled. Another large increase occurred between 1990 and 2000 (63.9%). This growth rate is rare in St. Louis County municipalities for this time period. In fact, most cities in north and central St. Louis County have experienced significant declines in total population since 1970. Historical population data is summarized in Table 1.

<b>Year</b>	<b>Population</b>	<b>Percent Increase</b>
1950	817	--
1960	1,134	38.8%
1970	2,384	110.2%
1980	3,862	62.0%
1990	4,683	21.3%
2000	7,676	63.9%

Source: U.S. Census

### *Population Characteristics*

A critical component of city planning is not just a city's total population, but also the characteristics of that population. A key element of park and recreation planning, for example, is the distribution of the population by age group. Population information by age group (commonly referred to as cohort group) for Eureka for 1990 and 2000 is included in Table 2.

<b>Table 2 Population by Age, 1990 and 2000</b>			
<b>Age Group</b>	<b>1990</b>	<b>2000</b>	<b>Increase</b>
Under 5 years	371	705	334
5-to-9 years	440	659	219
10-to-14 years	381	702	321
15-to-19 years	348	527	179
20-to-24 years	191	291	100
25-to-34 years	859	1072	213
35-to-44 years	841	1566	725
45-to-54 years	408	999	591
55-to-59 years	221	302	81
60-to-64 years	54	199	145
65-to-74 years	215	256	41
75-to-84 years	213	241	28
85 years and over	159	157	-2
<b>TOTAL</b>	<b>4701</b>	<b>7676</b>	<b>2975</b>
Source: Census Data From 1990 STF1A and 2000 SF 1			

***Cohort Group Analysis***

At first glance, Eureka’s population distribution among the cohort groups appears to be similar to many other growing suburbs. New suburbs are characterized by large numbers of people between 30 and 45 years of age with similarly large numbers of people under 15. Suburbs also tend to have a rapid decline in the number of people in age cohort groups over 45. The reasons for these tendencies are that many young families are attracted to suburban areas. By contrast, suburbs tend to lose population in cohort groups between 15 and 24 years because individuals leave to attend college, join the military or for employment reasons. In addition, people over 55, and particularly over 65 have a greater propensity to live in central cities or older suburbs. Census figures reported 267 individuals living in group quarters in the city in 2000. Many of these individuals are over 65.

Another factor that must be considered in reviewing Eureka’s population breakdown is the fact that the large population concentration in the city in the 35-54 age cohorts also corresponds to the period when the United States experienced the largest number of births (the period between 1946 and 1964 referred to as the baby boom). However, the large number of individuals in the 25-44 age cohorts reflects the large number of young couples in the city who have undoubtedly been attracted by the ambiance of the community and single-family housing opportunities. Eureka’s age cohort group information reflects the city’s position as a suburb that has a number of new housing units and a city with a healthy growth rate.

Table 3 shows how cohort groups in the city changed between 1990 and 2000. A sophisticated type of population projection uses cohort survival to predict future population numbers. In Table 3, the 1990 cohort group Under 10 years, was aged 10-to-19 years in 2000. Table 3 indicates that every cohort group in the city showed an increase from 1990 to 2000 except for two groups that are over age 65. Cohort survival predicts the number of individuals in a cohort group that will be in a certain geographic area in the future based on death rates and migration. Death rates are low for younger cohorts and the change in cohort group size from 1990 to 2000 in Eureka is due to migration, with in-migration far exceeding out-migration for all but two of the cohort groups. It is assumed that much of the decline in the 75 years and over cohort group of 1990 is due to out-migration although this cohort group experienced the highest death rates because of their age.

<b>1990 Cohort Group</b>	<b>Individuals</b>	<b>2000 Cohort Group</b>	<b>Individuals</b>	<b>Cohort Group Increase/(decrease)</b>
Under 10 years	811	10-to-19 years	1,229	428
10-to-24 years	920	20-to-34 years	1,363	443
25-to-34 years	859	35-to-44 years	1,566	707
35-to-44 years	841	45-to-54 years	999	158
45-to-54 years	408	55-to-64 years	501	93
55-to-64 years	275	65-to-74 years	256	(19)
65-to-74 years	215	75-to-84 years	241	26
75 years and over	372	85 years and over	157	(215)

Source: Census Data From 1990 STF1A and 2000 SF 1

***Social Characteristics***

The level of educational achievement in Eureka is exceptional. In 2000, 29.8 percent of Eureka residents were enrolled in school, including 500 enrolled in a college or university. Statistics for adults over 25 indicate that 86.7 percent of these individuals have at least a high school diploma while 38.6 percent have a college degree and 12.1 percent have a graduate or professional degree (master’s degree, Ph.D., medical degree, law degree, etc.). All of these percentages are higher than the St. Louis County, Missouri and U.S. averages and indicate that Eureka residents are well educated. For comparison purposes, selected percentages of individuals with various educational levels are included in Table 4. Particularly impressive is the high percentage of adults with graduate or professional degrees.

<b>Table 4 Educational Attainment/Income Comparisons</b>				
<b>Area</b>	<b>% High School Graduate</b>	<b>% College Degree</b>	<b>Median Family Income 1999</b>	<b>Per Capita Income 1999</b>
<b>Eureka</b>	<b>86.7%</b>	<b>38.6%</b>	<b>\$80,625</b>	<b>\$27,553</b>
St. Louis County	88.0%	35.4%	\$61,680	\$27,595
Missouri	81.3%	21.6%	\$46,044	\$19,936
United States	81.6%	25.1%	\$49,600	\$21,690

Source: U.S. Department of Commerce, Bureau of the Census

Eureka’s labor force in 2000 included 3,842 individuals, consisting of 2,091 males and 1,751 females. The labor force is defined as those individuals aged 16 and over who are employed or actively seeking employment (unemployed). Those individuals who are 16 and over but enrolled in school, retired or not interested in working are not included in the labor force. Eureka’s percentages of men and women in the labor force are consistent with national, state and county averages. Eureka’s 2000 unemployment rate of 2.3 percent was much lower than the national average.

Income in Eureka in 1999 was above national, state and county averages except for per capita income which was slightly higher in St. Louis County. Median household income was \$74,301, median family income was \$80,625 and per capita income was \$27,553. Household income is defined as the average income of all households in the city, including families and

nonfamily groups. Family income is only computed for individuals who are related by blood, marriage or adoption. A summary of Eureka social characteristics is included in Table 5.

<b>Table 5 2000 Social Characteristics</b>		
<b>Characteristic</b>	<b>Number</b>	<b>Percentage</b>
Enrolled in School	2,290	29.8% (of total population)
High School Graduates	3,913	86.7% (of individuals over 25)
College Graduates	1,744	38.6% (of individuals over 25)
Graduate or Professional Degree	545	12.1% (of individuals over 25)
Male Labor Force	2,091	83.1% (of males 16 and over)
Female Labor Force	1,751	65.1% (of females 16 and over)
Unemployed	88	2.3% (of persons in work force)
Median Household Income	\$74,301 (1999)	
Median Family Income	\$80,625 (1999)	
Per Capita Income	\$27,553 (1999)	
Source: 2000 Census Data From SF 3		

# Natural Environment

## Physical Geography

### *Physiography*

Eureka is in the Salem Upland portion of the Ozark Plateau physiographic province. The Ozark Plateau is part of the Ozark-Oachita Highlands physiographic division that covers most of southern and central Missouri. This area is a deeply dissected plateau characterized by hills with steep valleys cut by clear streams. The Salem Upland is characterized by hills and broad floodplains. Much of Eureka, and the area around it, consists of significant hills, the Meramec River floodplain and a significant valley that runs east-west through the city.

Eureka has a wide range of elevations. The lowest elevation in the city is 404 feet above mean sea level (msl) along the Meramec River, and the highest elevation is approximately 780 feet above msl on a hill on the north side of the city east of Six Flags. The highest elevation in St. Louis County is 903 feet above msl in Rockwoods Range at Six Flags and Hencken Roads which is a short distance north of the city.

### *Creeks and Watersheds*

Eureka is in the Flat Creek, Fox Creek, and Clifte Creek subwatersheds of the Meramec River watershed. The Clifte Creek watershed is referred to as the Forby Creek watershed north of Eureka. The Meramec River watershed is the second largest watershed in St. Louis County draining 96,770 acres (approximately 151 square miles). The Meramec River starts approximately 80 miles southwest of Eureka as a spring-fed stream, and gradually gets larger as it winds its way north and east to the Mississippi River.

### *Geology*

The lithology and physical structure of the underlying surface of Eureka consists of slightly to moderately tilted, older sedimentary rocks. Bedrock formations exposed in the area are from the Ordovician period. Ordovician rocks include sandstone, dolomite and moderate solution limestone. These rocks are common in the Eureka area except in the Meramec River floodplain that contains alluvial sediments and soil material left by floods.

### *Soils*

Soils in and around Eureka include four general classifications: Wilbur-Haymond-Elsah association; Freeburg-Ashton-Weiler association; Menfro-Winfield-Urban land association; and Goss-Gasconade-Menfro association. These four associations are generally described below.

## *Natural Environment*

***Wilbur-Haymond-Elsah association.*** Nearly level and gently sloping, moderately well drained to somewhat excessively drained deep soils formed in alluvial sediment on flood plains. Not found in the city limits, these soils are found in parts of the Meramec River floodplain south and southwest of the city.

***Freeburg-Ashton-Weiler association.*** Nearly level and gently sloping, somewhat poorly drained to well drained, deep soils formed in loess and alluvial sediment, on terraces. These soils are found in relatively flat areas of the city including most of the I-44 corridor. It includes much of the Meramec River floodplain including the Times Beach area, much of the floodplain on the east side of the city and southeast of the city. It also includes much of the soils in the floodplain south of Old Highway 66 west of Allenton. Prevalent in the west Fifth Street corridor and the relatively flat land north of it.

***Menfro-Winfield-Urban land association.*** Gently sloping to very steep, well drained and moderately well drained, deep soils formed in loess, and Urban land on uplands. Found in the Old Town Area and the residential area immediately north of it stretching westward. Also found in steep areas west of Six Flags, in the Highway W corridor and south of the city.

***Goss-Gasconade-Menfro association.*** Moderately sloping to very steep, well drained and somewhat excessively drained, deep and shallow soils formed in limestone residuum and loess; on uplands. The most prevalent soil type in the Eureka area, these soils occur on steep slopes on the north side of the city, on the south side of the city (including the Legends), and occur east of the city in the steep slopes adjacent to I-44.

### *Climate*

Eureka has a humid continental climate characterized by warm summers. Most of the city's annual precipitation occurs in the warmer months. However, the city is subject to wide variations in temperature and precipitation from season to season. Total average annual precipitation is approximately 34 inches, with an average annual snowfall of approximately 18 inches. The highest monthly precipitation (approximately 3.7 inches) is in June and the lowest amount of precipitation typically occurs in January. Precipitation in the winter months is primarily as snow that may occur from November through early April. The highest average snowfall (approximately 5.4 inches) is in January. While snow is generally the heaviest in January, on average, ten inches of snow equals only one inch of precipitation.

Average temperatures vary considerably throughout the year. January has an average temperature of 31.3° F. and July has an average temperature of 78.2° F. Below zero temperatures occur at least one day during 80 percent of the winters and temperatures of 100° F. occur at least one day during 80 percent of the summers. It is unusual, however, for temperature extremes to last for more than two or three days. The growing season (the period from the last killing frost in the Spring to the first killing frost in the Fall) is approximately 210 days per year. The area

around the city experiences high humidity. The average annual relative humidity varies from 83 percent at 6:00 a.m. to 59 percent at noon to 61 percent at 6:00 p.m. Heavy fog occurs approximately 11.6 days per year. The prevailing wind direction is from the southwest although winds from the northwest and west northwest prevail from December through April.

## **Flora and Fauna**

### ***Vegetation***

The Eureka area is covered primarily by broad-leaf deciduous and needleleaf deciduous trees. Historically, the naturally occurring trees have been oak and hickory varieties. Trees native to the area include the following:

Green Ash ( <i>Fraxinus pennsylvanica</i> )	Silver Maple ( <i>Acer saccharinum</i> )
White Ash ( <i>Fraxinus americana</i> )	Sugar Maple ( <i>Acer saccharum</i> )
American Basswood (Linden) ( <i>Tilia americana</i> )	Red Mulberry ( <i>Morus rubra</i> )
River Birch ( <i>Betula nigra</i> )	White Mulberry ( <i>Morus alba</i> )
Ohio Buckeye ( <i>Aesculus glabra</i> )	Black Oak ( <i>Quercus velutina</i> )
Black Cherry ( <i>Prunus serotina</i> )	Blackjack Oak ( <i>Quercus marilandica</i> )
Kentucky Coffeetree ( <i>Gymnocladus dioica</i> )	Bur Oak ( <i>Quercus macrocarpa</i> )
Eastern Cottonwood ( <i>Populus deltoides</i> )	Chinkapin Oak ( <i>Quercus muehlenbergii</i> )
Flowering Dogwood ( <i>Cornus florida</i> )	Northern Red Oak ( <i>Quercus rubra</i> )
American Elm ( <i>Ulmus americana</i> )	Pin Oak ( <i>Quercus palustris</i> )
Slippery Elm ( <i>Ulmus rubra</i> )	Post Oak ( <i>Quercus stellata</i> )
Common Hackberry ( <i>Celtis occidentalis</i> )	Shingle Oak ( <i>Quercus imbricaria</i> )
Sugarberry ( <i>Celtis laevigata</i> )	Shumard Oak ( <i>Quercus shumardii</i> )
Downy Hawthorn ( <i>Crataegus mollis</i> )	Swamp White Oak ( <i>Quercus bicolor</i> )
Bitternut Hickory ( <i>Carya cordiformis</i> )	White Oak ( <i>Quercus alba</i> )
Black Hickory ( <i>Carya texana</i> )	Osage Orange ( <i>Maclura pomifera</i> )
Mockernut Hickory ( <i>Carya tomentosa</i> )	Common Persimmon ( <i>Diospyros virginiana</i> )
Pecan ( <i>Carya illinoensis</i> )	Eastern Redbud ( <i>Cercis canadensis</i> )
Shagbark Hickory ( <i>Carya ovata</i> )	Eastern Redcedar ( <i>Juniperus virginiana</i> )
Shellbark Hickory ( <i>Carya laciniosa</i> )	Downy Serviceberry ( <i>Amelanchier arborea</i> )
Honeylocust ( <i>Gleditsia triacanthos</i> )	American Sycamore ( <i>Platanus occidentalis</i> )
Black Locust ( <i>Robinia pseudoacacia</i> )	Black Walnut ( <i>Juglans nigra</i> )
Eastern Hophornbeam ( <i>Ostrya virginiana</i> )	Butternut ( <i>Juglans cinerea</i> )
Black Maple ( <i>Acer nigrum</i> )	Black Willow ( <i>Salix nigra</i> )
Boxelder ( <i>Acer negundo</i> )	
Red Maple ( <i>Acer rubrum</i> )	

**Wild Mammals**

Mammals native to the Eureka area are listed on the following page. Some typical open land species in the area are the eastern ground squirrel, eastern cottontail rabbit, opossum, and badger. Included in these mammals are the White Tail Deer. Deer are becoming a problem in the western part of St. Louis County because of their numbers and their decreasing fear of humans. The number of auto/deer collisions is increasing dramatically which causes substantial property damage besides causing injuries and sometimes death to the deer.

**Wild Mammals Common to the Eureka Area**

**Pouched Mammals**

Opossums (*Didelphis marsupialis*)

**Insect-Eating Mammals**

Short-tailed Shrew (*Blarina  
brevicauda*)

Least Shrew (*Cryptotis parva*)

Eastern Mole (*Scalopus aquaticus*)

**Flying Mammals**

Little Brown Bat (*Myotis lucifugus*)

Gray Bat (*Myotis grisescens*)

Keen's Bat (*Myotis keenii*)

Indiana Bat (*Myotis sodalis*)

Least Bat (*Myotis subulatus*)

Silver-haired Bat (*Lasionycteris  
noctivagans*)

Eastern Pipistrelle (*Pipistrellus subflavus*)

Big Brown Bat (*Eptesicus fuscus*)

Red Bat (*Lasiurus borealis*)

Hoary Bat (*Lasiurus cinereus*)

Evening Bat (*Nycticeius humeralis*)

**Toothless Mammals**

Nine-banded Armadillo (*Dasypus  
novemcinctus*)

**Hare-Shaped Mammals**

Eastern Cottontail Rabbit (*Sylvilagus  
floridanus*)

**Flesh-Eating Mammals**

Coyote (*Canis latrans*)

Red Fox (*Vulpes fulva*)

Gray Fox (*Urocyon cinereoargenteus*)

Raccoon (*Procyon lotor*)

Long-tailed Weasel (*Mustela frenata*)

Mink (*Mustela vison*)

Badger (*Taxidea taxus*)

Spotted Skunk (*Spilogale putorius*)

Striped Skunk (*Mephitis mephitis*)

**Gnawing Mammals**

Woodchuck (*Marmota monax*)

Eastern Chipmunk (*Tamias striatus*)

Eastern Gray Squirrel (*Sciurus  
carolinensis*)

Eastern Fox Squirrel (*Sciurus niger*)

Southern Flying Squirrel (*Glaucomys  
volans*)

Plains Pocket Gopher (*Geomys bursarius*)

Beaver (*Castor canadensis*)

Western Harvest Mouse (*Reithrodontomys  
megalotis*)

Fulvous Harvest Mouse (*Reithrodontomys  
fulvescens*)

Prairie White-footed Mouse (*Peromyscus  
maniculatus*)

Woodland White-footed Mouse  
(*Peromyscus leucopus*)

Eastern Wood Rat (*Neotoma floridana*)

Southern Lemming Mouse (*Synaptomys  
cooperi*)

Prairie Meadow Mouse (*Microtus  
ochrogaster*)

Pine Mouse (*Microtus pinetorum*)

Muskrat (*Ondatra zibethicus*)

Norway Rat (*Rattus norvegicus*)

Black Rat (*Rattus rattus*)

House Mouse (*Mus musculus*)

Meadow Jumping Mouse (*Zapus  
hudsonius*)

**Even-Toed Hoofed Mammals**

White-tailed Deer (*Odocoileus  
virginianus*)

***Birds***

Birds common to the Eureka area include varieties of doves, ducks, egrets, finches, hawks, herons, orioles, owls, sparrows, swallows, tanagers, woodpeckers, and many other species. A more comprehensive list of birds common to the area is included in Appendix A. This list includes birds in the area year-round, birds that are in the area during the summer (and fly south for winter), birds that are in the area during the winter (and fly north for the summer), and birds that are migratory (stop in the area during the migrations north and south).

