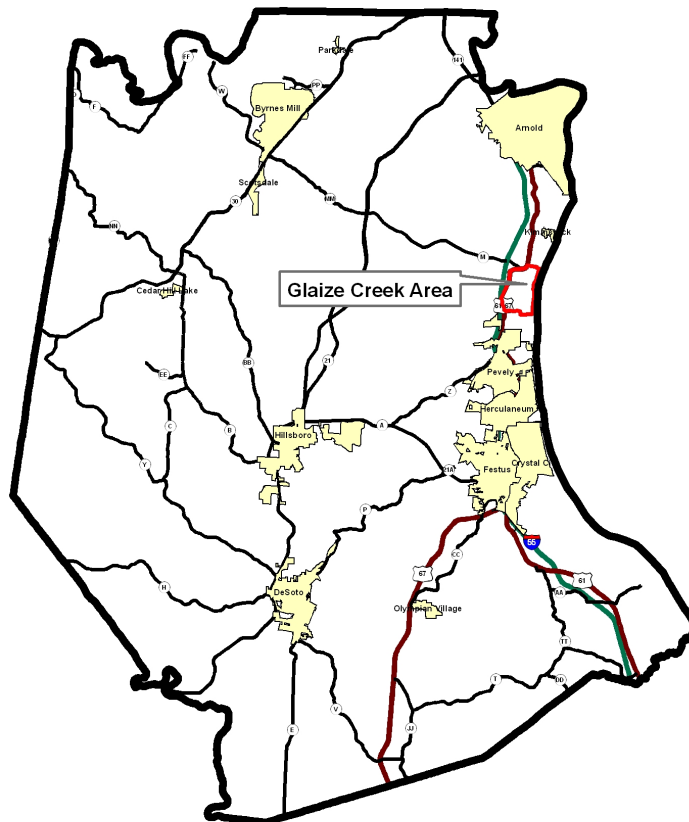


# INTRODUCTION

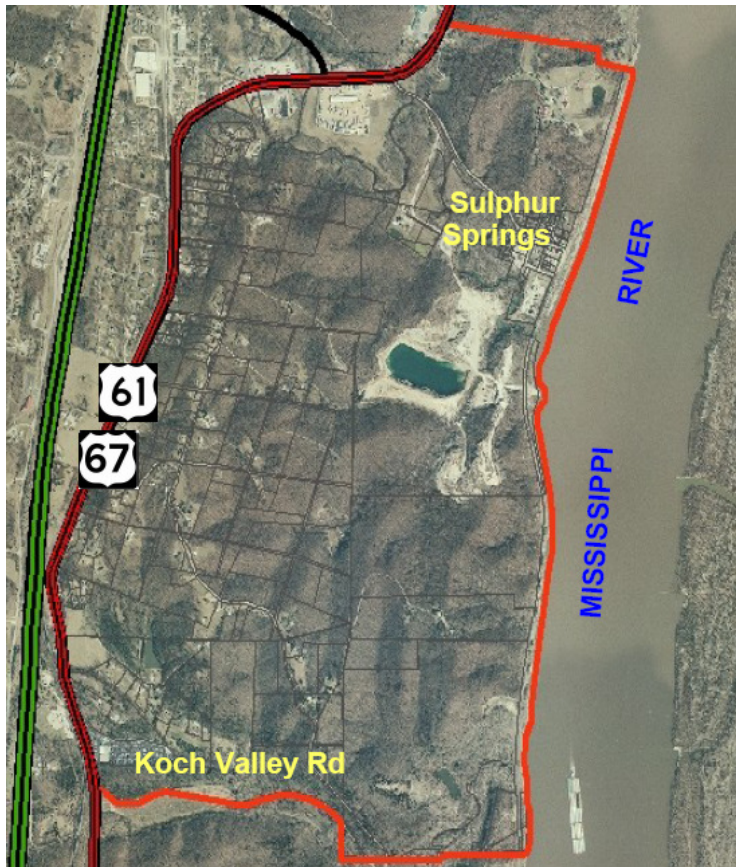
## Location

The study area is located in the northeastern portion of Jefferson County in the vicinity of the unincorporated areas known as Barnhart and Sulphur Springs (Exhibit No. 1). The area is generally bounded by Sulphur Springs to the North, the Mississippi River to the East, Highway 61-67 to the West, and Koch Road to the South (Exhibit No. 2).

**Exhibit No. 1  
Location Map**



**Exhibit No. 2  
Study Area**



**Glaize Creek  
Study Area**

Total Area of Parcels = 1,615 acres  
Estimated Population = 360



Source: Jefferson County Planning Division / US Census Bureau

**Purpose and Rationale**

The purpose of this study is to inventory, analyze, and identify land use alternatives for the area with a view of identifying several sound alternatives that promote the most environmentally sound, economically viable, and logical land uses for the area in the future.

The Official Master Plan for Jefferson County recommends the following implementation actions:

“Prepare specific land use plans for watersheds, identifying specific application of Development Patterns and specific location, and mix of various uses.”  
and

“Promote long-range plans for non-county community facilities that support long-range Growth and Development Patterns in the Official Master Plan.”

The largest portion of land in the study area (262.58 acres) is owned by Martin-Marietta Aggregates. This property has served as a site of limestone and aggregate quarrying operations for many years under the ownership of Martin Marietta and others. No quarrying operations or other uses have been active on the site for several years.

Riviera Gaming Management sought to establish a riverboat casino and hotel on the property in 2002. This effort was unsuccessful. However, the zoning classification of the property was changed from Residential to Commercial in anticipation of the potential casino use in 2002.

In 2006, Mark T. Simpson, President of Simpson Construction Materials, LLC who had an option on the property, applied for the necessary zoning approvals for a quarry, rock crushing, a concrete plant and an asphalt plant on the property. The Planning and Zoning Commission recommended denial of the requests, and the requests were ultimately denied by the County Commission. The size of this land, its background, and its partially quarried state makes its use a critical issue in the study area.

The Bussen Quarry Company received approval in 1995 for a Planned Unit Development, primarily for quarry purposes on property located partially within the study area. The development is approximately 376 acres total. Approximately 200 acres of the development are located within the southern portion of the study area.

Some people who live in the study area view it as place that is rich in historic and natural resources. While the presence of natural resources such as forested land, Glaize Creek, the Mississippi River, and resources with potential historic value are easily observed, the value of these types of resources is not always easily measured.

The Planning Division was asked by the Second District Commissioner for Jefferson County to conduct a study of this area in late 2007.

## **Planning Process**

### **General**

The basic planning process utilized in developing this study involved:

1. Defining the study area.
2. Developing background information.
3. Conducting an inventory of existing land uses in the study area.
4. Analyzing the study area through identification of strengths, weaknesses, opportunities, and threats.
5. Identifying alternatives for future land use opportunities in the study area.
6. Involving the public throughout the process.

### **Public Involvement**

Public involvement has been a key component of the planning process from the beginning. Staff sought to involve the public through:

1. Meetings with Individual Property Owners.
2. Advisory Committee Meetings.
3. Surveys and Mailings.

### **Meetings with Property Owners**

Planning Staff met with owners or persons with an interest in some of the largest tracts of land in the study area at their request, and took their concerns into consideration.

### **Advisory Committee**

Public involvement for the project included an Advisory Committee consisting of local citizens and professionals having a particular interest in the study area and/or certain types of expertise.

#### ***First Committee Meeting***

The first meeting of the Advisory Committee was held November 1, 2007. A presentation was given by staff providing the committee with an introduction to the plan process and information on the study area. A few general land use alternatives were shown to the committee. Staff then encouraged discussion in order to gain input and direction from the group.

#### ***Second Committee Meeting***

After the first Advisory Committee meeting, staff gathered more detailed information on the study area and developed more detailed alternatives. A second Advisory Committee was held February 7, 2008. Staff provided an update to the committee, the previous general alternatives were reviewed, and the new detailed alternatives were reviewed. Staff then encouraged discussion in order to gain input and direction for potential alternatives from the group.

### **Surveys**

Residents, property owners, and business owners from the study area in general were also invited to participate via direct mailings and surveys.

#### ***Initial Survey***

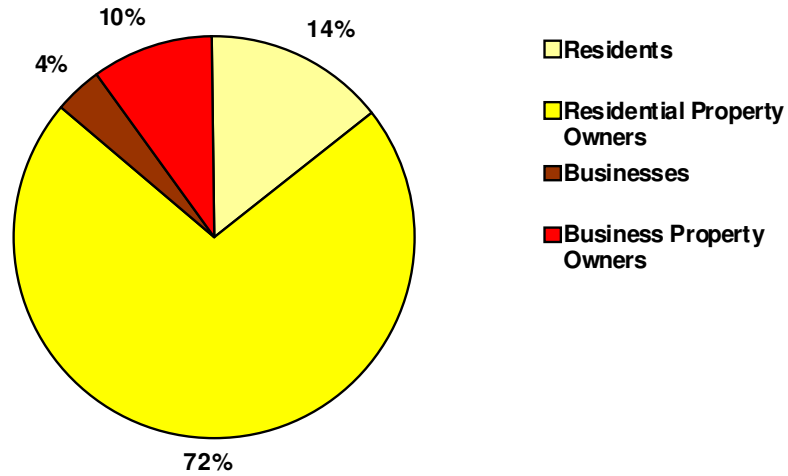
An initial survey was conducted by mail (Exhibits No. 3, 4, 5 & 6), in which people were asked whether they would like to see changes in the study area and general types of land uses.

Each mailing contained a flyer which included a tentative summary of the planning project, a map of the study area, and a postcard with return postage on which the respondents could respond to the survey and provide their contact information.

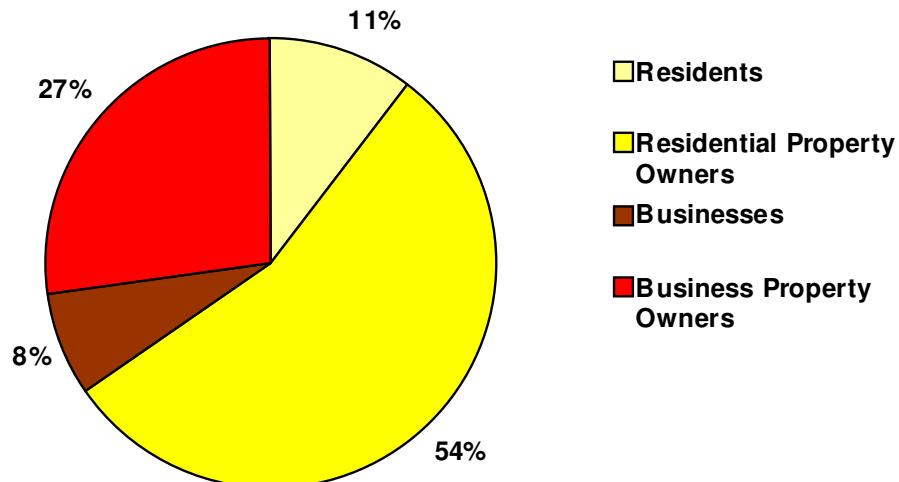
There were a total of 201 mailings sent. Seventeen were undeliverable for one reason or another. People were asked to return the survey by the end of September, but a few cards were received from out of state as late as November. A total of 48 surveys (26%) were returned.

Note: Some responses on the surveys were tabulated as "Invalid". This was typically due to responses such as both "Yes and "No" on the same question for example.

**Exhibit No. 3  
Initial Surveys Sent**

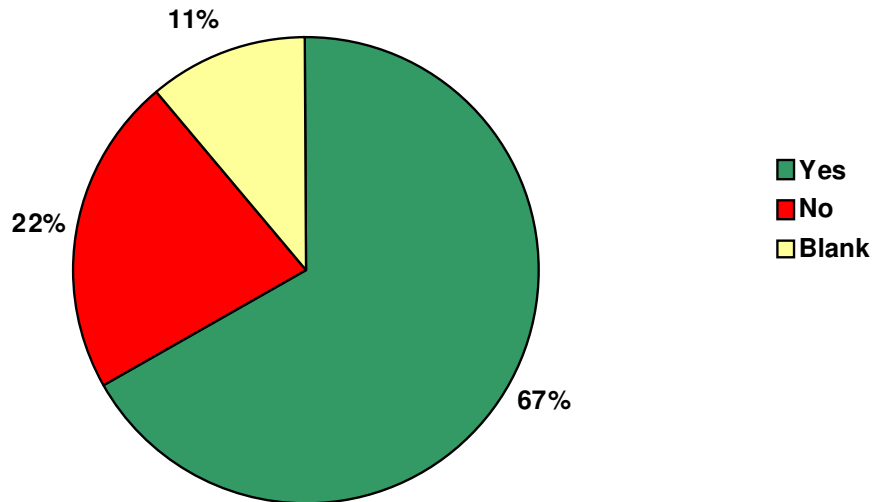


**Exhibit No. 4  
Initial Survey  
Respondents**



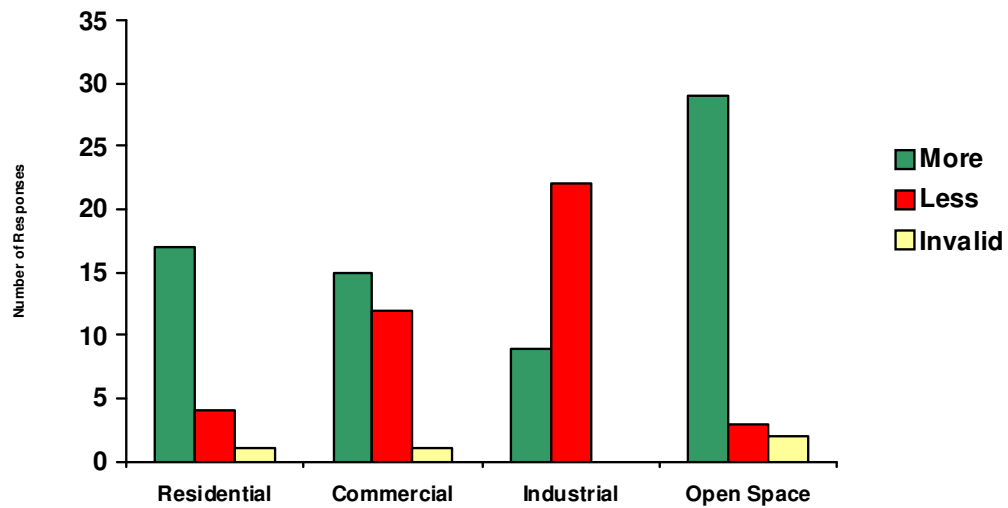
### Exhibit No. 5 Change in the Area

Response to the Statement: I want to see change in this area.



### Exhibit No. 6 Preferred General Land Uses

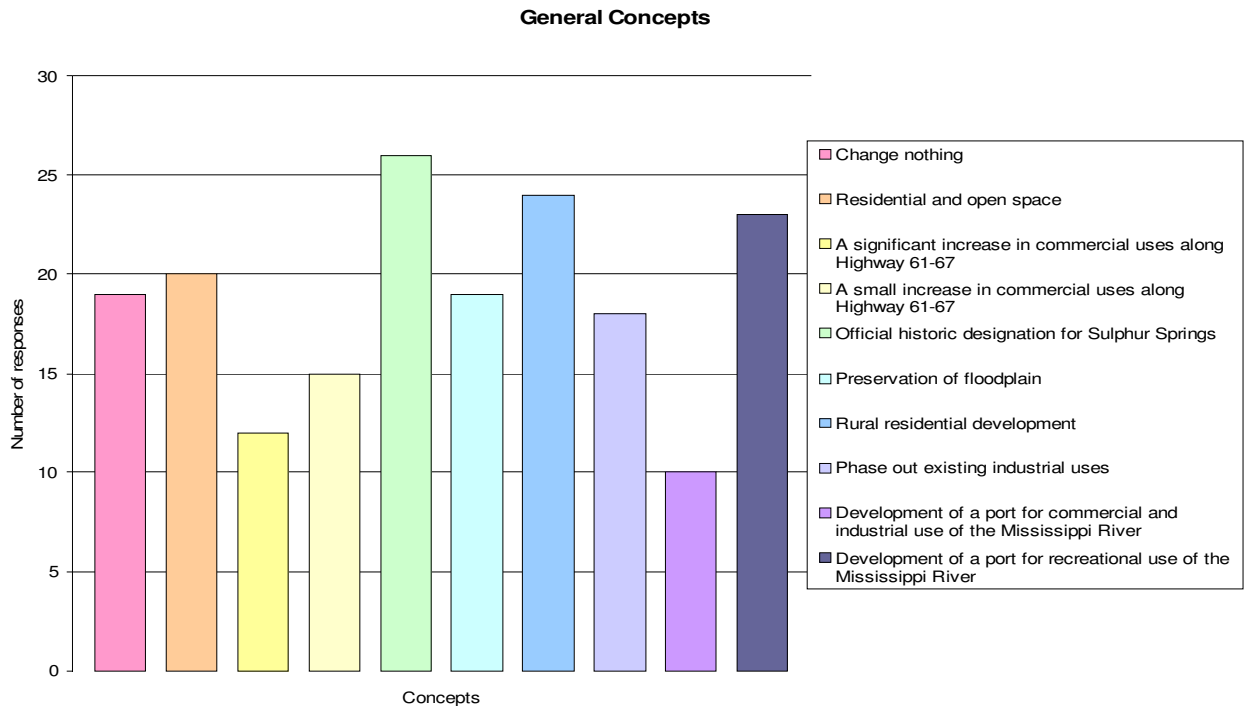
Response to the statement: I want to see more / less ...



