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# CAMDEN COUNTY MASTER PLAN 2003

## CHAPTER I: INTRODUCTION

### 1.1 STATUTORY AUTHORITY

§64.005 RSMo grants the authority to establish planning and zoning in those areas within five miles of certain lakes within the state of Missouri. Following these rules, the boundary for the Camden County Planning and Zoning was set, using the six hundred and forty five feet (645') above mean sea level, as stipulated in the enabling legislation, as the interior boundary, and section lines ranging from one half mile to five miles from the (645) elevation forming the exterior boundary.

The end result of this arrangement was an area extending roughly one half to five miles from the elevation line and encompassing approximately 244 (two hundred forty-four) square miles. Also, as prescribed in §64.170 RSMo, Camden County Planning and Zoning is not allowed to address issues dealing with building codes.

§64.040 RSMo states that the county planning commission (board) shall have the power to make, adopt and may publish an official master plan of the county for the purpose of bringing about coordinated physical development in accordance with present and future needs. This document is intended to address this concern and provide guidance for the long range planning of Camden County.

### 1.2 BACKGROUND

Camden County voters approved the formation of a Planning and Zoning district in the November 4, 1997 general election. The election was subsequently challenged in court. The court challenge and succeeding appeals did not prevail and the Camden County Commission then implemented the formation of the Camden County Lake Area Planning and Zoning Commission, or as it is commonly referred to, the Camden County Planning and Zoning Board.

After overcoming the court challenge, hiring staff and directing the initial research phase of the county's planning and zoning effort, which included extensive demographic research, review of other county plans and regulations and hearing from a variety of experts in the field of planning and zoning, the board sponsored a series of open meetings in 2001 throughout the county to better gauge the concerns and interests of the county population. A list of key development issues in Camden County, developed by the Planning and Zoning Director and refined by the Planning and Zoning Board and through citizen comment was then placed in a questionnaire. A total of thirty-two issues were listed on the questionnaire circulated in conjunction with these open meetings with participants encouraged to fill them out and return them to Planning and Zoning.

From comments made at these initial public meetings and from questionnaire responses, the Camden County Planning and Zoning Commission identified issues viewed as key by the residents of the county's planning district and formed the following subcommittees composed of Planning and Zoning Commission members and other interested citizens from throughout the county:

- Building Requirements
- Land Use
- Parks and Recreation
- Solid Waste, Transportation
- Water and Sewer

Planning and Zoning staff then developed a preliminary land use map using data from the Assessor's Land Use information. The question of agriculture versus residential land use was arbitrarily set a five (5) acre lot size. This task was completed in 2001.

That information was then field verified and fine tuned. These field checks were conducted in the summer of 2002 with spot checks of sites when reports of new uses were received. This task was completed in November, 2002.

Agricultural use was further checked as to whether agriculture was being actively practiced on the property. A combination of tract size, activity, and realistic future use was then utilized to determine what would be considered for agricultural zones.

Commercial designation was assigned for those properties where commercial operations were active. Unused or abandoned former commercial properties were classified in relation to current adjacent use. Self-storage units located in predominantly recreational or residential zones were classified as nonconforming. Properties along arterial traffic-ways were also classified as commercial if the surrounding property was already in commercial use, there was no reasonable chance of agricultural use, and there were no residences in the zone.

Industrial zones were mapped out by current use.

Recreational zones were mapped out on the basis of location or current use. Those parcels that are entirely within flood plains were classified as P-1. Designated park areas such as state parks were classified as P-2. Those areas currently under use as golf courses or other recreational activities were classified as P-3.

Residential property was classified by current use or designation. Notation and classification other than R-1 was made when either office information or field checks revealed usage other than R-1.

## 1.3 GOALS

The intent of this document is to provide the basic background data, policies and goals for use in preparing a zoning program for those portions of Camden County described earlier in this plan. This plan is to provide the basic structure upon which the specific rules and regulations will be based. It will serve as a tool to assist citizens, businesses, and other interests. It will also help those considering Camden County as a place for relocation by providing a picture, not only of the County and its people but also what they could expect if they wish to conduct business or reside in the county.

A master plan is an evolving document. As Camden County progresses, new issues will need to be addressed. New technology will need to be acknowledged. New federal or state rules governing issues addressed in the Master Plan may change. And finally, as a document intended to express the needs and wishes of the citizens of Camden County, if preferences or requirements change, those responsible for the maintenance of this Camden County Master Plan

document and following the tenets set forth should be amenable to carefully reasoned and crafted changes.

This document is intended to lead the way in:

1. Preserving and improving the overall quality of life in Camden County
2. Providing for the continued growth of the county's commercial and industrial base.
3. Improving the viability of land use and the closely associated viable and safe use of the Lake of the Ozarks, especially where density is concerned.
4. Increasing the tax base.
5. Broadening county infrastructure services.
6. Reducing conflicts among conflicting land uses.
7. Coordinating private development and public infrastructure.
8. Preserving open space.
9. Programming capital improvements.
10. Emphasizing long range alternatives as a balance to short term horizons.

In pursuing these goals Camden County will:

1. Encourage development that utilizes transit-friendly design practices and capitalizes on existing and planned transportation improvements.
2. Consider the character of existing neighborhoods and established commercial areas as a factor in the evaluation of new development and redevelopment projects.
3. Integrate waterfront development with adjacent neighborhoods by assuring strong physical linkages and appropriate infill development.
4. Develop and make readily available detailed and easy to understand long range plans for the further development of water, wastewater and stormwater services.
5. Lead the way in formulating the Camden County Economic Development Strategy designed to continue sustainable growth of the county's economy.

## CHAPTER 2: NATURAL FEATURES

### 2.1 GEOGRAPHY

Camden County has a total land area of 655.2 square miles, making it the fortieth (40<sup>th</sup>) largest county in land area of Missouri's 114 counties. In the United States three features (*survey lines, stream lines and drainage divides*) are commonly used to define county political boundaries. Camden County is in the unique position of being the only county in the state which has all three of these types of political boundaries.

The highest point in Camden County is on the border with Laclede County approximately two miles west southwest of Stoutland at 1254 feet above sea level. The highest point within the planning and zoning perimeter of the county is in Camdenton and is 1053 feet above sea level.

Camden County has a total relief of 695 feet, compared with an average of 721 feet within the rest of the counties in the Missouri Ozarks. The statewide average per county is 467 feet.

The county's highest relief is found on the slopes approaching the flood plains of the Osage and Niangua Rivers. The lowest relief is found in the broad ridges between watershed boundaries. The relatively high relief of the planning and zoning area in Camden County, considered by most to be an asset because of the scenery it creates, also translates into location and design issues which must be addressed in Camden County's planning and zoning, especially where it relates to wastewater treatment collection, roads, excavation and building height restrictions.

Camden County is entirely within the Osage River drainage basin. And, virtually all of Camden County's planning and zoning district drains into the Lake of the Ozarks, emphasizing the need to address possible water pollution concerns to ensure that the lake--the lifeblood of the county's economy--will not deteriorate in quality.

In pre-settlement times a visitor to what is today Camden County would have found the dominant vegetation form to be oak-hickory forest. Small glade areas of bluestem-oak savanna would have been found in some of the upland areas with thinner soil. Conversion by settlement and agriculture has transformed the county. Today the county's land area is 78.7% deciduous upland mixed hardwood forest, 26.2 % non-native grassland (*pasture*), 7.6% open water and 8.25% developed land.

Camden County lies on the northwest flank of the Ozark uplift. While Camden County lies completely within the Ozarks, the physiographic boundary with the Osage Plain lies only a few miles to the north and west of Camden County. Camden County displays typical terrain and features of the Salem Plateau area of the Ozarks. These characteristics include broad rolling uplands deeply incised by major streams and karst zones featuring sinkholes, caves, losing streams, and springs. Relief ranges from 95 feet to 420 feet per section (square mile). All surface drainage is into the Osage River, a major tributary of the Missouri River. Stream drainage patterns are slightly influenced by the upwarping of the Ozarks as is evidenced by the longer tributaries on the southeast sides of streams when compared to the tributaries entering from the northwest. Nowhere is this more dramatic than in the southeast portion of the county where the county line, which lies on the drainage divide between the Osage and Gasconade Rivers, is as close as 2.4 miles to the Gasconade in contrast to a distance of 11 miles from the Osage River. As a consequence, slopes and grades tend to be steeper on the northwest versus the southeast side of streams and valley.

Except for localized variations near the Decaturville structure and some fault lines, bedrock dips in Camden County are less than 2 and pose no basis for special attention in plans for construction projects.

Underlying bedrock in Camden County consists of a series of exposed dolomite and sandstone formations resting on unexposed igneous basement rock. Bedrock ranges in age from Precambrian, exposed in a small inlier produced by an upwardly faulted zone in the Decaturville area to small Pennsylvanian outliers on the crests of some hills and ridges located further away from major streams. Other than the minor exposure of Precambrian rock in the Decaturville area the oldest rock exposed in Camden County is on Porter Mill Bend (miles 35-37) and Coffman Bend (miles 52-58) on the Osage Arm of the Lake of the Ozarks and along the Niangua Arm of the lake from Arnold Ridge to

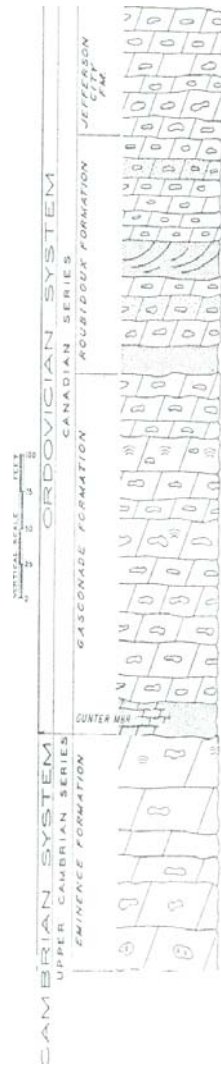
Stone Ford (miles 4-23) where Eminence dolomite has been exhumed by the downcutting of the rivers. These dolomite formations are also the host rock for karst features. A stratigraphic profile for Camden County is depicted at right.

While the sandstones tends to be more noticeable and one of those sandstones, the Gunter, is noted for its use as dimension stone in Hahatonka castle as well as many other structures around the Lake of the Ozarks area, dolomite is by far the more abundant bed rock in Camden County. Many of these dolomite beds contain large amounts of chert. Through eons, the partial weathering away of this dolomite has resulted in the formation of a thick mantle of chert residuum so characteristic of Camden County and the Ozarks. These dolomite formations are also the host rock for karst features.

Camden County is especially noted for two geologic features; the Decaturville structure and Hahatonka. In the vicinity of Decaturville and extending into Laclede County, are the remains of what is now generally considered to be an impact crater from a meteorite. The collision, estimated to have occurred some 300 million years ago, created a huge crater. Through time, erosion has worn down the rim and filled in the crater to the extent that to the casual observer little evidence of this ancient catastrophe remains.