**Factors Affecting Development**

The consideration of factors affecting development is essential prior to the preparation of a land use plan. An inventory of these factors provides a framework to develop the most efficient and prudent assignment of future land uses to support future development. Two types of factors affect the use of land: natural features and human-made features. Terrain is an example of a natural feature that may influence development. The presence of roads, public water and wastewater facilities are human-made factors that affect the use of land.

Physical aspects of the city’s natural and human-made environment significantly affect many portions of Eureka. Steep slopes and floodplains have limited the amount of land devoted to urban land uses. Physical factors including natural features and human-made features are discussed in this analysis. Each factor in its own way constrains urban development.

***Natural Features***

The natural resources of an area can have significant impacts on future development. For example, natural features often cause significant limitations in the construction of buildings, roadways, utility systems, and other structures. Most of the easily developable land in St. Louis County has already been developed. Remaining undeveloped land includes floodplains (which includes floodways and flood fringe areas), wetlands, and areas with steep slopes. The primary natural features that constrain development in the Eureka area are steep slopes and floodways.

***Steep Slopes.*** Areas on the north, south and west sides of the city have steep slopes with the central and eastern portions of the city having more gentle slopes and some relatively flat land along the Flat Creek and Meramec River. Significant slopes are found on the south side of the city north of the Meramec River floodplain. Significant slopes are also found on the north side of the city. Lands immediately west of Eureka also contain steep slopes. The city should be concerned with areas where the slope exceeds ten percent. It is difficult for large trucks to traverse streets that exceed an eight percent slope and minor streets should not have a slope exceeding ten percent.

Slopes are so steep in the Eureka area, that two different categories of slopes are shown

## *Natural Environment*

on the factors affecting development map. Slopes of 15 to 29 percent are prevalent in the area. These areas require special grading and low-intensity development. Slopes of 30 percent or more are also shown. These slopes should have limited development or no development at all. Slopes exceeding 30 percent are very prone to erosion because of the speed water will flow downward. Natural vegetation needs to be maintained on these steep slopes to reduce water runoff velocities.

***Floodplains.*** Historically, with the exception of areas within the Meramec River, Flat Creek and Fox Creek floodplains, the major portion of the area within the city's corporate limits has been outside of any floodplain.

Significantly, of the remaining undeveloped land within St. Louis County, approximately one-third is within the floodplains of the Mississippi, Missouri, and Meramec Rivers. Finding effective measures to address floodplain management was underscored following the Midwest Flood of 1993 when the Mississippi River and many of its tributaries flooded. Within St. Louis County, more than 1,000 homes and 450 businesses were either temporarily or permanently displaced as the Mississippi, Missouri, and Meramec Rivers overflowed their banks. The 1993 flood was very noticeable in Eureka and creeks that feed the Meramec River were significantly higher than normal. A mobile home park was flooded in the city and later bought by the federal government. This land was later transferred to the city and is now Kircher Park.

Another frequent flooding river is the Big River along Highway W south of the city. Significant flooding occurred during the Spring of 2002.

***Floodways*** Within floodplains, there are areas designated as floodways. These areas include the channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot at any point. Construction within floodways is prohibited. Therefore, they represent a significant constraint to development. There are significant areas in and around Eureka that are within a floodway.

### ***Human-Made Features***

Human-made features also influence future development. In the Eureka area, the primary human-made features that are applicable are infrastructure related. Major features that have affected the city's development have been Old Route 66, I-44, the Union Pacific (originally the Missouri Pacific) railroad and Burlington Northern Santa Fe (originally the St. Louis-San Francisco [Frisco]) railroad. These roadways have facilitated development because of ease of access to the transportation system.

Other factors affecting development include cemeteries. Cemeteries need to be

## *Natural Environment*

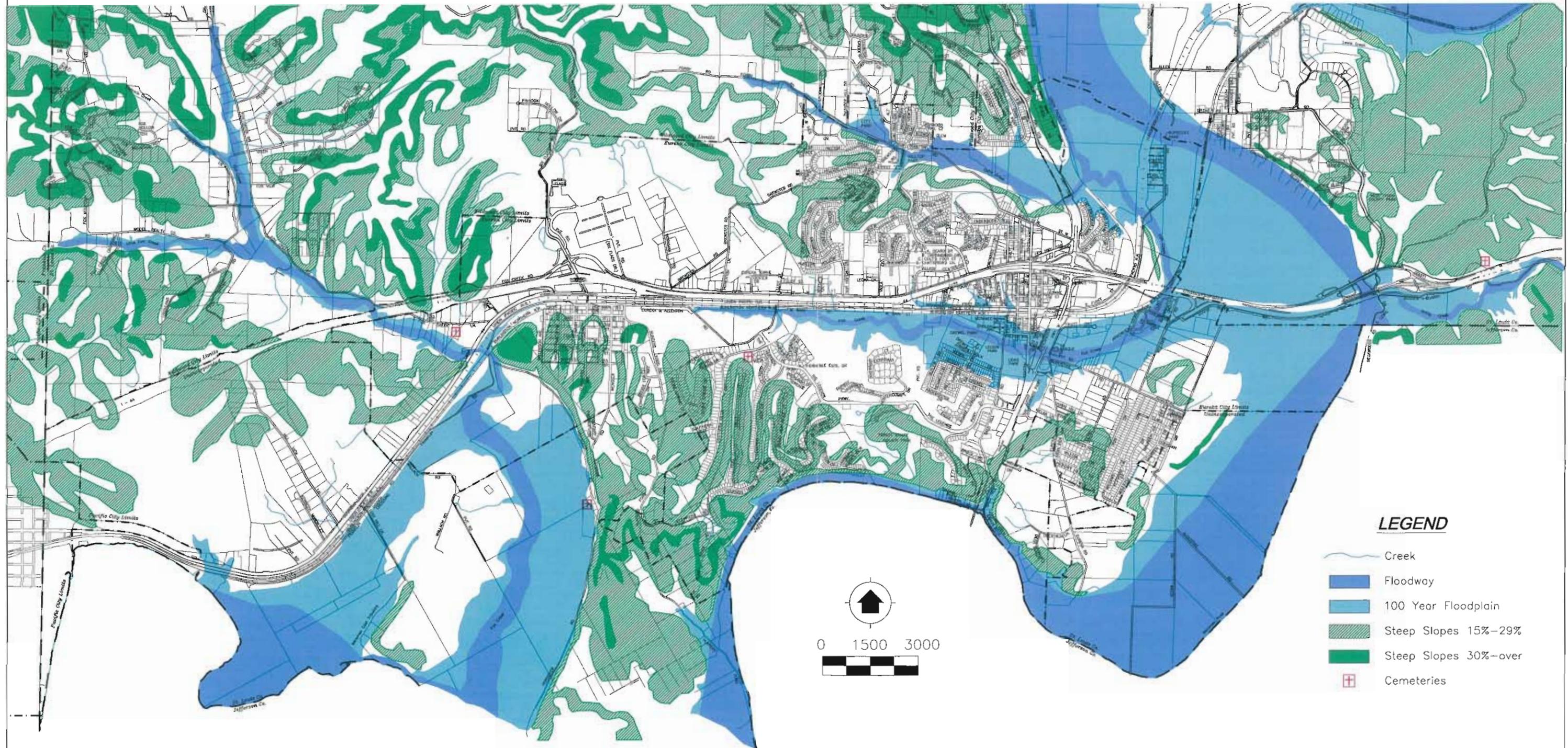
preserved. There are strict state laws to protect cemeteries and no redevelopment of cemeteries should be proposed by this plan. Significant cemeteries in and around Eureka are included on the Factors affecting Development Map.

### *Significant Factors Affecting Development*

The significant factors affecting development in the Eureka area are steep slopes, floodways, floodplains and cemeteries. The locations of these factors are depicted in Figure 2.

Figure 2

Factors Affecting Development



**LEGEND**

-  Creek
-  Floodway
-  100 Year Floodplain
-  Steep Slopes 15%-29%
-  Steep Slopes 30%-over
-  Cemeteries

# Land Use

## Existing Land Use

The land use in and around Eureka was influenced by a number of natural and human-made factors. While the rugged hills in the area provide natural beauty and interest, other natural factors such as floodplains, creeks and steep slopes hinder urban development. Human-made conditions such as railroads and major highways such as Route 66 and I-44 have also influenced development. Eureka encompasses an area of approximately 9.35 square miles.

For purposes of existing land use classification, all land uses in the city were broken into one of 16 categories. Some of these classifications are traditional categories used in most existing land use surveys (such as single-family residential, multiple-family residential, parks, etc.) while other classifications were designed as subsets of the typical general land use classification of commercial. These commercial designations were designed to reflect the large numbers of particular kinds of commercial activity in Eureka. Six classifications of commercial use are designated plus two industrial classifications. The 16 classifications are described below and depicted in Figure 3.

### ***Residential***

Residential classifications are divided as follows:

***Single-Family:*** this category includes only single-family detached dwellings;

***Duplex/Single-Family Attached:*** this classification includes two-family dwellings (duplexes) and single family dwellings that are attached to other single-family dwellings;

***Multiple-Family:*** this category includes buildings that are divided into three or more dwellings including apartment complexes.

***Manufactured Homes:*** this classification includes mobile homes and similar buildings that were manufactured and then moved to a site.

### ***Parks/Open Space/Public***

This group is divided among four classifications as follows:

***Parks:*** this classification includes city and county-owned and operated parks.

***Common Ground/Private Recreation Space:*** this category includes privately-owned open space including the common ground of residential developments and private parks.

***Golf Courses:*** this classification includes golf courses and country clubs.

***Public/Semi-Public:*** this category includes a variety of public owned land including schools and public buildings, and also includes churches, cemeteries and similar institutional lands.

### ***Commercial***

Eureka is home to more than 300 licensed businesses. In the city, commercial uses are primarily located along Central Avenue and Fifth Street. Some additional businesses are found along Old Highway 66 and Highway W. There are a number of personal service uses, many automotive-related uses, a large number of miscellaneous retailers (primarily antique shops), and a large number of accommodation uses including restaurants and motels. In addition, there are a few retail uses contained under a general retail heading. Commercial uses are divided as follows:

***Offices and Personal Services:*** this classification includes banks and similar financial institutions, professional, business and health care practitioner offices, as well as personal service uses including beauty salons, barber shops, nail salons, tanning salons, funeral homes, cleaners, and similar uses.

***Miscellaneous Retailers:*** this classification includes Miscellaneous Store Retailers (NAICS Code 453). This NAICS Code includes antique stores, florists, office supply stores and mobile home dealers.

***Accommodation and Food Service:*** this category includes uses classified in NAICS Code 72 which include hotels and motels, bed and breakfast inns, RV Parks, and restaurants and drinking places.

***Automotive:*** this classification includes auto-related uses including the following NAICS Codes:

- Motor Vehicles and Parts Dealers (NAICS Code 441)
- Gasoline Service Stations (NAICS Code 447)
- Auto Repair and Maintenance (NAICS Code 8111)
- Passenger Car Rental (NAICS Code 5321)
- Auto Towing (NAICS Code 48841)

***General Retail:*** this is a broad category that includes a large number of retail businesses that are almost exclusively contained within buildings and have few non-retail accessory uses. This category includes a large number of retailers including uses in the following North

American Industry Classification System (NAICS) categories:

- Furniture and Home Furnishings Stores (NAICS Code 442)
- Electronics and Appliances Stores (NAICS Code 443)
- Building Materials and Garden Equipment and Supply (NAICS Code 444)
- Food and Beverage Stores (NAICS Code 445)
- Health and Personal Care Stores (NAICS Code 446)
- Clothing and Clothing Accessories Stores (NAICS Code 448)
- Sporting Goods, Hobby, Book and Music Stores (NAICS Code 451)
- General Merchandise Stores (NAICS Code 452)

***Industrial Areas***

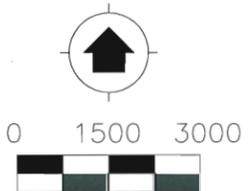
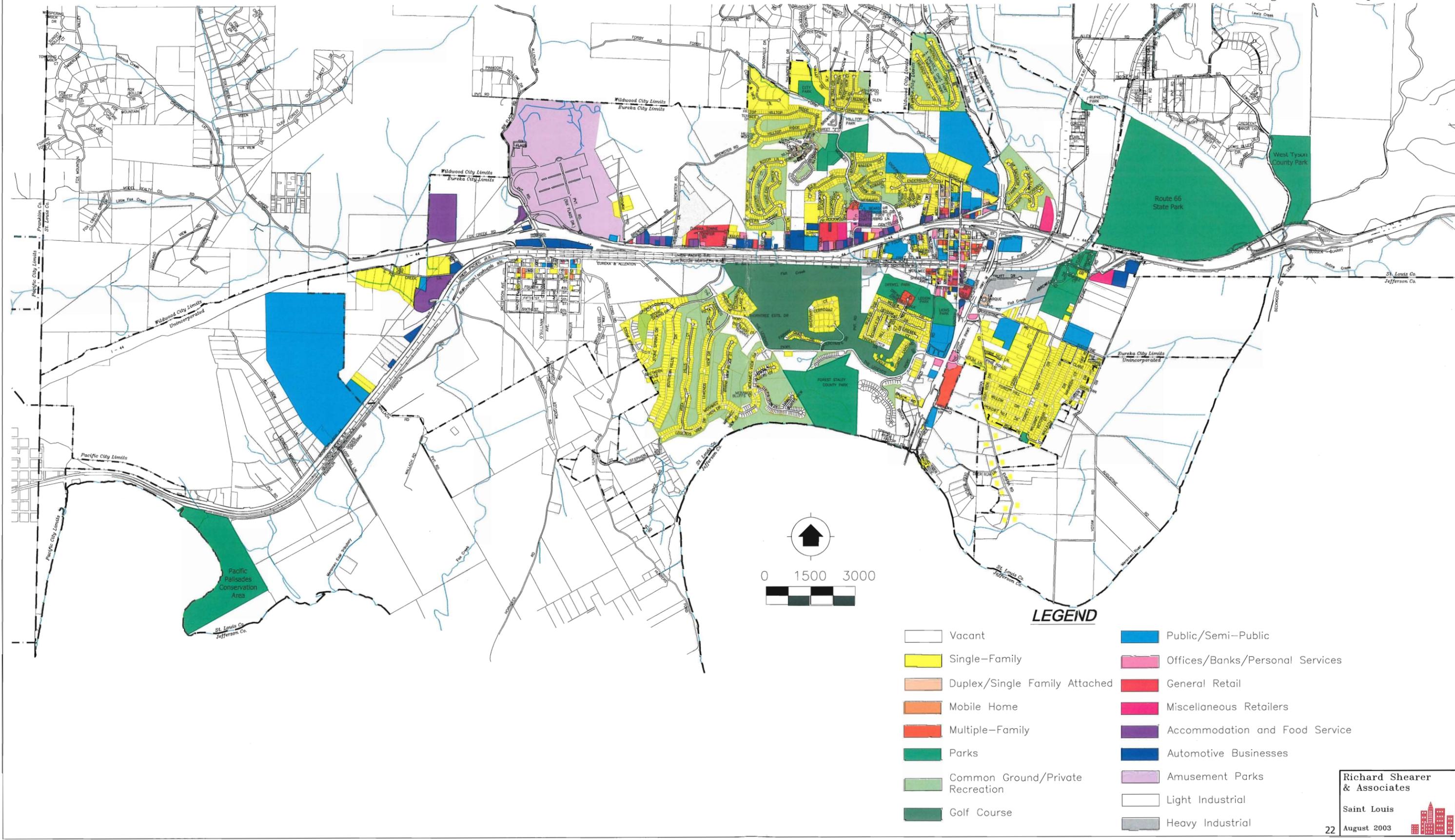
Industrial areas in the city support a number of construction-related businesses. Some of these businesses are heavy construction companies.

***Vacant/Undeveloped Lands***

There is a lot of vacant land in the city, most of it in natural conditions. However, a small percent of this land is available for development.

Figure 3

Existing Land Use Map



**LEGEND**

## **Vision Statements, Issues, Goals and Objectives**

Development of this comprehensive plan for Eureka began with a visioning exercise. Members of the public who attended the comprehensive plan workshop were asked to visualize their dream for Eureka in 20 years. The visioning exercise is outlined below.

### **Visioning Exercise**

Pretend that you had to leave (move away from) Eureka. Twenty years later, you returned and found that the city had evolved into everything you ever dreamed it could be. What would the city be like? Describe the city in terms of land use mix (residential, commercial, industrial, institutional, parks, etc.), appearance (landscaping, building types, other physical features), circulation (roads, sidewalks, bike paths, mass transit, etc.), city services and facilities (police, street maintenance, parks and recreation, other city services), and other factors.

- What types of residential development do you see? Single-family homes, duplexes, townhouses, apartments, condominiums, senior housing, assisted living facilities, etc.?
- What types of commercial uses do you see? Restaurants, sidewalk cafes, food stores, appliance stores, tattoo parlors, auto detailing shops, mortgage companies, etc.?
- What do commercial areas look like?
- What does Old Town look like?
- What facilities (buildings) would the city government have and what services would the city provide?

### **Vision Statements**

Based on the visioning exercise and input from citizens, vision statements were prepared by the planning consultant. These vision statements are followed by land use related issues, goals and objectives.

**Eureka will continue to be a great place to live, visit, work, play and raise a family.**

**Eureka will preserve its diverse geography of hills, the river, Old Town, and Six Flags.**

**Eureka will continue to develop and expand its diverse economy.**

**Eureka will continue to provide excellent recreational amenities.**

**Eureka will preserve and enhance its old town flavor.**

**Issue:           General City Image**

**Goal:                   Eureka will continue to grow, be a city people want to stay in, and will be attractive to all age groups while maintaining its small town feel.**

*Objective:*           Growth will be accommodated without losing the small town feel of the city.

*Objective:*           Development should be compatible with the natural environment and blend with the existing built environment.

*Objective:*           The city will be attractive to all age groups and strive to provide the services needed by all.

*Objective:*           Eureka will continue to be regarded as a place people want to live in and visit.

**Goal:                   The existing natural landscape should be preserved and enhanced to the greatest extent possible.**

*Objective:*           Development and redevelopment shall minimize the destruction of existing trees.

*Objective:*           Mature trees in the city shall be preserved and new trees shall be planted to enhance the existing wooded areas and to replace mature trees that are removed.

**Goal:                   All buildings should reflect the existing development pattern of the city and be pleasing in appearance.**

*Objective:*           New and remodeled commercial, industrial and institutional buildings should be of a style and color that fits the architectural design and overall theme of the city.

*Objective:* The introduction of standard design commercial buildings with garish colors and roof styles that are inconsistent with the existing development of the community shall be avoided.

*Objective:* More residential buildings should have a front facade consisting of hard surface materials of brick, stone or similar material.