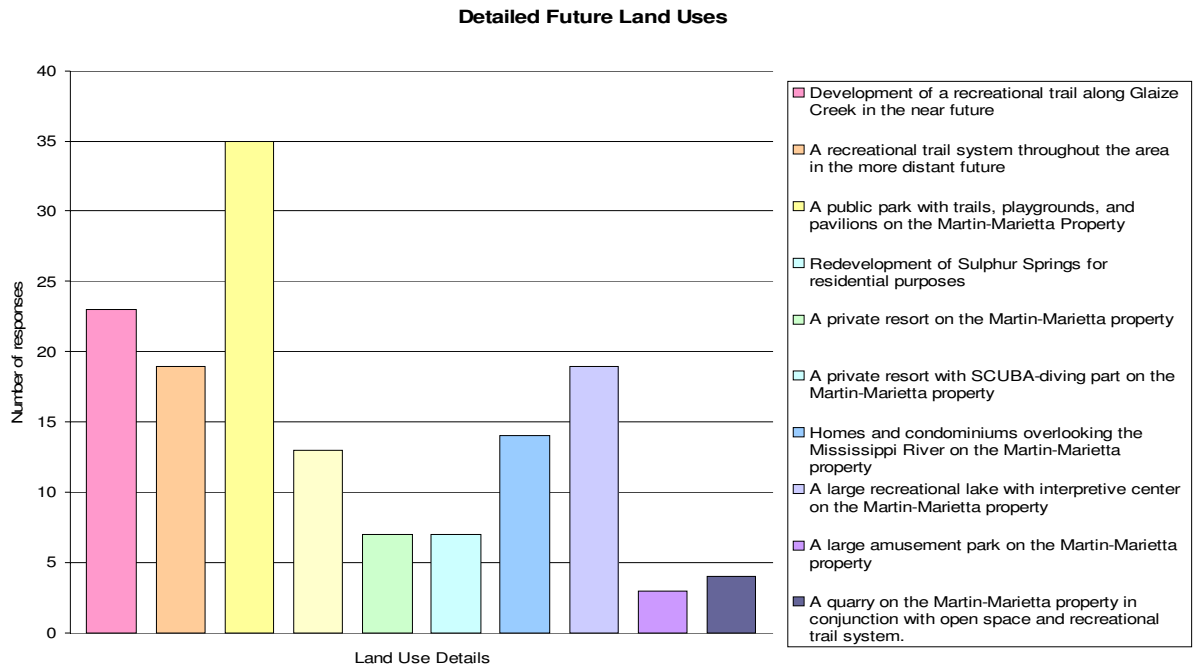
### Secondary Survey

Staff asked the Advisory Committee for recommendations on the detailed questions to be included in the second survey. The Advisory Committee asked staff to develop a draft survey for the committee members to review. After the survey was reviewed and revised, it was sent along with a newsletter to the 184 known good addresses for area residents, business owners and property owners. A total of 61 response cards were received for approximately a 33% response rate. A few additional surveys were received in forms that could not be accepted. A few letters were also received in conjunction with the responses. The results of the second survey are shown in Exhibits 7 through 15.

**Exhibit No. 7  
Preferred General Land Use Concepts**

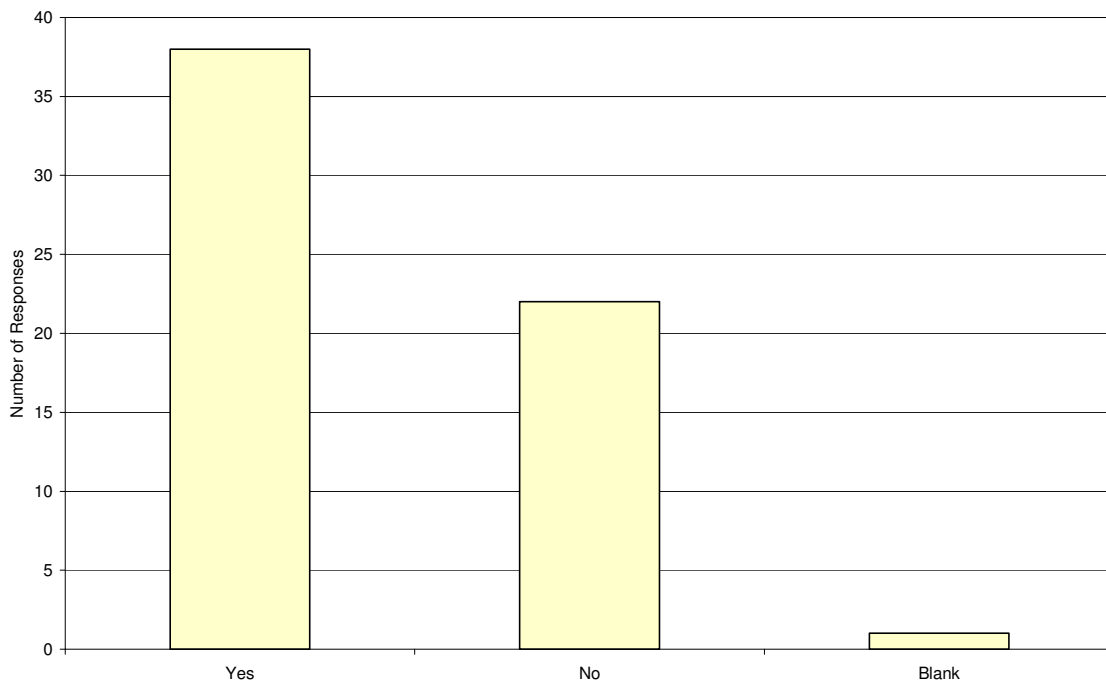


## Exhibit No. 8 Preferred Detailed Future Land Uses



## Exhibit No. 9 Existing Industrial Uses

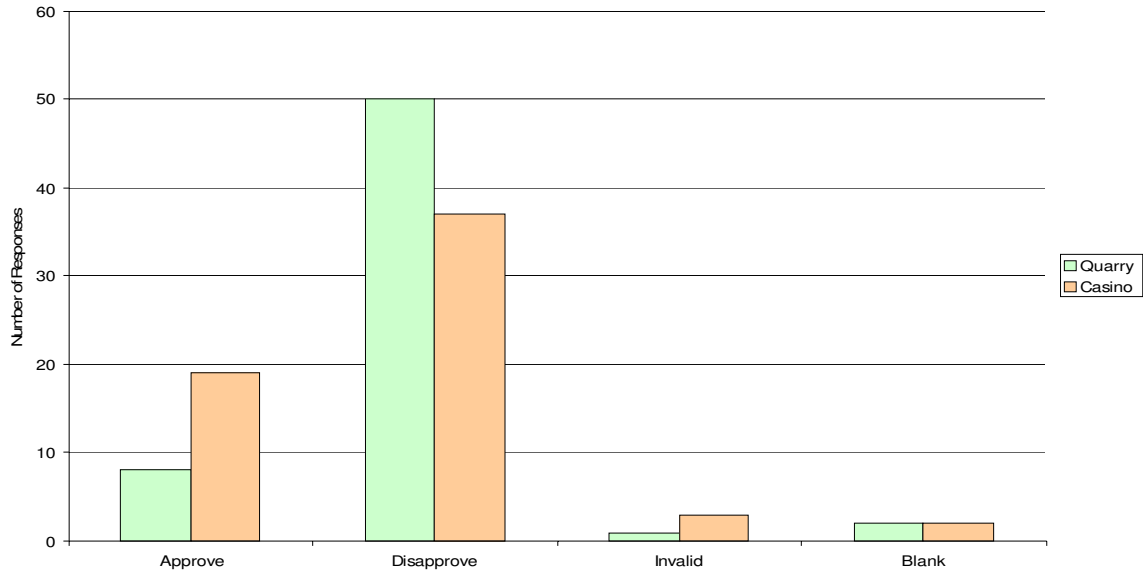
Should the few existing industrial use be gradually phased out?





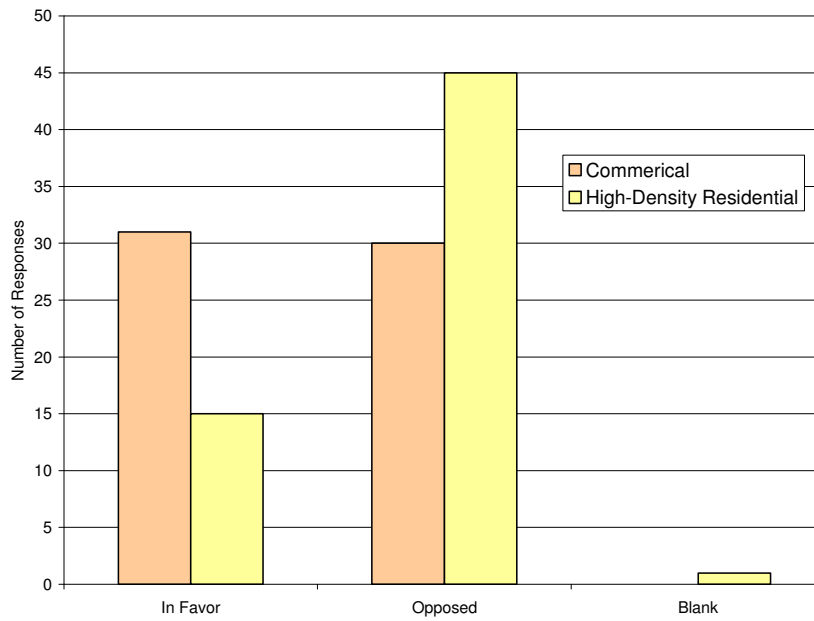
### Exhibit No. 10 Quarry or Casino

How do you feel about a Quarry or Casino in operation in the study area.



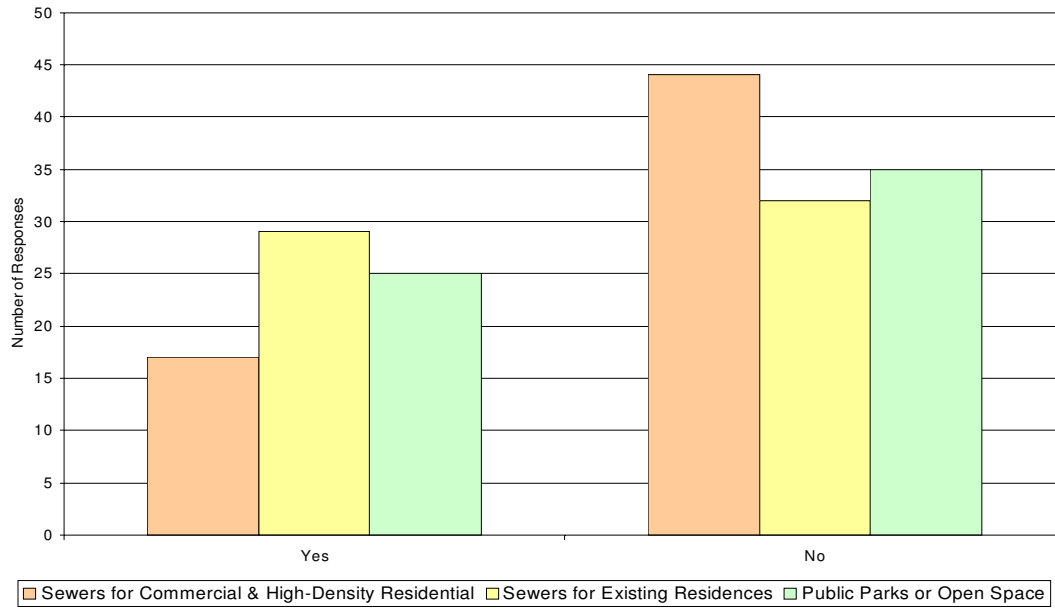
### Exhibit No. 11 Commercial or High-Density Residential Growth

What is your opinion on Commerical or High-Density Residential Growth on Highway 61-67?



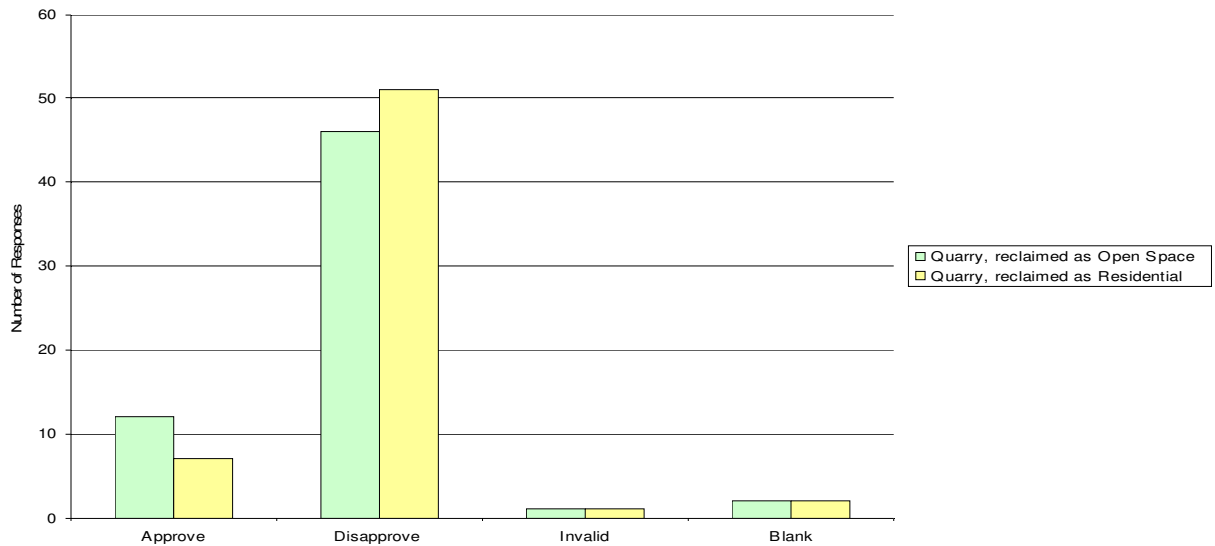
## Exhibit No. 12 Additional Taxes or Fees

Would you be willing to pay additional taxes for the following...?



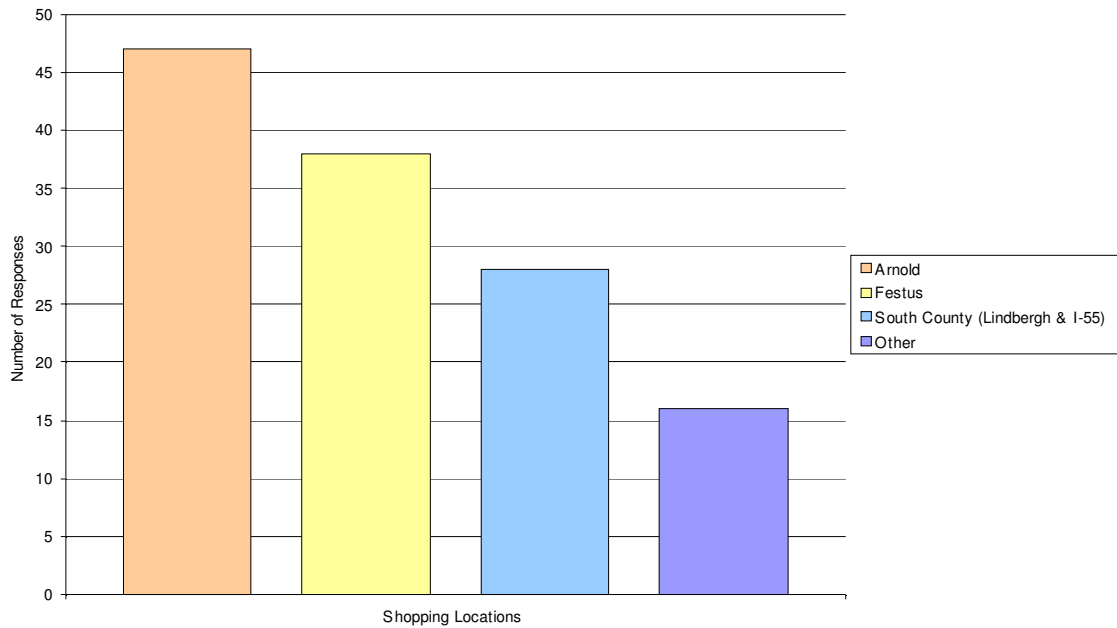
## Exhibit No. 13 Quarry and Reclamation Options

Opinion of Quarry operation with reclamation options?



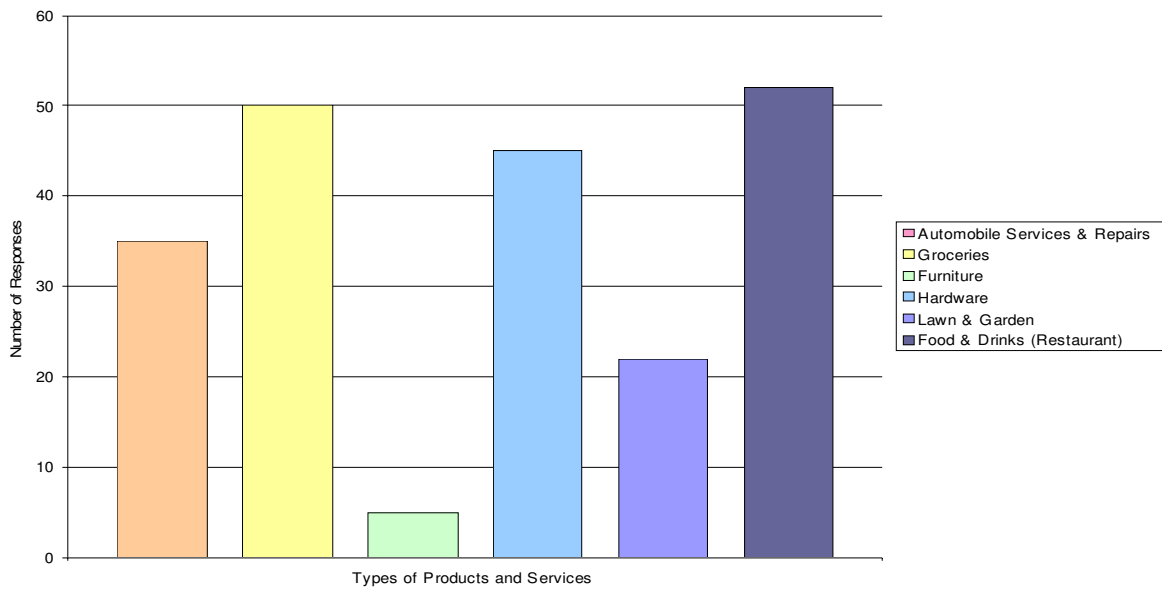
### Exhibit No. 14 Where Respondents Shop

Where do you travel to do your weekly shopping?