Camden County has one of the most concentrated karst areas to be found in such a compact area in the United States. At Hahatonka, one can view a huge collapsed cave, large spring, natural bridges, and sinkholes. The most intense zones of this karst area are within the state park boundaries but the surrounding area should receive special concern due to site limitations which should be observed proximate to karst zones. There are at least thirty sections of land in the county that display observable karst features. Special site limitations relating to location, foundations, and any onsite wastewater installation are advisable in those areas.

Moderate faulting can be found in Camden County. While the fault complex in Camden County comes nowhere near approaching the magnitude of areas found near plate boundaries, surface expression of the faults in Camden County is obvious. Three major faults transect the Planning and Zoning area. These are the Cemetery Hill Fault, which trends from Morgan County across Horseshoe Bend and into Osage Beach and has a total displacement of over two hundred feet with noticeable effect on local topography. Examples are the hill on US 54 between Osage Factory Merchants Mall and Highway 42 in Osage Beach, the hill at Riverview Cemetery on Horseshoe Bend Parkway (formerly state route "HH") on Horseshoe Bend. Just to the west of the Highway "A" intersection on US 54 the Hurricane Deck fault expresses itself in the fractured and tilted rocks which can be observed in that road cut. The third of these faults as one travels west is the Red Arrow, or Roach Fault. This fault is a contributor to the unusual terrain in the Hahatonka area. Bed rock effects can be observed in the road cut for US 54 as one near the crest of the hill climbing away from the Niangua Arm to the west of the Lake of the Ozarks. The change in rock type and the tilted sandstone near the top of the hill provide evidence to the passerby of the fault's presence. Displacement from these faults create the highest points of ground in several areas including the highest point on Horseshoe Bend (on Carol Road at the entrance to the Country Club Hotel) and the hill where the Hurricane Deck Lookout Tower is located in Sunrise Beach. All of these primary faults are roughly parallel and trend approximately N40°W.



While there is no evidence that any of these faults is active at this time, their presence should be taken into account when considering any plans for construction near their locations. Fault zones are notorious for unstable surficial material and consequent foundation settling problems. Fault zones should also be avoided whenever possible for water well sites. Due to the fractured nature of the bedrock in these areas, ground water contamination risk from surface sources is much higher than in areas where the bedrock is not highly fractured and displaced. The risk of contamination by radon is also much higher in fault zones. Radon sources located much further below the aquifer may be provided a medium for migrating to the aquifer by way of the faulted and subsequently fractured bed rock. Underground storage tanks, sewage treatment plants, water storage facilities, and communication towers are just a few of the other structures that should not be sited on faulted areas.

While not within the planning and zoning area, there are also fault complexes in the Montreal and Stoutland areas that deserve attention if anything in the way of major construction is planned in those vicinities.

The mineral resources of Camden County are discussed in detail in the natural resources section of the economic factors portion of the Master Plan.

Soils in Camden County, except for minor areas of alluvium in floodplains of some of the larger tributaries to the Osage River, consist of cherty residuum with high clay content. Soil depth varies from zero to over thirty feet in some of the less hilly upland areas when soil depth is defined as depth to bed rock. Complicating matters when soil is being evaluated for onsite wastewater usage is the low permeability of the soils and the common presence of a fragipan. A fragipan can act like a watertight seal on soils and greatly impedes percolation, a critical factor when evaluating a site for onsite wastewater system installation and use. While the crests of some ridges have remnant deposits of loess, the loess depth within Camden County is such that it fails to be a factor to consider when doing site appraisals regarding suitability for onsite wastewater systems and slope stability.

## **2.1.1 GEOHAZARDS**

### **2.1.1.1 Flooding**

Camden County, prior to the construction of Bagnell Dam, had a long history of flood problems since the earliest days of settlement. The Osage River would overflow its banks and regularly submerge the flood plain that, at that time, included the old Linn Creek site of the county seat and court house. Since inundation by the Lake of the Ozarks, the dynamics of flooding in Camden County have changed completely. Flooding problems persist but the primary problems today are more of the flash flood variety. The Camden County Planning and Zoning program should make flood damage minimization one its primary goals by not allowing new construction in flood prone areas and the encouragement of the use of these areas for parks and green areas in its land use plan. While no county storm water plan is being devised at this time, any new development should carefully account for storm water runoff to minimize the risk from flooding.

### **2.1.1.2 Earthquakes**

Camden County is located in zone VI for earthquake intensity risk as classified by the Missouri State Emergency Management Agency (SEMA). Under classifications by the International Code Council (ICC) Camden County is rated at 20 for a 0.2 second spectral response and at 10 for a 1.0 second spectral response. In contrast, the most stable area in the nation, in central South Dakota, is rated at <2 on the 0.2 second spectral response while the most unstable area in the nation, in southeast Missouri, is rated at over 300 on the 0.2 second and at over 125 on the 1.0 second. The impact of an earthquake on structures is closely related not only to the structure itself but also on the material upon which it was constructed. Two subsurface factors come into play: the soils and the bedrock.

### **2.1.1.3 Soils**

Soil conditions are highly variable. Soil conditions can be radically altered by present and past construction or land use. Soil conditions are also dynamic. A frozen soil versus a recently thawed soil or a wet soil versus a dry soil performs very differently during earthquake induced motion. Soil conditions should be evaluated on a site by site basis which also takes into account any previous soil disturbances from construction, rather than drawing up blanket rules for the entire county.

In Camden County most bedrock provides firm foundation support. Exceptions are those areas where karst conditions are present or extreme fracturing and/or faulting has taken place. What actually constitutes bedrock can be a difficult field question. The surficial material in Camden County can have huge boulders within the soil matrix that can be mistaken by the untrained eye to be bedrock.

### **2.1.1.4 Landslides and subsidence**

While the chance of major landslides in Camden County is remote, builders considering building near the precipices of bluffs should have the site checked by qualified geologists or engineers to avoid possible catastrophic collapse along weakened bedding or jointing planes, especially if significant blasting or chipping of bedrock will be included in the site preparation. Future disturbances related to planned land use and traffic should also be factored in. More gradual slope failure or subsidence is more of a threat. Steep slopes and karst bedrock are the two local natural risk factors to focus on when evaluating risk of subsidence or movement.

In cases where construction is being done on fill material risks from slope failure or subsidence are a definite threat. Risk should be minimized by proper pre-construction site preparation, the use of suitable clean fill material, proper compaction of the fill material, and maintaining slopes at grades that are less conducive to failure. Construction design should address the maintenance of a stable slope through correct storm water routing away from the boundaries of the slope, proper design and construction of any retaining walls, siting of any onsite wastewater treatment systems so that zones of saturation will not create unstable slopes, and planting of vegetation with superior soil holding root systems on the slope. Upon completion the site should be monitored for signs of slope movement with prompt attention paid to any signs of problems.

### 2.1.1.5 Natural radiation

Small amounts of normal background radiation are part of the natural environment everywhere. Camden County has no known areas of elevated natural radiation nor are there any known sites of radioactive contamination from human activities. Elevated levels of radon, a naturally occurring radioactive gas, dissolved in ground water have been reported in isolated locations within Camden County but these occurrences are poorly documented. The county as a whole is classified as Zone 2 by EPA which translates as a predicted average level of 2 to 4 pCi/l. Because of the very low risk and high costs associated with such testing and monitoring, it is the opinion of Camden County doesn't believe those special safeguards or required testing for radioactivity on building sites or in the groundwater of Camden County are warranted.

**Natural toxins** – While almost any substance in large enough amounts can have a toxic effect, the review of this topic will be limited to those naturally occurring chemicals generally recognized by public health authorities as items that deserve monitoring.

Several natural toxins are found in Camden County in concentrations large enough to deserve review and explanation. The most widely recognized of these is lead. Fortunately, the natural lead found in Camden County is all chemically bound with sulfur to form galena. Because of its low solubility, galena offers little threat to public health. Barium in the form of barite is also found. However, the large doses required to reach toxic levels and the low solubility of barite, commonly known as “tiff”, the mineral form of barium found in Camden County, also make the chance of natural poisoning from barite very remote. Information gathered from tests of public water supply systems (see Appendix C) confirm quantities of these chemicals are not present in these water systems at concentrations even remotely approaching levels that should trigger concern for public health.

**Volcanoes** – The geologic history and current conditions in Camden County indicates the risk of volcanic eruption within foreseeable time to be so remote in Camden County that this factor will not be further appraised.

## 2.2 MAN-MADE HAZARDS

No cataloging of hazardous waste sites is available for Camden County. A review of the history of activities in Camden County would indicate a general low risk for manmade chemical contamination. Rather than expend tremendous amounts of time and finances in attempting to develop such a list the Camden County recommends that any purchaser of property where its location, usage history, or physical clues indicate contamination may have taken place have the site evaluated by a person qualified for doing property evaluations of this type. Furthermore, Camden County must work to combat problems created by dangerous construction practices, including blasting and creation of steep precipices.

## 2.3 CLIMATE BASIC CONDITIONS

Camden County has a temperate continental climate. Summers can be hot. Winters are normally moderate although it can become bitterly cold for short periods of time.

Precipitation is moderately monsoonal with heaviest rainfall normally falling in the spring months. The average annual rainfall in Camden County is 43.53 inches. Most

annual rainfall in the past forty years has been 61.53 inches and the least annual rainfall in the past forty years has been 24.94 inches.

## **2.4 METEOROLOGICAL ISSUES**

### **2.4.1 Temperature extremes**

The highest temperature ever recorded in Camden County is 115°F (1954) and the lowest ever recorded is -20°F (1983). Camden County is rated as having a 20-inch frost depth. However, it is important to remember that actual frost depths can vary dramatically by soil type, direction and type of slope, amount, type, and location of vegetation, and alterations to these natural factors by construction and land use. The 20-inch depth should be used as a basic guideline. Specific conditions should be determined on a site-by-site basis when setting frost depth specifications for a particular location.

### **2.4.2 Tornadoes**

The state of Missouri is considered to rank thirteenth (13<sup>th</sup>) among the states in frequency of tornados when calculated by square mile. Missouri ranks twelfth (12<sup>th</sup>) in risk of death by tornado. No recognized data on tornado risk more specific than by state has ever been established even though Camden County experienced heavy tornado damage resulting in three deaths in 2003. Camden County Planning and Zoning recommends that prudent steps be taken in the form of promoting the use of good building practices to minimize tornado damage and that all mobile homes follow tie down rules.

### **2.4.3 Straight wind**

Camden County is located over 550 miles from the nearest seacoast. Consequently, risk for wind damage from hurricanes in the county can be considered zero. Under the International Building Code (IBC), Camden County is rated as being in the standard 70 mph wind zone along with all other areas between the Rockies and the Appalachians that are not located on the coast of the Gulf of Mexico. As a result, Camden County Planning and Zoning feels that no special provisions for wind are necessary within the framework of the Master Plan.

### **2.4.4 Snow**

Using the National Climate Data Center (NCDC) averages for the National Oceanographic & Atmospheric Administration (NOAA) weather station at Camdenton, the average annual snowfall in Camden County is 17.8 inches. While single event snowfalls of up to two feet do occur, other than problems with boat docks, these snowfalls and total accumulation numbers are not of the magnitude to merit special building requirements addressing snow loads.