**Issue: Old Town**

**Vision Statement: Old Town will be a center of activity including living, shopping, dining, entertainment, tourist-related and other activities.**

**Goal: A plethora of activity opportunities will exist in Old Town.**

*Objective:* Addition of a railroad museum, possibly between the Union Pacific and Burlington Northern Santa Fe rail lines, should be considered.

*Objective:* A new Amtrak station should be established in the Old Town Area.

*Objective:* The number of candlelight walks in Old Town should be increased.

*Objective:* Craft fairs should be considered for Old Town.

**Goal: Old Town should include a diverse mix of compatible land uses in an efficient pattern.**

*Objective:* Antique dealers should be encouraged to cluster in Old Town rather than be spread throughout the city.

*Objective:* Bakeries, restaurants, small food stores, general retailers, and similar commercial uses will be encouraged to locate in Old Town.

*Objective:* Outdoor and sidewalk cafes will be encouraged in Old Town.

*Objective:* Residential uses should be encouraged on the second floor of

commercial buildings.

**Objective:** Institutional uses such as museums, libraries, and city government buildings should be located in Old Town.

**Objective:** Industrial uses should be phased-out of Old Town over time.

**Goal:** **The north side of Old Town (north of the railroad tracks) should be integrated and connected with the south side of Old Town (south of the railroad tracks).**

**Objective:** Land development regulations to allow similar development patterns between the areas north and south of the tracks should be considered to allow the area between the tracks and I-44 to be redeveloped in a similar pattern as the area between the tracks and Dreyer.

**Goal:** **Old Town shall continue to be regarded as a clean, safe area.**

**Objective:** A neighborhood watch program should be considered for Old Town.

**Objective:** The city shall continue to provide its exceptional level of police protection in Old Town.

**Objective:** As activity increases in Old Town, weekly street cleaning should be considered by the city.

**Goal:** **Old Town will be known as a pedestrian-friendly area.**

**Objective:** The four-square block area between the railroad tracks and Dreyer should have ample sidewalks.

**Objective:** A mid-block pedestrian access between the railroad tracks and Dreyer on the west side of Central Avenue should be provided to connect Central Avenue businesses with the area to the west.

**Goal:** **An adequate supply of parking will be available in Old Town.**

**Objective:** On-street parking spaces should be maintained along Central

Avenue.

**Objective:** Opportunities for off-street parking spaces near Central Avenue should be identified.

**Objective:** The construction of a low-rise multi-level parking garage near but not on Central Avenue should be considered.

**Issue:           Annexation**

**Goal:**                   **Annexation of adjacent lands that logically should be part of Eureka is imperative to accommodate growth and to protect the health, safety and general welfare of existing and future residents of the area.**

**Objective:**           Annexation of outlying areas shall occur in a logical sequence consistent with the city’s ability to provide necessary facilities and services.

**Objective:**           Land use planning of adjacent unincorporated areas should precede annexation.

**Objective:**           The city should annex unincorporated lands in the U.S. Route 66 Corridor westward to the Franklin County Line/Pacific City Limits.

**Objective:**           The city should annex unincorporated lands south and east from the existing city limits to the Meramec River.

**Objective:**           The city should annex unincorporated lands adjacent to the city on the south side of I-44.

**Objective:**           The city should consider annexation of unincorporated lands on the south side of the Meramec River in Jefferson County that can easily be served by Eureka to protect the health, safety and welfare of those individuals.

**Issue:           Signage**

**Goal:**                   **Signage will adequately identify places of commerce, public buildings and other land uses, without allowing a**

**proliferation of signs, and should be an appropriate scale based on the speed of traffic.**

*Objective:* The city shall continue its reasonable regulation of signage as to time, place and manner.

*Objective:* The city will provide regulations to discourage a proliferation of billboards.

*Objective:* Billboards should not be installed along Highways 109 and W.

*Objective:* Signs in the Fifth Street corridor may be larger than signs in other parts of the city due to fast-moving traffic on I-44.

*Objective:* Signs in the Old Town area should be more pedestrian-oriented.

**Issue: Exterior Lighting**

**Goal: Exterior lighting should be accomplished in a manner to provide the minimum amount of light necessary to ensure safety and convenience of the public while inhibiting glare and the spill-over of light onto adjacent properties.**

*Objective:* Exterior lights should not produce glare or allow excess light to spill onto neighboring properties.

*Objective:* Gasoline station canopies should provide for recessed lighting fixtures and only provide an amount of light needed for safety and convenience.

**Issue: Plan Implementation**

**Goal: Policies, procedures and regulations to implement this plan will be prepared by the city.**

*Objective:* The city shall revise its zoning ordinance and subdivision regulations to ensure that all objectives of this plan are adequately addressed as requirements for development and for redevelopment.

*Objective:* The zoning ordinance should be updated to address

contemporary land use issues.

**Objective:** The city should adopt specific land development regulations to protect land with steep slopes.

## **Land Use Plan**

A land use plan was prepared for the city based on the following:

- (1) The factors affecting development map as documented in Figure 2;
- (2) The existing land use pattern, as documented in Figure 3, and
- (3) The Vision Statements, Goals and Objectives.

Land use plan designations for all lands within the city are described in this section and are graphically depicted in the Land Use Plan Map in Figure 4. The land use designations described below also apply to unincorporated areas adjacent to the city and are included in anticipation of annexation.

The map in Figure 4 is not a proposed zoning map, but merely a guide to assist the city in determining the appropriate intensity of development. City decisions on rezoning applications and other development applications may be based in part on this map but must consider the surrounding development pattern. Provisions of the text of this plan indicating a maximum development density should not be considered a policy or guarantee that the maximum development density will be approved through a rezoning or other land development application. In case of a conflict between the provisions of the text of this land use plan and the map in Figure 4, the provisions of the text shall prevail. The land use designations described below also apply to unincorporated areas adjacent to the city.

### ***Floodway***

That portion of the city located in the channel of the Meramec River or other significant creeks and depicted as floodway on the city's Flood Insurance Rate Maps (FIRM) are designated as Floodway. Activities in the floodway will be limited to recreation, conservation uses or infrastructure support facilities such as storm water management facilities. Permanent structures shall be strictly regulated in these areas based on permitting procedures by state and federal agencies for lands within floodways.

### ***Green Space***

Green space lands shall be limited to park and recreation use, subdivision common

ground areas, open space, trails, natural areas, and customary accessory activities. Because of the many natural resources and conditions in the city (including woodlands, ravines, steep slopes, floodplains, and animal habitats) and the city's desire to maintain the open feel of parts of the city, several areas are designated for permanent green space. This green space includes common grounds in subdivisions, golf courses, and private, city and county parks.

### ***Open Country***

The Open Country land use designation is designed to allow existing agriculturally-related activities, large lot residential areas, and to allow for new residential developments with a density not exceeding one dwelling unit per three acres. Lot sizes will generally be at least three acres in size, although in selected areas, the city might approve smaller lots as part of a planned development if the overall density of the development does not exceed one dwelling unit per one acre. Besides residential developments, this land use classification may include schools, churches, green space, parks, and similar institutional and recreational uses that are commonly found in residential areas. Lands designated Open Country include steep slopes, floodplains, woodlands and animal habitats that are not conducive to higher density residential development. In addition, these lands contain few dwellings and have historically been used for raising and keeping horses and other animals. Infrastructure to support more intense development is generally absent from the lands designated Open Country and extension of such infrastructure would be difficult and expensive due to topography and distance from existing facilities.

### ***Low-Density Residential***

Low-Density Residential areas will primarily consist of single-family detached dwellings. The maximum residential density in these areas will typically not exceed two dwelling units per acre. However, areas designated low-density residential that have historically been developed at a higher density and areas subject to a planned development approval may have a higher density. In these areas, single-family attached units may also be allowed although the overall density in any development will generally not exceed six (6) dwelling units per acre. This land use classification covers lands with few development constraints. Besides residential developments, this land use classification will include schools, churches, government buildings, green space, parks and similar institutional and recreational uses that are commonly found in residential areas.

### ***Medium-Density Residential***

Medium-density residential areas will include single-family detached dwellings, single-family attached dwellings, duplexes, and multiple-family housing as regulated by the city's zoning ordinance. This land use category is designed to accommodate densities of up to 14

dwelling units per acre and to also allow congregate living facilities such as nursing homes and total care facilities. In addition to residential dwellings, this land use classification will include schools, churches, government buildings, green space, parks and similar institutional and recreational uses that are commonly found in residential areas.

This land use category is designed to accommodate residential densities of four dwelling units per acre or more controlled by the city's zoning regulations. The maximum residential density in these areas may exceed four dwelling units per acre but will generally not exceed eight dwelling units per acre. In rare circumstances, the city may allow a maximum density up to 12 dwelling units per acre. In approving areas for densities of more than eight units per acre, the Planning and Zoning Commission and Board of Aldermen will consider whether the proposed development will meet a certain housing need in the city such as housing for senior citizens or housing for moderate income individuals.

The mix of housing will include single-family detached dwellings, single-family attached (or townhouse) dwellings, duplexes, and multi-family developments. This land use classification includes areas with an existing development pattern that would be consistent with these uses as well as other appropriate lands. In addition to the allowed residential uses, public uses, educational uses, parks and open space, and religious land uses will be allowed within the medium-density residential classification, although some may be special uses. The exact land uses allowed in this category will be regulated by the city's zoning regulations.

### ***Public and Semi-Public Lands***

Major concentrations of public and semi-public lands are identified on the existing land use map. These uses include city hall, schools, major churches and several other similar uses identified in the existing land use survey. Some existing public and semi-public lands are not depicted on the land use plan map because of their relatively small size. In the future, these lands will be limited to governmental, educational, religious, and nonprofit use.

### ***Old Town***

The Old Town area is located between Fourth Street on the north and Lions Park on the south. Its western boundary roughly follows West Avenue while its eastern boundary follows East Avenue from Fourth Street to Third Street and then runs south-southwest on a line parallel to Highway W to a point approximately 150 feet east of Central Avenue and 50 feet south of Dreyer. It is anticipated that Old Town will continue to develop for low-intensity retail and service uses including restaurants, antique shops, bakeries, craft shops, bed and breakfast inns, residential uses and similar types of uses. In addition to commercial uses, this land use classification will include schools, churches, government buildings, green space, parks and similar institutional and recreational uses that are commonly found in commercial areas. Within

Old Town, there is the potential to redevelop the northeast portion for a government complex. This complex would include space for a new city hall, police station and county branch library. This site is centrally-located, has good visibility from I-44, and is located next to the I-44/Highway 109/Highway W interchange. This is one alternative site for development of a new government complex.

Businesses that would be included in the Old Town land use category are:

- Small Food Stores
- Bakeries
- Health and Personal Care Stores (including pharmacies)
- Clothing and Clothing Accessory Stores
- Full-Service Restaurants
- Limited-Service Eating Places
- Bed and Breakfast Inns
- Florists
- Stationery Stores
- Gift Stores
- Antique Stores
- Barber Shops
- Beauty Salons
- Nail Salons
- Dry Cleaning Services
- Business and Professional Offices

***Local Business***

The Local Business land use classification is intended to provide areas for retail stores, food services, personal services, and office uses that are needed by local residents. These businesses include banks, convenience stores, grocery stores, barber shops, beauty salons, offices, restaurants, and many other similar uses. This land use classification is planned in several locations to ensure that these services are available throughout the community. In addition to commercial uses, this land use classification will include schools, churches, government buildings, green space, parks and similar institutional and recreational uses that are commonly found in commercial areas.

Businesses that would be included in this category are:

- Food Stores
- Health and Personal Care Stores (including pharmacies)
- Clothing and Clothing Accessory Stores

- Full-Service Restaurants
- Limited-Service Eating Places
- Florists
- Hardware Stores
- Office Supplies
- Sporting Goods, Hobby, Book and Music Stores
- Stationery Stores
- Gift Stores
- Video Tape and Disc Rental
- Barber Shops
- Beauty Salons
- Nail Salons
- Tanning Salons
- Dry Cleaning Services
- Business and Professional Offices

***Tourist-Oriented Business***

This land use classification is intended to recognize the importance of tourist-oriented businesses to the Eureka economy and specifically designate lands for these uses. This classification includes the Six Flags park, restaurants, motels, campgrounds and similar uses. In addition to commercial uses, this land use classification will include schools, churches, government buildings, green space, parks and similar institutional and recreational uses that are commonly found in commercial areas.

Businesses that would be included in this category are:

- Hotels and Motels
- Bed and Breakfast Inns
- Full-Service Restaurants
- Limited-Service Eating Places
- Amusement Parks
- Major Recreational Facilities
- Gasoline Stations

***Highway-Oriented Business***

The Highway-Oriented Business classification recognizes the historical development pattern along highways and provides areas for car dealers, boat dealers, auto parts, auto service, service stations, restaurants and similar retail and service uses. This land use designation is found in the Fifth Street Corridor. In addition to commercial uses, this land use

classification will include schools, churches, government buildings, green space, parks and similar institutional and recreational uses that are commonly found in commercial areas.

Businesses that would be included in this category are:

- Building Material and Garden Equipment and Supplies Dealers
- Electronics and Appliance Stores
- Full-Service Restaurants
- Limited-Service Eating Places
- Furniture and Home Furnishings Stores
- Gasoline Stations
- General Merchandise Stores
- Miscellaneous Store Retailers
- Motor Vehicle and Parts Dealers
- Rental and Leasing Services
- Automotive Repair and Maintenance
- Wholesale Trade

***Regional Business***

This land use designation is intended to accommodate a broad range of land uses including light industrial uses, business park uses, and selected commercial uses. More specifically, uses could include warehousing, storage, wholesaling, construction and light manufacturing uses. In addition, large office complexes, corporate headquarters, and other business-related uses needing relatively large tracts of land will be allowed. Permissible commercial uses include building material sales, electronics and appliance stores, restaurants, gasoline stations, and general merchandise stores.

***Industrial***

The industrial classification is designed to allow warehousing, storage, wholesaling, construction and light manufacturing uses. This classification includes some of the existing industrially-zoned areas of the city. In addition, in selected areas, this classification will allow for general industrial uses including areas that have traditionally been used for industrial and manufacturing operations that could have some off-site impacts including noise, vibration, or glare. This classification is also designed to provide areas for selected heavier industrial uses that already exist in the city.

**Fulfillment of Land Use Objectives**

Provisions of the land use plan to fulfill objectives outlined in this element are discussed

below. In some cases, specific provisions of the plan in relation to an objective are discussed, and in some cases actions necessary to implement the plan are discussed.

### ***Commercial Impact Mitigation***

New commercial development in the city needs to be carefully considered to ensure that its impacts can be mitigated. The two biggest impacts are on traffic circulation and residential encroachment. Impacts on residential encroachment can be addressed by following the recommendations of this plan and requiring buffer areas between commercial and residential uses. Impacts on traffic are also a concern of the city. High traffic generating commercial uses should be limited to lands designated as local commercial on the future land use map. The traffic impacts of these developments will be mitigated by carefully locating these uses, the preparation of traffic studies, and the provision of transportation improvements. Such improvements should include interconnection of parking lots where required by the city, prohibitions on left turn movements, and limitations on the number and location of driveways.

### ***Annexation***

There are areas adjacent to the city that should logically be included within the city's boundaries. An immediate annexation priority should be the area west of the city in the Route 66 Corridor. In order to plan for annexation of unincorporated lands adjacent to the city, the land use plan provides land use designations for these lands.

An advantage of annexation is an increase in tax revenue. Areas annexed by the city are treated as "B" Pool sales tax areas, and sales tax dollars in the county are allocated to the city on a per-capita basis. As the city's population increases, the amount of sales tax dollars allocated to the city also increases. Other tax revenues that are allocated to cities on a per-capita basis include state taxes on cigarettes and motor fuels.

### ***Tree Preservation***

Planting of new street trees throughout the city needs to be continued. New development should provide appropriate landscaping to provide shade, reduce glare, and maintain the attractive appearance of the city. The city should maintain a list of recommended street trees and require all new development to install trees. Such trees should be primarily deciduous hardwood trees that have a clear trunk height of six feet and which are reasonably disease resistant and salt tolerant. These street trees should be a minimum of two and one-half inch caliper size when installed. Such trees should be from the following species and cultivars:

<b>Species</b>	<b>Recommended Cultivars</b>
Green Ash ( <i>Fraxinus pennsylvanica</i> )	'Marshall Seedless', 'Summit'
White Ash ( <i>Fraxinus americana</i> )	'Autumn Purple', 'Rosehill'
Sugarberry ( <i>Celtis laevigata</i> )	'All Seasons'
Eastern Hophornbeam ( <i>Ostrya virginiana</i> )	
Littleleaf Linden ( <i>Tilia cordata</i> )	'Greenspire'
Thornless Honeylocust ( <i>Gleditsia triacanthos</i> <i>var. inermis</i> )	'Moraine', 'Shademaster', 'Skyline'
Norway Maple ( <i>Acer platanoides erectum</i> )	'Columnare'
Red Maple ( <i>Acer rubrum</i> )	'Autumn Flame', 'October Glory', 'Red Sunset'
Northern Red Oak ( <i>Quercus rubra</i> )	
Willow Oak ( <i>Quercus phellos</i> )	
Callery Pear ( <i>Pyrus calleryana</i> )	'Cleveland Select'

**Shade and Ornamental Trees.** In addition, it would be advantageous to require ornamental and shade trees for portions of sites not adjacent to roadways or parking lots. These trees which are native to the Eureka area include the following:

- Sugar Maple (*Acer saccharinum*)
- Flowering Dogwood (*Cornus florida*)
- Downy Serviceberry (*Amelanchier arborea*)
- Sugarberry (*Celtis laevigata*)
- Eastern Redbud (*Cercis canadensis*)
- Black Cherry (*Prunus serotina*)
- Black Oak (*Quercus velutina*)
- Pin Oak (*Quercus* )
- Post Oak (*Quercus stellata*)
- White Oak (*Quercus alba*)

**Screening.** For buffering and screening, the following coniferous trees are appropriate:

- Eastern Redcedar (*Juniperus virginiana*)
- Austrian Pine (*Pinus nigra*)
- Eastern White Pine (*Pinus strobus*)
- Scotch Pine (*Pinus sylvestris*)
- Eastern Hemlock (*Tsuga canadensis*)
- Norway Spruce (*Picea abies*)

Landscaping requirements also need to address foundation plantings and the placement of shrubbery on sites.

### ***Signs***

Signs are a critical element in the urban environment. They are necessary for traffic control, the identification of buildings of business, commerce and institutional use, and the dissemination of political and real estate messages. They can, however, be so numerous or so large as to cause visual blight. The city should continue its reasonable regulation of signs. Any changes to the city's sign regulations should stress content neutral regulations and ensure that political and temporary election sign regulations meet federal court guidelines. Content neutral sign regulations are designed to regulate the time, place and manner of signs and do not regulate the message.