### Exhibit No. 15 Respondent Purchases

Which products and services do you purchase in the area?



**Open House Public Meeting**

The final major effort towards gaining public input for this study was an open house style public meeting held at the Intermediate (5<sup>th</sup> and 6<sup>th</sup> grade) Gymnasium on the Windsor School Campus on April 28, 2008. Staff sought to provide an overview of the project, and to receive questions and comments from area residents, business owners and property owners. Twenty-seven people signed-in at the meeting. However, staff estimates approximately 40 people from the area actually attended this meeting.

## EXISTING CONDITIONS

### Population

It is estimated that the study area currently has a population of approximately 360 people (assuming 2.5 people per dwelling unit) in the study area. The population was approximately 345 in 2000, down from 411 in 1990. This is a decline of 16%, which may be due to a number of factors including: slight errors in the Census Bureau's or Planning Staff's methods, flood buyouts, or simply more deaths and out-migrations than births and in-migrations.

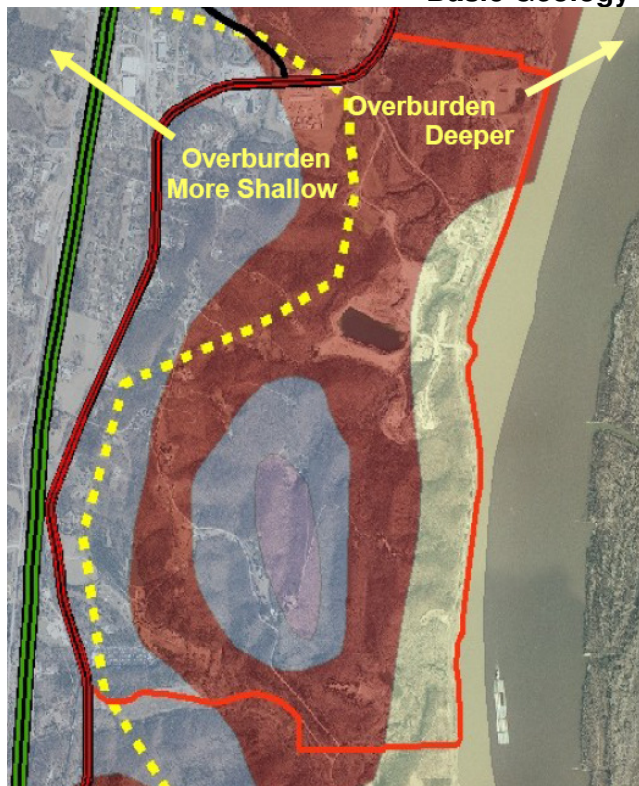
### Natural Features

One important set of characteristics of the study area is its natural features. Characteristics such as water resources, floodplain, soils, topography, and geology all play a key role in potential land use. Some characteristics may have more impact than others. Key features include Glaize Creek, Mississippi River, Koch Creek, and the forested natural ridges that run throughout the study area.

### Geology

Much of the area is underlain by Alluvium to the east nearest the Mississippi River or combinations of Limestone, Shale, and Sandstone. An area of rich limestone is found near the center of the study area beneath very large ridges. The depth of overburden or less valuable rock above the more valuable limestone appears to be 40 feet or more in the study area. (Exhibit No. 16)

**Exhibit No. 16**  
**Basic Geology**



### Geology

#### Glaize Creek Area

- Alluvium
- Limestone/Shale/Sandstone
- Limestone
- Limestone/Shale
- Overburden Contour (40 feet)

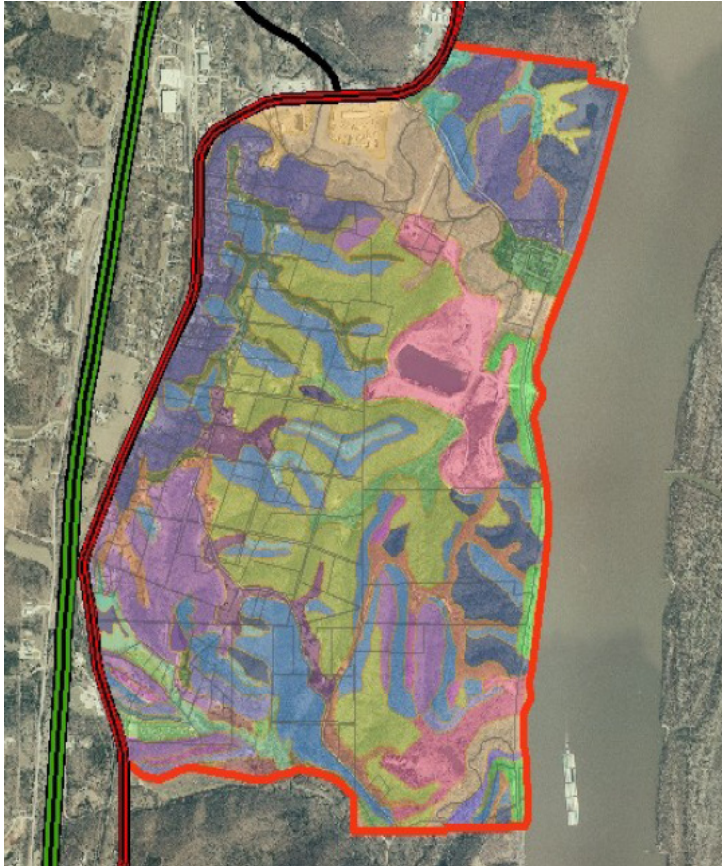


Source: Missouri Spatial Data Information Center

## Soils

A soils study was conducted on the study area for the Jefferson County Planning Division by the Jefferson County Soil and Water Conservation District (Exhibit No. 17). The rating system used included primary classifications of Very Limited, Somewhat Limited, Not Limited, and Not Rated or Not Available.

**Exhibit No. 17**  
**Soils**



## Soils

Glaize Creek Area



Source: Jefferson County Soil and Water Conservation District

Most soils in the study area are considered somewhat limited or very limited due to one or more factors. A rating of somewhat limited or very limited does not necessarily mean that soil conditions make the property unusable for a specific purpose. However, some degree of work may be necessary to improve the soil conditions for the soil to be suitable for the use.

Examples of conditions that may cause a soil to be classified as being limited for some particular use include:

- Slope (Instability)
- Frost Action
- Shrink-Swelling
- Flooding
- Depth to Bedrock
- Depth to Saturated Zone

Examples of the types of uses that might be limited in the area due to less than ideal soil conditions include:

- Local Roads
- Dwellings with Basements
- Lawns or Landscaping
- Small Commercial Buildings
- Composting, Large Animal Disposal, or Landfills
- Picnicking, Playgrounds, Camping, or Trails
- Reservoirs, Embankments, Dikes, and Levees

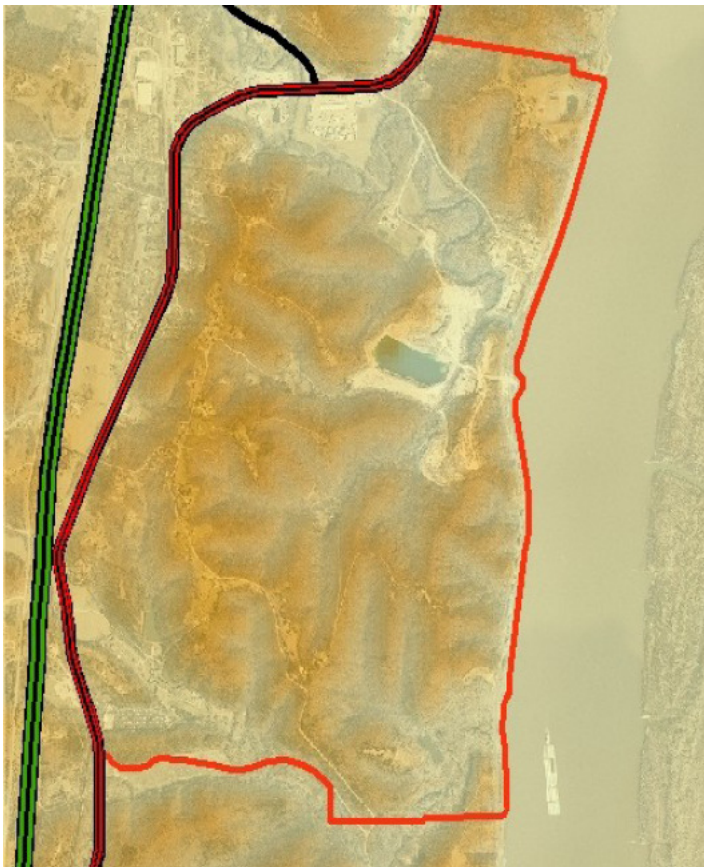
Some portions of the area that are less limited than others in terms of soils, but no one particular part of the study area can really be characterized as the most desirable. There are some areas that either have not been rated or for which no soil information exists. On some portions of the Martin-Marietta property, for example, much of the underlying soil and underlying rock is exposed. Therefore, no rating could be given.



## Topography

The topography in the study area varies (Exhibit No. 18), but generally consists of steep ridges and low-lying floodplain with some level ground along Highway 61-67. According to digital elevation models obtained from the Missouri Spatial Data Information Center, elevations in the study area range from approximately 350 feet to 625 feet above sea level. The lowest elevations are found along Glaize Creek, the Mississippi River, and the excavated area of the quarry on the Martin-Marietta property. The highest elevations are found near the center of the study area, where a series of ridges run north to south through a majority of the study area. Slopes in some of the lower elevation portions of the study area are less than 10%, but range from 10% to 20% or more where elevations increase (Jefferson County Comprehensive Water and Sewer and Sewer Plan, 1970).

**Exhibit No. 18**  
**Topography**



## Topography

Glaize Creek Area



Source: Missouri Spatial Data Information Center



## Water Resources

The two most significant water resources in the study area are Glaize Creek and the Mississippi River (Exhibit No. 19). There is also another creek known as Koch Creek or Rattlesnake Creek located in the southernmost portion of the study area.

### ***Glaize Creek***

Glaize Creek flows several miles from the Antonia area east to Sulphur Springs and its confluence with the Mississippi River. Some of the area this creek passes through is rural and undeveloped, but much of it has become urbanized to some extent. There is significant floodplain surrounding Glaize Creek within the study area.

### ***Mississippi River***

The Mississippi River runs approximately 2,300 miles from Lake Itasca, Minnesota to New Orleans Louisiana and ranges in depth from about 3 feet to 200 feet (<http://www.nps.gov/archive/miss/features/factoids>). The river is used for commerce, recreation, drinking water, and agriculture. However, it also receives significant volumes of silt, chemicals, effluent, and other contaminants, which impair its water quality. At the study area, the river is about ½ mile wide.

**Exhibit No. 19**  
**Water Resources**



## Water Resources

Glaize Creek Area

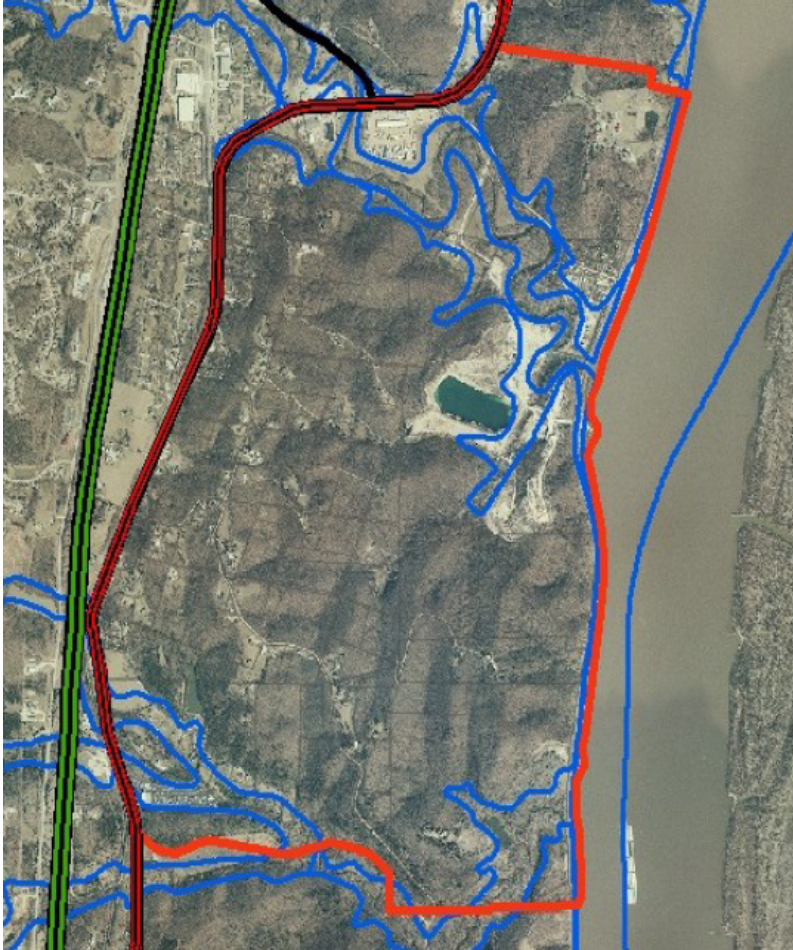


Source: Jefferson County Planning Division

## Floodplain

A major floodplain surrounds the confluence of the Mississippi River with Glaize Creek (Exhibit No. 20). There is a total of approximately 280 acres of floodplain in the study area, approximately 195 of which are located along Glaize Creek and the Mississippi River.

**Exhibit No. 20**  
**Floodplain**



## Floodplain

**Glaize Creek Area**



Source: Jefferson County Planning Division / FEMA



## Forested Area

One of the key natural features of the Glaize Creek Area is the forested area. The study area has approximately 916 acres (56%) of forested land (Exhibit 21). Most of the deforested areas are located along Highway 61/67 and the Martin Marietta quarry property.

**Exhibit No. 21  
Forested Area**



## Forested Area

**Glaize Creek Area**

 **Forested Area**

**Total Approx.  
916 Acres**



Sources: Missouri Resource Assessment Partnership  
Missouri Spatial Data Information Service  
Jefferson County Planning Division

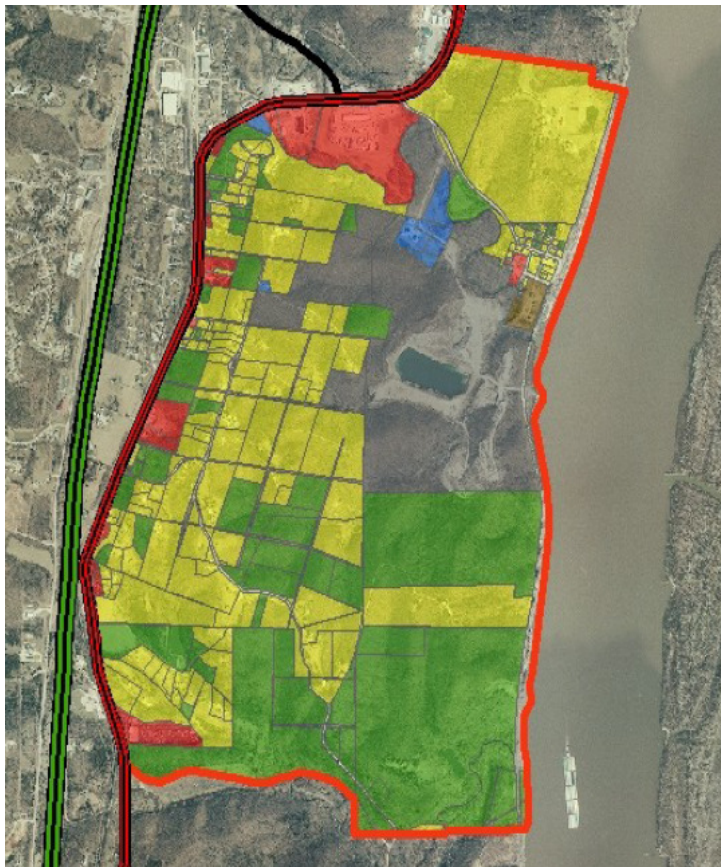
## Land Use

One of the key characteristics of the study area that must be examined, aside from the natural characteristics of the area, is land use.

### Existing Land Use

Existing land use in the study area is mostly residential and open space. There are a few industries such as a bulk-fuel storage facility along the Mississippi River. The Planning Division Staff conducted a field survey of the actual land uses in the area. The breakdown of existing land uses is shown in Exhibits 22 through 24.