### **2.4.5 Hail**

No data has ever been compiled which provides any accurate risk assessment for hail. Incidents of damaging hail are considered rare enough to not warrant special provisions in the building rules for Camden County

#### **2.4.6 Flooding**

Flood hazard in Camden County is detailed in the geo-hazard section.

#### **2.4.7 Drought**

Putting a quantitative value on drought is difficult. What is great weather to the tourist can be considered a major problem to the farmer. Various factors impact the effects of drought, including the type of soil, water supply source, type of agriculture being practiced and even the time of year. No standard definition of a drought has ever been established. The National Drought Mitigation Center uses several indices including the Palmer Drought Severity Index, the Standardized Precipitation Index, and the Crop Moisture Index.

- Overall, except for the agricultural sector of the economy drought impact in Camden County is less than would be experienced in many areas. Ground water is the primary source and is less susceptible to impact from anything but severe drought. Primary surface water is in a large reservoir which can withstand the effects of anything but the most severe of droughts. Safeguards in the way of adequate water storage facilities and deep well aquifer supplies with possible surface water backup systems are advisable for larger water users but Camden County feels no special provisions are necessary within the Master Plan to specifically address drought.

#### **2.4.8 Humidity/Evapotranspiration**

Evapotranspiration rates in Camden County, using 70 years data from Bagnell Dam reporting station, indicate an average annual rate of 36.29 inches, or a net positive of 13%. Typical seasonal data indicates a deficit for the months of July through September. Camden County Planning and Zoning feels that no special terms or conditions are warranted but would recommend that when flexibility is possible to consider seasonal conditions and plan excavation work or soil movement so as to take advantage of conditions when soil is not overly wet or dry.

## **CHAPTER 3: FACTS ABOUT CAMDEN COUNTY**

### **3.1 HISTORY**

Along with fourteen other counties that had reached the level of settlement to warrant their own county government, Camden County became an official political entity on January 29, 1841. On that date Missouri went from having sixty-two counties to seventy-seven on its way to reaching today's total of one hundred fourteen counties plus the City of St. Louis, achieved in 1860. The original county seat was in the settlement of Oregon, subsequently renamed Erie. The original county name of Kinderhook was changed to Camden by act of the state general assembly on February 23, 1843. Linn Creek became the official seat of county government in 1855 and remained so until the construction of Bagnell Dam necessitated the relocation of the county courthouse. Rather than relocate

Camden County Master Plan

the courthouse at the new location of Linn Creek, it was decided to establish a new town and Camdenton was born. Camdenton became the county seat of Camden County in November 1930.

Further details on the history of Camden County are contained within the sections discussing demographics and economic factors.

## 3.2 POPULATION

In the 2000 US Census Camden County had a population of 37,051 residents. Since Planning and Zoning boundaries and census tracts do not always follow the same boundaries, it is not feasible to determine an exact breakdown of this count between Planning and Zoning and non-Planning and Zoning portions of the county. By extracting the population from municipalities that are not included in the County Planning and Zoning and extrapolating data for townships partially within the Planning and Zoning area, the approximate population in 2000 within the Planning and Zoning area was 19,918 or 53.8% of the county's total. Of the remaining population 8,084 (21.8%) reside in the five municipalities with a planning and zoning program and 9,049 (24.4%) reside in the areas of the county outside the Planning and Zoning boundaries.

Camden County has undergone tremendous change in the makeup and characteristics of its population from the time of initial settlement by pioneers of European extraction until today. Following the early wave of pre-Civil War settlement Camden County languished behind both the area in general and the entire state in rates of population growth. Except for the 1890 and 1900 censuses, when the county was experiencing a mini-boom from her timber industry, Camden County was below average in growth from the 1870 census until the 1960 census. Beginning with the 1910 census, Camden County joined most neighboring counties in the rural Ozarks of Missouri in experiencing population decline. In fact, from 1900 until 1950 Camden County's population declined 40%. From 1920 to 1930 the county's decline was 12.7%, the steepest decline of any county within the area and the 18<sup>th</sup> greatest in the state. This decline was probably due to the buyout of many properties for the soon-to-be-formed Lake of the Ozarks and the displacement and subsequent emigration of residents. This initial population loss when the Lake of the Ozarks was constructed was even more evident in neighboring Miller County. Its population had temporarily swollen in 1930 in conjunction with having the bulk of the labor force working on the dam living in the area. Consequently, in the 1940 census Miller County's population loss of 11.5% was the greatest for any county in the state.

Population trends in the region made a turnaround in 1960 with Camden County showing a population increase of 16%, well above the state average of 4%--the first time the county had exceeded the statewide average growth rate since 1900. From the 1970 census through the 2000 census, Camden County has led all counties in the area and exceeded the statewide average in population growth. In fact, since the 1960 census Camden County has had a 306% increase in population, the third highest rate of growth for a county in the state of Missouri. The 2000 census shows Camden County's population grew 34.8% since 1990, the fifth highest rate of growth among counties in the state. While this percentage is below the rates shown in the previous two censuses, the actual numerical increase of 9,556 is the largest in the county's history. Almost all of the Camden County Master Plan

increase is in the portion of the county proposed to be impacted by Camden County's planning and zoning rules. Census areas of the county not in planning and zoning also saw population growth; although not to the extent of the areas near the Lake of the Ozarks. All projections indicate these trends will likely continue in the foreseeable future. The county's population by 2025 is predicted to be 46,976.

Camden County's population has aged in the last 10 years along with the population of the state and the nation, according to the 2000 census. The median age in Camden County in 2000 was 45.2 years compared to a 1990 number of 41.7 years. This increase in median age of 3.5 years compares with a statewide increase of 2.5 years (36.1 from 33.6) and a national increase of 2.4 years (32.9 to 35.3). While the nation grays, Missouri grays faster and Camden County faster still.

Camden County has smaller than national and state averages of foreign born and nonwhite percentage of population.

### 3.3 HOUSING

Camden County's most unique housing characteristic is the high percentage of housing units that are owned by non-resident property owners and that are occupied for seasonal, recreational or occasional use. The 2000 census showed 15,566 of Camden County's 33,470 housing units or 46% of the total units fell into this category. Also, the 2000 census showed Camden County's housing units are relatively new with the median year built being 1983. The median year for houses built for the entire state is 1970.

In Camden County, the percentage of housing units that are rental is smaller than the state average. The 2000 census showed just 18% of Camden County's occupied housing (*excludes those units used for seasonal, recreational and occasional purposes*) units were rentals, compared to 29% on a statewide basis. The median rent payment in Camden County (\$359) in 2000 was somewhat lower than the state's median rental payment (\$384).

In addition, Camden County's housing units had a median value in 2000 of (\$107,000) higher than the state's median value (\$86,900).

Various area public agencies hear complaints that there is a lack of affordable housing in the county, particularly for those with low-to-moderate income even though some public housing agencies report that they have vacancy lists on a regular basis. The general lack of rental housing in Camden County compared to the occupied housing stock as a whole and the fact that the median rent paid is not much lower than the state median indicates that Camden County should conduct a housing study to analyze the availability, cost and location of housing units, compared to the location of the county's job opportunities.

Of the 33,470 housing units counted in Camden County's 2000 census, 82 were listed as lacking plumbing facilities and 457 lacked telephone service. A total of 1,377 of Camden County's housing units in 2000 were over 50 years old.

Camden County has established the following goals relating to the county's housing:

1. Preserve the character of existing well established residential neighborhoods.

2. Increase the production of housing opportunities for all income levels in Camden County.
3. Encourage the rehabilitation of the county's older housing stock.

In order to achieve these goals Camden County intends to pursue the following objectives:

1. Encourage the utilization of state and federal financing programs to create affordable housing.
2. Encourage use of available state and federal financing programs for housing rehabilitation
3. Perform a housing study to determine the need and accessible location of affordable housing in the county.

## 3.4 EDUCATION

Camden County has historically lagged behind the rest of Missouri and the nation as a whole in educational attainment. The 2000 U.S. Census showed that 6.5% of Camden County's residents had a 9<sup>th</sup> grade or less education, compared to 4.9% of the state's residents. Only 12.1% of the county's residents held a bachelor's degree in 2000, compared to 14% for the state and only 3.9% of Camden Countians held a master's degree in 2000, compared to 5.2% of the state's residents.

Well over half of the jobs and most of the good-paying jobs of the future are projected to require post-secondary education. According to the John J. Heldrdich Center for Workforce Development at Rutgers University the pay gap separating a high school graduate from a college graduate was 50 percent in 1980 and is 111 percent today. Furthermore, occupations requiring greater formal education, at least an associate's degree, accounted for 25 percent of all job growth in 1998, and the Rutgers University research group projects that 40 percent of all job growth will come from jobs requiring an associate's degree by 2008. However, Missouri Department of Elementary and Secondary Education statistics show that all but one of Camden County's school districts serving major portions of the county (*Camdenton R-3*) had a lower percentage of students pursuing two or four year degrees in 2002 than the state average of 65.4% (*Camdenton R-III 66.92, Climax Springs R-IV 43.75, Macks Creek R-V 50%, School of the Osage R-II 63.55%, and Stoutland R-II 42.42%*).

### 3.4.1 K-12 Public Schools

Seven public school districts are partially in Camden County. Of these seven, one (Hickory County R-1 *Skyline*) has less than one square mile section within Camden County and that area is not within the planning and zoning district. Pulaski County R-I [Richland] is not within the planning and zoning district and does not have any school buildings located in Camden County. Miller County R II [School of the Osage] contains sizable area within the planning and zoning area but all the school's facilities are in Miller County. The Stoutland school buildings are within Camden County but none of the district is within the Planning and Zoning area. Camdenton, Climax Springs, and Macks Creek have buildings within Camden County. However, the only school building

actually within the jurisdiction of Camden County Planning and Zoning is the Hurricane Deck Elementary School of Camdenton R-III. While Camdenton R-III, Climax Springs R-IV, Macks Creek R-V, and School of the Osage R II school districts have area within the planning and zoning boundaries Camdenton accounts for over 74% of the total of this area.

### **3.4.2 Vocational Schools**

There are five (5) vocational instruction programs that serve school districts wholly or partially within Camden County. Three of these; Lebanon Technology and Career Center; Dallas County Career Center; and Waynesville Technical Academy, serve portions of the county not within the Planning and Zoning boundaries. Tri-County Technical School in Eldon serves portions of the county within Planning and Zoning boundaries but is not within Camden County. Lake Career and Technical Center in Camdenton is the only vocational instruction program sited within Camden County.

### **3.4.3 Higher Education**

There are no higher education campuses in Camden County. Columbia College maintains a branch campus just across the Miller County line in Osage Beach. State Fair Community College offers course work on the campus of Camdenton High School. Work is progressing on the establishment of a Lake Area Community College in the Lake of the Ozarks area.

To address the possible issue of school expansion which could include new school facilities located within planning and zoning, the Camden County Planning and Zoning Board endorses the policy of developing guidelines for siting of school facilities as part of its comprehensive plan.