### ***Billboards***

A concern among many Missouri municipalities is the regulation of billboards. Missouri statutes limit the ability of cities to regulate billboards. Currently, cities are able to regulate the height, spacing and lighting of billboards. Cities may not prohibit billboards in commercial and industrially-zoned areas within 660 feet of the right-of-way of an interstate or primary highway. A potential strategy to discourage additional billboards could include acquiring scenic easements along rights-of-way to preclude erection of billboards.

### ***Land Development Ordinance Amendments***

One objective of this plan is to amend the city's zoning ordinance and other land development regulations to be consistent with this plan and to assist in its implementation. It is recommended that after adoption of the final comprehensive plan, a list of land use related recommendations be prepared and then compared to existing city regulations. This would serve as the basis for identifying needed amendments to the city's land development related regulations.

In addition, it is specifically recommended that the city's zoning ordinance undergo a comprehensive update and revision. Areas of the ordinance that need to be reviewed and/or revised include the following:

- Additional commercial zoning districts need to be created. The existing "C" district needs to be divided into new districts including an Old Town District, a neighborhood or community commercial district, and other districts that are designed to implement provisions of this plan such as accommodation, heavy commercial, or highway commercial. The rationale for having more commercial zoning districts is based on different lot size requirements (small lots in Old Town, large lots in Fifth Street Corridor) and different uses (there are more than 500 commercial uses).

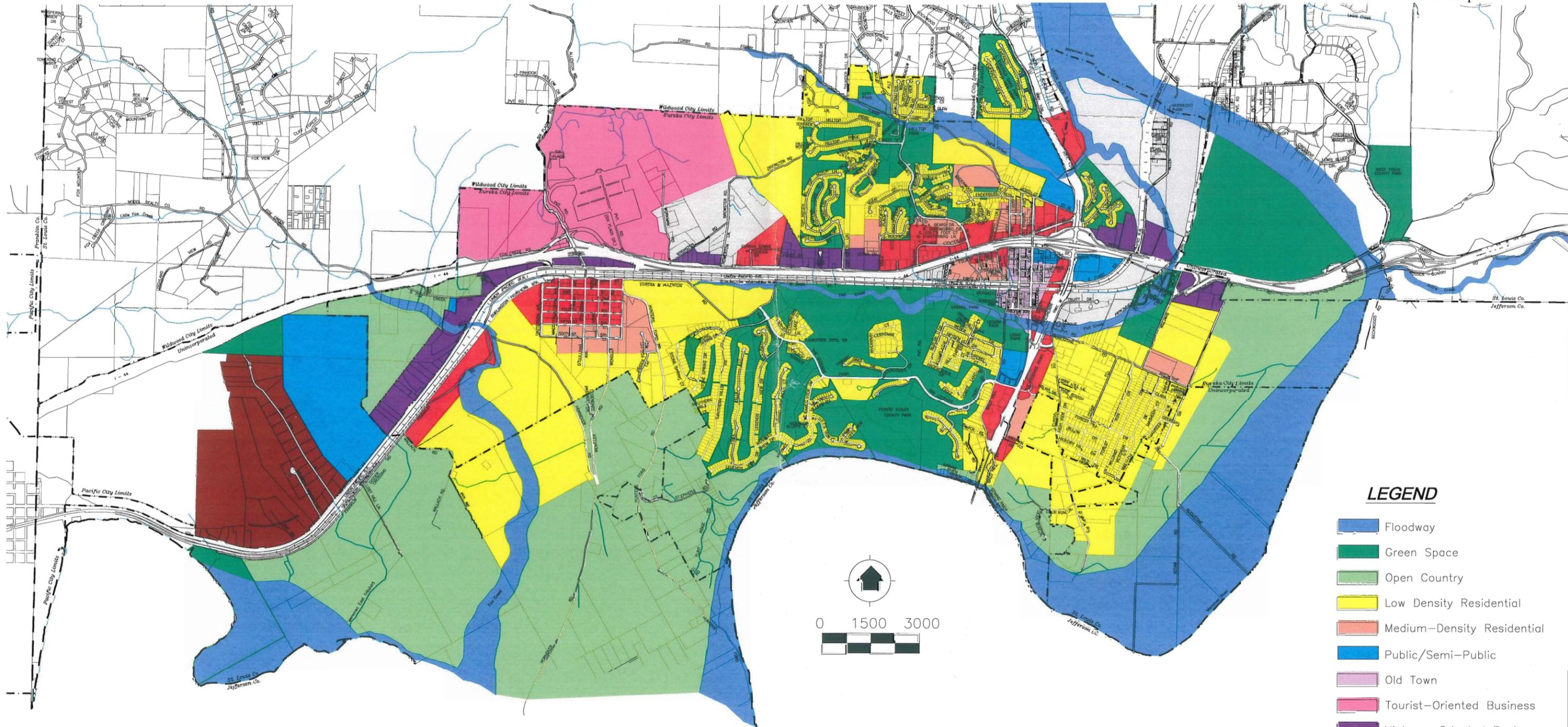
- Expiration of special uses. The current ordinance requires special use permits to be renewed every year. Since there could be a substantial investment in developing a site for a special use, requiring renewal of the permit every year is an unreasonable discretionary power. Once established, the special use should be allowed to continue, provided that it is maintained and operated as set out in the original special use permit conditions. If it is not so maintained or operated, the city can then schedule a hearing to ensure that problems are corrected in a timely manner or the special use permit can be revoked.

### **Future Planning Considerations**

Because it is difficult to predict what will happen twenty years hence, it is recommended that this plan be reviewed and updated on a regular cycle every five years. This cycle may vary in length based on development activity, the general state of the economy and other issues.

Figure 4

Future Land Use Map



**LEGEND**

-  Floodway
-  Green Space
-  Open Country
-  Low Density Residential
-  Medium-Density Residential
-  Public/Semi-Public
-  Old Town
-  Tourist-Oriented Business
-  Highway-Oriented Business
-  Local Business
-  Regional Business
-  Industrial

# Housing

## Housing Characteristics

Eureka's housing stock included 2,622 dwelling units in 2000, consisting of 2,262 owner-occupied units, 225 renter-occupied, and 135 vacant units. The city's housing vacancy rate was 5.1 percent in 2000 which is consistent with the national average. Housing data for 1990 and 2000 is summarized in Table 6.

<b>Table 6 Eureka Housing Data</b>			
<b>Characteristic</b>	<b>1990</b>	<b>2000</b>	<b>Increase, 1990 to 2000</b>
Total Housing Units	1,608	2,622	1,014
Occupied Housing Units	1,471	2,487	1,016
Vacancy Rate	8.5%	5.1%	-3.4%
Average Household Size	2.97	2.98	0.01
Owner Occupied Housing Units	1,036	2,262	1,226
Renter Occupied Housing Units	271	225	-46
Median Value of Housing Units	\$77,300	\$141,500	\$64,200
Median Rent	\$442	\$509	\$67
Source: 1990 and 2000 Census Data From STF1A			

There are a number of interesting observations from Table 6. While the number of total housing units increased in the city by 1,014, the number of occupied housing units increased by 1,016 and the number of owner occupied units increased by 1,226 units. During the same period, the number of renter occupied housing units decreased by 46 units, a 17 percent decline. This indicates a large increase in owner occupied units combined with a moderate decline in the

total number of renter occupied units.

In 2000, the average household size was 2.98, a slight increase over 1990. However, the national trends over the past few decades has been decreasing household sizes, not increases. This household size is higher than the national average and reflects the large number of families in the city. The average family size was 3.3 in 2000.

Table 7 provides information on when housing units in the city were constructed. The city's housing stock is extremely young. A whopping 416 units (16.9 percent of the total) were constructed between 1999 and March of 2000! Table 8 provides information on the cumulative age of housing in the city. In 2000, 38.6 percent of the city's housing units were less than five years old and only 11.9 percent of the housing units were more than 40 years old. Based on the age of the city's housing stock, the city will not have to invest large amounts of resources in housing programs in the near future.

<b>Period</b>	<b>Number of Housing Units</b>	<b>Percentage of Total Housing Units</b>
1999 to March 2000	416	16.9
1995 to 1998	533	21.7
1990 to 1994	200	8.1
1980 to 1989	243	9.9
1970 to 1979	519	21.1
1960 to 1969	254	10.3
1940 to 1959	193	7.9
1939 or earlier	99	4

Source: 2000 U.S. Census

<b>Table 8 Age of Housing in 2000</b>		
<b>Age</b>	<b>Number of Housing Units</b>	<b>Percentage of Total Housing Units</b>
Less than 16 months old	416	16.9
Less than 5 years old	949	38.6
Less than 10 years old	1149	46.7
Less than 20 years old	1392	56.6
Less than 30 years old	1911	77.7
More than 30 years old	1065	22.2
More than 40 years old	302	11.9
More than 60 years old	99	4
Source: 2000 U.S. Census		

### **Goal and Objectives**

**Goal:** A diversity of housing types and styles to fit the needs of all residents of the city shall be provided.

**Objective:** Areas for Villas/Single-family attached/multi-family housing should be provided, including the Allenton area.

**Objective:** Multi-family housing should continue to be allowed on the second floor of commercial buildings.

**Objective:** Additional areas for senior housing should be available.

**Objective:** The density (the total number of dwelling units divided by the total acreage) of developments in the city will generally not exceed two dwelling units per acre. Residential densities in excess of two units per acre should be located in areas with existing infrastructure. Lower residential densities shall be

## *Housing*

required in areas lacking infrastructure, in environmentally sensitive areas, along bluffs and steep slopes, and near the Meramec River to assist in preserving these environmentally sensitive lands.

*Objective:* More masonry should be used for houses, particularly front facades.

*Objective:* Subdivisions should have at least two entrances.

*Objective:* Development of up-scale condominiums should be encouraged.

*Objective:* Meaningful common ground areas will be required in developments.

*Objective:* Single-family houses should back up to common ground not other lots.

*Objective:* Common ground should be usable for active or passive recreation and not just lot remnants or stormwater detention areas.

*Objective:* Residential developments should be incorporated into the city via sidewalks, trails, bicycle paths and other pedestrianways.

## **Housing Plan**

Eureka is fortunate to have a solid base of relatively new and sound housing stock. However, a diversity of housing types to meet the needs of an aging population will be necessary in the future.

### *Diversity of Housing*

A diversity of housing types including single-family detached, single-family attached, two-family, multiple-family and senior housing needs to be encouraged in the city. This needs to include nontraditional housing such as single-family attached dwellings, zero-lot line dwellings, and various forms of senior housing.

***Program for Maintaining Residential Property***

As the housing stock of a community ages, more and more dwellings belong to absentee owners. This is partly due to the fact that some people who move from a home retain ownership and then rent it for income. It is also due to individuals buying housing units for rental income. Problems with this phenomenon are that some owners of rental property (particularly absentee owners who do not live in the community) do not maintain the property as well as many owner-occupied dwellings are maintained. Often times, health and/or safety problems occur in dwellings that are not properly maintained.

In order to protect current and future housing renters in Eureka as the city's housing stock ages, it would be beneficial for the city to enact a program which would require interior inspections of rental housing when there is a change in occupancy to ensure that there are no health or safety problems. Any problems identified by city inspectors could then be reported to the owner of the property who would be responsible for correcting the problem.

# Economic Development

## Introduction

The primary land use in Eureka is single-family residential development. However, the city has a broad mix of land uses including residential, commercial, institutional, and industrial land uses. It must be realized that residential land use generates small amounts of tax revenue. In order to generate revenues to support city government expenditures in the future, it is necessary to provide areas in the city for commercial and industrial activities that will generate sales tax.

Eureka does not have a diverse economy. The city's business base is heavily oriented to tourism (e.g., Six Flags, Restaurants, Hotel and Motel Workers) which typically provides jobs with relatively low wages. Many members of the city's labor force work outside Eureka in downtown St. Louis or other parts of the St. Louis Metropolitan Area. Attracting light industry and office parks would help diversify the city's economy and provide higher paying jobs.

## City Revenue

Eureka derives a large percentage of its revenue from sales tax and utility gross receipts taxes. Another significant source of revenue is intergovernmental transfers of revenue including gasoline and cigarette tax revenues. Major sources of city revenue are summarized in Table 9. These revenues include the city's general one percent (one cent) sales tax, the one-half percent (half cent) stormwater and park sales tax, the one-half percent (half cent) capital improvement sales tax, the utility gross receipts tax (utility taxes), and the city's property tax.

Residential land uses generate small amounts of property tax and no sales tax with the exception of residential populations in St. Louis County pool sales tax areas where sales tax is distributed based on population. In addition, utility gross receipts taxes are subject to major variations based on weather conditions. For example, the Winter of 2001-2002 was very mild and there was a subsequent decline in utility gross receipts. Another variable source of revenue is intergovernmental transfers. These funds include a portion of the state gasoline tax and part of the county cigarette tax which are distributed based on the city's population. However, recent trends have seen a decline in total intergovernmental transfers and it is not wise to count on these funds for a significant part of a city's budget. One area where cities can depend on revenue is from local sales taxes.

### *Property Taxes*

A major source of local government revenue has traditionally been the property tax. However, there has been a steady and consistent decline in reliance on the property tax in Missouri cities since 1970. In 1994, approximately 14 percent of total revenues in Missouri

municipalities were derived from property taxes compared to 16.3 percent in 1988. Part of this decline in reliance on the property tax has been the cities' ability to generate revenue from other sources, specifically sales taxes. In Eureka, the property tax generates approximately \$453,600 annually. This is based on a city tax rate of 0.39 cents per 100 dollars of assessed valuation. This revenue is not a significant part of the city's total revenue.

### ***Sales Taxes***

Sales taxes generate the greatest amount of municipal revenue in Missouri. These taxes generate approximately \$3 million in revenue for Eureka annually. The general sales tax (one cent tax) is the major source of sales tax revenue for most municipalities and in Eureka is the major source of revenue for the general fund. In addition to this tax, the state allows municipalities to levy a 1/2 cent capital improvements sales tax, and a 1/2 cent stormwater and parks sales tax.

***General Sales Tax.*** In St. Louis County, general sales taxes are collected county-wide and split between municipalities and the county based on a formula. The revenue from this general sales tax is used for general fund expenditures such as operating expenses. For fiscal year 2002-2003, the city estimates \$1,404,000 will be derived from the general sales tax.

***Stormwater and Parks Sales Tax.*** The state allows municipalities to levy a 1/2 cent stormwater and parks sales tax, with voter approval, to fund park and stormwater improvements. This tax has been approved by Eureka voters. For fiscal year 2002-2003, the city estimates that it will receive \$880,000 from this tax.

***Capital Improvements Sales Tax.*** An important source of capital improvements financing is the city's 1/2 cent capital improvements sales tax. This tax was approved by city voters to fund capital improvements. Funds can be used for streets, water mains, storm sewers, bridges, park improvements, public buildings, major equipment, and for maintenance of those improvements. Proceeds can also be used for debt service on a bond issue used to construct public improvements. This sales tax generates approximately \$750,000 per year.

### ***Utility Taxes***

Municipalities receive a significant amount of revenue from utility taxes. Most municipalities levy a tax based on gross receipts. In 1985, the state legislature provided that a city must reduce its utility franchise tax rate whenever the utility is granted a rate increase by the Public Service Commission in excess of 7 percent unless the governing body adopts an ordinance to retain the existing utility tax rate. The city levies a five percent gross receipts tax on electric, gas, and telephone services. Eureka estimates it will receive \$670,000 in gross receipts taxes in fiscal year 2002-2003.

***Intergovernmental Revenue***

Municipalities with populations over 100 share 15 percent of the state highway fund. This fund includes revenues from the motor fuel tax, license and registration fees and one-half of the regular state sales tax on automobiles (municipalities also collect sales taxes directly on automobile sales). In 1994, these revenues provided 9.4 percent of all municipal revenues, up from 5.9 percent of their revenues in 1988. This increase is primarily a result of increases in the state motor fuel tax. Currently, municipalities receive \$19.54 per capita from the motor fuel tax, \$8.88 per capita on motor vehicle taxes, and 10.5 cents per \$100 assessed valuation from Road and Bridge taxes. For fiscal year 2002-2003, Eureka estimates that it will receive \$195,000 in motor fuel taxes, \$55,000 in motor vehicle sales tax and \$154,000 in Road and Bridge taxes.

***Cigarette Taxes.*** Until 1993, Missouri municipalities had the power to levy a cigarette tax. In 1993, the state legislature prohibited municipalities from increasing that tax. Within St. Louis County, all municipalities share in a county-wide five-cent cigarette tax. This tax is divided among the local governments based on population and the city receives \$4.49 per capita per year. Eureka receives approximately \$26,000 annually from this tax.

***Non-property Taxes***

Non-property taxes include court fines and business and liquor licenses. These taxes raise significant revenues for cities.

***Municipal Court Fines.*** Court fines and forfeitures are an important source of revenue for Missouri cities. The expense of operating a municipal court must be charged against the revenue collected. For fiscal year 2002-2003, the city estimates municipal court fines will generate \$210,000 in fees.

***Liquor Licenses.*** State statutes limit municipal liquor licenses to one and one-half times the amount of the state liquor license. Such licenses account for only .2 percent of total revenues for municipalities in the state. For fiscal year 2002-2003, Eureka estimates liquor license fees of \$18,000.

***Business Licenses.*** Cities have considerable discretion on the method of taxing businesses. Some cities base license fees on gross receipts, some on number of employees, some by flat fee, and some by the square footage of the building occupied by the business. Some use a combination of these methods based on the type of business. For example, offices may be taxed based on the square footage of the office space. Eureka divides businesses into two categories, those requiring a business license and those subject to the amusement park tax. A business license is \$25 per year. Currently, only Six Flags is subject to the amusement park tax.

**Economic Development**

Economic development has different meanings to different people. To be true economic development, a proposed land use must provide jobs, generate tax revenue and promote the creation of other jobs through spin-off economic activity. A proposed warehouse employing three persons is not a solid economic development opportunity because it provides few jobs, does not generate much tax revenue, and does not promote creation of other jobs in the economy. However, a manufacturing plant that employs 200 persons provides jobs, generates tax revenue (including property taxes and utility gross receipts taxes) and promotes the creation of other jobs to provide the goods and services demanded by the 200 employees of the manufacturing plant.