**Exhibit No. 22  
Existing Land Use**



## Existing Land Use

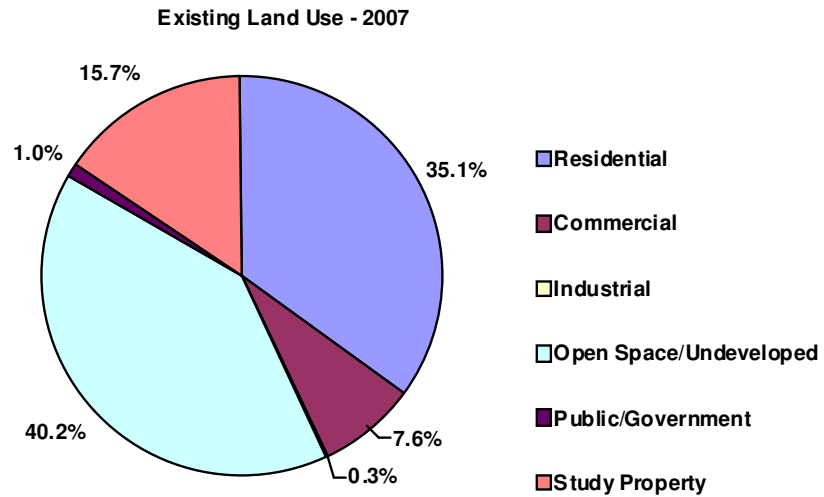
### Glaize Creek Area

- Commercial
- Industrial
- Residential
- Open Space or Undeveloped
- Public or Government



Source: Jefferson County Planning Division

**Exhibit No. 23  
Existing Land Use Chart**



**Exhibit No. 24  
Existing Land Use Table  
2007**

	Acres	Percent
<b>Residential</b>	566.94	35.1
<b>Commercial</b>	123.33	7.6
<b>Industrial</b>	5.51	0.3
<b>Public Government</b>	16.32	1.0
<b>Open Space/ Undeveloped</b>	649.75	40.2
<b>Other</b>	253.23	15.7
<b>TOTAL</b>	<b>1,615.08</b>	<b>Not Equal to 100% due to rounding</b>

Source: Jefferson County Planning Division Staff

### Existing Zoning

There is little variation in zone designations with the study area. Zoning was simply classified as residential, commercial, or a Planned Unit Development (PUD) zone district for the purposes of this study. The PUD area is the Bussen Quarry. Existing zoning is shown in Exhibits No. 25 through 27.

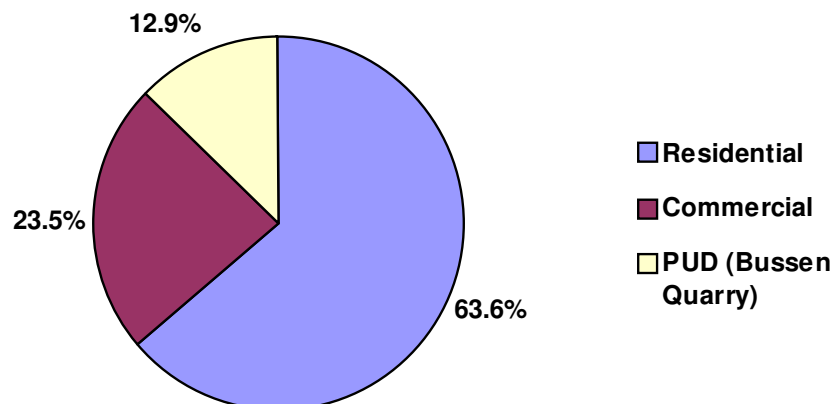
**Exhibit No. 25  
Existing Zoning Table  
2007**

	Acres	Percent
<b>Residential</b>	1027.62	63.6%
<b>Commercial</b>	379.46	23.5%
<b>PUD (Bussen Quarry)</b>	208.00	12.9%
<b>TOTAL</b>	<b>1615.08</b>	<b>100%</b>

Source: Jefferson County Planning Division Staff

**Exhibit No. 26  
Existing Zoning Chart**

Existing Zoning-2007



Source: Jefferson County Planning Division Staff



**Exhibit No. 27  
Existing Zoning Map – 2007**



**Zoning  
Glaize Creek Area**

- Commercial**
- Residential**
- PUD  
(Bussen Quarry)**



Source: Jefferson County Planning Division

## Major Land Holders

The actions of individual landowners can often determine the long-range outcome of land use. The holders of the two most significant areas of land within this study area do have an impact on land use in the area (Exhibit No. 28). Together these properties comprise over one-third of the study area.

### Martin-Marietta Property

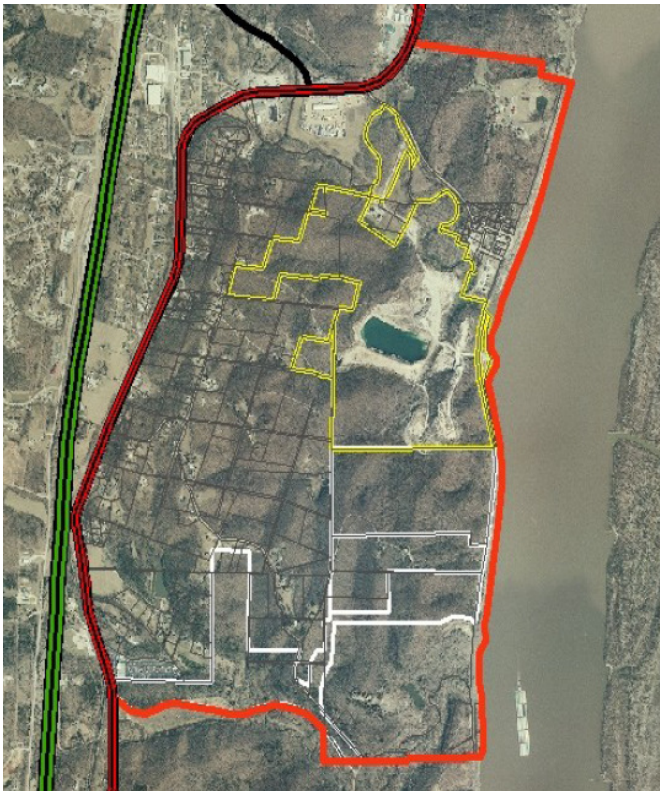
The Martin-Marietta property is approximately 262 acres in size. This property makes up over 16% of the study area (16.26%). This property has been used in the past for quarrying purposes. But, it is not currently in operation because it does not have the proper zoning approvals and cannot be resumed as a non-conforming use. The property has one access point off Sulphur Springs Road that leads past the Glaize Creek Sewer District's Wastewater Treatment Plant. The access road is situated in an area prone to heavy flooding. Beyond the Wastewater Treatment Plant is the old quarry scale-house. The road continues past stockpiles of rock and aggregate. At the heart of the site is a lake about 50 to 80 feet deep and 10.5 acres in area created by excavations as a part of the quarry operations. The valuable limestone can be seen at the west end

of the lake overlain by several other layers of rock considered overburden or waste. On the east side of the site is a steep hill, at the top of which is a platform area from which materials were once loaded into trucks. At the bottom of the east side of this hill is a single set of railroad tracks, one of the busiest freight rails in the region. The tracks mark the edge of the bank of the Mississippi River, which is usually only about 150 feet beyond the tracks during normal conditions.

### **Pitsinger (and Bussen) Property**

At approximately 240 acres, property owned or leased by Bruce and Cynthia Pitsinger makes up the second largest holding of land in the study area (14.8%). The property owned by the Pitsingers (approximately 38 acres) has a residence constructed in 1859 and some associated accessory buildings located on it. The Pitsingers also lease additional property from the Bussen Quarry Company, which at one time operated a nearby quarry, but now like Martin-Marietta has ceased operations. A Planned Unit Development was approved in 1995, which would allow for future quarry operations on the property. For the present however, the Pitsingers have voluntarily agreed to restrict the area they lease from Bussen through a lease agreement "...to develop and protect wildlife habitat, preserve the natural rock formations along the Mississippi River and protect any historical sites which may be present." (Memorandum of Lease Agreement, 1992). This lease is applicable for at least the lifetimes of the Pitsingers. The property is largely undisturbed, and in its natural state. It is "...almost all forested with mature and over-mature trees." (Letter from Missouri Department of Conservation to Bruce and Cynthia Pitsinger dated Dec. 20, 2007)

## **Exhibit No. 28 Major Land Holdings**



### **Major Property Holders**

#### **Glaize Creek Area**

**Martin-Marietta Property**  
(262 acres +/-)

**Pitsinger Property**  
(240 acres +/-)



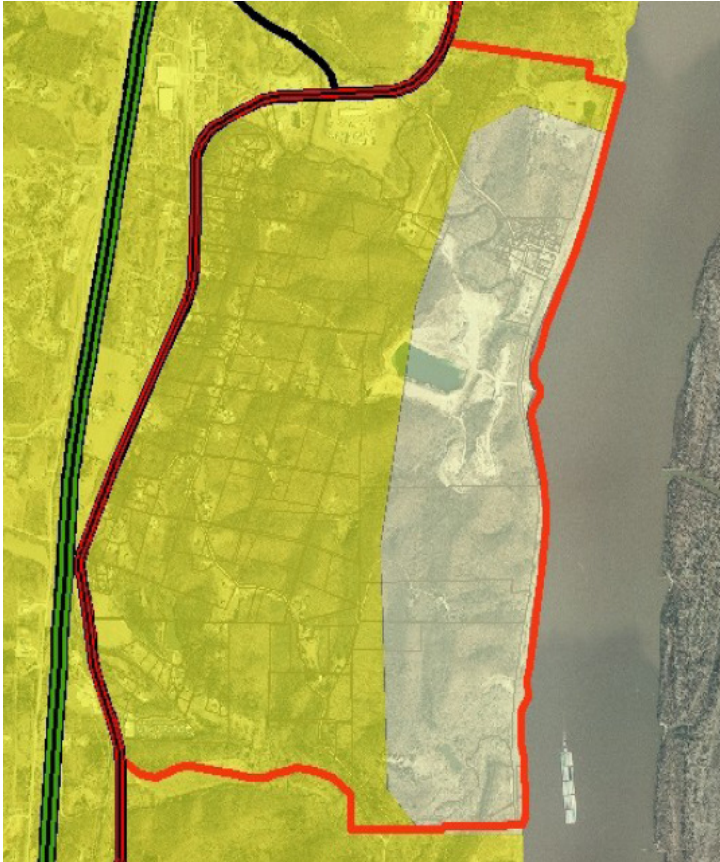
Sources: Jefferson County Planning Division  
Zoning Application by Simpson Materials, 2006  
Bruce and Cynthia Pitsinger



## Official Master Plan


It is important to consider the designation of the area in the Official Master Plan of Jefferson County. Most of the area is shown as a Primary Growth Area in the Master Plan (Exhibit No. 29). The designated Growth Areas in the Master Plan are in turn generally consistent with the development patterns, which are also shown in the Master Plan.

**Exhibit No. 29  
Official Master Plan**



## Master Plan

### Glaize Creek Area

-  Primary Growth Area
-  Secondary Growth Area



Source: Jefferson County Official Master Plan

## Historic Resources

There are a number of historic resources in and around the study area. Among these are historic buildings, Sulphur Springs, and some other lesser-known historical resources. This section is not intended to be exhaustive but rather to highlight a several key facts.

### Buildings

One historic building in the study area is Captain Butterworth's House, presently owned by Bruce and Cynthia Pitzinger. This historic residence, south of Sulphur Springs, north of Bushberg was constructed in 1859. There are other historic residences near the study area such as the Meissner Mansion (1875) and Greystone Manor (1845) located at Bushberg, to the south of the study area. To the north, Kimmswick has many historic buildings. The Kimm House is just one example.

### Sulphur Springs

Sulphur Springs, originally known as Sulphur Springs Landing was in existence many years before being officially platted in 1860 by James Burgess (Exhibit No. 30). The town once had a post office, a train depot, a Presbyterian Church, a large hotel and several resort buildings serving St. Louis residents who visited primarily because of the presence of springs in the area, which were considered to have health benefits.

**Exhibit No. 30**  
**Plat of Sulphur Springs**



### First Mail Stop

According to local historians, Sulphur Springs was the first mail stop in Jefferson County starting as early as the 1700's when mail would arrive on the by boat on the Mississippi

River. The Missouri Historical Society has indicated the first U.S. Postmaster, Z.C. Palmer was appointed to Sulphur Springs in 1837. (Missouri Historic Society, March 13, 1980).

### ***Historic Rail Stop***

Historians tell us a train station was opened at Sulphur Springs in 1850 and remained in service until 1964. A terrible train wreck is a part of Sulphur Springs history as well. On August 5, 1922, a northbound express train out of Fort Worth, Texas going full-speed collided with a local train that ran between Poplar Bluff and St. Louis, which was sitting still having its water tanks filled. (Arnold-Imperial Leader, December 28, 2006). Accounts of deaths seem to range from 34 to 40 people killed with 100 or more injured.

### ***Civil War Post***

The area has civil war significance. A Union camp, Camp Curtis, was located at Sulphur Springs, Missouri. Heavy guns known as Columbiads were stationed by the Union at the Iron Mountain Railroad Landing at Sulphur Springs in 1861 as part of a defensive perimeter around St. Louis (At War in Earnest 1861). Buell's Independent Battery, Missouri Light Artillery was stationed at Sulphur Springs August 2, 1861 to August 25, 1861. (Missouri Commandery, Military Order of the Loyal Legion, 1998).

### ***Saxton's Farm***

Saxton's Farm at Sulphur Springs, MO was about 93 acres, which included riverfront property now owned by Martin-Marietta Aggregates, Inc. It was generally a rectangular piece of land running along the Mississippi River for about 1,500 feet and 2,600 feet perpendicular to the river. The survey was originally filed by James Burges, Jr. in 1849 who platted Sulphur Springs in 1860. About 58.5 acres of the property was acquired by the Saxton family in 1887, with 27 acres purchased in 1891, and 8 additional acres in 1909. When John M. Saxon died in 1903-4, his wife began taking boarders for income. This led to the place becoming a retreat for a St. Louis literary group known as "The Potters" from 1904 to 1907, which included people such as American Lyrical Poet, Sara Teasdale. The farm was located there until the late 1940's. The old Saxon farmhouse was demolished in the 1970's. (Local historians Georgia Bartlett, Glee Heiligttag Naes, and Cliff Saxton, Writer and Editor, 2006, 2007)

### ***El Camino Real***

The El Camino Real or King's Highway ran through the study area during the time of colonial possession of the area by Spain. This was an overland road marked out about 1789 on an old Indian trail, which ran parallel to the Mississippi River through not only the study area, but much of eastern Missouri. In general, U.S. Highway 61 follows this old road as far as New Madrid. A marker was established in 1917, near Kimmswick by the Daughters of the American Revolution.

### ***Other Historic Resources***

According to local historians Mastodon remains were found at the bottom of a bluff at Highways 61-67, M, and Sulphur Springs Road in 1978-79. There was a time when Barnhart, Sulphur Springs, and Koch Valley also each had their own schools. Local historians tell us there are also petroglyphs or petrogllyphs in the study area.

A small entertainment ship known as the City of Saltillo wrecked in 1910 off the banks of the Mississippi River near the southeastern portion of the study area. The ship, 175 feet in length, can reportedly still be seen today during times of low water. Twelve people were killed and several others were injured.

Area residents have also indicated there is a Civil War cemetery somewhere in the forested part of the study area. The exact location has apparently been lost.

## **Transportation**

Transportation is another characteristic of the study area, which must be examined. There is a direct connection between transportation resources and land use. Various transportation resources within the study area are shown in Exhibit No. 31.

### **Roadways**

There are three primary thoroughfares in and around the study area: Highway 61-67, Interstate 55, and Highway M.

#### ***Highway 61-67***

Highway 61-67 is a four and five-lane undivided highway running north and south along the west side of the study area. Within the study area, Highway 61-67 is four undivided lanes, except at its intersection with Highway M, where turn lanes are provided.

Although the two highways are individually much longer, Highway 61-67 begins at Interstate 55 in Festus where the two highways merge and continues north to U.S. 40 in St. Louis County where Highway 61 merges with Highway 40 and Highway 67 continues north. According to 2006 MODOT traffic volume data, Highway 61-67 near the study area has a traffic volume of 6,722 Average Daily Trips (ADT).

#### ***Interstate 55***

Interstate 55, is a major transportation corridor located a short distance to the west of the study area. It is connected to Highway 61-67 in the study area by Highway M. According to 2006 MODOT traffic volume data, Interstate 55 near the study area has a traffic volume of 58,210 ADT.

#### ***Highway M***

Highway M is a state-maintained highway route from Highway 21 to Highway 61-67. Highway M intersects Highways 61-67 along the northwest edge of the study area. According to 2006 MODOT traffic volume data, Highway M near the study area has a traffic volume of 7,716 average daily trips.

### **Waterways**

The Mississippi River in this area is part of the Port of Metropolitan St. Louis. According to the Army Corps of Engineers, the Mississippi River carries 463 million tons of freight per year, over 30 million of which are in the Port of St. Louis region. There are three small local ports in the study area: the old Bussen Quarry Property, the Martin-Marietta



Property, and the bulk fuel facility in Sulphur Springs. (Transportation by Waterway, Jefferson County, Missouri, 1978.)

