

# *Forward Siloam Springs*

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## **The Siloam Springs 2030 Comprehensive Plan** Ensuring Community Value and Excellence for Tomorrow





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## **The Siloam Springs 2030 Comprehensive Plan**

Ensuring Community Value and Excellence for Tomorrow

Final Draft  
February 2008

*Prepared by*  
City of Siloam Springs Community Development Department Staff  
and  
Planning Staff from Northwest Arkansas Regional Planning Commission

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## **I. EXECUTIVE SUMMARY**

*ForwardSiloamSprings* (Plan) is the City of Siloam Springs' (City) second Comprehensive Plan. The Plan replaces the Comprehensive Plan that was adopted in 1996 authored by RM Plan Group and differs from the 1996 plan by going more in depth on specific design and facility improvements. The Plan was completed by City planning staff and the staff of the Northwest Arkansas Regional Planning Commission. It is intended to be used as a goal oriented policy document as well as a guide for future real estate development in the community and planning areas.

The Plan's purpose is to act as a future roadmap for capital improvement programming, budgeting, development review process, zoning classifications, and the re-codification of the current Municipal Code of Ordinances (Code). All of these concepts would need to be implemented through separate dedicated approvals and adoptions through City ordinances and budgeting.

Each section of the Plan contains background information and existing conditions, specific goals, objectives needed to attain these goals, and applicable support policies. The Plan also sets general growth and planning concepts as determined through the community visioning sessions, the general assessment surveys, and the area's principal stakeholders. The scope of the Plan covers infrastructure, urban design, public facilities, economic development, attainable housing, circulation, and environmental stewardship.

The following is a generalized listing of the Plan's recommended goals and basic development and design concepts. See figure below for more details.

- Expand public facilities to meet future development needs, including electric, water, and wastewater services.
- Promote quality, livable, and modern urban design concepts in all developing and redeveloping areas.
- Ensure open space is maintained for the separation of communities and the preservation of rural/ agricultural landscapes.
- Develop concrete, workable, and flexible architectural design standards to ensure quality residential, commercial, and industrial building design.
- Develop a citywide landscaping plan that will address flexible landscaping and green space requirements for future public and private uses.
- Develop and enhance City gateways.
- Promote and require new regulations for historic resources within the National Register Downtown Historic District.
- Expand and enhance City parks and the Dogwood Trail, including pedestrian overpasses over U.S. Highway 412 (Hwy. 412).
- Plan for a new community hospital facility.
- Plan for the expansion of the Police and Fire Departments.
- Plan for the renovation of existing school facilities and for new facilities.

- Plan for the expansion and enhancement of other public and cultural facilities, including the Siloam Springs Public Library, Oak Hill Cemetery, Cecil Smith Airfield, Sager Creek Arts Center, and the Boys and Girls Club.
- Partner with the Chamber of Commerce to arrive at a strategic economic development plan for the City.
- Strive to meet the diverse economic needs of the community through providing strategies for attainable housing options for all residents.
- Develop a comprehensive and effective transportation system that includes roads, bike paths, sidewalks, and public transportation options.
- Ensure that environmentally sensitive lands and resources are protected through sound planning and environmental stewardship.