## **3.5 INCOME**

The median household income for Camden County, according to 2000 US Census figures, was \$40,695. This compares with \$46,044 for Missouri and \$50,046 for the nation. For 1990 these same figures were \$25,363 for Camden County, \$31,838 for Missouri and \$35,225 for the nation. While the lag behind the state and nation has lessened, Camden County, through its support of improved housing and increased job opportunities, plans to assist in enhancing the median household income of the county.

Tourism is very important to Camden County's economy and is a harbinger of the county's large industries in second homeowners, real estate sales and construction. The county perennially ranks second in the state in taxable sales per capita, indicating the huge influx of tourism and second homeownership to the economy. The continuation of these important economic engines depends on the preservation and improvement of the county's quality of life.

Poverty is a significant issue in Camden County where 4,157 of the county's residents fell below the federal poverty level in the 2000 census and where 1,527 of the county's residents' income were less than 50% of the federal poverty level in 2000. In addition, data from the Missouri Department of Elementary and Secondary Education indicates that much of this poverty resides in families with school age children. Each of Camden County's school districts, in 2002, had a higher percentage of students eligible for the

income sensitive free school lunch program that the state average of 38.2% (*Camdenton R-III 39.71%, Climax Springs R-IV 64.02%, Macks Creek R-V 56.82%, School of the Osage R-II 47% and Stoutland R-II 53.76%*).

## **3.6 ECONOMIC FACTORS**

### **3.6.1 AGRICULTURE**

Camden County has an important agricultural based segment within its economy. The Planning and Zoning portion of the county has less agricultural activity than the rest of the county owing simply because most of the prime agriculture land was flooded by the Lake of the Ozarks.

The number of farms in Camden County peaked in 1900 at 2,069 and the total farm acreage peaked in 1920 at 309,482. These numbers have shrunk until in 1997, the last year for which data is available, the total number of farms stood at 584, a drop of 72% from peak, and the total farm acreage stood at 172,273, a drop of 44% from peak. Prior to the inundation by the Lake of the Ozarks, Camden County had a number of quality bottomland farms. Even within the Planning and Zoning area, the part of the county where there is less overall agricultural activity, eighty-five (85) actual working farms were counted in 2002. The mean size of these farms within the Planning and Zoning was one hundred and one (101) acres compared to a countywide average of 295 acres and the median farm size in the Planning and Zoning area was fifty (50) acres. The majority of these farms ranged from forty (40) to one hundred twenty (120) acres. Today, most farms in Camden County are primarily in either the beef or dairy business with 82% of the agricultural land in pasture of some sort. Relative to the rest of Missouri, Camden County ranks highest in dairy cattle at 37<sup>th</sup> and in beef cattle at 64<sup>th</sup>. Total market value of all agricultural products sold from Camden County was \$15,614,000 in 1997.

Agriculture remains an important part of Camden County's economy and the county should do everything possible to encourage expansion of this economic sector, including the development of value added agricultural products in the county.

### **3.6.2 EMPLOYMENT AND LABOR**

Primarily, Camden County has a service-based economy. This is reflected in a review of the major employers in Camden County. If the Osage Factory Merchant's Mall in Osage Beach were to be counted as a single entity, it would be the largest full time permanent employer in Camden County. The largest single employer is Lake Regional Health Care. Second is Camdenton R-III. Tan Tar A, a resort complex, is the third largest employer. The largest manufacturing company in Camden County is Speedline, ranking eighth in the county in employment numbers.

Occupations with the highest growth (*number of openings*) based on the natural movement of the local economy for Camden County and surrounding counties through 2008 are projected to be cashiers, retail salespersons, waiters and waitresses, food preparation and service workers at fast food establishments, social and human service assistants, office clerks, registered nurses and marketing/sales supervisors. Local leaders involved in employment and training have expressed concern that most of the

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occupations projected to grow by the natural movement of the local economy are not normally considering in the higher tiers of earnings.

In an effort to continue to draw higher paying jobs to Camden County and surrounding counties employment and training planning boards with planning authority for Camden County have targeted the industry clusters of electrical industrial apparatus, metalworking machinery and equipment, miscellaneous fabricated metal products, metal forgings and stampings, miscellaneous plastic products and concrete, gypsum and plaster products. Employment and training leaders say these clusters were selected because there is reason to believe that Camden County and surrounding counties have a business environment and workforce skills that best suit these industry clusters. Both the Central Region Workforce Investment Board (*a board responsible for workforce development planning in Camden County and the surrounding region*) and the Lake of the Ozarks Council of Local Governments (*an agency responsible for economic development planning in Camden County and the surrounding region*) have selected these target industries for Camden County and the surrounding region in their planning documents.

### **3.6.3 MANUFACTURING**

The largest manufacturing company in Camden County in 2002, when ranked by permanent full time employers, was Speedline. Second is Modine Heat Transfer and third is Galva Foam Steel Docks. The future of manufacturing in the Camden County area seems uncertain. Camden County Planning and Zoning supports the promotion of manufacturing concerns that offer high wage, steady employment and do not pose any significant risk to the environment in general and the Lake of the Ozarks in particular.

### **3.6.4 NATURAL RESOURCES**

Camden County has been the site of various mining operations throughout its history. Iron in the forms of hematite and limonite, lead in the form of galena, and barium in the form of barite, or tiff, have all been mined commercially. One of the earliest books on mineral resources in Missouri, published in 1872, refers to the hematite (iron ore) in the Boulinger (Bollinger) Creek area. No mines are active in Camden County at this time. The limiting factor on mineral extraction for Camden County has been and continues to be size of deposits. While sometimes very rich, known ore deposits in Camden County have been small in volume making them not commercially viable in today's market. With the trend in the extraction industry continuing towards larger and larger operations, the chance that any of the ore deposits in Camden County would have commercial value is very small. Camden County Planning and Zoning will address the issue of mining to ensure that if conditions were to undergo dramatic changes this address matter has been properly attended to prior to possible challenges.

The subsurface geology of Camden County indicates no possibility of petroleum reserves in the county. Consequently, there is no need to address petroleum extraction in the Master Plan.

Moderate unit value deposits in the form of dimension stone and lower unit value deposits in stone aggregate remain commercially exploitable in Camden County. Their economic value and importance of these deposits for supporting growth and construction are additional reasons why the Camden County Planning and Zoning Board considers providing for inclusion of natural resource extraction an integral part of their Master Plan.

Quarries should be allowed to operate providing they maintain good standing under existing clean water and clean air rules administered by Missouri Department of Natural Resources. Possible new operations should be considered but only in those cases where the proposed site is zoned for industrial usage. Sites chosen should be carefully screened to minimize the impact to preexisting residences and businesses and to the environment.

Sand and gravel extraction operations must be sited and operated in such a manner as to minimize the impact on stream gradients and the environment. All surface mining and clean water rules must be adhered to. Such sites are more conducive to the Plan in areas designated for industrial use. Camden County Planning and Zoning will consider possible proposals for new quarrying and mining operations but will allow only those projects which will not cause major disruption and loss of property values, environmental degradation to surrounding property, and have a viable plan for return of the site to another use following cessation of extraction activities.

Often over-looked as a natural resource is ground water. Camden County is fortunate in being able to claim abundant resources of high quality ground water. Ground water beneath the county has low levels of all mineral contaminants. The water does tend to be hard with a total hardness in the neighborhood of 300mg/l sometimes being reached. While softening of this water when scaling would be a problem, this condition is not a health issue.

To ensure the high quality of ground water is maintained Camden County Planning and Zoning endorses the adoption of more stringent water and sewer rules in the Planning and zoning areas of the county in the zoning districts.

For comprehensive data on base ground water quality within Camden County refer to Appendix B.

### **3.6.5 TOURISM**

Tourism for decades has been the leading economic force in Camden County, with nearly five million people visiting the Lake of the Ozarks area each year, according to figures provided by the *Lake of the Ozarks Convention and Visitors Bureau*. Recognizing this fact, the Camden County Planning and Zoning Board intends to see that this Master Plan addresses the needs of this vital segment of the county's market.

Public access to the lake within Camden County is limited. The Missouri Department of Natural Resources maintains two (2) boating access areas within the county's two state parks. These state parks, Ha Ha Tonka, completely within Camden County, and Lake of the Ozarks, which is shared with Miller County, also offer excellent sites for sightseeing, hiking and picnicking. The Missouri Department of Conservation also has three (3) boat access points in Camden County and has an additional seven (7) sites with a total of 2610 acres of land that offer a wide range of hunting, fishing, and other outdoor activities.

The Lake of the Ozarks is considered to be one of the best boating lakes in the Midwest. One of the reasons is that it is one of the most obstruction free lakes. That, along with the fact that private citizens can purchase lake front property and install their own boat docks is one of the greatest factors relating to the increasing population of Camden County, the number of waterfront resorts, condominiums, and single family dwellings, and the large number of marine dealers.

The Lake of the Ozarks also offers some of the best fresh water fishing in the nation. There are approximately two hundred (200) fishing tournaments held at the Lake

annually. Bass, crappie, catfish, and spoonbill are all popular sport fishing species at the Lake of the Ozarks.

Within Camden County are ten (10) full size golf courses offering one hundred sixty-two (162) holes of golf. All but one of these courses is public or semipublic. Some of the courses were designed by and carry the names of some of the greatest golfers in the world while others have been built by local developers. Collectively, they offer enjoyment for golfers with a variety of skill levels.

Many other leisure attractions, both indoor and outdoor, including waterparks, tennis, music shows, and show caves are available in Camden County.

Shopping is such an important factor in bringing people to the Camden County area that some believe it belongs in the attractions category. Camden County is fortunate in that the major portion of all shopping at the Lake of the Ozarks lies within its boundaries. The dominating group in this category is the outlet mall in Osage Beach, but specialty shops, antique stores, and other shopping malls also contribute.

There are a variety of accommodations in Camden County ranging from primitive camping to luxury resorts. Also referred to as lodging, this industry has experienced dramatic change in recent years as the smaller waterfront resorts and campgrounds give way to condominiums. As a result, many of the traditional visitors who patronized these smaller accommodations are forced to choose another destination for their future vacation.

While the customer profile is changing, the new condominium owner brings a greater retail demand. This has resulted in an overall boost to the economy. These part time residents often eventually become full time and bring influxes of capital as they purchase real estate, durable goods, everyday items, and transfer savings into financial institutions in Camden County.

A primary need of the Camden County area is a convention center. This project is in the preliminary planning stages at this time. Camden County has joined with other Lake area governmental entities and promotional organizations to conduct a feasibility study and identify potential building sites.

To better foster this important segment of the county's business activities Camden County Planning and Zoning will, within the permitting structure, offer a recreational land use classification that is tailored to provide for the unique land use needs of the tourism sector of the economy.

In order to provide a supply of good paying jobs in the county, Camden County will:

1. Work to develop a diversified economy to maintain full employment
2. Seek to continue to expand the county's commercial and industrial base.
3. Work with existing businesses to retain them in the county and assist them in expansion.
4. Encourage continuation of existing agricultural enterprises and provide opportunities for new agricultural endeavors.