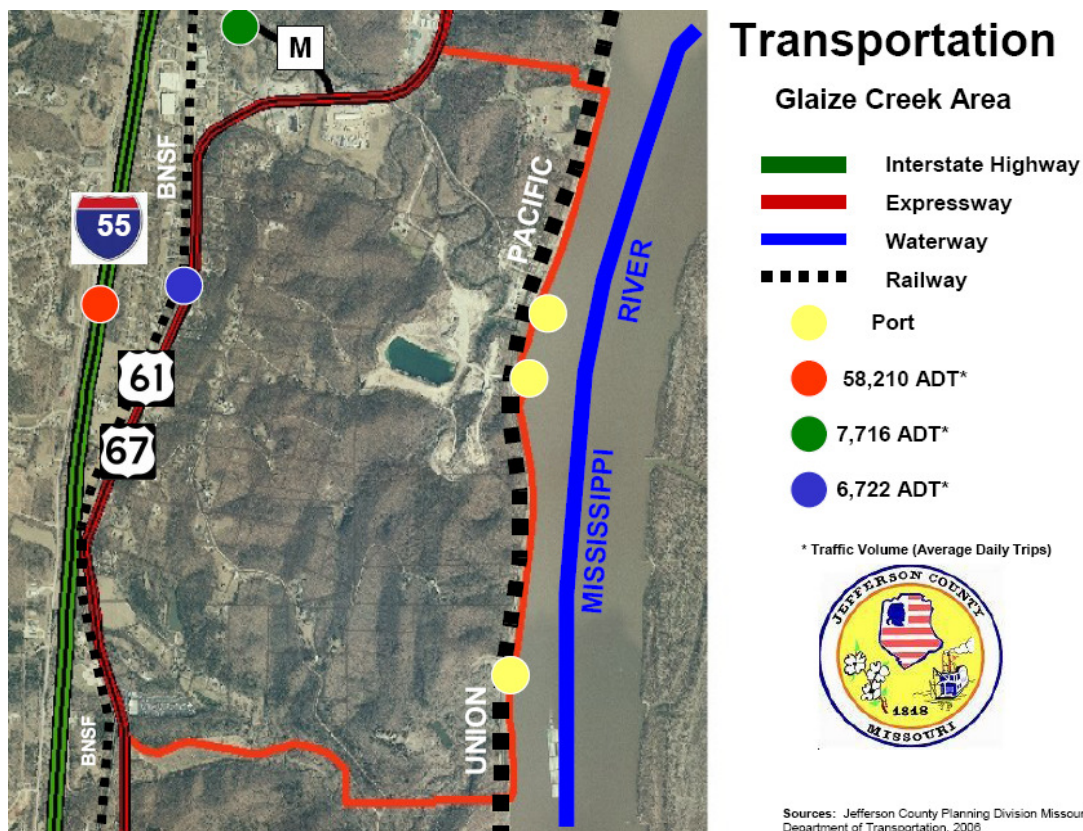
### Railways

The Union Pacific Railroad has a significant railway, which runs through the study area along the Mississippi River and connects with St. Louis to the north. There is also a Burlington Northern Santa Fe railway line located to the west, outside the study area near Highway 61-67 and Interstate 55.

According to Union Pacific, Missouri is home to the nation's second and third largest rail centers, Kansas City and St. Louis, with important east-west and north-south corridors meeting in St. Louis. The state hosts about 85 Union Pacific trains each day. Major commodities handled by Union Pacific in Missouri include automobile parts, aggregates, coal, chemicals, grain and general merchandise. The company has 1,530 miles of track and 2,907 employees in Missouri with an annual payroll of \$181.2 million.

Local residents indicate that AMTRAK passenger trains still continue to travel the railway along the Mississippi River.

**Exhibit No. 31**  
**Transportation**



## Special Transportation System Designations

There are a number of special designations for local transportation routes. These designations may already bring additional visitors or attention to these routes. They may also have the potential to draw additional visitors or attention in the future.

### ***Great River Road***

Interstate 55 to the west of the study area and Highway 61-67 to the south of the study area are designated as part of the “Great River Road” and are included in the Federal Highway Administration’s (FHWA) National Scenic Byways Program. The Great River Road was designated by FHWA and is promoted by the multi-state Mississippi Parkway Commission in order to preserve, promote, and enhance the scenic, historic, and recreational resources of the Mississippi River; to foster economic growth in the corridor; and to develop the national, scenic and historic parkway known as the Great River Road (Exhibit No. 32).

### ***Mississippi River Trail***

The Mississippi River Trail (MRT) is an on-road trail about 3,000 miles in length leading through ten states from Lake Itasca in Minnesota to the Mississippi River Delta in Louisiana. The project was started in 1996 and is 60% complete. Millions of dollars from state and federal government have been invested in the trail. The MRT is a unique way to experience the Mississippi River’s natural wonders, transportation system, recreational facilities and cultural heritage (Exhibit No. 31).

## Exhibit No. 32 Special Transportation Designations



### ***Other Designations***

House Bill 56, approved in 2007 designated Highway 61-67 in the Barnhart area as the "1922 Sulphur Springs Rail Disaster Memorial Highway".

A Corridor Management Plan (CMP) is also being prepared which includes Highways 21 and M. The CMP is a written plan developed in conjunction with a proposed scenic byway to protect and enhance the byway's intrinsic qualities and character. The intrinsic qualities of the corridor fall into six basic categories: natural, recreational, scenic, historic, cultural, and archaeological.

## **Utility Infrastructure**

### **General**

Utility infrastructure like transportation infrastructure can be very important. Land use suitability can often be determined by the access to utilities and the potential for future extension of utilities. A summary of general availability of utilities in the area is shown in Exhibit No. 33.

### **Water**

The study area is located within the Jefferson County C-1 Water District, which has a 300,000 gallon elevated storage tank located within the study area. Access to the public water supply system is available to parcels within the study area and the district is responsible for maintenance to the system. However, the cost of extending water mains, service lines, or otherwise expanding the system would be the responsibility of the individual property owners or developers in most cases. The capacity of the system in the study area is adequate for the foreseeable future if conditions do not change significantly. Pipe upgrades or additional tank storage would be necessary if major growth was to occur.

### **Sewer**

A wastewater treatment plant owned by the Glaize Creek Sewer District is located in the northwestern portion of the study area. The plant is designed to handle 1.9 million gpd (gallons per day) and typically handles approximately 700,000 gpd. Sanitary sewer service, however, is not directly available to most of the area. Only a small portion of the study area near the sewage treatment plant is actually located within the Glaize Creek Sewer District and served by public sewers. Most of the study area is not located within a sewer district. The cost of extension of sewer service lines is typically relatively high and generally the responsibility of individual private property owners. The capacity of the sewer system should be adequate for many years to come unless major growth occurs or a very large volume user connects to the system.

### **Natural Gas**

The nearest natural gas infrastructure (Laclede Gas Company) is located at least a mile from the study area to the west of Interstate 55. The cost of extending gas infrastructure would be high, and it would be the responsibility of individual property owners or developers. Unless a development using a large enough volume of natural gas to justify the cost of extension of service to the study area is proposed, improvements by the gas company are unlikely.



## Exhibit No. 33 Utilities



## Public Utilities

### Glaize Creek Area

- Public Sewer Service
- Sewage Treatment Plant
- - - Approximate Sewer District Boundary
- Water Tower

No Natural Gas in Study Area



Source: Jefferson County Planning Division

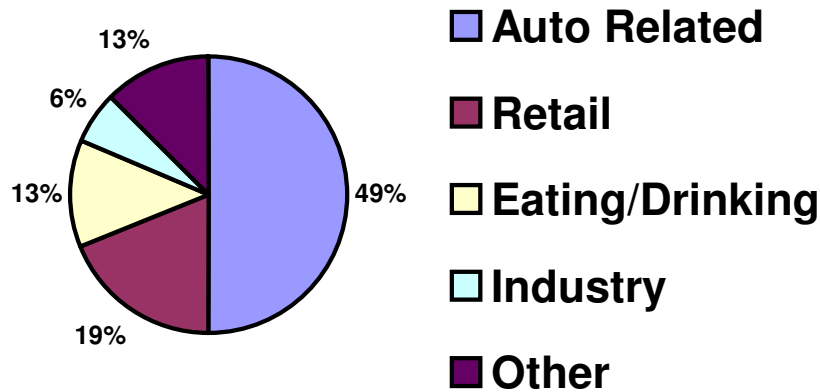
## Business and Industry

### General

There are 16 businesses in the study area (Exhibit No. 34) and most are commercial in nature. However, there is a bulk fuel storage site in Sulphur Springs that is more of an industrial business. There are eight automobile related businesses, one of which is an automobile auction center. There is a restaurant and custard shop. There is not a general retail business in the area, but there is a hardware store and a grocery store.



**Exhibit No. 34  
Business and Industry**



Source: Jefferson County Planning Division Staff



[www.mississippiriverhills.org](http://www.mississippiriverhills.org)

While tourism does not appear to be a major industry within the study area, opportunities are available. Efforts are already underway to promote tourism in the region that includes nearby attractions.

**Mississippi River Hills & Missouri Regional Cuisines**

A region known as “Mississippi River Hills” which includes Jefferson County is being promoted by an organization known as the Mississippi River Hills Association (MRHA). The non-profit MRHA organization works to promote, protect, enhance and market the agricultural products, foods, wines, arts, crafts, sites and services within the region. The organization strives to enhance the economic, cultural, historical, and educational value of the region. There are no MRHA members located within the study area, but those located near the study area The Blue Owl Café, Mastodon State Park, The Big Pevely Flea Market, and Bobby Tom’s Barbecue. A University of Missouri Extension program known as the Missouri Regional Cuisines program is also being piloted within the Mississippi River Hills in cooperation with MRHA.

# ANALYSIS

## General

The study area, in general, is very challenging in terms of development. Most of the area has no natural gas or sanitary sewer service. Extension of natural gas and sanitary sewer utilities is not cost-effective under existing circumstances. Traffic volume and population density in the area are low.

Evidence of historic and natural resources in the area is observable, but the value of these resources is not easily measured. A conflict exists between aboveground and underground resources due to the value or perceived value of each. The underground resources such as limestone have potential market value. The aboveground resources have real and perceived value that is not easily measured. There are several major options for the study area moving forward.

## Development

If significant development is desired within the study area, there appear to be two primary means of achieving it.

1. Public Investment in Infrastructure, or
2. Attracting a Large Destination Use

### ***Public Investment in Infrastructure***

Growth in the area could be stimulated through public investment in infrastructure. Although the risk associated with such investment may be high, an appropriate opportunity for such an investment may be difficult to find. Even if extensive growth in the area is not desired, some degree of public investment options may be appropriate simply to reduce the use of private sewage disposal for existing development in the area. Some general examples of potential financing or funding for public improvements in the area include but are not limited to:

1. General Obligation Bonds
2. Revenue Bonds
3. Authorities or Special Districts
4. Tax Increment Financing
5. Neighborhood Improvement District
6. Community Improvement District
6. Special Assessments
7. Capital Improvements Sales Tax
8. Lease-Purchase
9. Joint Financing
10. Grants

Some more specific examples of funding or financing sources include:

1. United States Department of Agricultural (USDA), Rural Development Grants or Loans.
2. United State Department of Housing and Urban Development, Community Development Block Grant.
3. Missouri Department of Natural Resources Grants or Loans.
4. State / Federal Emergency Management Hazard-Mitigation Funding.

### ***Attracting a Large Destination Use***

In order for the community to see significant development in the area without public investment, a very large destination use such as the casino that was formerly proposed in the area would be necessary. Even with the prospect of a large destination use, some public investment may be necessary. Public investment can sometimes be the determining factor between whether a large destination use chooses one community or another. The existing major commercial centers in Festus and Arnold also create a significant challenge to establishing new large-scale commercial development in or around the study area.

### **Small Business**

There is a small group of viable existing businesses in the area. Survey results indicate residents are likely to patronize these businesses. Highway 61-67 and Interstate 55 nearby provide excellent potential for small business growth in the area. The Mississippi River Hills and Missouri Regional Cuisines projects could be used to promote small businesses in and around the study area. At the time of this study, no businesses in the study area were members of the Mississippi River Hills Organization. Even without the addition of a major attraction in the study area, local businesses could receive more exposure to nearby residents and tourists visiting attractions such as Mastodon State Park and Historic Kimmswick.

### **Preservation**

If the community wishes to see the area preserved as primarily residential and recreational or open space purposes, it should not be too challenging to identify desirable resources to preserve. While beyond the scope of this study, identification of all the historical and natural resources and wildlife that potentially exist in the area could easily lend the area to remaining largely rural residential and open space for decades to come. Many survey respondents were interested in preservation of more open space in the area. However, not as many were interested in paying additional taxes or fees to pay for such open space. Recreational use of the area could be public open space or some type of private commercial recreational facilities that preserve the area's character.

## Quarrying

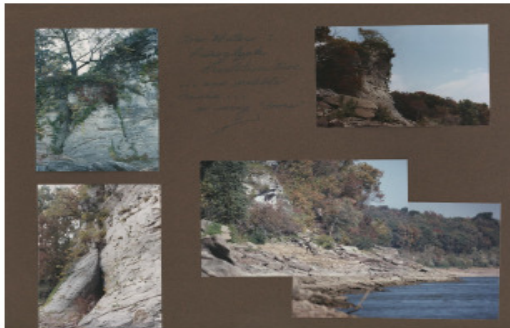
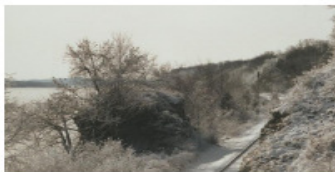
One of the most significant questions that need to be answered regarding this area seems to be whether or not to allow continuation of quarrying beyond what has already been approved. The issue of whether to allow quarrying in this area or strictly preserve the area is complex and controversial. The community and the County Commission must ultimately determine the appropriate actions with regards to this type of land use in the area. Quarrying is almost certain to occur at some point in the future on the Bussen Quarry property because the company already has proper zoning approvals for the use. Only a part of the property is being preserved through private agreement with Bruce and Cynthia Pitsinger. It is very likely that a future request will be made to re-establish quarry operations on the Martin-Marietta property.

## Conflicting Resources

The resources aboveground in the study area such as open space seem to have the most real or perceived value to the community. The resources underground in the study area, particularly limestone, seems to have the most real or perceived value to the market. This study area is still presently in the midst of an issue that remains unsettled—preservation or quarrying? (Exhibit No. 35). There is at least one major challenge to preservation efforts and that is the potential market demand for rich limestone deposits that lie underground in this area. There is at least one major challenge to quarrying in the area and that is the desire by many area residents for the area to remain undisturbed by any additional quarrying.

### Exhibit No. 35 Conflicting Resources

#### ABOVE-GROUND



## RESOURCES

#### UNDERGROUND



Sources: Bruce and Cynthia Pitsinger, Planning Staff, and Google Earth

## SWOT Analysis

Staff sought to identify the strengths, weaknesses, opportunities, and threats related to the study area that would affect the objective of the study (Exhibit No. 36). The Advisory Committee members were also consulted and asked to comment on their perceptions of these issues.

### Exhibit No. 36 Summary of S.W.O.T. Analysis

**Objective:** Identify several sound alternatives that promote the most environmentally sound, economically viable, and logical land uses for the area in the future

	Helpful to achieving the objective	Harmful to achieving the objective
Internal Origin	<b>STRENGTHS</b>  Low Traffic Volume  Good Highway Infrastructure (Highway 61-67 and access to I-55)  Mississippi River and Glaize Creek  Other Natural Resources  Historical Resources  Rail Access  Small Ports Feasible  Mineral Resources  Lack of "Rooftops" (Low Population)  Undeveloped Land	<b>WEAKNESSES</b>  Low Traffic Volume  Access to I-55 Inconvenient  Poor Local Street Infrastructure  Lack of Utility Infrastructure  Rough Terrain / Topography  Soil Conditions  Rail Access  Major Ports Impractical  Lack of "Rooftops" (Low Population)  Floodplain
	<b>OPPORTUNITIES</b>  Potential changes to I-55 / Highway M  Interest in Quarry Operations  Mississippi River Trail  El Camino Real  Mississippi River Hills  Waterway Traffic – Mississippi River  Official Master Plan Primary & Secondary Growth Area	<b>THREATS</b>  Potential changes to I-55 / Highway M  Interest in Quarry Operations  Flooding from Mississippi River and Glaize Creek  Major Retail Centers Festus & Arnold  Minor Retail Interstate Centers at Imperial Main & Herculaneum
External Origin		

# ALTERNATIVES

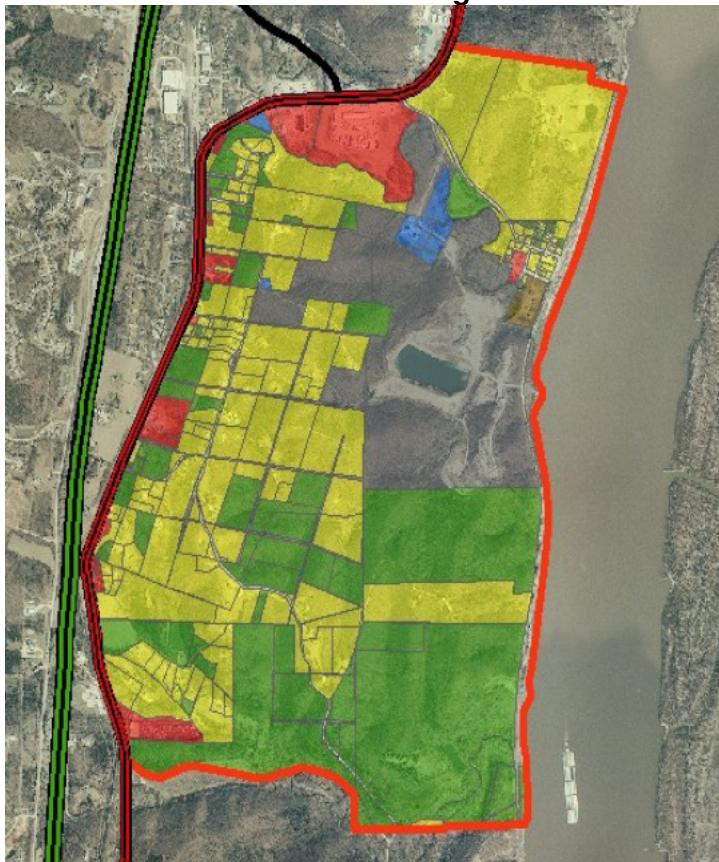
## General

Staff considered several potential alternatives for future land uses within the study area, based on staff's observations, recommendations of the Advisory Committee, and input from the public.