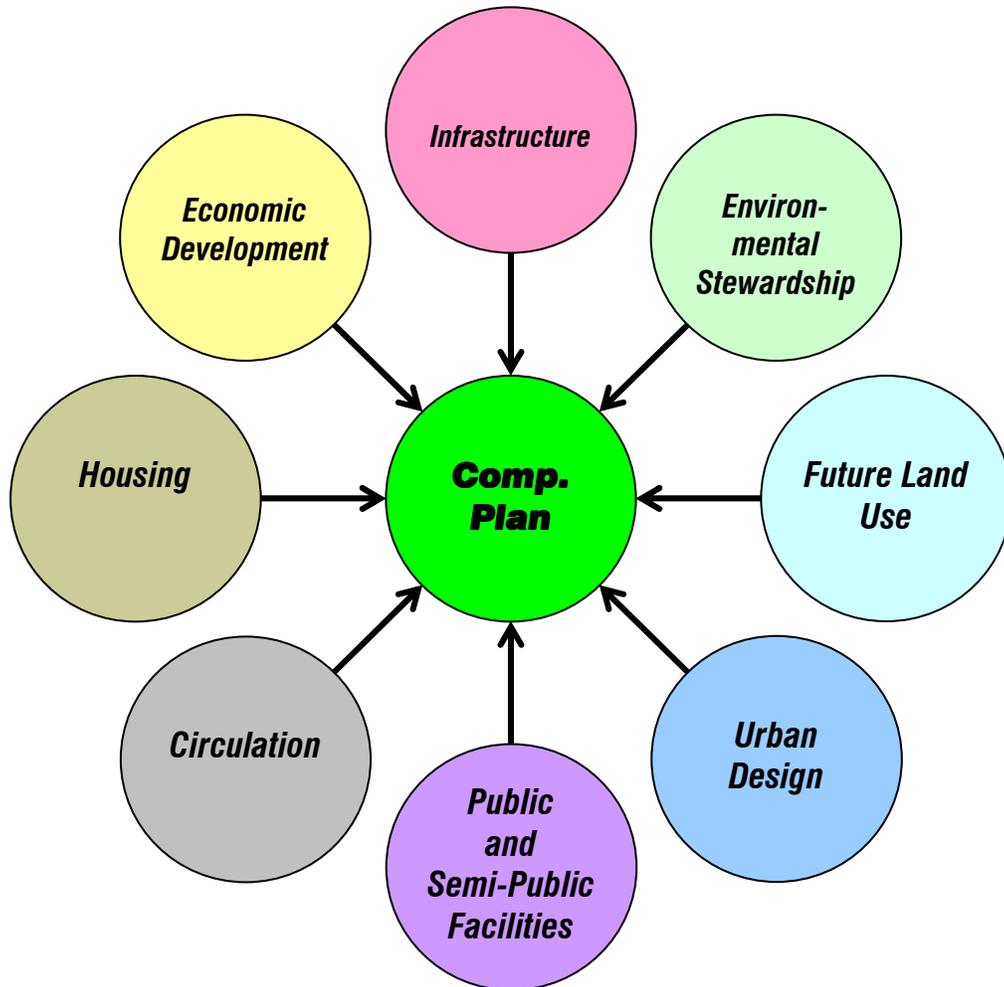


Figure 1 Plan Scope

## II. EXISTING CONDITIONS

### A. Land Use Conditions

#### A.1 Settlement History

Simon Sager was the first to settle in the Siloam Springs area in 1835. He opened the way for additional European settlers to move into the area. A nearby town was established in the 1840's by Caldeen Gunter, called Hico.

About 40 years later, a merchant from Hico platted a new town called Siloam Springs in 1880. The community was established around 28 springs that fed Sager Creek. The City's name was derived out of the Biblical Pool of Siloam, which was believed to have healing powers. The community quickly became known as a resort town for healing and recovery, as the springs were thought to have medicinal qualities. The City was officially incorporated on May 28, 1881. A Post Office was established in 1882.

The community largely remained inactive throughout its early history. This changed during the post-war era when a population increase occurred, which was prevalent throughout the United States at that time. The major factors that contributed to this increase were employment growth within the local industrial base and an expansion in John Brown University (JBU) enrollment.

The first highway to access the community was originally Arkansas Highway 68, which was routed on present day Main St., Britt St., Jefferson St., Mt. Olive St., and on W. Tulsa St., terminating on the Oklahoma state line. In the mid 1960s, a two lane bypass was constructed for the highway that ran south and east of the core of the City. Two additional lanes were added in the early 1980s and in the late 1980s, Arkansas Highway 68 was adopted into the Federal Highway system becoming U.S. Highway 412, connecting Tulsa, Oklahoma to Fayetteville, Arkansas. By that time numerous businesses had relocated to it in order to take advantage of the high traffic volume. Hwy. 412 remains the principal commercial and vehicular thoroughfare through the community.

In addition, during the 1960s there was a significant annexation of land to the north of the City's core. As a result of this, and other annexations, the City doubled its land area size through the years 1950 to 2005.