In order to achieve these goals Camden County will pursue the following objectives:

1. Promote job training and retraining services to close the employment skills gap and meet the employment needs of the county.
2. Provide stronger linkages between employment centers and housing through effective land use and transportation programs.
3. Revitalize the Camden County Industrial Development Authority.
4. Encourage the development of new and emerging industries to provide for a diverse economic base with emphasis on targeted industry groups as developed by regional economic and workforce development authorities.
5. Promote the availability of advanced telecommunication technology.
6. Work to make certain the county has adequate convention facilities to establish Camden County as a premiere convention destination.
7. Develop a Camden County Economic Development Strategic Plan to guide the county's future economic expansion.

## **Chapter 4: INFRASTRUCTURE**

### **4.1 TRANSPORTATION--LAND**

#### **4.1.1 Highways**

The primary highway artery in Camden County for east-west traffic is US 54. The primary north-south artery is Missouri Highway 5, noted for being the only state numbered highway in Missouri to travel from state boundary to state boundary and also for passing through twelve county seats, the most of any highway in the state.

Traffic counts for the past thirty years have shown an average increase of 3% to 5% per year in the amount of traffic on the primary road network. Traffic counts on US 54 in the lake area now rival those of interstate highways away from commuter zones. The highest traffic count in Camden County for 2002, shows an average traffic flow on the most heavily traveled segment of highway in Camden County (US 54 in Osage Beach between MO 42 and Bluff Drive [Lake Road 54-22]) to be 29,591 per day. Peak numbers are even more dramatic, with counts of 51,000 per day in 2002 up from 45,000 per day in 2001.

The construction of Bagnell Dam and the subsequent filling of Lake of the Ozarks created the primary access problems between parts of the county. On May 1, 1998 the Community Bridge was opened for traffic. This toll span, connecting Shawnee Bend with the Lake Ozark area near the sixteen (16) mile marker of the Lake of the Ozarks, was constructed by private funds and has helped to relieve the lack of connecting routes within Camden County.

At this time there are several areas within Camden County that cannot be reached without passing through another county. To reach the Big Bend area one must pass through Benton County. To reach the Purvis area one must pass through Morgan County and to reach the Horseshoe Bend area one must pass through Miller County. While

transportation planners have learned through the years of the advantage of putting in roads prior to dam and lake construction, Camden County, whose major lake was completed in 1931, was not that fortunate. Although the lack of easy road access around the lake is still a drawback recent improvements have been made, most notably the construction of the Community Bridge and the replacement of bridges over the lake for US 54 on the Grand Glaize and Niangua arms and Highway 5 over the Niangua Arm of the Lake of the Ozarks. These bridge improvements have been welcome additions but additional improvements would do much to further enhance many other areas of the lake perimeter. The completion of MoDOT expansion plans for Missouri Route 5 and U.S. Highway 54 in Camden County are imperative in order for these routes to accommodate existing traffic loads and to address increased traffic loads expected in the future.

The state of Missouri controls and maintains 263.825 miles of highway in Camden County. Camden County maintains approximately nine hundred (900) miles of road. Some five hundred (500) miles of these roads are paved and four hundred (400) miles are unpaved. The county has one active road district. Horseshoe Bend Special Road District maintains a total of one hundred twelve (112) miles of road giving Camden County a total of approximately one thousand two hundred seventy-six (1276) miles of publicly maintained non-municipal roads.

The Camden County Planning and Zoning Board, while recognizing its limited abilities in the area of mandating road building, intends to encourage the state of Missouri in recognizing the importance of upgrading and expanding the road system in the Lake of the Ozarks area and intends to be a firm advocate for better regional access road network.

#### **4.1.2 Rail**

Camden County has very limited rail service. No tracks for commercial rail service have ever been laid within the Planning and Zoning area. Tracks for the Burlington Northern-Santa Fe Railroad trunk line between Saint Louis and Springfield do straddle the southeast boundary of Camden County with a total of 4.10 miles of that line credited to Camden County by the Missouri State Tax Commission. Currently there is no passenger service on this line. The old Rock Island rail line passes just to the north of Camden County through Eldon and Versailles. Proposals had called for the line to be renovated and put into operation as the Missouri Central Railroad, a subsidiary of the General Railway Corporation. Amtrak acquired those rights in 2002. At this time the outcome of this plan remains uncertain. Camden County's closest available rail passenger service terminal is the Amtrak terminal in Jefferson City, approximately 30 minutes to an hour travel distance from anywhere in Camden County. With no passenger rail lines near and no reasonable chance that a passenger rail line might be constructed in Camden County, Camden County Planning and Zoning determined that no provisions for rail lines need be included in the Master Plan or in Rules and Regulations.

#### **4.1.3 Pipelines**

No bulk transportation pipelines traverse the Camden County Planning and Zoning area. There are a number of commercial pipelines that do cross the southeast portion of the county in the Saint Louis to Springfield transportation corridor. No plans for the construction of pipelines in the Planning and Zoning area are pending. In order to address possible installation in the future, Camden County Planning and Zoning should

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consider the future drafting of rules concerning pipeline siting and operation as one of its long-term goals.

## **4.2 TRANSPORTATION--WATER**

At one time, during the period of development before rail and highway options became available, the pre-lake Osage River was a primary transportation artery. Completion of Bagnell Dam and the consequent blocking of the river for commercial transportation roughly coincided with huge increases in the utilization of highways for moving commercial goods. The magnitude of unit shipping volumes required for feasible programs coupled with the limited size of the Osage River and the presence of Bagnell Dam indicate extremely low feasibility for resurrecting commercial water transportation for freight. Consequently, Camden County Planning and Zoning has no plans to draft rules governing the commercial shipment of goods by water.

## **4.3 TRANSPORTATION--AIR**

Camden County has two public airports--Camdenton Memorial and Grand Glaize-Osage Beach. Both of these airports are just outside the Planning and Zoning area boundaries. However, both are close enough to require the inclusion of height and usage restrictions within areas of Camden County Planning and Zoning so that new buildings will not be in conflict with Federal Aviation Administration (FAA) rules will be followed.

Just outside of the county boundaries are Lee C Fine Memorial Airfield in Miller County and Richland Airport in Pulaski County. Camden County has no public airports within the planning and zoning boundaries. Also, within Camden County are five (5) private airports. All are located within the planning and zoning boundaries.

As of this time, Camden County has no commercial air traffic available locally. The nearest available, regularly scheduled, commercial air service is through Fort Leonard Wood, at Forney Field, located thirty-eight (38) air miles from Camden County. Other regional air service is available at Springfield-Branson Regional Airport, located sixty-three (63) air miles from Camden County or through Columbia Regional Airport, located sixty-four (64) air miles from Camden County. For direct service from hub airports one must travel to Kansas City International Airport, one hundred thirty-eight (138) air miles from Camden County or Lambert-St Louis International Airport, one hundred forty (140) air miles from Camden County.

While citizen concern regarding airports was low at public hearings held in 2001 (*see Appendices*) and there are no public airports within the planning and zoning boundaries at this time, the issue should still be addressed within the master plan. The proximity of several airports necessitates the inclusion of height and usage rules in the airport vicinities. Siting of airports can generate considerable public consternation. It is imperative that guidelines and rules be drawn up before the issue becomes a matter of concern to ensure that rules cannot be judged to have been set up arbitrarily and to provide information for prospective airport designers with a map of what they must do. Today, noise and safety have become paramount public concerns around airports and by having rules already in place on airports the Camden County Planning and Zoning Board

intends to see that if any airports are proposed in the future are positioned in zones compatible to the county master plan.

The goals of Camden County relating to transportation include:

- Provide transportation improvements which support economic activity.
- Promote public transit and use of alternative transportation modes
- Support system coordination, efficiency and safety.
- Mitigate congestion on local roads and highways

In order to achieve these goals Camden County proposes to:

- Work with the Missouri Department of Transportation (MoDOT) in promoting transportation improvements in the county, especially as those improvements relate to the currently traffic choked portions of Missouri Highway 5 and U.S. Highway 54.
- Develop a comprehensive county road improvement program using the traffic shed concept designed to take account of current traffic and anticipated growth.
- Develop minimum standards for all types of roads in Camden County including addressing banks and crowns, base material and thickness, bridge alignment load/width allowances, cul de sac or turnaround radii, driveway entrances, grades, lines of sight and rights of way.
- Develop standards for sidewalks.
- Review interest/feasibility/need for walking and biking trails in the county.
- Review public transportation needs of the county and work to address those needs.
- Develop parking space standards for commercial and residential properties.

## 4.4 UTILITIES--WATER

### 4.4.1 Potable water

All public drinking water systems in Camden County use ground water as their source. Camden County has ample reserves of ground water. This water is of high quality, especially for domestic consumption, with the only quality limitation being the natural hardness of this water that can present scaling problems in systems as the total hardness (TH) of public water systems averages over 300mg/l. Contamination problems that have been reported can all be attributed to types of difficulties. Some of these problems are the result of poor water well design and construction that allow surface pollutants to enter the water system. Other problems result from poor operation and maintenance of the water supply system. No potable water problems in Camden County are the result of the presence of natural contaminants in the ground water. A profile of major chemical parameters for ground water from the major public water suppliers in Camden County can be found in Appendix C.

Almost completely untapped is the abundant supply of surface water in the streams and impoundments of the county. At the present time this water is used only for scattered irrigation projects and is not utilized for potable water supply systems.

Camden County has four municipal water supply systems that serve the cities of Camdenton, Lake Ozark, Linn Creek, and Osage Beach. The Camdenton and Linn Creek water systems are completely within Camden County. The Osage Beach system is primarily in Camden County and the Lake Ozark system is primarily in Miller County although it does serve portions of Camden County. Camden County also has four Public Water Supply Districts. Three of these, (PWSD #1, serving the area in the vicinity of Macks Creek, PWSD #2 serving roughly eighty (80) square miles to the south and east of Camdenton, and PWSD #3, serving the Camelot Estates area north of Camdenton), are completely within Camden County. In addition, Laclede County PWSD #2 serves about thirty-two (32) square miles of Camden County in the Stoutland vicinity. and Lake Ozark serves a small area in the northeast corner of the county. The privately owned Ozark Shores Water Company serves a large portion of Horseshoe Bend and roughly corresponds with Village of Four Seasons in area.

Camden County has the largest number of public water supply systems in the state of Missouri. While Osage Beach is in the process of installing a municipal water system that will eliminate many of these small water supply systems the number remaining will still be large. Camden County has many smaller public water supply systems with poor records of compliance with operation and maintenance requirements. Camden County led all counties in the state in non-acute coliform violations, chronic major monitoring violations, and significant non-compliers in both 2000 and 2001. The source water is not the problem but rather poorly operated and maintained public water supply systems. Because of these facts, while there is very little that can be done to remedy this problem in the short term, Camden County Planning and Zoning will encourage the consolidation of public water supplies that have a history of noncompliance to safe drinking water regulations into systems with adequate water supplies, wells and equipment that meet current standards, and have proven records of compliance.