## Existing Land Use – No Changes

The first of the alternatives considered was an alternative in which no changes occur in the study area, and that land uses in the area remain the same indefinitely. However, a majority of land is owned by quarry companies, so a “no change” alternative is probably unlikely.

Exhibit No. 37  
Existing Land Use - No Changes



## Existing Land Use

Glaize Creek Area

- Commercial
- Industrial
- Residential
- Open Space or Undeveloped
- Public or Government
- Martin-Marietta Property



Source: Jefferson County Planning Division

**Exhibit No. 38  
Existing Land Use - No Changes  
S.W.O.T. Analysis**

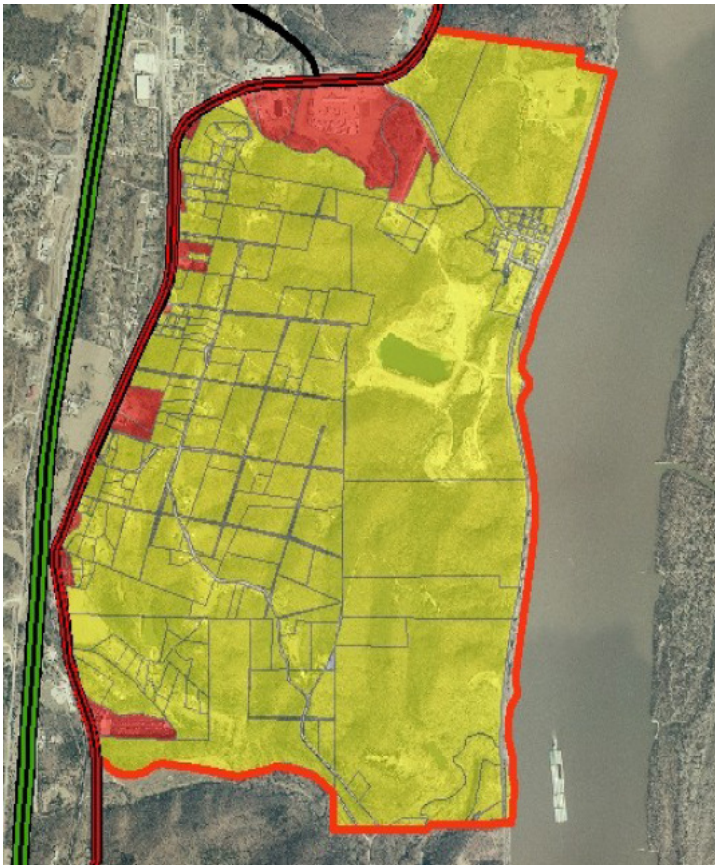
	Helpful to achieving the objective	Harmful to achieving the objective
<b>Internal Origin</b>	<b>STRENGTHS</b> <p>Preserves Rural Character</p> <p>Preserves aboveground resources</p> <p>Preserves water resources</p> <p>Limits quarrying opportunities</p> <p>Continued low population (rooftops)</p> <p>Provides open space</p>	<b>WEAKNESSES</b> <p>Limits quarrying opportunities</p> <p>Continued low population (rooftops)</p> <p>Water resources not used for recreational, commercial, or industrial purposes</p> <p>Limits commercial development</p> <p>Limits industrial development</p> <p>Does not promote historical resources</p>
<b>External Origin</b>	<b>OPPORTUNITIES</b> <p>Potential for some new commercial development along 61/67</p> <p>Mississippi River Trail</p>	<b>THREATS</b> <p>Limited opportunities for new industrial development</p> <p>Limits opportunities for new infrastructure</p> <p>Success of other major commercial centers along the I-55 corridor</p>



## Future Land Use Alternative 1

Staff considered the input of the area residents, homeowners, business owners, and business property owners on the first area survey. A land use alternative was then developed which staff believed represented that public input in theory. The area would be mostly residential and open space, except for the existing commercial land uses.

**Exhibit No. 39**  
**Future Land Use Alternative 1**



## Future Land Use Alternative

Glaize Creek Area

- Commercial
- Residential / Open Space



Source: Jefferson County Planning Division



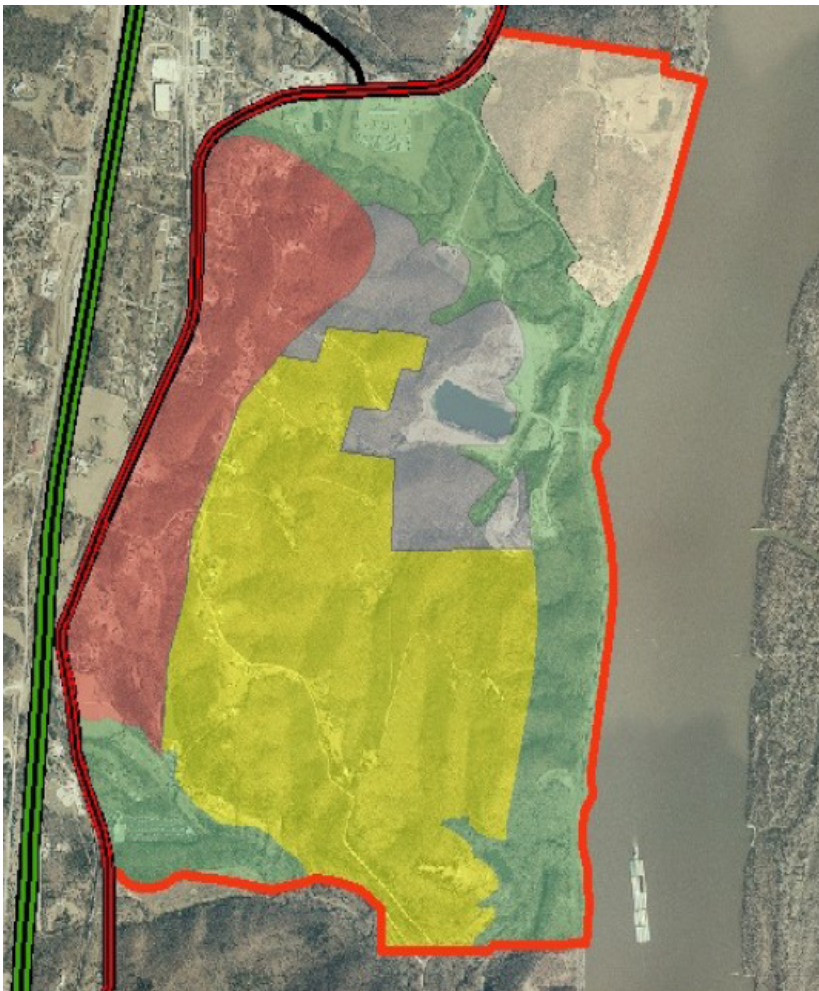
**Exhibit No. 40**  
**Future Land Use Alternative 1**  
**S.W.O.T. Analysis**

	Helpful to achieving the objective	Harmful to achieving the objective
<b>Internal Origin</b>	<b>STRENGTHS</b>  Preserves Rural Character  Continued low population (rooftops)  Helps protect water resources  Open Space	<b>WEAKNESSES</b>  Limits commercial development  Limits quarry opportunities  Residential development and Open Space only along the railroad and river ports  Limits quarrying opportunities  Continued low population (rooftops)  Water resources not used for recreational, commercial, or industrial purposes  Limits commercial development  Limits industrial development  Does not promote historical resources
<b>External Origin</b>	<b>OPPORTUNITIES</b>  More of the Area Preserved  Mississippi River Trail  Potential for some tourism or interest from outside in open space, natural & historic resources	<b>THREATS</b>  Limited opportunities for new industrial development  Limits opportunities for new infrastructure  Success of other major commercial centers along the I-55 corridor

## Future Land Use Alternative 2

Staff began considering the various features such as the significant floodplain within the study, topography, transportation infrastructure, and the existing conditions in the area. Future Land Use Alternative 2 was developed to represent a plan that reflects those conditions and characteristics. Staff also considered the possibility that Sulphur Springs may have historic value that could be used to create some type of historic district. Staff sought to maximize the use and valued land according to its characteristics and resources. Little consideration was given to locations of existing commercial or industrial uses. The Martin-Marietta property was proposed to be quarried and later reclaimed as open space.

**Exhibit No. 41**  
**Future Land Use Alternative 2**



## Future Land Use Alternative

### Glaize Creek Area

- Commercial / High Density Residential
- Residential / Open Space (Large Lot Rural Residential)
- Open Space / Undeveloped
- Residential / Historic
- Quarry To Later Be Reclaimed as Open Space



Source: Jefferson County Planning Division

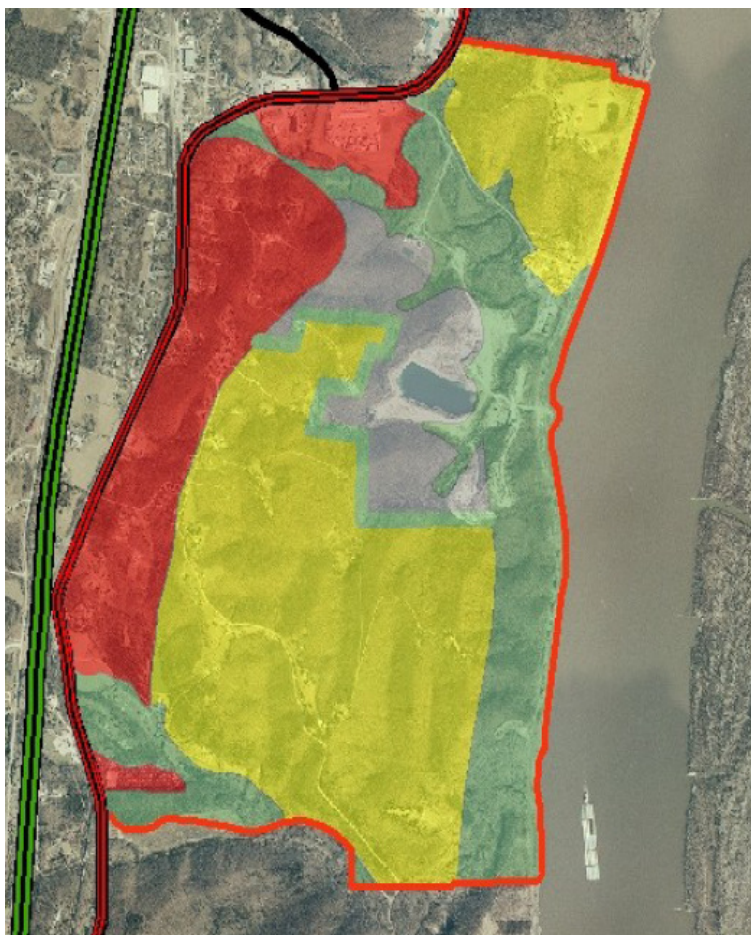
**Exhibit No. 42**  
**Future Land Use Alternative 2**  
**S.W.O.T. Analysis**

	<b>Helpful to achieving the objective</b>	<b>Harmful to achieving the objective</b>
<b>Internal Origin</b>	<p style="text-align: center;"><b>STRENGTHS</b></p> <p>Promotes significant commercial growth</p> <p>Provides for open space</p> <p>Increased population (rooftops)</p> <p>Limits development in the floodplain</p> <p>Helps protect water quality</p> <p>Promotes recreational use of water resources</p>	<p style="text-align: center;"><b>WEAKNESSES</b></p> <p>Promotes an unrealistic level of commercial and high-density residential development along Highway 61/67</p> <p>Does not adequately consider existing commercial land use</p> <p>Does not promote commercial or industrial use of water resources</p> <p>Increased population (rooftops)</p>
<b>External Origin</b>	<p style="text-align: center;"><b>OPPORTUNITIES</b></p> <p>Quarrying operations</p> <p>Promotes tourism or interest from outside the area in open space, natural and historic resources</p> <p>Commercial growth</p> <p>Improved utility infrastructure</p> <p>Open Space along Glaize Creek and Mississippi River</p> <p>Eventual reclamation of quarried property for open space</p> <p>Mississippi River Trail</p> <p>Promotion of the area through Mississippi River Hills Association</p> <p>El Camino Real</p> <p>Increased population (rooftops)</p>	<p style="text-align: center;"><b>THREATS</b></p> <p>Quarrying Operations</p> <p>Commercial growth</p> <p>Potential Changes to I-55 / Highway M interchange</p> <p>Success of other major commercial centers along the I-55 corridor</p>

### Future Land Use Alternative 3

In this alternative the idea of Sulphur Springs as an historic district was replaced with residential and open space. Additional open space was shown around the Martin-Marietta property. That property was proposed to be quarried and later reclaimed for open space. Some consideration was given to the existing commercial uses along Highway 61-67. Additional commercial and high-density residential uses were proposed along the highway based on the terrain located there.

**Exhibit No. 43**  
**Future Land Use Alternative 3**



### Future Land Use Alternative

#### Glaize Creek Area

- Commercial / High Density Residential
- Residential / Open Space (Large Lot Rural Residential)
- Open Space / Undeveloped
- Quarry To Later Be Reclaimed as Open Space



Source: Jefferson County Planning Division

**Exhibit No. 44**  
**Future Land Use Alternative 3**  
**S.W.O.T. Analysis**

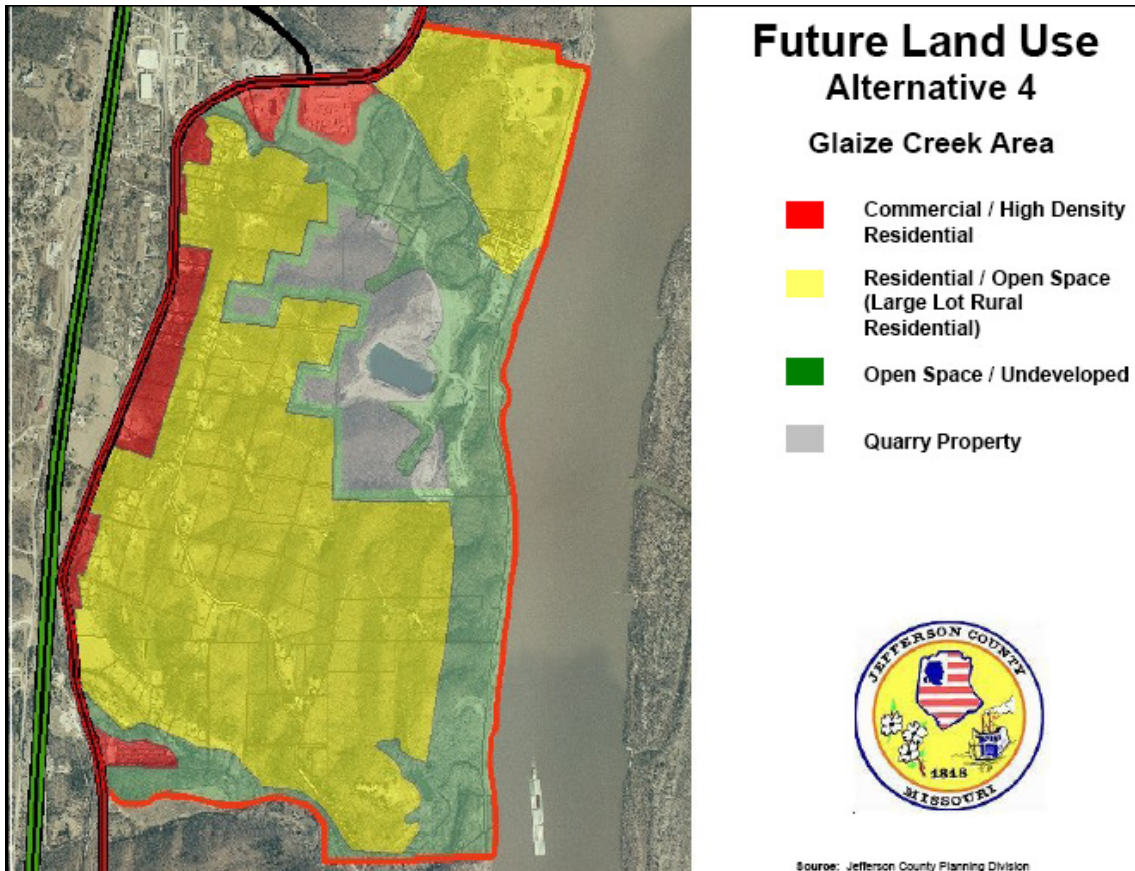
	Helpful to achieving the objective	Harmful to achieving the objective
<b>Internal Origin</b>	<b>STRENGTHS</b> <p>Promotes commercial development</p> <p>Provides open space</p> <p>Recognizes current commercial land uses along Highway 61-67</p> <p>Promotes recreational use of water resources</p> <p>Provides buffer from Martin-Marietta property to adjoining residential uses</p> <p>Helps protect water quality</p> <p>Increased population (Rooftops)</p>	<b>WEAKNESSES</b> <p>Promotes an unrealistic level of commercial and high-density residential development along Highway 61/67</p> <p>Does not promote commercial or industrial use of water resources</p> <p>Increased population (rooftops)</p> <p>No benefits from historic recognition for Sulphur Springs</p>
<b>External Origin</b>	<b>OPPORTUNITIES</b> <p>Commercial development along 61/67</p> <p>Quarrying operations</p> <p>Promotes tourism or interest from outside the area in open space, natural and historic resources</p> <p>Open Space along Glaize Creek and Mississippi River</p> <p>Eventual reclamation of quarried property for open space</p> <p>Mississippi River Trail</p> <p>Promotion of the area through Mississippi River Hills Association</p> <p>Increased population (rooftops)</p>	<b>THREATS</b> <p>Quarrying Operations</p> <p>Commercial growth</p> <p>Potential Changes to I-55 / Highway M interchange</p> <p>Success of other major commercial centers along the I-55 corridor</p>



### Future Land Use Alternative 4

The Glaize Creek Advisory Committee thought that the area would not see nearly as much commercial growth as proposed in the prior alternatives. Concerns about populations density and traffic volume were raised that lead staff to believe that the Commercial / High Density Residential area along Highway 61-67 should be reduced. Various uses for the Martin-Marietta property were to be considered in conjunction with this alternative therefore there the use of the property is not indicated. More detailed alternatives were developed and discussed with the committee for this property (Exhibits 47-54). Preservation of open space was also prioritized in this alternative.