<b>Table 9 Projected Sources of Revenue 2002-2003 (General Fund)</b>	
<b>Source of Revenue</b>	<b>Projected Amount</b>
<b>Taxes</b>	
Real Estate (property) Tax	\$453,800
Personal Property	\$114,800
One Percent Sales Tax	\$1,404,000
Gross Receipts	\$670,000
Cigarette	\$26,000
Financial Institution Tax	\$300
<b>Permits</b>	\$66,400
<b>Licenses</b>	
Liquor	\$18,000
Merchant and Peddler (includes Amusement Park Tax)	\$178,000
<b>Fines and Court Costs</b>	\$216,900
<b>Park Revenue</b>	\$55,900
<b>Miscellaneous Revenue</b>	\$187,380
<b>Total Projected General Fund Revenue</b>	<b>\$3,391,480</b>
Source: City of Eureka Annual Budget 2002-2003	

## **Existing Economic Development**

### ***Retail Trade***

Retail trade is important to Eureka, and most other local governments, because retail sales generate sales tax revenue for municipalities and provides goods for local residents. An objective of this plan is to provide goods and services in the city needed by residents to cut down on trips outside of the city. Various forms of analysis can determine which types of retail stores are available in the city and which are under-represented.

The U.S. Census divides retail activity into major components described by North American Industry Classification System (NAICS) categories. There are a number of businesses included in each major NAICS category. Of the 45 retail trade establishments in Eureka in 1997, more than one-fourth are concentrated in only one of the 12 classification codes. Moreover, 17 of the 45 retail establishments (approximately 38 percent) were engaged in sales of motor vehicles, motor vehicle parts or gasoline. A distribution of these retail activities is summarized in Table 10.

<b>Table 10 Eureka Retail Establishments</b>		
<b>Type of Retail Business</b>	<b>NAICS Code</b>	<b>Number of Establishments</b>
Motor Vehicle & Parts Dealers	441	12
Furniture and Home Furnishings Stores	442	0
Electronics & Appliance Stores	443	1
Building Material & Garden Equipment & Supplies Dealers	444	4
Food and Beverage Stores	445	3
Health and Personal Care Stores	446	2
Gasoline Stations	447	5
Clothing and Clothing Accessories Stores	448	6
Sporting Goods, Hobby, Book and Music Stores	451	2
General Merchandise Stores	452	2
Miscellaneous Store Retailers	453	6
Nonstore Retailers	454	2
Source: U.S. Census Bureau, 1997 Economic Census		

A comparison of Eureka’s retail activity to similar retail uses in St. Louis County was conducted. A Trade Area Capture formula compares Eureka retail sales to St. Louis County retail sales in each NAICS category. This formula first establishes County-wide per capita expenditures for each retail category, and assumes that Eureka residents spend along those same patterns, adjusted for income differentials built into the formula.

Per capita expenditures are then compared to total Eureka retail sales by each NAICS retail category. Total sales which exceed Eureka residents’ ability to purchase that quantity (based on per capita patterns) are considered trade areas that go beyond the city’s boundaries. Trade Area Capture is depicted in terms of the number of people served by a particular retail market. The 1997 Eureka and St. Louis County retail sales figures are included in Table 11.

There are several categories (NAICS Codes 442, 443, 444, 445, 446, 451, 452, and 454) where data was not available. In these cases, there are three or fewer service providers in the community and this data is not published for confidentiality purposes. For example, if there were two drug stores in the city, owners of one store could derive their competitor’s sales by subtracting their own sales from census figures.

<b>Table 11</b>			
<b>Retail Sales Comparison: Eureka and St. Louis County</b>			
<b>NAICS Code</b>	<b>Retail Category</b>	<b>Eureka</b>	<b>St. Louis County</b>
441	Motor Vehicles and Parts Dealers	\$28,213,000	\$3,618,502,000
442	Furniture & Home Furnishings Stores	Unavailable	\$349,285,000
443	Electronics and Appliance Stores	Unavailable	\$457,968,000
444	Building Materials & Garden Equipment and Supply Dealers	Unavailable	\$914,864,000
445	Food and Beverage Stores	Unavailable	\$1,770,753,000
446	Health and Personal Care Stores	Unavailable	\$587,429,000
447	Gasoline Service Stations	\$11,396,000	\$755,971,000
448	Clothing & Clothing Accessories Stores	\$3,100,000	\$686,159,000
451	Sporting Goods, Hobby, Book & Music Stores	Unavailable	\$360,993,000
452	General Merchandise Stores	Unavailable	\$1,746,298,000
453	Miscellaneous Store Retailers	\$7,643,000	\$363,336,000
454	Nonstore Retailers	Unavailable	\$773,916,000

Source: U.S. Census Bureau, 1997 Economic Census, January 4, 2000

Calculating the formula for each retail NAICS category, the Trade Area Capture figures show how many people are served by each retail category (see Table 12). For example, in Eureka, motor vehicle and parts dealers served 7,700 people in 1997. With an approximate 1997 population of 4,709 the city’s market for NAICS 441 served a population 1.65 times the city’s population. Eureka is a net attractor of business in this NAICS category serving the city’s

population and drawing consumers from other communities to shop in the city.

<b>Table 12 Retail Retention and Leakages in Eureka, 1997</b>			
<b>NAICS Code</b>	<b>Retail Category</b>	<b>Trade Area Capture</b>	<b>Pull Factor</b>
441	Motor Vehicles and Parts Dealers	7,770	1.65
44122	Motorcycle, boat & other motor vehicle dealers	89,309	18.94
442	Furniture & Home Furnishings Stores	N/A	N/A
443	Electronics and Appliance Stores	N/A	N/A
444	Building Materials & Garden Equipment and Supply Dealers	N/A	N/A
445	Food and Beverage Stores	N/A	N/A
446	Health and Personal Care Stores	N/A	N/A
447	Gasoline Service Stations	15,023	3.19
448	Clothing & Clothing Accessories Stores	4,503	0.95
451	Sporting Goods, Hobby, Book & Music Stores	N/A	N/A
452	General Merchandise Stores	N/A	N/A
453	Miscellaneous Store Retailers	20,964	4.45
454	Nonstore Retailers	N/A	N/A
Source: <b>Richard Shearer &amp; Associates</b> Based on data from U.S. Census Bureau, 1997 Economic Census			

A “Pull Factor” calculation was made by taking the Trade Area Capture and dividing by the city’s population. A Pull Factor of 1.0 indicates that the local market for a particular NAICS category was serving the city’s population and no others. The Census Bureau estimated

## *Economic Development*

that Eureka's population in 1997 was 4,709 people. Based on this estimate, a Trade Area Capture of 9,418 people (a Pull Factor of 2.0) indicates that the city is serving a population of twice the size of the city. The city is capturing its own population or more than its own population in Motor Vehicles and Parts Dealers, Gasoline Service Stations, and Miscellaneous Store Retailers. While some of these categories are self-explanatory, examples of Miscellaneous Retail Stores include Antique Stores, Florists, Office Supplies, Stationary & Gifts, Gift Novelty & Souvenir Stores. In further analyzing the Motor Vehicles and Parts Dealers (NAICS Code 441) category, it was determined that the city is serving a very large trade area in the subclassification of Motorcycle, boat & other motor vehicle dealers (NAICS Code 44122). This classification includes sales of motorcycles, boats and recreational vehicles. Eureka serves a trade area of 89,309 people in this classification.

The Trade Area Capture and Pull Factor numbers are good tools in identifying potential retail uses that the city should try to attract. In Eureka, the numbers indicate that the city is not capturing or probably not capturing its own population in the following categories: Furniture and Home Furnishings Stores, Electronics and Appliance Stores, Building Materials & Garden Equipment and Supply Dealers, Food and Beverage Stores, Health and Personal Care Stores, Clothing & Clothing Accessories Stores, Sporting Goods, Hobby, Book & Music Stores, General Merchandise Stores, and Nonstore Retailers.

## **Issues, Goals and Objectives**

**Issue: Commercial and Industrial Development**

**Goal: Commercial and light industrial development in appropriate areas of the city will be encouraged.**

*Objective:* While not appropriate in much of the city, Big Box Retailers might locate in the area on the north side of I-44 and immediately east of the railroad tracks or in the Allenton area.

*Objective:* Additional land for light industrial development should be identified, possibly in the U.S. Route 66 corridor southwest of the city.

*Objective:* Existing areas of the city zoned for light-industrial uses need to be carefully reviewed for potential rezoning for more appropriate uses.

*Objective:* Heavy industrial land uses are inconsistent with the city's character and shall be tightly regulated.

**Issue: Commercial Buildings**

**Goal: Enhance the visual impact of commercial and industrial uses by requiring appropriate landscaping, buffering and aesthetic building design criteria.**

*Objective:* As commercial and industrial areas redevelop, the appearance of existing facilities shall be improved.

*Objective:* Commercial buildings should be attractive and inviting.

*Objective:* More masonry should be used on commercial buildings.

*Objective:* Landscaping should be provided along street frontages in commercial areas.

*Objective:* Parking lots, particularly medium to large lots, shall provide landscaped islands to reduce the visual impact of large expanses of pavement, to provide shade and to reduce glare.

**Issue:           Six Flags**

**Goal:**                   **Six Flags will continue to be considered a major asset to the city since it helps provide the city's identity.**

*Objective:*           City partnering with Six Flags to provide a hockey rink or other similar facility should be considered.

*Objective:*           Establishing convention facilities through a partnership among Six Flags, Ramada Inn and the city should be investigated.

*Objective:*           A shuttle between Six Flags and Old Town should be established to be run on an hourly basis.

**Economic Development Plan**

*Desirable Land Uses*

There are two sets of desirable land uses related to economic development recommended for the city. One set is retail uses which either do not exist in the city or which have a Trade Area Capture below the city's population or a Pull Factor of less than 1.0. The other types of desirable land uses are those land uses which will promote economic development by creating jobs, increasing the tax base, and creating positive spin-off effects.

*Retail Uses.* Desirable retail uses to attract to the city include the businesses listed below. These businesses are listed according to their titles in the North American Industry Classification System (NAICS), United States, 2002, published by the U.S. Office of Management and Budget. The NAICS classification system replaced the Standard Industrial Classification (SIC) system.

- Furniture & Home Furnishings Stores (NAICS Code 442)
- Electronics and Appliance Stores (NAICS Code 443)
- Building Materials & Garden Equipment and Supply Dealers (NAICS Code 444)
- Food and Beverage Stores (NAICS Code 445)
- Health and Personal Care Stores (NAICS Code 446)
- Clothing & Clothing Accessories Stores (NAICS Code 448)
- Sporting Goods, Hobby, Book & Music Stores (NAICS Code 451)
- General Merchandise Stores (NAICS Code 452)

## *Economic Development*

Because of their high sales per square foot of floor area, the following retail uses are specifically recommended:

- Food and Beverage Stores (NAICS Code 445)
- Clothing Stores (NAICS Code 4481)
- Shoe Stores (NAICS Code 4482)
- Jewelry, Luggage and Leather Goods Stores (NAICS Code 4483)

***Industrial Uses.*** There are a number of land uses that would be desirable in the city to promote economic development. Such uses include certain high-tech industries including pharmaceutical manufacturing and electronic component manufacturing. To truly promote economic development, retail and storage businesses are not generally considered prime economic development activities. Industrial uses should focus on the Industry Clusters identified and targeted by the State of Missouri and Regional Commerce and Growth Association (RCGA). These clusters are Advanced Manufacturing, Information Technology and Plant and Life Sciences. Specific desirable industrial uses that the city should have an interest in include the businesses listed below. These businesses are listed according to their titles in the North American Industry Classification System (NAICS).

- Audio and Video Equipment Manufacturing;
- Communication and Energy Wire and Cable Manufacturing;
- Communications Equipment Manufacturing;
- Compact Disc Players Manufacturing;
- Computer and Peripheral Equipment Manufacturing;
- Computer and Related Hardware Research and Development Laboratories or Services;
- Computer Software Tapes and Disks Manufacturing;
- Computerized Axial Tomography (CT/CAT) Scanners Manufacturing;
- Conduits and Fittings, Electrical, Manufacturing;
- Connectors, Electronic (e.g., Coaxial, Cylindrical, Printed Circuit, Rack and Panel), Manufacturing;
- Connectors, Power, Manufacturing;
- Data Processing Computer Services;
- Defibrillators Manufacturing;
- Density and Specific Gravity Instruments, Industrial Process-Type, Manufacturing;
- Diagnostic Equipment, MRI (Magnetic Resonance Imaging), Manufacturing;
- Fiber Optic Cable Manufacturing;
- Navigational, Measuring, Electromedical, and Control Instruments Manufacturing;
- Manufacturing and Reproducing Magnetic and Optical Media;
- Medical Equipment and Supplies Manufacturing;

- Optical Instrument and Lens Manufacturing;
- Pharmaceutical and Medicine Manufacturing; and
- Semiconductor and Other Electronic Component Manufacturing.

***Incentives***

Availability of financing incentives is an important consideration for new, expanding, and relocating businesses. Expansion capital is available from a number of sources including the U.S. Small Business Administration and the State of Missouri.

***SBA 504 Loan Program.*** The U.S. Small Business Administration (SBA) 504 Loan Program is designed to stimulate business and industrial expansions. The program offers businesses long-term, fixed rated financing for fixed asset acquisition. Most types of businesses are eligible including retailers, distributors and manufacturers. Existing businesses are eligible for SBA 504 financing, and in some instances start-up businesses are also eligible. In order to be eligible, businesses must:

- 1) Be for-profit;
- 2) Have total assets valued at less than \$9 million;
- 3) Have net worth less than \$6 million;
- 4) Have net profit after taxes averaging less than \$2 million.

SBA 504 loans are structured such that 50% of the loan comes from a participating bank, 40% is an SBA guaranteed debenture, and 10% is owner equity. The interest rate is fixed, approximately 2-to-4 percent below market rate with a term of 10 to 20 years. There are no limits to the size of the bank loan or total loan size. However, the minimum project size is \$120,000 and the maximum debenture which can be guaranteed by the SBA is \$750,000. One full-time job should be created within a two-year period after loan closing for every \$35,000 in debenture proceeds.

***Missouri First Linked Deposit Program.*** The State Treasurer provides low-interest, linked time deposits of state funds to Missouri banking institutions that make loans to new and expanding businesses that create or retain jobs in the state. State funds are deposited with a participating lending institution at rates up to 3% below the one-year Treasury bill rate. The lending institution then passes the savings to the business borrower. In order to be eligible for a linked deposit loan, the borrower must be a new, existing or expanding for-profit company that is able to create or retain one new job for each \$25,000 of state deposits. Funds may be used for any purpose approved by the lender. The state treasurer will offer deposits of state funds, dollar-for-dollar for the amount of approved loans. The minimum deposit is \$90,000 and there is no maximum. A maximum loan amount of \$50,000 is available for small businesses.

***Transportation Development District.*** The Missouri Transportation Development District Act requires that formation of a development district be initiated by petitioning the circuit court and that an innovative finance package be submitted to the Missouri Department of Transportation (MoDOT). Petitions may be filed by property owners or a municipality. Petitions filed by property owners must be signed by 100 percent of the owners within the proposed district.

A Transportation Development District (TDD) can plan, design, fund, construct, improve, maintain and operate one or more transportation projects. A TDD has the authority to finance the project through the following mechanisms: Special Assessments, Property Taxes (up to a maximum of 10 cents per \$100 or assessed valuation), Sales Tax (a maximum of one percent), or Debt Financing (including the issuance of bonds up to 40 years).

***City of Eureka Incentives.*** Based on the city's list of desirable land uses, it would be beneficial for the city to offer some incentives to appropriate businesses that would like to locate or expand their business in the city. These businesses should meet all of the following criteria:

- 1) Be on the city's list of desired land uses;
- 2) Make a capital investment of at least \$1 million in the city;
- 3) Provide employment opportunities for city residents.

Incentives could include one or more of the following:

- 1) City staff assistance in fast-tracking development approvals (rezoning, site plan approval, etc.)
- 2) City investigation into use of Urban Redevelopment Corporations Law found in Chapter 353, Revised Statutes of Missouri;
- 3) City property tax abatement.
- 4) Traffic impact studies at City's expense.
- 5) Utility tax abatement, or portions thereof.
- 6) Business license abatement, or portions thereof.
- 7) City-initiated zoning changes.

Use of Chapter 353 procedures would allow abatement of all property taxes including taxes paid to other political subdivisions such as St. Louis County, Rockwood School District, and Eureka Fire Protection District. Based on the requirement to designate the property as blighted prior to allowing this abatement, it is not likely that this procedure will be feasible in the city in the near future.

## **Potential Funding Sources**

Several potential sources have been identified to fund projects and/or redevelopment areas that may be identified by the comprehensive plan. The possibility of acquiring funds from some of these sources is unknown, and some projects may have to be funded by the city. Potential sources of funds are described below.

### ***General Obligation (GO) Bonds***

General obligation bonds may be issued to incur indebtedness up to ten percent of the city's total assessed value with 57 percent voter approval. Such indebtedness is incurred to pay for relatively large projects benefitting the entire community. Such a bond could be structured to be repaid over 20 years.

### ***Missouri Infrastructure Loan Program***

The Missouri Economic Development, Export and Infrastructure Board (MEDEIB) provides infrastructure loans to local governments in amounts from \$500,000 to \$2 million per project. The interest rate on such loans is 7.25 percent plus a one-time charge of 2.25 percent for issuance. The loans are structured to preclude the necessity of a public vote, and are effective in meeting public facility needs that do not benefit the entire community. Repayment, however, must be made from current general revenues.

### ***Neighborhood Improvement Districts***

Neighborhood Improvement Districts (NIDs) were created by the Missouri Legislature in 1991. Neighborhood Improvement Districts may be used as a financing tool to assist in constructing major public infrastructure projects and in stimulating economic development. A Neighborhood Improvement District is a geographically bounded area within which certain public improvements are financed by a special assessment of the property owners in the district where the improvements are made. This special assessment is used to retire general obligation bonds issued by the city. Eligible improvements include streets, lighting, parks and recreational facilities, sidewalks, utility service connections, sewer and stormwater systems, flood control works, off-street parking structures, bridges, overpasses, tunnels and any other public facilities or improvements deemed necessary by the Board of Aldermen. Projects should realistically be more than \$300,000 to \$400,000 due to financing costs.

The Board of Aldermen can submit a NID proposition to the voters, or property owners within a proposed area may petition the Board of Aldermen to create the district. A NID can only be enacted if it passes by a two-thirds approval from the property owners in the affected district. Only the people who will directly benefit from the improvements pay for them through

the special assessment. The NID Act requires that property owners within the district be assessed on some basis which results in imposing substantially equal burdens or share of the cost upon property similarly benefitted. Typical means of apportioning the assessment are by lot, by square foot, or by front foot.

NIDs have several attractive features that distinguish them from Tax Increment Financing (TIF) districts. For example, there is no requirement that a NID be declared blighted or that findings be made that the improvements would not likely be constructed without NID financing. Moreover, unlike TIFs, a NID does not deflect tax revenues from any other taxing jurisdictions such as counties or school districts.