#### **4.4.2 Irrigation and industrial water**

There has been very little historic demand for either irrigation or industrial water in Camden County. However, especially in the case of irrigation water, this situation is changing. The recreational sector of the economy, primarily through needs associated with golf courses, has begun to play enough of a role to merit consideration in the master plan. Irrigation through the usage of ground water can have a significant impact on local supplies and should be considered when plans for golf courses are reviewed. Recreational sites such as water parks can also have a significant effect on local supplies and their influence on water supplies should also be carefully evaluated as part of any plan.

**Wastewater** – In 1984 Camden County was the first county in the state to enact a countywide sewer district. Under this countywide sewer district plan, the first project, Sunnyslope/Country Club Drive Sewer District, was initiated in 2001. Camden County should continue using this program to address needs on a neighborhood basis while still keeping the overall requirements of the county in focus. When feasible, developers should be encouraged to connect their improvements to existing systems, and the

Planning and Zoning Board should be sure any new systems brought forward are compatible with the master plan.

#### **4.4.3 Stormwater**

As development continues to spread further from the perimeter of the Lake of the Ozarks, the importance of developing a stormwater plan for Camden County will become more of an issue. A good stormwater plan addresses the issue by drainage area and ideally is in place before development has progressed to the point that costs are not elevated because already developed property has to be altered. Camden County Planning and Zoning will make a stormwater management plan one of its requirements for any development over one acre in size.

Camden County establishes the following goals relating to water:

- Encourage the increased use of public water supplies
- Reduce pollutant levels in the lake by encouraging good stormwater management.

In order to achieve these goals Camden County will:

- Develop a lake district drinking water management plan that will encourage the development of safe public drink water systems throughout.
- Develop a lake district stormwater management plan that will, among other avenues, utilize already available stormwater management funding available from the Missouri Department of Natural Resources for implementation.

### **4.5 ENERGY**

#### **4.5.1 Electricity**

Camden County is served by four electrical energy supply companies. These are Ameren, CoMo Electrical Cooperative, Laclede Electric Cooperative and Southwest Electric Cooperative.

Camden County should include within their Master Plan provisions that both make electrical supply as simple as possible but also safeguards against unneeded proliferation of overhead power lines and siting of overhead lines in locations that distract from scenic vistas.

#### **4.5.2 Natural gas**

There is no natural gas service available in Camden County at this time. Several trunk pipelines do traverse southeastern Camden County. Consequently, it is well within reason to consider the possible addition of natural gas service in the future of Camden County.

## 4.6 TELECOMMUNICATIONS

**Telephone** – Camden County has regular landline telephone service through Southwestern Bell (SBC) and Sprint. The entire Planning and Zoning area is in the SBC service area. All of Camden County is within the (573) area code zone.

## 4.7 COMMUNITY FACILITIES

### 4.7.1 Healthcare

Camden County has one 240-bed hospital, Lake Regional Health Center, located in Osage Beach. Lake Regional has twenty-one (71) active and nineteen (19) consulting licensed physicians on its staff.

There are four (4) licensed nursing homes in Camden County with a total of two hundred seventy-six (276) beds. Portions of northern Camden County are in the Good Shepherd Nursing Home District. That nursing home, located just across the Morgan County line in Laurie, has 60 beds. A private nursing home is situated just across the Miller County line in Osage Beach has a 66 beds.

### 4.7.2 Fire Protection

Over 95% of Camden County is afforded fire protection through the fourteen districts that are either all or partially within the county. These fire protection districts vary from professionally staffed, tax supported entities to volunteer paid membership programs. A list of those districts can be found in Appendix D. Camden County Planning and Zoning has worked with these fire protection districts to coordinate programs and goals, to streamline building application requirements, and to avoid duplication. With those fire districts that do require building permits Camden County Planning and Zoning will coordinate the permit issuance.

### 4.7.3 Parks

Camden County has no national parks and two state parks. Those state parks are Ha Ha Tonka and Lake of the Ozarks State Park. At this time Camden County has no county park program. The various municipalities in Camden County also have their own parks program.

## 4.8 GOVERNMENT

### 4.8.1 State

The state of Missouri has no individual specifying requirements for Planning and Zoning programs. State law addresses factors such as establishment of planning and zoning. Certain powers are granted to counties such as Camden in the fields of planning and zoning, land use, and building requirements. Beyond that, most of the decisions are local and do not require state oversight.

Following redistricting after the 2000 census, most of Camden County remained a part of the fourth (4<sup>th</sup>) US congressional district. A small part of the northeast part of the Camden County Master Plan

county became a part of the ninth (9<sup>th</sup>) congressional district. The entire county remained in the 33<sup>rd</sup> state senatorial district. Most of Camden County, along with small segments of Miller and Morgan counties, became the 155<sup>th</sup> state house district in the 2002 election. Except for a tiny area in the extreme eastern portion of the Planning and Zoning area, which is in the 115<sup>th</sup> state house district, all of the Planning and Zoning District is within the 155<sup>th</sup> district. With Laclede, Miller, Moniteau, and Morgan counties, Camden County is part of the 26<sup>th</sup> Judicial Circuit.

#### **4.8.2 County**

Camden County is a first class non-charter county. Among the powers granted to first class counties in Missouri is the ability to enact planning and zoning ordinances. Under §64.005 RSMo, special privileges are also granted counties bordering large lakes for the purpose of enacting zoning ordinances around the lake perimeter. Under §64.007(2) RSMo district planning commissions operating under §64.005 RSMo, as the Camden County Lake Area Planning and Zoning Commission does, must adhere to the provisions of sections §64.510 RSMo to §64.695 RSMo relating to the procedures for county planning and zoning in counties of the second and third classifications. It is under these statutes that Camden County has established its Planning and Zoning program.

#### **4.8.3 Municipal**

There are ten incorporated municipalities that are at least partially within Camden County. Of these, six are within the planning and zoning boundaries and four (Climax Springs, Macks Creek, Richland, and Stoutland), are located outside the perimeter of the Camden County Planning and Zoning area. Of the six cities and villages within the area Camdenton, Four Seasons, Lake Ozark, Osage Beach and Sunrise Beach have planning and zoning programs handled internally. Linn Creek does not. Under terms of ¶64 RSMo the county may include those municipalities that do not have their own programs within the county planning and zoning program. Consequently, Camden County Planning and Zoning has included Linn Creek in the Planning and Zoning program. Camden County Planning and Zoning has also communicated with the all municipal programs to assure that conflicts of zoning districts along municipal boundaries with the county are kept to a minimum.

#### **4.8.4 Special Districts**

As of April 1, 2003 Camden County had a total of thirty (30) ambulance, fire protection, nursing home, road, sewer, school, and water supply districts. Fifteen (15) of these are tax supported entities.

## **Chapter 5 Waste Disposal**

### **Chapter 5.1 Solid Waste**

Camden County's increasing population and increasing numbers of second homeowners heighten the need to make recycling opportunities readily available, provide for access to disposal of large appliances and others items that offer disposal challenges

and the need to police the problem of illegal open dumps and the need for adequate wastewater disposal in more densely settled areas increases.

Camden County establishes the following goals relating to solid waste management:

- Develop regulations concerning what can be kept on lots in the way of old vehicles. In 2002 Camden County adopted a nuisance ordinance that speaks to that issue. This ordinance is shown in Appendix F.
- Develop programs to assist citizens in disposing of large waste items affordably and legally. The Lake of the Ozarks Solid Waste Management District keeps a listing of locations where various major appliances can be taken.
- Promote a styrofoam recycling program. The Camden County Planning and Zoning Board has investigated and encouraged methods of recycling processes being developed at the University of Missouri-Rolla in consortium with Missouri Enterprise and intends to continue that relationship in a facilitator role.
- Promote a countywide recycling program. Currently there are three recycling entities available to Camden County. These are: Camdenton Recycling Center which maintains a bin behind the Camdenton City Hall; Wastewatchers in the Osage Beach area; and just across the Morgan County line in Laurie is a general recycling facility. However, people in the Climax Springs area have little access to recycling facilities and there is no curbside recycling available anywhere in Camden County. Camden County should encourage existing recyclers to provide more drop off points or encourage additional recycling businesses.
- Promote a county wide composting program. The Lake of the Ozarks Solid Waste Management District's plan recommends individual composting facilities. Some communities do operate composting facilities.
- Continue to support a program in Camden County to locate and assist with the cleaning up of illegal open dumps.
- Encourage and educate, especially with school age population. All solid waste management advocacy groups should put marketing of their cause high on their list of priorities.

## **5.2 Water and Sewer**

The rapidly increasing population of Camden County and the increasing density of settlement on and near the shoreline of Camden County's portion of the Lake of the Ozarks dictate that the county exercise heightened awareness of proper wastewater disposal and the need for adequate and safe water supplies.

Camden County organized a countywide sewer district in the 1980s and is now in the process of installing central sewer systems in various parts of the county serving, in each instance, anywhere from 100 to 400 households.

Camden County has a wastewater management plan and that plan is incorporated as an integral portion of this Master Plan.

The Water and Sewer subcommittee proposes adding to existing county and state requirements that address CAFOs and construction permits. On CAFOs, additional

restrictions on siting in karst zones, the elimination of single cell lagoons, and enhanced ammonia effluent requirements are proposed.

Camden County Planning and Zoning supports the connection of individual water and sewer systems, especially those that are not in compliance with county or state environmental health rules, to systems that are in compliance with state and county rules if a system is available in their immediate area.

Developers, when planning water and sewer systems for projects, shall consider neighboring individual water and sewer systems and provide for their voluntary connection to the larger system.

Developers should not be expected to subsidize the actual connection or provide lower user fees.

Developers should be expected to not have separate fee structures for hook on fees and user rates for users outside of their development. In those cases where hook on fees are included in the development construction package, the developer may propose an equivalent fee that would be charged to non-development users. The amount of this fee should accurately reflect the true cost and will be subject to approval by Camden County Planning and Zoning Board.

### **CAMDEN COUNTY WATERSHED MANAGEMENT STATEMENT**

Camden County fully supports the concept of planning wastewater management systems through the use of the watershed concept. Watershed management is the fundamental building block for the design of a comprehensive water quality plan. Unlike political boundaries, watershed boundaries constitute the natural points of divide. By recognizing this factor, design work can more realistically take advantage of, rather than contend with relief, within an area. In focusing by watershed, problems within the affected area can be addressed more efficiently. Using the watershed concept helps counter responses to many opponents of water quality improvement projects who may claim the issue is someone else's problem; if done by watershed, the project will have a positive local impact.

Camden County will pursue the following initiatives relating to water and wastewater:

- Continue with the implementation of the Camden County Sewer District by continuing to seek funding and install central sewer systems in the densely settled portions of the county.
- Develop a countywide stormwater management plan and utilize available state funding to implement that plan.
- Encourage the development of centralized water systems and seek funding for the implementation of those systems from state and federal sources.