**Exhibit No. 45**  
**Future Land Use Alternative 4**





**Exhibit No. 46**  
**Future Land Use Alternative 4**  
**S.W.O.T. Analysis**

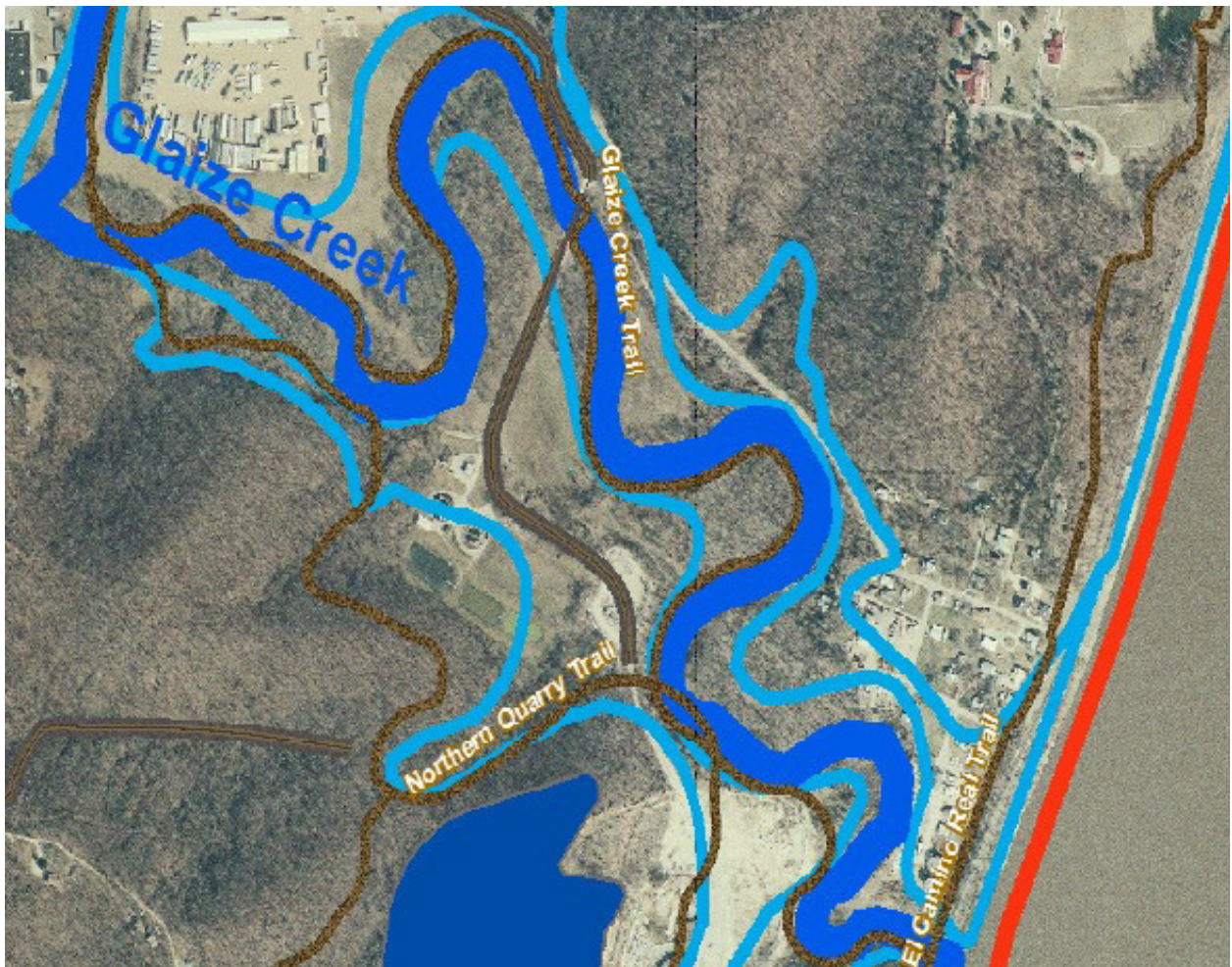
	Helpful to achieving the objective	Harmful to achieving the objective
<b>Internal Origin</b>	<p style="text-align: center;"><b>STRENGTHS</b></p> <p>Broad flexibility for Martin-Marietta property</p> <p>Provides for a reasonable level of commercial development along Highway 61-67</p> <p>Provides a buffer between residential and the Martin-Marietta property</p> <p>Provides for open space and preserves floodplain</p> <p>Allows for recreational or commercial / industrial use of water resources</p> <p>Increased population (Rooftops)</p>	<p style="text-align: center;"><b>WEAKNESSES</b></p> <p>Limits commercial development</p> <p>No recognition of potential historic designation for Sulphur Springs</p>
<b>External Origin</b>	<p style="text-align: center;"><b>OPPORTUNITIES</b></p> <p>Range of possibilities for tourism or interest from the outside in natural resources, open space, or other attractions.</p> <p>Open space along Glaize Creek and the Mississippi River</p> <p>Mississippi River Trail</p> <p>Promotion of the area through Mississippi River Hills Association</p> <p>Increased population (Rooftops)</p>	<p style="text-align: center;"><b>THREATS</b></p> <p>Potential Quarrying</p> <p>Could limit or promote excessive commercial growth depending on outcome.</p> <p>Potential Changes to I-55 / Highway M interchange</p> <p>Success of other major commercial centers along the I-55 corridor</p>

### Detailed Alternatives

Staff developed several detailed alternatives (Exhibits No. 47-54) that were discussed with the Advisory Committee for the Glaize Creek Area Study during its second meeting. These were primarily considered particularly in conjunction with Land Use Alternative 4, but could be within the context of many different scenarios.

#### Exhibit No. 47

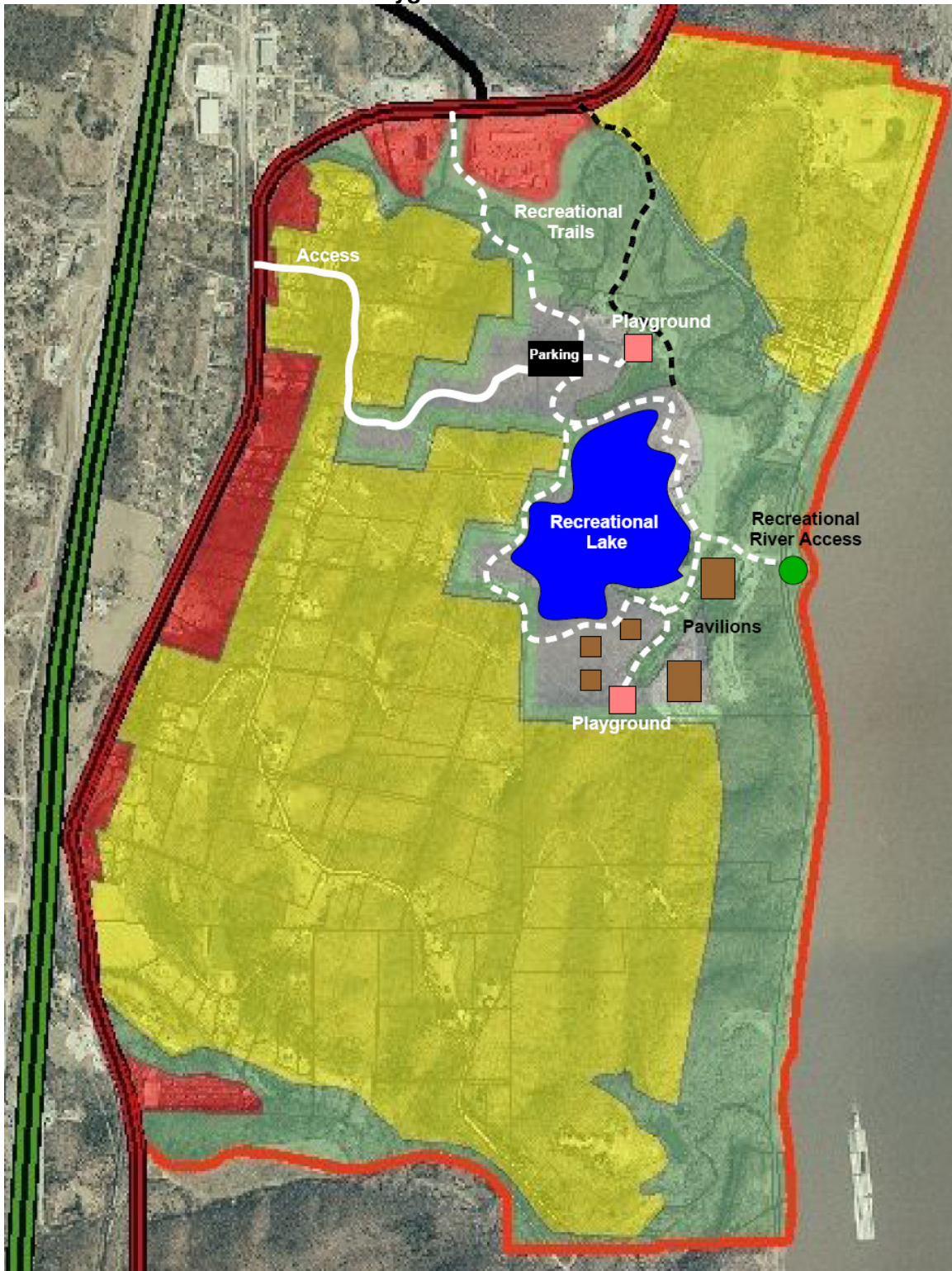
#### Glaize Creek Trail – Trail System



Recreational Trails along Glaize Creek, on the Martin-Marietta Property  
and along the route of the El Camino Real



**Exhibit No. 48**  
**Playground / Pavilion**

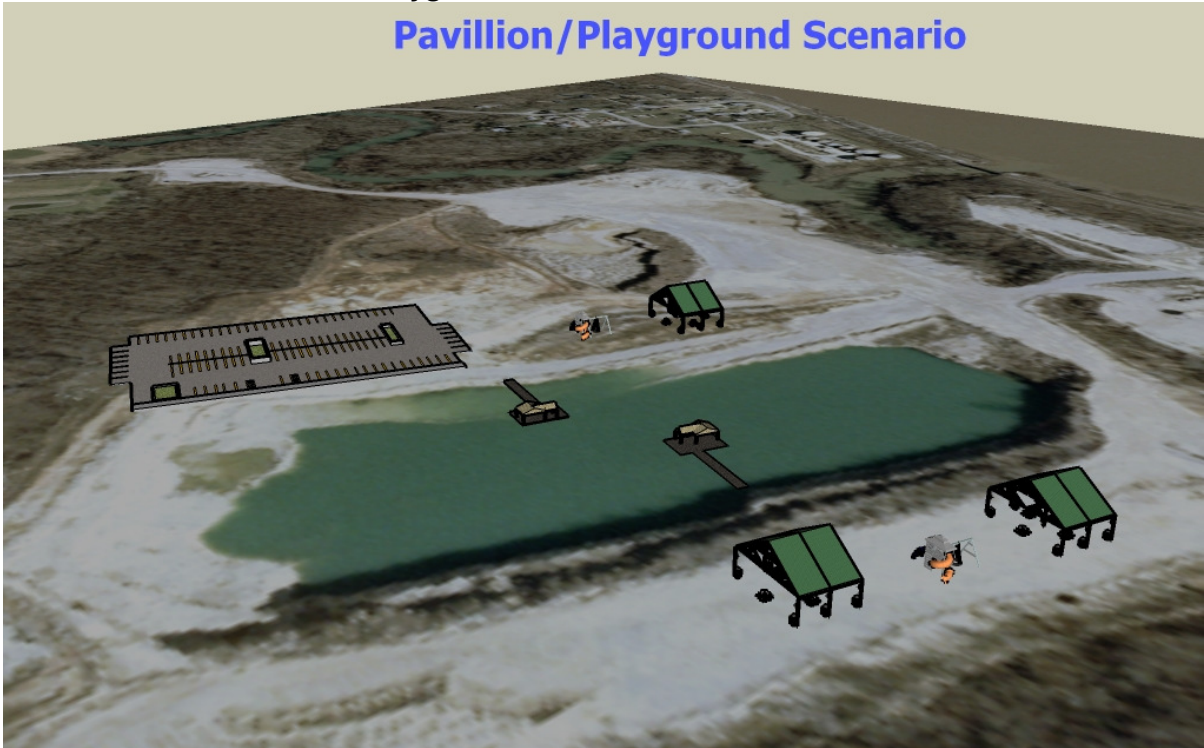


Recreational facilities including trails, pavilions, playgrounds and river access, possibly after additional quarrying on the Martin-Marietta Property.



**Exhibit No. 49**  
**Playground / Pavilion Scenario**

**Pavillion/Playground Scenario**



A recreational scenario with no additional quarrying.

**Exhibit No. 50**  
**Residential Reclamation of Quarry Property**

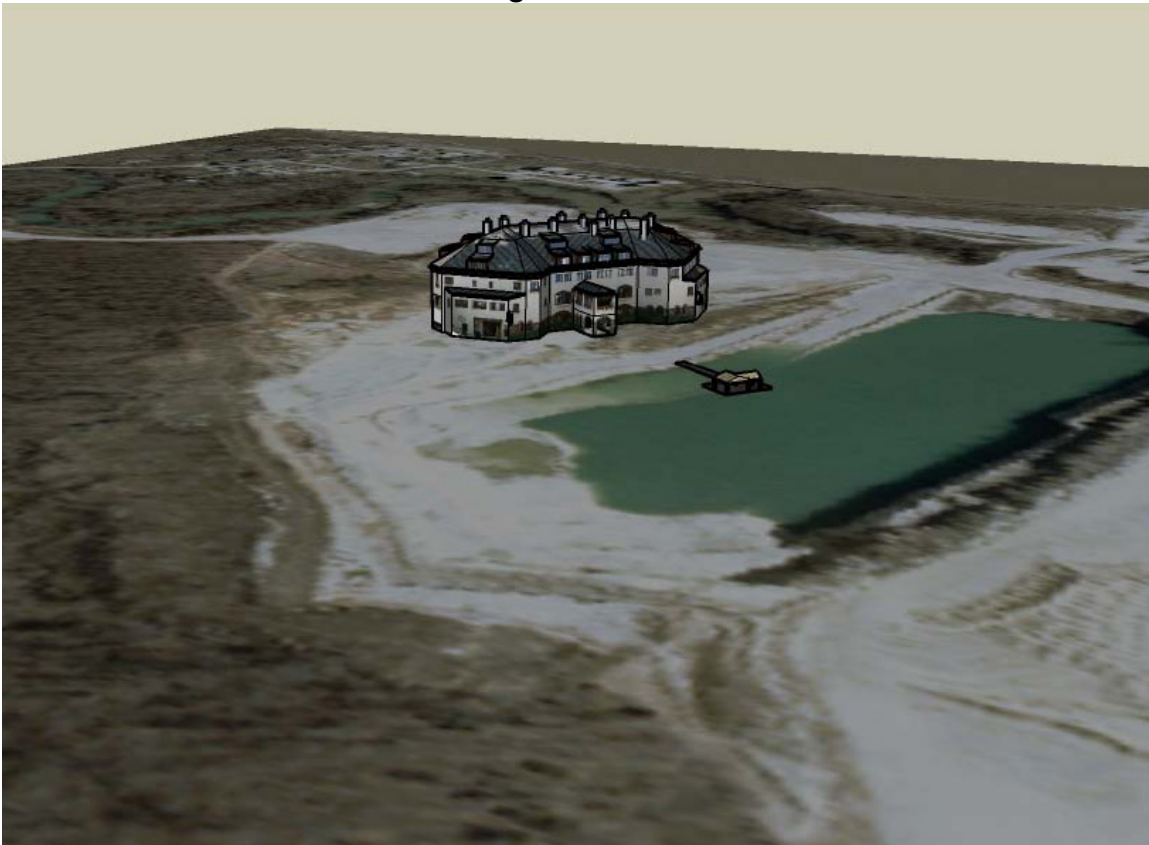


**Exhibit No. 51  
Amusement Park  
Large-Scale Recreational Use**



Six Flags Fiesta, San Antonio, TX  
A Reclaimed Martin Marietta Quarry Site.  
[www.martinmarietta.com](http://www.martinmarietta.com)

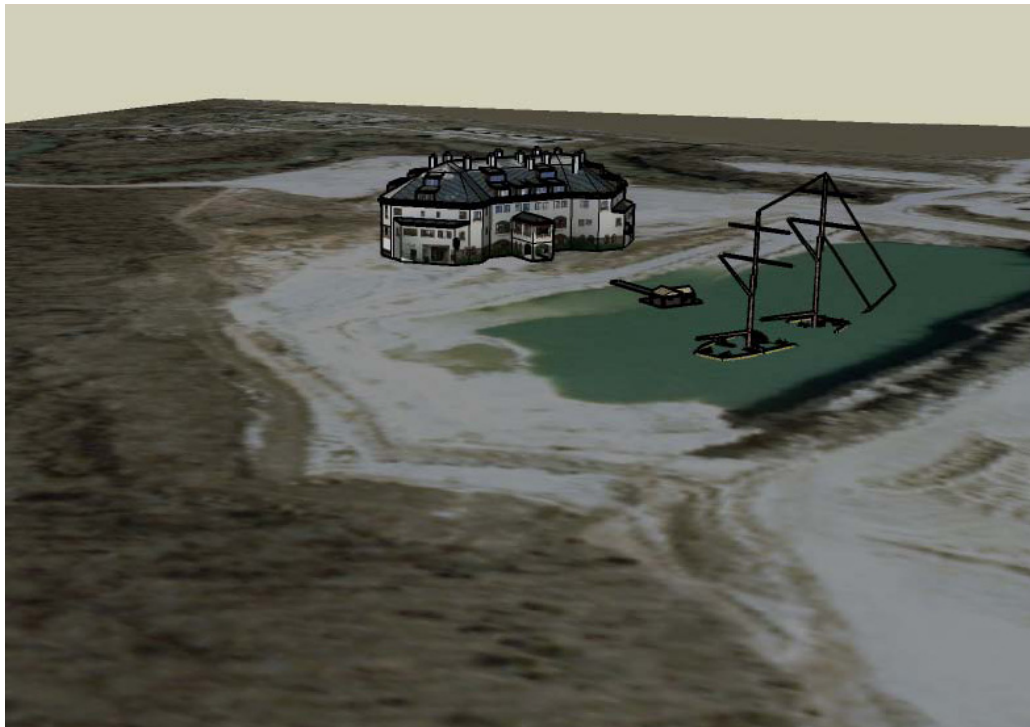
**Exhibit No. 52  
Lodge Alternative**



A commercial recreational lodge on the  
Martin-Marietta Property.