### ***Chapter 353 Urban Redevelopment Corporation***

Chapter 353 Urban Redevelopment Corporations Law allows for the organization of private, not-for-profit redevelopment corporations. A redevelopment corporation is formed to acquire, construct, maintain and/or operate a redevelopment project through issuance of capital stock. Eligible projects include the clearance, replanning, reconstruction, or rehabilitation of blighted areas, and the construction of industrial, commercial, residential, or public structures, including provisions for recreational and other incidental facilities. Use of this procedure requires the city to pass a resolution adopting a redevelopment plan, designating an area to be redeveloped, and declaring the area blighted.

Once established, the redevelopment corporation makes application to the city to obtain municipal redevelopment rights, powers, and incentives such as eminent domain in exchange for redeveloping the area. As an incentive, the city may grant a real property tax abatement for up to 25 years.

### ***Tax Increment Financing***

Tax Increment Financing (TIF) allows a city to capture the incremental increases in property taxes in a redevelopment area to pay for necessary improvements without increasing general obligation debt or general property taxes. Use of TIF financing requires a well defined redevelopment project area, and designation of the area as blighted or a conservation area based on the average age of the structures. TIF also requires that a redevelopment plan be prepared and adopted by the Board of Aldermen and requests for proposals be solicited from developers to undertake the redevelopment. Use of TIF generally requires that a significant retail development be added to the redevelopment area to generate sufficient tax revenues.

### ***TEA-21 Funds***

In June of 1998, a new federal transportation bill was signed into law. The Transportation Equity Act for the 21st Century (TEA-21) provides funding for a wide range of

## *Economic Development*

transportation programs and projects. The Act provides \$120 million over six years in the Transportation and Community and System Preservation Pilot Program. This program is designed to investigate and address the relationships between transportation, community preservation, and the environment, and to identify private-sector initiatives to help implement preservation practices. Key objectives of the program are to:

- improve the efficiency of transportation systems
- reduce the impacts of transportation on the environment
- reduce the need for costly public infrastructure investments
- ensure efficient access to jobs, services, and businesses, and
- encourage private sector development patterns that meet these objectives

Eligible projects include sidewalks, bike paths, lighting, and other historic-related elements. Approved projects receive 80 percent federal funding.

# Transportation

## Transportation Resources

Much of Eureka's history and development is directly related to the availability of various transportation systems. This includes the city's location on the Meramec River, the two major railroad lines that traverse the city, Route 66 being routed through the city in 1932, and the construction of I-44. An inventory of existing transportation resources in the Eureka area was prepared as a basis for identifying existing roadway deficiencies, projecting needed roadway improvements, and identifying transportation alternatives. The inventory includes a list of major roads in the city, inter-city bus service, mass transit, airports and railroads. Available traffic counts are also provided.

### *Roadway System*

The St. Louis region has a well-defined roadway system including a number of interstate highways which are supplemented by other federal, state and county arterial roads. Interstate highways include I-44, I-55, I-64, I-70, I-170, I-255 and I-270.

Major traffic facilities within Eureka consist of I-44, Highway 109, Highway W, Old U.S. Highway 66. Other major thoroughfares in and around Eureka are as follows:

- Alt Road
- Augustine Road
- Bald Hill Road
- Central Avenue
- Eureka-Allenton Road
- Fifth Street
- Forby Road
- Fox Creek Road
- Franklin Road
- Hornecker Road
- Hunters Ford Road
- Legends Parkway (private road)
- Meramec Boulevard
- North Street
- Six Flags Road
- Wengler Road

One problem with street and highway planning in the St. Louis area is the large number

of entities that own and/or are responsible for road maintenance. A list of governmental units responsible for some of the major roads in Eureka is included in Table 13.

***Motor Freight Resources***

The St. Louis metropolitan area is the second largest trucking center in the U.S. with more than 300 common carriers and 50 contract carriers. The region has the lowest aggregate miles between major point of destination on the continental U.S. Over-the-road trucks can reach the following major cities in less than 8 hours: Chicago, Cincinnati, Dayton, Des Moines, Indianapolis, Kansas City, Louisville, Memphis, Milwaukee, Nashville, Oklahoma City, Omaha, Tulsa and Wichita.

<b>Table 13 Road Maintenance Responsibilities</b>		
<b>Road/Highway</b>	<b>Segment</b>	<b>Responsibility</b>
I-44	ALL	Missouri Department of Transportation
Highway 109	ALL	Missouri Department of Transportation
Highway W	ALL	Missouri Department of Transportation
Old U.S. Highway 66	ALL	Missouri Department of Transportation
Fourth and Fifth Streets	ALL	Missouri Department of Transportation
Fox Creek Road	Rockwoods Range to Six Flags Road	Missouri Department of Transportation
Franklin Road	ALL	St. Louis County
All Other Public Roads in the City	ALL	City of Eureka

***Inter-City Bus Service***

Inter-city bus service in the St. Louis area is provided by Greyhound Bus Lines, Mid-American Coaches, Inc. and Vandalia Bus Lines, Inc.

***Railroads***

The St. Louis area has traditionally been a major rail center. Currently, St. Louis is the second largest rail center in the United States behind Chicago. Class I freight-hauling railroads serving the metropolitan area include Union Pacific, Burlington Northern Santa Fe, CSX Corporation, Norfolk Southern, and Southern Pacific. Class II railroads include Gateway Western, and Class III railroads include Alton & Southern, Manufacturers Railroad, and Terminal Railroad Association. Passenger service in the metropolitan area is provided by Amtrak which operates stations in Kirkwood and St. Louis, and Alton, Illinois. Direct passenger service is available to and from Chicago, Dallas, Kansas City, Little Rock, New Orleans, and San Antonio.

***Burlington Northern Santa Fe (BNSF).*** Burlington Northern Railroad was formed in 1970 through the merger of four railroads, the Chicago, Burlington & Quincy, the Great Northern, the Northern Pacific, and the Spokane, Portland & Seattle. BNSF operates one of the largest rail networks in North America, with 33,500 route miles serving 28 states and two Canadian provinces. BNSF has a major line that traverses Eureka's downtown and runs roughly parallel to I-44. This line was originally the St. Louis-San Francisco Railroad or "Frisco."

The Frisco was formed to build a transcontinental railroad from St. Louis along the 35th Parallel to California. Construction began in the mid-1850's but was halted by the Civil War. By the 1880's the railroad's emphasis shifted to being a regional carrier in the Ozarks and southern Great Plains rather than a transcontinental railroad. In the 1960's, the railroad industry was changing and the Frisco's directors felt that it had to join with a stronger partner to survive. The Burlington purchased a large block of Frisco stock in 1966. After the Burlington Northern (BN) merger in 1970, the BN began discussions with the Frisco about acquisition. The Frisco became part of BN in 1980. In 1996, the BN merged with the Atchison, Topeka and Santa Fe Railroad to form the Burlington Northern Santa Fe.

***Union Pacific.*** Union Pacific (UP) has 38,654 miles of track and is one of the largest railroads in North America serving 23 states and linking every major West Coast and Gulf Coast port. UP has one of the most diversified commodity mixes including chemicals, coal, food and food products, forest products, grain and grain products, intermodal metals and minerals, and automobiles and automobile parts. Dupon, Illinois, is the site of the Union Pacific intermodal terminal which serves the St. Louis area. Over the years, UP has acquired a number of other railroads including the Missouri Pacific (MP) which originally ran through downtown Eureka and is roughly parallel to I-44.

In 1849, The Pacific Railroad of Missouri (MP) was chartered to build a railroad from St. Louis to the Pacific Ocean. Four miles of track were erected in 1852 and supported the first train to operate west of the Mississippi River. The tracks reached Kansas City by 1865. Like

## *Transportation*

the Frisco, in the 1880's the Missouri Pacific's emphasis shifted to being a regional carrier in the southern Plains rather than a transcontinental railroad. During the 20th Century, the MP grew substantially through mergers and stock purchases. MP tried to enter the era of railroad mega-mergers in 1966 when it bought Santa Fe stock and applied for control. However, the application was later withdrawn. In 1982, Union Pacific finalized acquisition of the MP.

***Terminal Railroad Association.*** The Terminal Railroad Association (TRRA) was formed in 1889 and quickly became the largest freight and passenger terminal in the world. TRRA operated St. Louis Union Station and owned the Merchants and Eads rail bridges. TRRA's rail yards are located across the Mississippi River from downtown St. Louis. The primary yard is the Madison Yard, however, they also have operations at Number 2 Yard in Brooklyn and Garden Yard in East St. Louis.

### ***Mass Transit***

***Buses.*** Metro operates 580 buses over 112 fixed bus routes covering the St. Louis Metropolitan Area. Eureka is served by Route 410X Eureka Express. Express routes operate during morning and evening rush hours.

***Light Rail Transit.*** Metro introduced service on MetroLink, a light rail system, in July 1993, over a 17-mile long line running from Lambert-St. Louis International Airport through downtown St. Louis to East St. Louis. A 17.4 mile eastern extension to Southwestern Illinois College in Belleville was completed in 2001 and an additional 3.5 mile eastern extension to Shiloh/Scott Air Force Base was completed in 2003. MetroLink was projected to carry an estimated 12,000 passengers per day during its first year of operations and 30,000 riders by the year 2000. The system greatly exceeds those projections and in 2000 averaged more than 50,300 riders per day.

### ***Airports***

The St. Louis Metropolitan area is served by a number of airports. Lambert-St. Louis International Airport is the main airport, but a number of reliever airports are also located in the area. These airports include Spirit of St. Louis Airport in Chesterfield, Mid-America St. Louis Airport in Mascoutah, Illinois, St. Louis Regional Airport in Bethalto, Illinois, St. Louis Downtown Airport in Cahokia, Illinois, Smartt Field and St. Charles Municipal Airport in St. Charles County, and Creve Coeur Airport in St. Louis County.

***Lambert-St. Louis International Airport.*** Lambert-St. Louis International Airport is located approximately 21 miles northeast of Eureka. The airport is operated by the St. Louis Airport Authority, and covers approximately 2,162 acres of land. The airport authority owns more than 2,700 acres including land that has been purchased through the noise abatement buy-

out program.

Lambert has five runways and 81 gates. Three parallel runways are oriented northwest/southeast and have lengths as follows: Runway 12R/30L is 11,019 feet long, Runway 12L/30R is 9,003 feet long and Runway 13/31 is 6,286 feet long. There are two cross-wind runways. Runway 6/24 is oriented northeast/southwest and is 7,602 feet long. Runway 17/35 is oriented north/south and is 3,008 feet long. The shorter runways (13/31 and 17/35) are primarily used for general aviation traffic (small planes). Aircraft are designed to operate into the wind and at Lambert the predominant wind direction is from the northwest. Approximately 60 percent of aircraft take-offs and landings are to the northwest using Runways 30L, 30R and 24. Approximately 40 percent of aircraft take-offs and landings are to the southeast using Runways 12R, 12L, and 6. In peak weather conditions, the airport can handle 120 flights per hour.

Lambert averages approximately 1,400 scheduled daily arrivals and departures and serves approximately 30 million passengers annually. Lambert serves as a hub for American Airlines and other airline service is provided by Air Canada, American West Airlines, Continental Airlines, Delta Airlines, KLM, Northwest Airlines, Southwest Airlines, United Airlines and USAir. Lambert is also served by two commuter airlines: ComAir and Trans World Express. Major air cargo carriers at Lambert include Emery Air Freight, Federal Express, and United Parcel Service. In 1999, Lambert had 502,865 total aircraft operations.

*Spirit of St. Louis.* Spirit of St. Louis Airport is located in Chesterfield approximately 10 miles north of Eureka. Spirit is operated by St. Louis County as a general aviation/reliever airport for Lambert Airport. Spirit is the second busiest airport in the Federal Aviation Administration (FAA) Central Region (Missouri, Arkansas, Iowa and Kansas). The airport has parallel asphalt runways (8R/26L and 8L/26R). The main runway is 7,500 feet long with full instrument landing systems, and the secondary runway is 5,000 feet long. Spirit is home to more than 500 aircraft including many of the corporate jets and other small aircraft in the St. Louis area. Its tower operates 24 hours a day.

### ***Ports***

*Port of Metropolitan St. Louis.* St. Louis County is located at the center of the Mississippi River inland waterway system. The Port of Metropolitan St. Louis stretches for 72 miles along the Mississippi River from Grafton, Illinois on the north, to Chester, Illinois on the south. The port encompasses several port districts and authorities in Missouri and Illinois, including the St. Louis County Port Authority, and is the second busiest port on the inland waterway (second only to Pittsburgh). It is also the northernmost year-round ice-free port on the waterway and the northernmost port with lock-free navigation to New Orleans and the Gulf of Mexico.

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The Port of Metropolitan St. Louis is situated at the headwaters of open navigation. North of St. Louis, the Upper Mississippi River has its elevation regulated by a series of locks and dams. South of St. Louis to the Gulf of Mexico, there is open navigation. Since St. Louis is situated at this change in navigation, it is an important boat turning point and fleeting area. To the north, tow size is limited to 15 barges. South of St. Louis, tow size is limited only by the vessel's ability to control the tow. The Port of Metropolitan St. Louis is the second largest fleeting area on the river system behind New Orleans. Approximately 30 million tons of commodities worth more than \$5 billion move through the Port of Metropolitan St. Louis each year. Commodities include coal (10 million tons), food products (7.6 million tons), petroleum products (5.1 million tons), and other goods.

***St. Louis County Port Authority.*** The St. Louis County Port Authority is responsible for the navigable waters of the Missouri and Mississippi Rivers for the length of those rivers in the county. The Port Authority has an 80-acre site on the Mississippi River at the River Des Peres in South St. Louis County. Plans for this site include development of a port terminal and multi-modal industrial park. Site improvements will include a docking facility, a liquid dock, a rehabilitated 230,000 square foot building for public warehousing and light manufacturing, and related access roads and rail spurs.

***Tri-City Regional Port.*** Tri-City Regional Port is the largest public port in the St. Louis area. Its harbor and terminal facilities are located on the Chain of Rocks Canal in Granite City, Illinois, approximately 30 miles northeast of the city, and upriver from Locks and Dam No. 27, the southernmost locks on the Mississippi River. The Port District owns four public river terminals and one privately operated terminal. It has a minimum operating depth of nine feet to facilitate commercial traffic and is open year-round. The Port District also owns an industrial park within the Melvin Price Support Center and is the license holder of Foreign Trade Zone (FTZ) #31.

## **Programmed Transportation Improvements**

A number of transportation improvements are currently programmed for the Eureka area. Transportation improvements programmed by Metro (MetroLink), Department of Transportation (MoDOT), and the St. Louis Metropolitan Area Transportation Improvement Program are outlined below.

### ***MetroLink***

***Cross County Extension.*** The Cross County MetroLink extension is under construction with a projected completion date of 2006. This line will proceed west from the Forest Park MetroLink station to University City and Clayton, then will proceed south through Richmond Heights, Brentwood, Maplewood and Shrewsbury. Nine new stations will be added and the

Forest Park station will be reconstructed. Funding for this improvement comes from bonds and the Proposition M sales tax passed in St. Louis City and St. Louis County in 1994.

*Lambert-St. Louis International Airport*

Expansion of Lambert-St. Louis International Airport is underway. The FAA and the Airport Authority have updated the master plan for Lambert. A third runway is being added that will cross a relocated Lindbergh Boulevard.

**Issues, Goals and Objectives**

**Issue: Traffic Circulation**

**Goal:** Traffic circulation within the city will be enhanced through the provision of road improvements and interconnection of various areas of the city.

*Objective:* Two or more access points shall be required for large developments to ensure that adequate access is provided in case of emergencies.

*Objective:* Establishment of a second commuter parking lot along I-44 should be considered due to current overcrowding.

*Objective:* More services should be established in Eureka to reduce the need for residents to travel outside the city.

*Objective:* Major thoroughfares should be developed as boulevards with landscaped medians.

*Objective:* Developers shall assist in road improvements by dedicating rights-of-way to the appropriate governmental agency, and by constructing and/or improving roads leading to and abutting their developments.

*Objective:* Developers shall construct off-site traffic improvements necessitated by their developments.

*Objective:* Interconnected streets shall be provided between adjacent subdivisions or other developments to promote the efficient

## *Transportation*

circulation of traffic.

**Objective:** As developments are platted, stub streets should be provided to connect the development with adjacent undeveloped properties.

**Objective:** Right-of-way dedications shall be provided by developments to provide a minimum right-of-way width for all through roads including subdivision collector streets.

**Objective:** The use of interconnected parking areas between adjacent commercial developments shall be used to facilitate safe traffic movements.

**Objective:** Street continuity shall be required as developments are approved so that portions of the city will not be isolated.

**Objective:** Street systems in new subdivisions shall be responsive to topographic relief, minimizing undesirable curves and steep grades.

**Objective:** The Missouri Department of Transportation should review the I-44/Fifth Street Corridor and consider a visual barrier to reduce confusion of drivers on west bound I-44 seeing headlights approaching them on both east bound I-44 and east bound Fifth Street.

**Objective:** Long sections of straight roads in residential subdivisions are undesirable because they encourage speeding and should be avoided by requiring gentle curves in subdivision layout.

**Objective:** Hammerhead turnarounds should be prohibited and cul-de-sacs with appropriate radii should be used instead.

**Objective:** Entrances to commercial establishments should provide appropriate turning radii based on adjacent traffic facilities and existing radii should be upgraded as commercial properties redevelop.

**Objective:** Driveways should be set back appropriate distances from intersections.

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**Objective:** North Street and Forby Road should be redesigned and rebuilt to provide a modern road facility.

**Objective:** Highway W should be renamed Highway 109 south of I-44 to reduce confusion.

**Objective:** An alternative corridor to the Eureka-Allenton Road between the railroad tracks should be established.

### **Issue: I-44/109 Interchange**

**Goal:** **The I-44/Route 109 interchange should be reconstructed.**

**Objective:** A westbound exit on I-44 should lead directly to Fifth Street.

**Objective:** A double left-turn lane for eastbound traffic on Fifth Street at 109 should be established.

**Objective:** A double right-turn lane for eastbound traffic on Fifth Street at 109 should be established.

**Objective:** A double left-turn lane for southbound traffic on 109 onto eastbound I-44 should be established.

### **Issue: Non-Motorized Transportation**

**Goal:** **Provide an integrated system of walking and biking trails throughout the city.**

**Objective:** Walking/Biking Trails should connect the city and should take advantage of the existing natural environment

**Objective:** Sidewalks shall be provided on at least one side of each street in new residential developments.

**Objective:** A pedestrian facility parallel and proximate to the Fifth Street corridor should be established.

## **Traffic Circulation Plan**

### ***Planned Transportation Improvements***

In addition to the programmed transportation improvements that will be funded by St. Louis County and/or MoDOT, additional transportation improvements are planned to improve traffic circulation in the city.