## Chapter 6 Land Use

### 6.1 General Land Use Determinations

Ideally, when devising a land use plan the area of focus will encompass large expanses of territory. Critical needs can then be looked at over large areas and the very best matches in needs and uses for all areas. Examining priorities in descending order, areas of special historic or environmental value could first be preserved. Natural and historic treasures should be preserved. Areas with special extractive resources should be reserved. Examples of such sites would be zones where high-grade mineral deposits or large energy reserves (coal and oil fields) are located. Next, the very best agricultural land could be set aside for food and fiber production. Limited availability for other uses could be possible but would be subordinate to agriculture. Then, areas subjected to special environmental risk such as flood plains or seismic zones would be designated and have special building requirements and use restrictions placed on them. Within Camden County a flood hazard map has already been developed. The remaining lands have been allotted for other uses, making sure that local areas had an equitable share of land for various appropriate and needed uses in those particular locations. Plans could then be devised for transportation systems and utility networks, and the most efficient, environmentally friendly designs used. It would then be at this point that sites for manufacturing, commerce, and housing would be determined. Obviously land settlement, use, and development are at such a stage today that fully utilizing these principles is impossible but the basic tenets can still be applied and a modified version implemented for Camden County.

It is the position of the Camden County Planning and Zoning Board that at least two areas within the planning and zoning boundaries of Camden County are worthy of special resource designation. These are Hahatonka and Coakley Hollow. While both sites are within state parks, establishment of a buffer zone around these two areas would assist in seeing that these two special areas are not overdeveloped or degraded. The Planning and Zoning Board encourages other interested parties to develop objective assessments of other possible natural or historic sites within the county for which special protection might be appropriate and to bring them before the Planning and Zoning Board for possible designation. The Parks and Recreation subcommittee of Planning and Zoning has done just that. Their list of sites for special consideration is listed in Appendix E.

In a national sense, Camden County does not have any extractive resources of such known magnitude and value that they are of concern. Nonetheless, a Camden County master plan should address the issue of supplies of industrial materials such as stone and sand and gravel plus establish provisions so that in the event of discovery or technological breakthrough mechanisms whereby any such as yet undiscovered resources could be developed without causing degradation of the environment or land values. Locations with easily recovered industrial mineral deposits should be kept available for usage to ensure that adequate local supplies are available and the costs of construction and repair are not overly inflated by transportation costs.

A special feature within Camden County obviously deserving of special attention is the Lake of the Ozarks. It is imperative for the master plan to include provisions for

seeing that the lake remains clean, is easily available for recreational use, and is not overrun by unregulated commercial development.

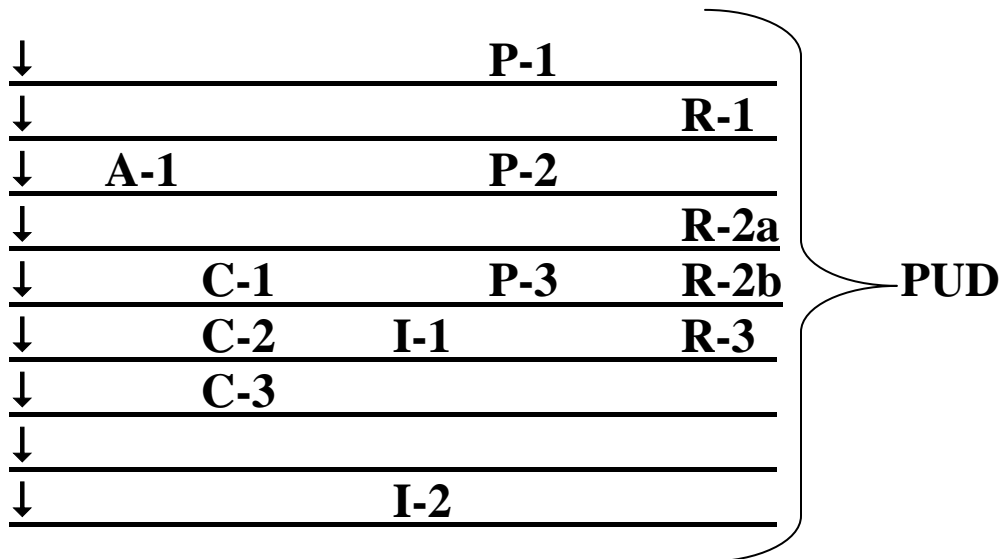
While no farmland in Camden County merits consideration as prime agricultural land when examined on a national or state scale, the Camden County master plan contains provisions that limit the waste and encroachment of good agricultural land by exurban sprawl. Sound agricultural use is encouraged in Camden County.

Minimizing the amount of disruption of existing use for properties and providing for orderly growth are guiding principles of the Camden County master plan. Land usage that complies with the master plan is encouraged in the long term but unless an existing usage presents health and safety problems, the plan does not seek to force property owners to alter their current usage.

There are two primary programs used in implementing a planning and zoning program. These are commonly known as “exclusive use” and “tiered” approaches. After reviewing the advantages and disadvantages of these two methods the Camden County Planning and Zoning Board has selected the tiered format. Generally speaking, under this program a use considered to be more restrictive, such as R-1 (residential) may be allowed in areas with fewer restrictions, such as light commercial. However, the reverse would not be allowed. In other words, a light commercial use such a doctor’s office would not be allowable in the more restrictive residential zones. The Camden County plan has also been crafted to allow a less restrictive land use plan in the more rural and agricultural outlying areas of the Planning and Zoning district. For example, *in A zoning* residences where the occupants are not primarily involved in agriculture would be allowed. Conversely, the occupants of the agricultural area would not be able to claim protection under planning and zoning from normal agricultural activities such as early morning operation of farm equipment.

Shown below is a diagram of the Camden County tiered zoning plan.

## ZONING TIER CHART CAMDEN COUNTY PLANNING & ZONING



**Agriculture**  
A-1 alternate use

**Commercial**  
C-1 office  
C-2 mercantile  
C-3 entertainment

**Industrial**  
I-1 light  
I-2 heavy

**Parks/Recreation**  
P-1 reserves  
P-2 parks  
P-3 commercial

**Residential**  
R-1 single  
R-2a multifamily (4 or less units)  
R-2b multifamily (5 or more units)  
R-3 MHP

**PUD**  
D-all PUDs

## 6.2 Building Requirements

The increased density of settlement around the Lake of the Ozarks makes it even more important that the shape, size and nature of construction be considered.

Camden County’s goals regarding building requirements are:

- Preserve existing scenic vistas, particularly views of the Lake of the Ozarks and scenic views from the Lake of the Ozarks.
- Preserve the quality of life by considering the issues of density in all planning and zoning decisions.

In order to accomplish these goals Camden County will:

- Develop lot size standards.
- Develop building size and ratio to lot size standards.
- Develop structure size standards.

- Develop definitions for manufactured housing.
- Examine the feasibility of developing outdoor advertising regulations.
- Examine the feasibility of developing standards for boat docks and seawalls.
- Develop regulations concerning building maintenance and upkeep.
- Establish standards concerning the removal of derelict buildings.

## **6.3 Parks and Recreation**

Increased development in Camden County heightens the need to provide protection for the county's historic sites and structures and as lakefront development becomes more dense the need to assure public access to the lake becomes more important.

In order to address these issues Camden County has the following goals:

- Preserve the dignity of Camden County's historic sites and structures.
- Promote the history and the heritage of Camden County through public awareness and access to artifacts.
- Work to provide ready access to public parks and opportunities for recreation.

In order to achieve these goals Camden County will:

- Establish setback regulations around park and recreation areas.
- Develop a catalog of historic, natural features and scenic sites that deserve preservation and work toward the preservation of these sites.
- Examine the feasibility of developing walking and/or biking trails.
- Develop a program to discourage the use and spread of noxious weeds.

## APPENDICES

### Appendix A

#### ACRONYMS

ADA	Americans with Disabilities Act
ICC	International Code Council
FAA	Federal Aviation Administration
MHP	Mobile Home Park
MODoT	Missouri Department of Transportation
MOWIN	Missouri Watershed Information Network
NCDC	National Climate Data Center
NOAA	National Oceanographic & Atmospheric Administration
PWSD	Public Water Supply District
RSMo	Revised Statutes of the State of Missouri
SBC	Southwestern Bell Communications
SEMA	Missouri State Emergency Management Agency
TDS	Total Dissolved Solids
TH	Total Hardness

<b>2000 Census Data</b>				
Population distribution in Planning and Zoning				
Versus non Planning and Zoning area				
Township	Total Population	Population in P&Z	Population not in P & Z	Population in cities with P&Z
Adair	2780	1930	850	-0-
Auglaize	2227	-0-	2227	-0-
Jackson	663	117	546	-0-
Jasper	5027	5027	-0-	-0-
Kiheka	4237	1768	1080	1389
Niangua	3356	2661	-0-	695
Osage	4726	3587	-0-	1139
Osceola	3457	2762	-0-	695
Pawhuska	5617	1723	-0-	3894
Russell	2495	347	2148	-0-
Warren	2466	268	2198	-0-
	37,051	20,190	9,049	7,812

20,190 or 54.5 % of the population reside in the portion of the county in planning and zoning  
 9049 or 24.4 % of the population reside in the portion of the county not in planning and zoning  
 7812 or 21.1% in cities with planning and zoning

### 2000 Population Data

Selected counties plus incorporated municipalities  
at least partially within Camden County

	County		
	2000	1990	% Growth
<b>Camden</b>	37,051	27,495	34.76
Barry	34,010	27,547	23.5
Benton	17,180	13,859	23.96
Cass	82,092	63,808	28.7
Christian	54,285	32,644	66.3
Dallas	15,661	12,646	23.8
Hickory	8,940	7,335	21.9
Howell	37,238	31,447	18.4
Laclede	32,513	27,158	19.7
Lincoln	38,944	28,892	34.79
Miller	23,564	20,700	13.8
Morgan	19,309	15,574	24.00
Pulaski	41,165	41,307	-0.3
Taney	39,703	25,561	55.3
Missouri	5,596,687	5,116,901	9.4
USA	281,421,906	248,765,170	13.1

	City		
	2000	1900	Δ%
Camdenton	2,779	2,561	8.5
Climax Springs	80	91	-12.1
Four Seasons	1,493	805	85.5
Lake Ozark	1,489	681	84.0*
Linn Creek	280	232	17.9
Macks Creek	267	272	-1.8
Osage Beach	3,662	2,585	41.7
Richland	1,805	2,029	-11.0
Stoutland	177	207	-14.5
Sunrise Beach	368	181	103.3

\*adjusted to reflect population previously enumerated in towns annexed by Lake Ozark between 1990 and 2000 censuses