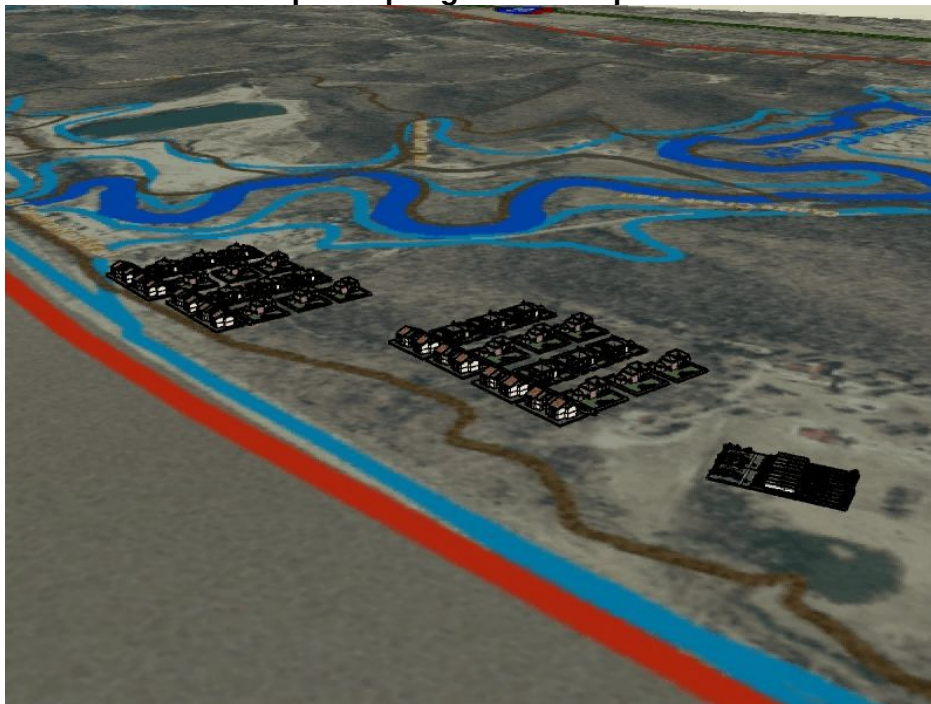


**Exhibit No. 53**  
**SCUBA Park**



A recreational lodge and SCUBA park on the Martin-Marietta Property.

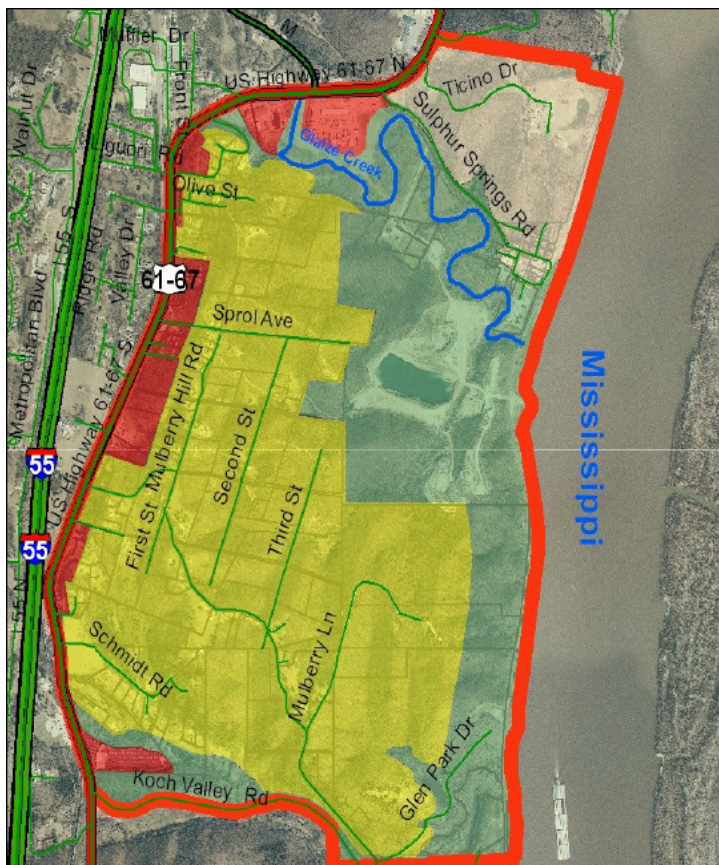
**Exhibit No. 54**  
**Sulphur Springs Redevelopment**



## Future Land Use Alternative 5

Staff developed a fifth alternative after conducting a second survey of area residents, residential property owners, business owners, and business property owners. The results of the survey implied that the respondents were interested in seeing rural residential, preservation of open space, recreational area, existing and some future commercial uses, reduced industrial uses, and possibly some historic designation for Sulphur Springs. High density residential was removed from this alternative. Existing and small areas of future commercial growth were emphasized. Floodplain areas as well as the Martin-Marietta property are proposed to be Open Space or Undeveloped.

**Exhibit No. 55**  
**Future Land Use Alternative 5**



## Future Land Use Alternative 5

Glaize Creek Area

- Commercial
- Rural Residential
- Historic
- Open Space / Undeveloped



Source: Jefferson County Planning Division

**Exhibit No. 56  
Future Land Use Alternative 5  
S.W.O.T. Analysis**

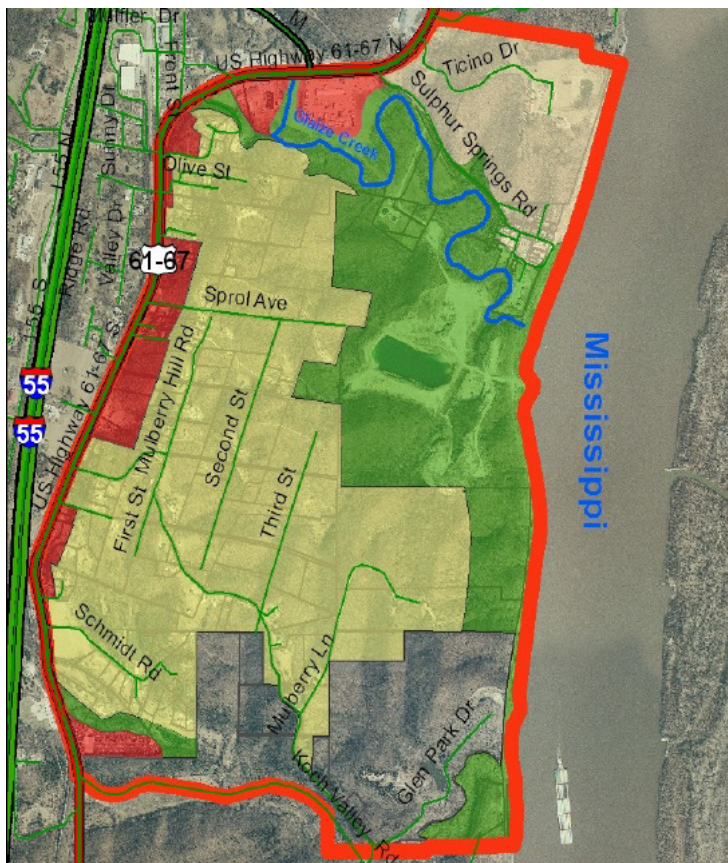
	Helpful to achieving the objective	Harmful to achieving the objective
<b>Internal Origin</b>	<p style="text-align: center;"><b>STRENGTHS</b></p> <p>Provides for a reasonable level of commercial development along Highway 61-67 with no high density residential</p> <p>Limits floodplain development</p> <p>Preserves open space and natural resources</p> <p>Limits quarrying opportunities</p> <p>Increased population (Rooftops)</p>	<p style="text-align: center;"><b>WEAKNESSES</b></p> <p>No high density residential</p> <p>Could limit commercial development</p> <p>Limits quarrying opportunities</p> <p>Not as significant of increase in population (rooftops)</p>
<b>External Origin</b>	<p style="text-align: center;"><b>OPPORTUNITIES</b></p> <p>Historic designation for Sulphur Springs</p> <p>Range of possibilities for tourism or interest from the outside in natural resources, open space, or other attractions.</p> <p>Open space along Glaize Creek and the Mississippi River</p> <p>El Camino Real</p> <p>Mississippi River Trail</p> <p>Promotion of the area through Mississippi River Hills Association</p> <p>Increased population (Rooftops)</p> <p>Potential changes to I-55 Highway M interchange</p>	<p style="text-align: center;"><b>THREATS</b></p> <p>Potential changes to I-55 / Highway M interchange</p> <p>Not as significant of increase in population (rooftops)</p> <p>Success of other major commercial centers along the I-55 corridor</p>



## Future Land Use Alternative 6

Staff developed a sixth alternative that like Alternative 5, considered the results of the second survey. Alternative 6 includes rural residential, preservation of open space, recreational area, commercial, reduced industrial uses, and possibly some historic designation for Sulphur Springs. However, the potential for the Bussen Quarry Company to begin operations on its property in the south part of the study area was taken into account.

**Exhibit No. 57**  
**Future Land Use Alternative 6**



## Future Land Use Alternative 6

### Glaize Creek Area

- Commercial
- Residential / Open Space (Large Lot Rural Residential)
- Open Space / Undeveloped
- Historic
- Bussen Quarry



Source: Jefferson County Planning Division

**Exhibit No. 58**  
**Future Land Use Alternative 6**  
**S.W.O.T. Analysis**

	Helpful to achieving the objective	Harmful to achieving the objective
<b>Internal Origin</b>	<p style="text-align: center;"><b>STRENGTHS</b></p> <p>Accounts for the probability that the Bussen Quarry that is already approved will someday operate</p> <p>Provides for a reasonable level of commercial development along Highway 61-67 with no high density residential</p> <p>Limits floodplain development</p> <p>Preserves some open space and natural resources</p> <p>Increased population (Rooftops)</p>	<p style="text-align: center;"><b>WEAKNESSES</b></p> <p>Quarry operations</p> <p>No high density residential</p> <p>Could limit commercial development</p> <p>Limits quarrying opportunities</p> <p>Not as significant of increase in population (rooftops)</p>
<b>External Origin</b>	<p style="text-align: center;"><b>OPPORTUNITIES</b></p> <p>Historic designation for Sulphur Springs</p> <p>Range of possibilities for tourism or interest from the outside in natural resources, open space, or other attractions.</p> <p>Open space along Glaize Creek and the Mississippi River</p> <p>Mississippi River Trail</p> <p>Promotion of the area through Mississippi River Hills Association</p> <p>Increased population (Rooftops)</p> <p>Potential changes to I-55 Highway M interchange</p>	<p style="text-align: center;"><b>THREATS</b></p> <p>Potential changes to I-55 / Highway M interchange</p> <p>Not as significant of increase in population (rooftops)</p> <p>Success of other major commercial centers along the I-55 corridor</p>



## **Implementation and Administration**

The purpose of this study was to inventory, analyze, and identify land use alternatives for the area in order to present alternatives that promote the most environmentally sound, economically viable, and logical land uses for the area in the future. While this study is not conclusive, it offers a range of potential alternatives for future land uses within the study area. In terms of implementation, one alternative may be chosen, or parts of multiple alternatives may be used together. It may be that none of the alternatives presented in this study include all the desired attributes. Additional study, analysis or evaluation of specific alternatives or concepts may be desired in the future. The community and the County Commission may use these alternatives to determine the future land uses for the area.

## **Addendum**

At the Planning and Zoning Commission meeting on October 23, 2008, this addendum was added to the Glaize Creek Area Study. It is an e-mail from Georgia Bartlett to Patrick Vaile, Jefferson County.

Patrick,

A comment that you made last Thursday evening regarding land use (specifically, quarrying—Martin-Marietta property) has bothered me. The comment may have been made in jest, yet it caused me to review the Simpson Materials Company's applications from last year.

I still cannot understand why the planning division staff recommended approval of the Simpsons' applications for industrial zoning and conditional uses. Such *intensive uses* are not appropriate or compatible for the area. Fortunately, both commissions denied the requests unanimously.

Presently, the county commission has requested that a special area study be done—the "Glaize Creek Area Plan." I would like to believe that the purpose of the study truly is to serve as an unbiased, realistic tool in planning the direction the county should be going with the entire Imperial, Kimmswick, Sulphur Springs, and Barnhart areas.

You gentlemen have a major role in this planning process, and I am encouraging you to develop guidelines and present ideas/uses that target the community and its families. What is needed is a good development plan that complements the Master Plan, meets the purpose and intent of the primarily residential area, and promotes and protects the health, safety, and general welfare of the community (ies). A desirable development plan is needed to serve as the catalyst for all future development in this area.

According to the last U.S. Census Bureau report, Jefferson County is one of the fastest growing and largest counties in the state in terms of population growth. I will fax this and other related county fact sheets from OSEDA to you. This particular area with the Interstate 55/Hwy M corridor, Metropolitan Blvd, and Hwy 61-67 is about to experience *major growth*. Emphasis should be placed on promoting a positive image and identity, one that improves the overall character and quality of our county.

Thereby, I take this opportunity to reiterate the community's positions that we upheld in opposition to the rezoning and the casino proposal in 2002-2004 and then again in opposition to the Simpson's applications in 2006 regarding the Martin-Marietta property. This property is only a portion of the study area, but is the main focus. Right?

The days of quarrying and mining the M-M property should be over—there are 7 other quarries within a 15-mile radius already. Just because a land area has been used for a specific purpose in the past does not mean that the same usage should continue. Also, asphalt/concrete plants do not meet desirable development characteristics. **It is time to move beyond these activities and go forward!**

The Missouri Department of Natural Resources Land Reclamation Commission shows that a maximum of 88 acres of this parcel has been quarried. The remaining 175 acres are woodlands. The disturbed area is reclaimable. The lay of the land is rolling hills; the lake is beautiful and could be utilized. I am faxing a copy of the site information and the

mine and reclamation plans that were filed with MO DNR in 1998. Martin-Marietta Materials, Inc. ceased quarrying operations on this property in 2000.

The “Glaize Creek Area” is a distinctive area. Much of it is riverfront property and large rural woodlands; contained within are springs, creeks, and lakes. It is prime real estate property. A portion should be made available for the use and enjoyment of the citizens of Jefferson County.

I encourage a development plan that is targeted toward family and community, recreational and leisure needs, protection, preservation, and conservation. The plan should enhance the area and should continue to make the area a good place to live and raise families. Everyone would reap the benefits if concerted efforts were put forth toward developing such a plan.

Public services such as utilities, water, and sewers could be provided. These services were feasible when the county officials accepted the casino proposal. “Where there’s a will, there is a way.” Grants, subsidies, T.I.F.’s/other could be investigated.

I am not a planner or developer and haven’t thought these ideas through, but for what they are worth, I offer the following suggestions for future land uses:

- State or county park/open space/picnic areas/gazebos/pavilions/tennis courts
- Hiking trails/ bicycle trails
- Overlook to the Mississippi (gazebo, deck, other)—turkeys, deer, bald eagles, the migration of martins, pelicans, Canadian geese
- Natural area—archaeology/geology
- Wildlife preserve
- Visitor Center/History Museum—mastodons/archaeological sites/petroglyphs & pictographs/the river/ the caves/Glaize Creek/medicinal sulphur springs water/El Camino Real/geology/wildlife/early settlements—Sulphur Springs, Glen Alan, Bushberg Landing/mulberry culture/mining/landmarks/Kohler City/historic homes and people/steamboats/Iron Mountain Railroad/Civil War/1922 train disaster
- Cultural Arts/Educational Center situated on river bluffs—photography, painting, music, dance, theater, classes, workshops, etc.
- Educational facilities—school/college
- Civic/Community Center; Conference/Banquet Center; Country Club
- Golf course with clubhouse
- Health/Fitness Club
- Theater
- Fine-dining restaurants with view of river
- Winery—(Bushberg Landing had wine-making establishment in 1860’s)
- Riverboat rides
- Amtrak railroad station
- Hotel

- Nursing/retirement/assisted living home
- Condominiums
- Residences

I have taken this opportunity to voice my opinions and concerns and to offer suggestions regarding the Glaize Creek Area study. I appreciate your consideration of my comments. Please keep me informed of the planning process.

Thank you, and take care.  
Georgia Bartlett