***Interconnection of Commercial Parking Lots.*** As commercial areas in the city develop and redevelop, the city should require that parking lots be connected between adjacent commercial uses. This will reduce the number of turning movements onto and off of Fifth Street. When planned in advance, these connections are relatively inexpensive to implement.

***Sidewalks.*** New sidewalks should be installed in the Fifth Street Corridor to facilitate pedestrian circulation. It is recommended that these sidewalks not be erected adjacent to Fifth Street but be established along a dedicated pedestrian corridor located parallel to and north of Fifth Street.

***Highway 109.*** Highway W should be renamed Highway 109 to reduce confusion. In addition, Highway 109 needs to be improved to a four-lane divided road from the city limits north to I-64.

***Eureka-Allenton Road.*** It is recommended that major portions of Eureka-Allenton Road be relocated or realigned. The portion of the road that lies between the railroad tracks in railroad right-of-way may not always be available to the city for a road. In addition, portions of the road, particularly around and west of Allenton, suffer from poor alignment that does not facilitate land development. Relocation of the road, south of the railroad tracks from Central Avenue to west of Allenton is desirable. This relocation should be done in phases. New development in the Allenton area should accomplish initial phases of this relocation/realignment. In the long-term, the city should anticipate almost total relocation of the road and begin planning for this by acquiring right-of-way and requiring right-of-way dedications as property develops or redevelops.

### ***Functional Classification***

Existing and future roadways in the city are classified by functional characteristics to determine future right-of-way width requirements. Streets and highways are classified as follows:

***Freeways.*** Facilities that are divided and have full control of access such that no traffic crossings or intersections occur at grade. Freeways are designed solely for the purpose of

moving high speed traffic and are not designed to provide access or service to abutting properties. Rights-of-way will generally average 300 feet or more. Pavement shall consist of two roughly parallel strips of pavement separated by grassed median and/or a concrete barrier.

***Principal Arterials.*** Principal Arterials have considerable continuity and are the major streets and highways moving traffic through Eureka. These arterials primarily connect the city to other cities in the region and the majority of the automobiles traversing these roads are merely traveling through the city. Minimum rights-of-way should be 100 feet. Principal arterials are designed to move traffic and should not provide driveway access to adjacent residential land uses. Residential lots should have their back yards or side yards adjacent to principal arterials rather than their front yards. Commercial land uses may have direct access to principal arterial streets, but only when access to local or collector streets cannot be obtained.

***Minor Arterials.*** Minor arterials have good continuity within Eureka and serve a high percentage of the automobile trips originating in the city. These roads also provide connections to most areas of the city to facilitate intra-city trips. Minimum rights-of-way should be 60 feet.

***Collector Streets.*** Collector streets are facilities that collect traffic from local streets and channel it to the arterial street system. Collector streets have good continuity through one or more quadrants of the city. Collector streets serve a large portion of the trips beginning and ending in Eureka. Minimum rights-of-way should be 50 feet.

***Local Streets.*** Local streets are facilities providing direct access to single-family lots or to parking facilities for multiple-family dwelling units. Some local streets have moderate continuity, but most consist of cul-de-sacs, loop streets and other relatively short streets. Streets not included as major streets on the thoroughfare plan are classified as local streets.

The functional classification plan for Eureka is outlined in Table 14. The proposed Thoroughfare Plan is included in Figure 5.

<b>Table 14 Functional Classification</b>	
<b>Road</b>	<b>Classification</b>
I-44	Freeway
Highway 109	Principal Arterial
Highway W	Principal Arterial
Old U.S. Highway 66	Minor Arterial
Alt Road	Collector
Augustine Road	Collector
Bald Hill Road	Collector
Central Avenue	Collector
Eureka-Allenton Road	Minor Arterial
Fifth Street	Minor Arterial
Forby Road	Collector
Fox Creek Road	Collector
Franklin Road	Collector
Hornecker Road	Collector
Hunters Ford Road	Collector
Legends Parkway (private)	Collector
Meramec Boulevard	Collector
North Street	Collector
Six Flags Road	Minor Arterial
Wengler Road	Collector

Figure 5

Thoroughfare Plan



**LEGEND**

- |          |          |                    |
|----------|----------|--------------------|
| Existing | Proposed | Freeway            |
|          |          |                    |
|          |          | Principal Arterial |
|          |          | Minor Arterial     |
|          |          | Collector          |

# Community Facilities

The City of Eureka controls several parcels of land and public buildings necessary to provide services to residents. Some of this land and all of the public buildings are used for police protection, public works, and parks and recreation. Community facilities to house municipal activities include the City Hall, police department, parks department building and public works garage.

## City Hall

City Hall provides space for the city administrative offices. This administrative space includes offices for the city administrator, city clerk, building commissioner, and other administrative staff. The city council chambers are located in the building and serve as the meeting space for several boards and commissions.

The building design was based on a single-family residence. This design is not conducive to an efficient government building. There is inadequate work space for city staff, no conference room facilities, and the building is not efficiently organized for governmental functions. As the city grows, there will be additional crowding in the building. A modern facility designed as a government building would be more practical.

In addition, the ground that City Hall is constructed on has good visibility from Highway W and could be used for a more intensive institutional or commercial use. This ground is suited for hospital, medical or office use.

## Police Department

Eureka's Police Department is located just west of city hall. The building was completed in 1980 and contains 7,530 square feet of space. Personnel consists of 23 sworn police officers and three full-time civilian employees. The department includes canine, bicycle patrol, motorcycle patrol and detective units.

Eureka contracts with the St. Louis County Police Department for dispatching. This agreement is among the cities of Eureka, Chesterfield, Ellisville, Valley Park and the County. A "West County Municipal Channel" is leased by the four cities from the County Police Department. The cost of this lease is shared among the cities based on a combination of factors: population of each city, number of police officers, and number of radio assignments. In 2001, the total cost of this dispatching service was \$340,759. This city's share was much less than the cost that would be involved if the city provided its own dispatching. Another advantage of the County system is that it is Computer Aided Dispatching which is designed to direct calls for

service in a fraction of the time of a manual dispatching system. Still another advantage is the fact that the system contains a Computer-Assisted Report Entry (CARE) feature that allows patrol officers to call in police reports directly from a scene by telephone. This entered information then becomes a computerized report which can be filed, stored and available for statistical utilization.

In 2001, the cities of Eureka, Ellisville and Pacific formed a Special Tactical Operations Unit (known as the Suburban Emergency Response Team [S.E.R.T.]). This unit was specifically created to respond to emergency situations in any of the three cities that are beyond the capability of an individual department in terms of staffing and equipment resources on hand at any given time. Four police officers from each city were initially assigned to the unit. Officers in the unit are trained to respond quickly to an emergency and take necessary action to stabilize the situation.

## **Fire Protection**

Fire protection and emergency medical service is provided by the Eureka Fire Protection District. The district was formed in 1970 and encompasses 82 square miles in southwest St. Louis County and northwest Jefferson County. Commercial Risk Services, Inc., a property insurance rating organization assigns fire insurance class ratings to fire departments based on a scale of 1 to 10 with 1 being the highest rating and 10 being the lowest rating. The class rating is the insurance industry's assessment of a fire department's ability to suppress fire based on water supply, communications, and department resources including equipment age and specifications, number of personnel, distribution of resources, and average response time. Eureka Fire Protection District has an Insurance Service Organization (ISO) rating of 4 for the areas within five miles of a fire station (which includes all of the City of Eureka). Very few fire departments have a rating better than 4. In fact, no fire department in St. Louis County has a rating of 1 or 2 and only two have a rating of 3.

### ***Fire Stations***

The fire district operates three fire stations, two of which are located in the city. Station 1 is located at 1060 Highway W on the south side of the city. It is a three-bay facility constructed in 1988. Station 2 is located at 1815 West Fifth Street on the west side of the city. It was originally constructed as a two-bay facility in 1986, but has been enlarged to provide three bays. The District's Station 3 is located at 3570 White Oak School Road southeast of the city in Jefferson County. It also is a three-bay facility and was constructed in 1998.

### ***Fire Equipment***

The fire district staffs three pumper trucks, a ladder truck, two ambulances, three brush

trucks, a tanker, a rescue boat and a technical rescue trailer. A fourth pumper is maintained as a reserve truck. The district’s apparatus is summarized in Table 15.

<b>Table 15 Fire Apparatus</b>				
<b>Apparatus Number</b>	<b>Model Year</b>	<b>Type of Apparatus</b>	<b>Manufacturer</b>	<b>Special Features</b>
2412	2000	Ladder Truck	American La France	100-foot ladder
2414	2001	Pumper	American La France	Air bags, extrication and high angle rescue equipment
2417	1999	Ambulance	Wheeled Coach	
2418	2000	Brush/Utility Truck	Ford, F-350	
2496	1999	Technical Rescue Trailer	Vintage	
2424	2000	Pumper	American La France	2000 gallon water tank, powered rescue tools
2427		Ambulance		
2428	1967	Brush Truck	Jeep	
2469	1993	Rescue Boat	Weldcraft	
2420	1997	Reserve pumper	Emergency-One	
2433	1986	Tanker	Kenworth/FMC	
2434	2001	Pumper	American La France	Air bags, extrication and high angle rescue equipment
2438	1999	Brush Truck	Ford, F-350	
Source: Eureka Fire Protection District				

***Mutual Aid***

Eureka Fire Protection District has mutual aid agreements with every municipality and every fire protection district in St. Louis and St. Charles counties, the City of St. Louis, Boeing Aircraft Company, and some of the fire departments and fire districts in Jefferson and Franklin Counties. In addition, the district belongs to the state-wide mutual aid program (District C). Through mutual aid agreements, and automatic alarm agreements, fire departments and districts respond to alarms within other jurisdictions. This is advantageous not only for large fires, but also provides that nearby fire equipment is automatically dispatched to major fires. Through automatic back-up plans, it also ensures that major events do not inhibit the ability to respond to unrelated events that occur simultaneously.

***Emergency Medical Services***

Eureka Fire Protection District has provided emergency medical services to Eureka and the surrounding area since 1972. A fully-equipped advanced life support ambulance and at least two paramedics per shift are assigned to both of the district's fire stations located in the city (Stations 1 and 2). A third ambulance is maintained for heavy service periods and to substitute for either ambulance that is out of service.

**Public Works**

The public works department is responsible for the construction, maintenance, and repair of the city's infrastructure, including streets, stormwater, sidewalks, signage, parks and trail systems. The department works out of a new facility on Virginia Avenue. This facility and grounds appear to be large enough to support the public works function through the life of this plan.

**Library**

St. Louis County operates an extensive library system with 20 branch locations. Eureka Hills Branch Library at 103 Hilltop Center serves the area.

**Schools**

Most of Eureka and the surrounding area is served by Rockwood School District. Areas west of Fox Creek are served by the Meramec Valley School District. Rockwood maintains five schools in the city, Eureka Elementary School at 442 West 4th Street, Ralph Blevins Elementary School at 25 East North Street, Geggie Elementary School at 430 Bald Hill Road, Eureka High School at 829 Highway 109, and the school district's individual and alternative learning center which provides special supplementary education. Rockwood students in the city attend LaSalle

## *Community Facilities*

Springs Middle School located north of the city at 3300 Highway 109.

Private and parochial schools in the city include Most Sacred Heart School (Catholic) and St. Mark's Lutheran Church and School.

### **Goal and Objectives**

**Goal:** Community facilities necessary to provide services to the residents of Eureka shall be provided at strategic locations.

*Objective:* A full-size county library branch should be constructed.

*Objective:* A new complex including a City Hall, Police Station and County Library Branch on a centrally-located piece of land should be considered immediately.

*Objective:* Creation of a Community Theater facility should be investigated.

*Objective:* Partnering with the Rockwood School District and other organizations should be considered in providing new community facilities.

*Objective:* The land use plan should provide for a hospital and major medical facility in the city.

### **Proposed Facilities**

The major proposed facility is a new government complex. An alternative location for this complex is the northern part of Old Town. This complex would include a new city hall building, new police station, and land for a new county library. A potential location for this complex is shown on the Future Land Use Map (figure 4).

# Parks and Recreation

Eureka residents enjoy an exceptional park system. City parks are open from 8:00 a.m. until dusk except for Kircher Park which opens at 7:00 a.m. The parks and their facilities are listed below. A summary of park facilities is included in Table 16.

## **City Parks**

### ***Bowlby Park***

Bowlby Park is located in the southeast part of the city at 800 Williams Drive. The park contains a playground.

### ***Drewel Park***

Drewel Park is near the center of the city, on Hill Drive in Shaws Garden Subdivision, west of Bald Hill Road. Park facilities include a tennis court, handball courts, basketball court, sand volleyball court, ballfield, a pavilion with grills, restroom and playground.

### ***Hilltop Park***

Hilltop Park is located at Meramec Boulevard and Hilltop Ridge Drive near Forby Road. The park includes a pavilion.

### ***Kircher Park***

Kircher Park is on Williams Road in the east part of the city near I-44. It has two pavilions with grills, a restroom and accessible trail connection to Route 66 State Park.

### ***Legion Park***

Legion Park is on the west side of Bald Hill Road, east of Drewel Park. The Park includes four ball fields, playground, rollerblade/basketball court, a pavilion with grills, and restroom.

### ***Lions Park***

Lions Park is on the east side of Bald Hill Road, across the street from Legion Park. Facilities at Lions Park include two lighted ballfields, two unlighted ballfields, a pavilion with grills, restroom, concession stand and a playground.

***Ruprecht Park***

Ruprecht is located on the north side of the city on the south bank of the Meramec River on Allen Road.

***Soetebier Park***

Soetebier Park includes “wooded wetland” as defined by the Federal Emergency Management Agency (FEMA). The park is located on Williams Road and adjoins Kircher Park. Development of the park for both passive and active recreation is recommended. Part of the park will be developed for a soccer complex while the “wooded wetland” portion of the park will be maintained as a “native wetland.”

***Wm. F. “Bud” Weber Community Center***

The Weber Community Center is located in Legion Park and is available for rental for social events and meetings.

**County Parks**

In addition to city parks, St. Louis County has more than 12,300 acres of parkland scattered throughout the unincorporated and incorporated portions of the county. The County maintains approximately 12 acres of parkland per 1,000 residents of the County. County parks in and near Eureka are listed below.

***Greensfelder Park***

Located on Allenton Road, the park includes a horse stable to support horse rides.

***West Tyson County Park***

West Tyson Park is located at Interstate 44 and Lewis Road.

**Parks and Recreation Plan**

A master plan for park development has been prepared for the city. This plan, entitled Parks Amenities Analysis and Improvements is incorporated by reference.

<b>Table 16 Eureka Parks Facility Inventory</b>									
	Bowlby Park	Drewel Park	Hilltop Park	Kircher Park	Legion Park	Lions Park	Forby Property	Soetebier Park	Totals
Acreage	1.5	16	30	19.5	11	13.5	7.5	27	126
Baseball/Softball	0	1	0	0	4	4	0	0	9
Picnic Shelters	0	2	1	2	1	1	0	0	7
Picnic Tables	1	10	0	50	38	31	0	0	130
Football/Soccer Fields	0	1	0	0	2	2	0	0	5
Walking Jogging Trails	1	0	1	1	0	1	0	0	4
Tennis Courts	0	1	0	0	0	2	0	0	3
Basketball Courts	0	1	0	0	1	0	0	0	2
Sand Volleyball Courts	0	1	0	0	0	0	0	0	1
Playground	1	4	0	0	1	1	0	0	7
Handball/Raquetball	0	2	0	0	0	0	0	0	2
Horseshoe Pits	0	0	0	0	2	0	0	0	2
Creek	1	1	0	1	1	1	0	0	5
Benches	3	9	0	2	10	11	0	0	35
Restrooms	0	1	0	1	1	1	0	0	4
Parking Stalls *	0	27	66	38	74	64	0	0	269
Water Fountains	0	1	0	0	0	1	0	0	2
BBQ Pits/Grills	0	2	0	4	4	6	0	0	16
Community Center	0	0	0	0	1	0	0	0	1
Pump House	0	1	0	0	0	0	0	0	1
Bleachers	0	0	0	0	6	8	0	0	14
Public Phone	0	0	0	0	0	1	0	0	1
* Parking Stalls @ Hilltop Park are not dedicated for park use.									

# Infrastructure

Infrastructure in Eureka can basically be divided into three categories: (1) utilities, (2) streets and sidewalks, and (3) telecommunications facilities. Some utility services are provided by the city while some are semi-public. Telecommunication services are not provided by the city. Most streets and sidewalks are maintained by the city.

## Utilities

Utility services in the city are provided by a number of private and public utility companies. Water service and wastewater service is provided by the city. Laclede Gas Company provides natural gas and Ameren UE provides electricity. Telephone service is provided by SBC Communications, Inc.

### *Water Service*

**Water Supply** The city has four wells capable of producing 4,608,000 gallons of water per day.

**Water Storage** The city has water storage capacity for 1.775 million gallons. This capacity is divided among five water storage tanks. The location, year constructed, and capacity of each of these tanks is summarized in Table 17.

### *Wastewater Service*

Eureka operates the only wastewater system in St. Louis County other than the Metropolitan St. Louis Sewer District. Wastewater service is provided to the urbanized areas of the city. The city's wastewater treatment plant is a secondary level lagoon and mechanical sewerage treatment facility. The facility has a design capacity of 1 million gallons per day and is being enlarged to a capacity of 3 million gallons per day.

Eight lift stations are utilized to help bring wastewater to the treatment plant. Lift stations are located on Highway 109 north of I-44, at Kircher Park, near the entrance to Hilltop Village, south of South Fox Creek Lane, on Raineri Drive, on West North Street, in EnderBush Subdivision, and on Cahoon Drive.

Outside of the urbanized area of the city, wastewater treatment and disposal service is scattered consisting primarily of septic tanks.

<b>Table 17 Water Storage Facilities</b>				
<b>Name</b>	<b>Location</b>	<b>Type of Facility</b>	<b>Year Built</b>	<b>Capacity</b>
Water Storage Tank #1	Niehoff Drive	Above Ground	1966	75,000 gallons
Water Storage Tank #2	Viola Lane	Above Ground	1966	200,000 gallons
Water Storage Tank #3	Brock Road	Above Ground	1972	500,000 gallons
Water Storage Tank #4	Viola Lane	Above Ground	1977	500,000 gallons
Water Storage Tank #5	503 Vista Hills Ct.	Above Ground	1997	500,000 gallons
Source: St. Louis Area Insurance Trust City of Eureka				

***Stormwater***

The city has prepared a Stormwater Analysis and Improvements Evaluation. That report, dated July 2002, is incorporated by reference into this plan.