## CAMDEN COUNTY POPULATION TRENDS

	2000	1990	1980	1970	1960	1950	1940	1930	1920	1910	1900	1890
Camden County	37,051	27,495	20,017	13,315	9,116	7,861	8,971	9,142	10,474	11,582	13,113	10,040
%	34.8	37.4	50.3	46.1	16.0	-12.4	-1.9	-12.7	-9.6	-11.7	30.6	38.2
Camdenton	2779	2561	2303	1636	1405	1142	893	-	-	-	-	-
%	8.5	11.2	71.0	16.4	23.0	27.9	-	-	-	-	-	-
Climax Springs	80	91	87	104	93	-	-	-	-	-	-	-
%	-12.1	4.6	-16.3	11.8	-	-	-	-	-	-	-	-
Four Seasons	1493	805	-	-	-	-	-	-	-	-	-	-
%	85.5	-	-	-	-	-	-	-	-	-	-	-
=Hillhouse	-	-	-	110	144	-	-	-	-	-	-	-
%	-	-	-	-23.6	-	-	-	-	-	-	-	-
=Hurricane Deck	-	-	210	169	117	-	-	-	-	-	-	-
%	-	-	24.3	44.4	-	-	-	-	-	-	-	-
#Lake Ozark	1489/122	681	427	507	-	-	-	-	-	-	-	-
%	84.0*	59.5	-15.8	-	-	-	-	-	-	-	-	-
Linn Creek	280	232	242	268	174	162	202	553	431	435	340	-
%	20.7	-4.1	-9.7	54.0	7.4	-19.8	-63.5	28.3	-0.9	27.9	-	-
Macks Creek	267	272	171	106	123	108	147	167	-	-	-	-
%	-1.8	59.1	61.3	-13.8	13.9	-26.5	-12.0	-	-	-	-	-
*Osage Beach	3662/3418	2585	1992	1091	741	-	-	-	-	-	-	-
%	41.7	29.8	82.6	47.2	-	-	-	-	-	-	-	-
*Richland	1805/102	2029	1922	1783	1662	1133	985	945	955	884	736	553
%	-11.0	1.9	11.7	7.3	46.7	15.0	4.2	-1.0	8.0	20.1	33.1	-
*Stoutland	177/146	207	232	205	172	192	244	214	300	-	-	-
%	-14.5	-10.8	13.2	19.2	-10.4	-21.3	14.0	-29.7	-	-	-	-
*Sunrise Beach	368/272	181	148	126	78	-	-	-	-	-	-	-
%	20.3	22.3	17.5	61.5	-	-	-	-	-	-	-	-

\* adjusted to reflect populations previously enumerated in towns merged with Lake Ozark between 1990 and 2000 census  
#shows total population(first number) and total population for area before mergers with Lakeland and Lakeview (second number)  
for 2000 census

= now disincorporated

## Appendix B

### Drinking Water Quality

Water System	Chemical Parameters											TDS	TH
	alk	As	Ba	Cl	Cu	F	Fe	Pb	Mn	Hg	S		
Cmdnton	290	<1.0	55.4	5.00	7.25	0.14	<20.0	<4.0	10.6	<0.20	<10.0	293	290
LinnCreek	414	<1.0	137	7.29	<3.00	<0.20	129	<4.0	<2.00	<0.20	11.0	265	260
Osge Bch	319	<1.0	163	<5.00	<3.20	<0.20	63.0	<4.0	13.2	<0.20	<10.0	308	327
Oz Sh Wtr	325	<1.0	196	<5.00	<3.00	<0.20	209	<4.0	3.8	<0.20	13.5	347	358
PWSD 1	296	<1.0	86.4	<5.00	5.15	<0.20	60.5	<4.0	2.44	<0.20	7.8	261	265
PWSD 2	338	<1.0	37.6	6.01	10.2	<0.20	<20.0	<4.0	<2.00	<0.20	<10.0	310	300
PWSD 3	341	<1.0	52.8	<5.00	<3.00	<0.20	<20.0	<4.0	46.1	<0.20	<10.0	324	380
composite	328	<1.0	95.2	<5.00	<0.20	<0.20	65.5	<4.0	7.48	<0.20	<10.0	305	306

data from wellhead samples collected and tested in 2000

data courtesy of DNR Environmental Services Program  
 readings for alk, Cl, F, S, TDS, and TH are in mg/l  
 reading for As, Ba, Cu, Fe, Pb, Mn, and Hg are in µg/l

alk: alkalinity                      Ba: barium      Cl: chloride  
 Cu copper                              Fe: iron        Pb: lead  
 Mn: manganese                      S: sulfides     TDS: total dissolved solids  
 TH: total hardness

## Appendix C

### CAMDEN COUNTY ZONING DESIGNATIONS

- A** Agricultural
  - A-1 alternate use agriculture
- C** Commercial
  - C-1 office
  - C-2 mercantile
  - C-3 entertainment
- I** Industrial
  - I-1 light industrial
  - I-2 heavy industrial
- P** Recreational
  - P-1 reserves
  - P-2 parks
  - P-3 commercial
- R** Residential
  - R-1 single family
  - R-2a multifamily (4 or less units)
  - R-2b multifamily (5 or more units)
  - R-3 MHP
- D** Planned Unit Development

## Appendix D

### CITIZEN INPUT RESULTS

In 2001 a series of four public hearings were held throughout Camden County asking for citizen opinion on a number of topics. From a list of thirty-two (32) topics gleaned from a series of suggestions made by staff, Board members, and citizen proposals participants were asked to grade this list of topics on importance and their relevance to planning and zoning. Space was also provided for other topics of interest as determined by participants. Participants were asked to grade topics on a scale of “0” to “4” with a “4” being most important. Following is the result of the input sessions. Table A indicates the rankings given by participants and Table B lists other issues of concern noted by participants.

**Table A**

<b>Ranking of Issues</b>			
<b>Ranking</b>	<b>Issue</b>	<b>Respondents</b>	<b>Avg</b>
1	solid waste	115	3.8
2	wastewater	122	3.7
3	roads	121	3.6
4	salvage yards	118	3.3
5	potable water	120	3.0
6	building codes	120	2.9
7	condos/apartments	117	2.9
8	mobile home parks	121	2.9
9	commercial development	114	2.9
10	single family residences	122	2.8
11	natural area preservation	118	2.8
12	industrial development	116	2.8
13	planned unit development	120	2.8
14	grade/drainage alterations	117	2.6
15	recreational development	117	2.5
16	outdoor advertising	117	2.5
17	communication towers	116	2.5
18	docks and seawalls	122	2.5
19	CAFOs	118	2.5
20	land clearance	118	2.4
21	power lines	116	2.4
22	stormwater	116	2.4
23	flood plain management	120	2.4
24	mines and quarries	115	2.3
25	lake public access	121	2.3
26	weeds and exotic plants	117	2.2
27	irrigation/industrial water	115	2.1
28	general agriculture	116	2.1
29	parks	116	1.8
30	public transportation	119	1.8
31	airports	114	1.7
32	sidewalks and trails	119	1.5
	total number of respondents	123	

<b>Table B</b>	
<b>Other Issues</b>	
Issues are listed alphabetically and includes Only those topics named at least twice	
<b>Issue</b>	<b>Times Mentioned</b>
Derelict building	3
Junked cars	4
Junk in yards	2
Leash laws (lack thereof)	2
Noise pollution	5
Open burning	2
Recycling centers (lack thereof)	2
Road Resurfacing	5

### Appendix E

<b>Special Sites Deserving Preservation in Camden County</b>		
Site	Location(STR)	Status
Coakley Hollow	38/15	A
Hahatonka	37/17	A
J Road Swinging Bridge over Little Niangua	4/38/18	A
Lovers Leap	35/39/17	B
Old Iron Works	4/39/17	B
Standing Rock	20/39/17	B
Thunder Mountain Lookout Tower	22/38/17	A
A (publicly owned)		
B (privately owned)		

### Appendix F

#### **ORDINANCE NO 3-22-02-1**

A ordinance prohibiting and regulating the following nuisances: Worn out, broken down, dilapidated, or inoperable barns, sheds, or other buildings, scrap or used lumber, garbage and any unclean drain or septic system; and providing for penalties for violations of this ordinance.

**WHEREAS**, In order to promote the public safety, health and general welfare and to protect property in Camden County, Missouri, it is necessary to adopt a Nuisance Ordinance regulating the following Nuisances: Worn out, broken down, dilapidated, or inoperable automobiles, or parts of automobiles; old dilapidated barns, sheds, or other

buildings, scrap or used lumber, garbage, and any unclean drain or septic system; and providing for penalties for violations of the provisions of this ordinance; and

**Whereas**, the Camden County Commission desires to establish a restriction against the foregoing nuisances and providing for penalties for allowing said nuisances to persist.

**NOW THEREFORE**, Be it Ordained by the Camden County Commission as follows:

**SECTION 1 Nuisances Forbidden.** No person, including corporations, partnerships, associations, or other entities shall cause, maintain, or permit, on premises owned or controlled by him, a nuisance as defined by the laws of the state of Missouri or by this Ordinance.

**SECTION 2 Nuisances Enumerated.** The following things are hereby declared to be nuisances:

- a. Worn out, broken down, dilapidated, or inoperable automobiles or parts of automobiles;
- b. Old dilapidated barns, sheds, or other buildings;
- c. Scrap or used lumber left or deposited, or caused or permitted to remain, or deposited in such quantity or in such condition as to be offensive to the sight or smell, or to be a menace to health, safety, peace or comfort, or of such nature as to be or become harbors or breeding places for mosquitoes, ants, flies, rats, mice or other insects, animals, or vermin
- d. Garbage, refuse, waste, or other material left or deposited, or caused or permitted to remain, or deposited in such quantity or in such condition as to be offensive to the sight or smell, or to be a menace to health, safety, peace or comfort, or of such nature as to be or become harbors or breeding places for mosquitoes, ants flies, rats, mice or other insects, animals, or vermin
- e. Any unclean, stinking, foul, defective, or filthy drain, including septic tanks or systems, outfalls, and laterals, or an improper sewer lagoon and drains there from;

**SECTION 3 Notice to Abate Nuisance.** Whenever the Commissioners of the Camden County Commission, Health Department Administration or their representatives shall ascertain or have knowledge that a nuisance dangerous to the public health exist in or upon any house or possession, of such house or premises, to abate or remove such ordinance within the time specified in said notice. If the house or premises aforesaid are not occupied and the owners having the right of possession are not residents, the Commission or its representative shall notify the non-resident owners by posting upon said house or premises a notice of their request to abate or remove such notice within the time specified therein, and by sending a copy of said notice by registered mail to the last known address of non-resident owners.

**SECTION 4 Violations,** Any person violating or failing to comply with any provision of this ordinance or with any lawful order of the Camden County Commission or its representatives made under the provisions of this ordinance shall be subject to a fine not to exceed One Thousand Dollars (1,000.00) upon conviction. Any person convicted of maintaining a nuisance shall within five days thereafter remove such nuisance and failure to do so shall be a second offense and every like neglect for each succeeding five day period thereafter shall be an additional offense.

**SECTION 5 Civil Remedy.** In addition to the remedies set forth in Section 4, if any person shall fail to comply with a lawful notice to abate under such section, the County Commission may bring civil action to enjoin the alleged violation. In the event that the County Commission is successful in obtaining an injunction under this section it shall be entitled to be reimbursed for the costs incurred in obtaining the injunction, as well as a reasonable attorney's fee.

**SECTION 6 Effective Date.** This ordinance shall be in full force and effect from and after its date of adoption by the Camden County Commission. Dated 3/22/02

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