***Natural Gas***

Natural gas service is provided by Laclede Gas Company. Most of this natural gas originates from Mid-Continent and Gulf Coast sources. It is purchased by Laclede Gas from 40 different suppliers. Natural gas is brought into the St. Louis area by two Mississippi River Transmission Corporation pipelines and two pipelines of the Missouri Pipelines Company. Laclede has underground natural gas storage in a sandstone formation under north St. Louis County that has storage capacity for 35 billion cubic feet of natural gas. Laclede also stores propane underground in a cavern located in north St. Louis County that has storage capacity of 800,000 barrels.

***Electrical Service***

Electric service is provided by AmerenUE. AmerenUE is a private, investor-owned utility with more than 1.0 million customers in Missouri. The company provides service to over 22,600 square miles of Missouri, and additional areas in Illinois and Iowa with a service

population in excess of 2.7 million people. AmerenUE operates nine generating plants with a capability of generating 7,536 megawatts. The company has interconnection points with 21 other Midwest utility companies. AmerenUE serves more than 402,000 residential customers and more than 50,000 commercial and industrial customers in St. Louis County.

## **Telecommunications**

Telecommunications technology is divided among four categories: broadcasting (radio and television), cable television, computer networks and telephone services. However, this breakdown is becoming more artificial because phone companies can deliver video programming and cable companies can provide phone service. Telecommunications technology has exploded over the past several years and is destined to continue expanding rapidly. This expansion must be considered by cities in planning for the future. The basic types of telecommunications technology and issues to be considered in the near future are outlined below.

### ***Broadcasting***

Broadcasting provides video and audio programming over the airwaves to radios and televisions within range of a signal of a specific station. The technology is point to multi-point or a signal from a station to a large number of receivers. The physical capacity of the usable electromagnetic spectrum limits the number of frequencies available to broadcasters. To provide for the orderly allocation of these scarce frequencies, the Federal Communications Commission (FCC) has the authority under the Communications Act of 1934 to license broadcasters based on “public interest, convenience, and necessity.”

### ***Cable Television***

Cable television sends video programming as analog signals over coaxial cable. Analog signals are measurable impulses of voltage and differ from digital signals that are gaining favor among telecommunications providers. Digital signals will be discussed further under the section on personal communication services (PCS). As with broadcasting, cable allows for primarily one-way transmission. Unlike broadcasting where viewers only receive what the broadcaster sends in a single signal, the subscribers select from a basic package of programming that may be supplemented with premium channels. Cable systems currently carry approximately 75 channels of programming although the technology exists to carry over 500 channels.

Charter Communications has a franchise to provide cable television service in the city.

*Computer Networks*

Computer networks and electronic information services have expanded rapidly over the past two decades. Accessing a network requires a computer, modem and phone line. Users dial the “host” computer of the network or service, and, once connected, can communicate over the network through the modem. The modem translates digital data from the sending computer into analog signals appropriate for phone lines. The best known computer network is the Internet, a noncommercial information highway that connects universities, laboratories, government bodies, and more than ten million individual users in 102 countries. These networks and electronic information services provide a multitude of functions. Some operate as electronic mail boxes and allow users to communicate via electronic mail (E-mail). Networks also provide access to electronic bulletin boards that allow users to post and read messages on specific topics.

*Telephone Technology*

Telephone technology has traditionally sent voice conversations by analog signals over networks of copper wires that link individual phones. Telephone companies use their switching technology to route millions of phone calls to the individual numbers dialed. Unlike cable or broadcasting, telephones are designed for point-to-point, interactive communication. Telephone networks are divided into local and long-distance carriers. Regional telephone companies operate local telephone networks within cities. These networks consist largely of copper wires, but many companies have upgraded their networks to use fiber-optic cables. Fiber-optic cables carry streams of digital information (bits of ones and zeroes) at the speed of light. This speed is hundreds of thousands of times faster than the speed information can be transmitted over copper wire. Long distance phone companies operate cross-country fiber-optic cables that run between cities.

With the expansion of telecommunication services, it is important to define the various types of telephone, cellular phone and digital personal communications systems (PCS) available and the technological implications of cellular and digital phones. This plan must consider the increasing demand for cellular and digital PCS phones and the need to plan for expanded fiber-optic services.

Recent technological developments have allowed telephone companies to expand beyond their traditional sphere to send video programming over their copper or fiber-optic wires. Video programming differs from that provided by cable or broadcasting. A video signal sent over a phone line goes to a single user and not to every television in the area. This is similar to a voice conversation that goes only to the number dialed and not to every telephone. The technology that allows telephone companies to switch millions of calls to the correct telephone also allows them to switch video programming to whomever requests it. Telephone companies can send out as many video signals as it has lines so a switched video network has as many channels as it has users.

***Regional Phone Service***

SBC (formerly Southwestern Bell Telephone Company), provides local telephone service to portions of Missouri, Arkansas, Kansas, Oklahoma and Texas. All of St. Louis County is included in this service area. In 1997, there were more than 900,000 active phone lines in the St. Louis Metropolitan area controlled by SBC.

***Telecommunications Act of 1996***

Congress enacted the federal *Telecommunications Act of 1996* P.L. No. 104-104 on February 8, 1996. One purpose of this Act is the deregulation of the telecommunications industry to provide a more competitive environment for wired and wireless telecommunication services in the U.S.

The 1996 Act preserves the authority of cities to regulate the placement, construction, and modification of Towers and Antenna Support Structures and to protect the health, safety and welfare of the public. In addition, the City has been granted the authority to enact legislation to regulate the construction, placement, and operation of telecommunications towers and antennae pursuant to its zoning powers delegated to the City by the State of Missouri.

The Federal Communications Commission (FCC) has exclusive jurisdiction over the regulation of the environmental effects of radio frequency emissions from telecommunications facilities, and the regulation of radio signal interference among users of the radio frequency (RF) spectrum.

***Demand for Wireless Communication Facilities***

In May of 1997, there were more than 43 million portable wireless telephones operating within the United States, including 350,000 personal communications services (PCS). To serve this demand, there were more than 22,000 cellular transmission sites (cellular transmission sites include various types of communication towers and antennae). The number of portable cellular telephones is expected to increase substantially in the future. To keep up with this increase in portable cellular and PCS units, there will be an increasing need for more cellular and PCS transmission sites.

Over the past few years, personal communication services (PCS) have been developed and expanded to include hand-held portable phones and paging systems. Cellular technology is an analog based system while PCS is a digital system. A similar expansion occurred in cellular transmission sites. In the mid-1980s there were 384 sites. This increased to 17,920 in December of 1994 and increased to more than 22,000 sites in September of 1996.

***Cellular Technology***

Cellular technology differs from land-based communications (telephone lines), microwave or satellite communications systems because it is based on a network of short-range cell sites with a fixed capacity. The cells must be linked by cellular towers, microwave dishes, or ground-wired towers or the transmission will fail. In addition, if a cell is crowded by too many users, it must be split into two cells, each having its own radius. A single cellular phone service provider must have a number of dispersed antennae to successfully provide service.

Low-power mobile radio (cellular) communication is accomplished by linking a wireless network of radio wave transmitting devices such as portable phones, pagers or car phones, to conventional ground-wired communications (telephone lines) through a series of contiguous cells. This technology entails a signal being transmitted from a portable phone to the nearest cellular antenna. This signal is then relayed from the cellular antenna to the nearest land-based telephone line or microwave dish, and then to a central switching computer. The computer then sends the call to its destination. If the destination is a land-based telephone, the call is transmitted over telephone lines. If the destination is another mobile communication device, the call is sent to the closest cellular antenna.

Calls originate or are received from a wireless source because antennae share a fixed number of frequencies across the cellular grid. When a caller cannot successfully place a call or maintain a call (the call is “dropped”), the caller is either out of range or the nearest antenna is at full capacity. Calls originate within the radius of a cell antenna site. While the caller is moving in a vehicle, the call proceeds uninterrupted as the transmission is “patched” from one antenna to the next as the caller moves among the radii of various cell sites. While the caller is moving, the cellular antennas are automatically looking for an unoccupied frequency on the next antenna to enable continued transmission.

As the demand for cellular telecommunications increases, cells in a given area must be subdivided, or additional carriers must be permitted to operate there. The end result is the need for more antennas.

***PCS Technology***

PCS technology is also wireless and is similar to cellular technology although it operates on a network of small cells and uses a lower frequency in the spectrum to transmit data in a digital format. PCS operates in the form of “follow me calling” such that communication is routed to an individual rather than a telephone number via a more sophisticated version of a pager. The receiving end of the system is generally a phone, fax, video screen or a database. PCS systems are networked via cell sites that operate at higher frequencies on the electromagnetic spectrum than cellular phones. PCS frequencies are between 1,850 and 2,200 MHz and have smaller radii than cell technology.

***Wireless Service in the Eureka Area***

Wireless service in analog (cellular) format has been available in St. Louis County since the early 1980s. Digital (PCS) format service emerged in the early 1990s. Currently, there are five wireless service providers in the area, four of which employ digital technology.

***Towers and Antennas***

The height of wireless communications towers generally range from 50 to 200 feet in order to be taller than trees, buildings and other objects. Required height is generally proportional to a combination of the distance antennas can cover and the demand within their radius. Generally, higher towers cover a larger geographic area, but have a lower service demand. These towers are known as coverage sites. Shorter towers generally cover smaller radii with high demand and are known as capacity sites. Towers may be freestanding cellular monopole towers, guyed towers and lattice towers that have three or four legs. Antennas are placed on these towers or can be placed on other tall objects such as utility poles, water towers, or roofs of buildings. In addition, antennas can be placed inside of some tall structures such as church steeples. In order to receive approval from municipalities with concerns about aesthetics, wireless communications providers have developed camouflaged or stealth antennas that may be disguised as trees, light poles, flag poles, and other objects.

**Issues, Goals and Objectives**

**Issue: Utilities Services**

**Goal: Utility services necessary to support the continued development of the city shall be provided including provisions for the handling of stormwater.**

***Objective:*** Utility distribution lines shall be placed underground.

***Objective:*** An adequate supply of water to meet domestic, fire fighting and industrial needs shall be maintained.

***Objective:*** Significant developments shall connect to the city’s water system when water mains are accessible.

***Objective:*** New interceptor sewers will be planned and constructed to accommodate new growth areas.

**Issue: Stormwater**

**Goal:** Stormwater shall be handled efficiently to minimize its impacts on surrounding properties.

*Objective:* Development shall provide stormwater detention facilities adequate to maintain the existing runoff from their sites.

*Objective:* New construction shall provide erosion and sedimentation control adequate to minimize impacts on surrounding properties.

*Objective:* Retention basins should be attractive in appearance.

**Infrastructure Plan**

Since most of the city's infrastructure is the responsibility of other independent agencies, the infrastructure plan focuses on those items that the city controls or will have involvement with. These include streets which are covered by the Traffic Circulation element, parks which are covered by the Parks and Recreation Element, and communications infrastructure. The city's involvement in communications basically requires regulation of wireless communication facilities and assisting in providing space for fiber optic cable.

*Fiber Optics*

During the 1990's, a new buzz word in communications was coined, the information superhighway. This information superhighway will consist of a fiber-optic network that will carry virtually limitless television channels, home shopping and banking, interactive entertainment and video games, computer data bases, and commercial transactions. Technically a broadband communications network, the information superhighway will link households, business, and schools to virtually all available information resources. Rather than using traditional technology of analog signals and electromagnetic waves, the superhighway will carry all information (from voice to video) in the form of digital bits.

Completion of the information superhighway will require a substantial upgrade of existing networks including expanded use of fiber-optic technology, interconnection of existing networks, linking individual users to the network, and deployment of complex hardware and software to manage and direct the flow of information. It is apparent that the private sector will have the primary responsibility for construction of the network. Cable companies have had a competitive edge over telephone companies in beginning construction. However, telephone companies have steady streams of revenue and huge amounts of capital because of their local

## *Infrastructure*

phone monopolies. Cooperation between cable and phone companies will be key in constructing the information superhighway. Governments at all levels need to ensure that their regulations do not unreasonably hinder construction of the information superhighway.

In Eureka, it is imperative that the city cooperate with cable and telephone companies in the installation of fiber-optic lines. Road rights-of-way need to be available for this installation. In addition, the city should consider making provisions for easements or other means of ensuring that fiber-optic cable can be installed in all new subdivisions as they develop.

# Appendix A

## Eureka Area Birds

### Year-Round Birds

Brown-Headed Cowbird (*Molothrus ater*)  
European Starling (*Sturnus vulgaris*)  
Red-Winged Blackbird (*Agelaius phoeniceus*)  
Common Grackle (*Quiscalus quiscula*)  
American Crow (*Corvus brachyrhynchos*)  
Turkey Vulture (*Cathartes aura*)  
Downy Woodpecker (*Picoides pubescens*)  
Hairy Woodpecker (*Picoides villosus*)  
Red-Headed Woodpecker (*Melanerpes erythrocephalus*)  
Red-Bellied Woodpecker (*Melanerpes carolinus*)  
Eastern Bluebird (*Sialia sialis*)  
Blue Jay (*Cyanocitta cristata*)  
Belted Kingfisher (*Ceryle alcyon*)  
House Finch (*Carpodacus mexicanus*)  
Carolina Wren (*Thryothorus ludovicianus*)  
Eurasian Tree Sparrow (*Passer montanus*)  
House Sparrow (*Passer domesticus*)  
Horned Lark (*Eremophila alpestris*)  
Cedar Waxwing (*Bombycilla cedrorum*)  
Northern Cardinal (*Cardinalis cardinalis*)  
Northern Bobwhite (*Colinus virginianus*)  
Killdeer (*Charadrius vociferus*)  
American Kestrel (*Falco sparverius*)  
Northern Flicker (*Colaptes auratus*)  
Mourning Dove (*Zenaida macroura*)  
Red-Tailed Hawk (*Buteo jamaicensis*)  
Barred Owl (*Strix varia*)  
Great Horned Owl (*Bubo virginianus*)  
Mallard (*Anas platyrhynchos*)  
Wild Turkey (*Meleagris gallopavo*)  
Carolina Chickadee (*Poecile carolinensis*)  
White-Breasted Nuthatch (*Sitta carolinensis*)  
Tufted Titmouse (*Baeolophus bicolor*)  
Loggerhead Shrike (*Lanius ludovicianus*)  
Eastern Screech-Owl (*Otus asio*)

American Robin (*Turdus migratorius*)  
Northern Mockingbird (*Mimus polyglottos*)  
Sharp-Shinned Hawk (*Accipiter striatus*)  
Rock Dove (*Columba livia*)  
Cooper's Hawk (*Accipiter cooperii*)  
Northern Harrier (*Circus cyaneus*)  
Canada Goose (*Branta canadensis*)  
Great Blue Heron (*Ardea herodias*)  
Wood Duck (*Aix sponsa*)  
American Goldfinch (*Carduelis tristis*)  
Eastern Meadowlark (*Sturnella magna*)

### **Summer Birds**

Eastern Towhee (*Pipilo erythrophthalmus*)  
American Coot (*Fulica americana*)  
Rose-Breasted Grosbeak (*Pheucticus ludovicianus*)  
Indigo Bunting (*Passerina cyanea*)  
Blue Grosbeak (*Passerina caerulea*)  
Barn Swallow (*Hirundo rustica*)  
Purple Martin (*Progne subis*)  
Chimney Swift (*Chaetura pelagica*)  
Chipping Sparrow (*Spizella passerina*)  
House Wren (*Troglodytes aedon*)  
Cliff Swallow (*Petrochelidon pyrrhonota*)  
Lark Sparrow (*Chondestes grammacus*)  
Wood Thrush (*Hylocichla mustelina*)  
Spotted Sandpiper (*Actitis macularia*)  
Common Nighthawk (*Chordeiles minor*)  
Brown Thrasher (*Toxostoma rufum*)  
Yellow-Billed Cuckoo (*Coccyzus americanus*)  
Blue-Winged Teal (*Anas discors*)  
Eastern Phoebe (*Sayornis phoebe*)  
Great Crested Flycatcher (*Myiarchus crinitus*)  
Eastern Kingbird (*Tyrannus tyrannus*)  
Gray Catbird (*Dumetella carolinensis*)  
Ruby-Throated Hummingbird (*Archilochus colubris*)  
Green Heron (*Butorides virescens*)  
American Redstart (*Setophaga ruticilla*)  
Baltimore Oriole (*Icterus galbula*)  
Orchard Oriole (*Icterus spurius*)  
Scarlet Tanager (*Piranga olivacea*)  
Summer Tanager (*Piranga rubra*)  
Common Yellowthroat (*Geothlypis trichas*)  
Yellow Warbler (*Dendroica petechia*)

American Redstart (*Setophaga ruticilla*)  
Dickcissel (*Spiza americana*)

### **Winter Birds**

Yellow-Bellied Sapsucker (*Sphyrapicus varius*)  
Lesser Scaup (*Aythya affinis*)  
Pine Siskin (*Carduelis pinus*)  
Dark-Eyed Junco (*Junco hyemalis*)  
Song Sparrow (*Melospiza melodia*)  
American Tree Sparrow (*Spizella arborea*)  
Purple Finch (*Carpodacus purpureus*)  
White-Throated Sparrow (*Zonotrichia albicollis*)  
White-Crowned Sparrow (*Zonotrichia leucophrys*)  
Fox Sparrow (*Passerella iliaca*)  
Lesser Scaup (*Aythya affinis*)  
Northern Harrier (*Circus cyaneus*)  
Northern Pintail (*Anas acuta*)  
Red-Breasted Nuthatch (*Sitta canadensis*)  
Yellow-Rumped Warbler (*Dendroica coronata*)  
Dark-Eyed Junco (*Junco hyemalis*)  
Common Merganser (*Mergus merganser*)  
Ring-Billed Gull (*Larus delawarensis*)

### **Migratory Birds**

Double-Crested Cormorant (*Phalacrocorax auritus*)  
Black-Crowned Night-Heron (*Nycticorax nycticorax*)  
Osprey (*Pandion haliaetus*)  
Bald Eagle (*Haliaeetus leucocephalus*)  
Swainson's Thrush (*Catharus ustulatus*)  
Harris's Sparrow (*Zonotrichia querula*)  
Lesser Yellowlegs (*Tringa flavipes*)  
Upland Sandpiper (*Bartramia longicauda*)  
Northern Shoveller (*Anas clypeata*)  
Ruby-Crowned Kinglet (*Regulus calendula*)  
Mississippi Kite (*Ictinia mississippiensis*)  
Cattle Egret (*Bubulcus ibis*)  
Snowy Egret (*Egretta thula*)  
Great Egret (*Ardea alba*)

Source: Tekiela, Stan, *Birds of Missouri*, Adventure Publications, Inc., Cambridge, Minnesota, 2001.