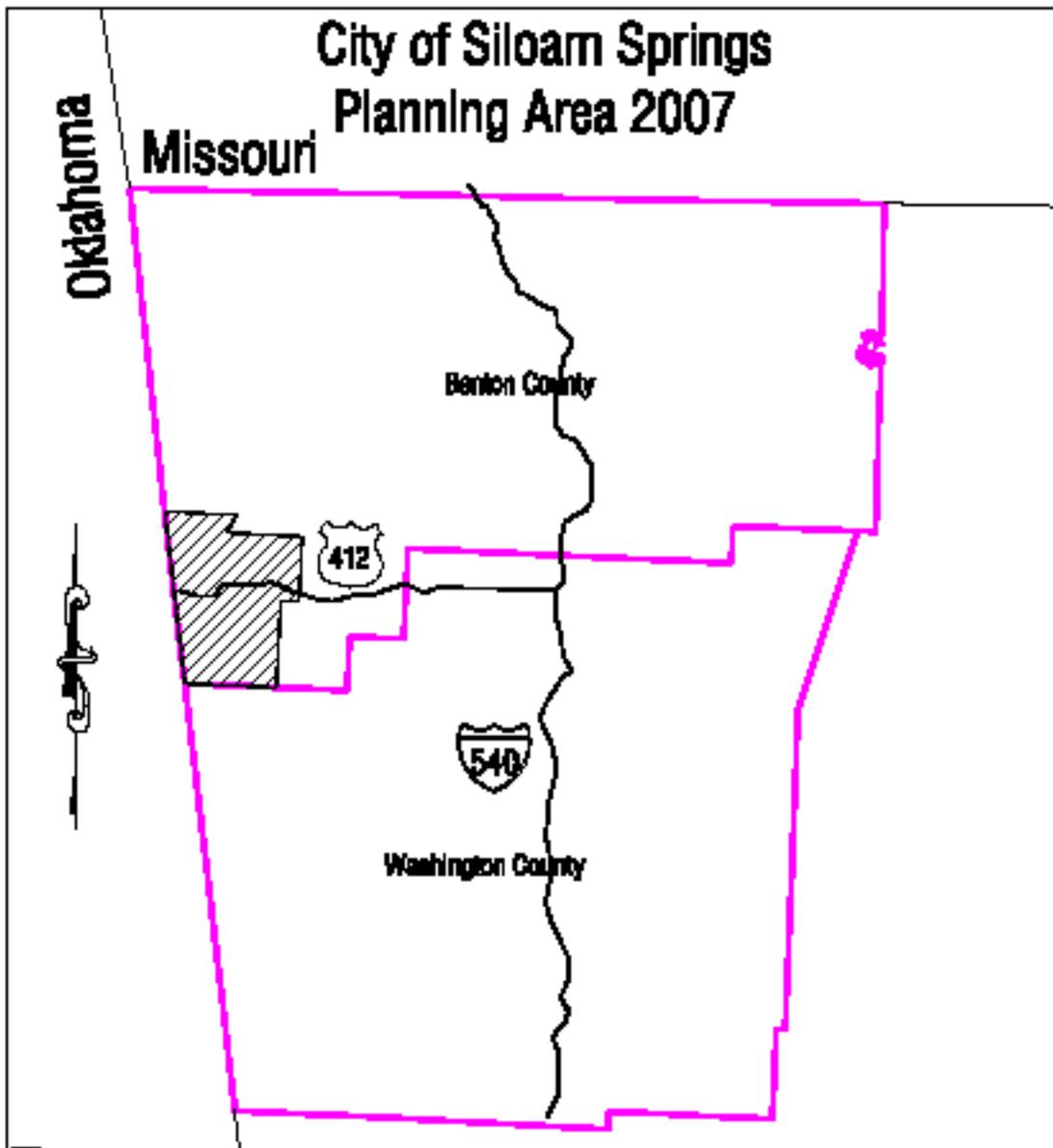
#### A.2 Regional Setting

The City of Siloam Springs, in Benton County (County), has shared, in part, with the robust growth experienced within the two county region of Benton and Washington County. This region is also commonly referred to as Northwest Arkansas. The Fayetteville-Springdale-Rogers Metropolitan Statistical Area (MSA) was classified in the 2000 Census as the sixth fastest growing urban area in the United States. This has been related to Wal-Mart, the world's largest retailer, being headquartered in Bentonville, the Benton County seat. Wal-Mart has had profound affects on Siloam Springs and the neighboring communities, as employees' desire to

find affordable housing in western Benton County. Siloam Springs' median housing price in 2005 was \$116,159 and averages 17.1 percent less in median value compared to the surrounding communities, many of which accommodate major employers.

In addition, the community is in a unique position as it is approximately halfway between Tulsa, Oklahoma and Fayetteville, Arkansas, lying on the principal route between both trade centers. The community's proximity to a major regional commercial airport, XNA, has also contributed to its success and growth.

Map 1: City's Planning Area



### **A.3 Economic Growth Factors**

Siloam Springs has grown primarily as a bedroom community. Job growth remains steady at 6.6 percent, however housing growth has outpaced local job creation by 1.1 percent, implying that a percentage of new residents work elsewhere in the County or in Oklahoma. Approximately 17.8 percent of all Siloam Springs workers reside in Oklahoma or elsewhere in Benton County and 44 percent of the employees of the top major industries reside in Oklahoma. Although technically not in Oklahoma, Siloam Springs is the largest city and employment base that services the northeastern Oklahoma region. As the regional economy continues to expand and create new jobs, Siloam Springs' housing growth will continue to follow suite. Other growth factors include West Siloam Springs, Oklahoma, Cherokee Casino, and the continued expansion of local industries and JBU. The three percent unemployment rate in the County remains well below the national unemployment average.

### **A.4 Development Patterns**

Approximately 49 percent of the City consists of single-family housing and 7.5 percent of the City is two-family or other multi-family housing. Most developments occurred in the post-war era, with another wave of development occurring in the late 1990s and early 2000s. The majority of retail exists along Hwy. 412, major arterials, and collector streets. Industry primarily is sited along the rail corridors and at the industrial park within the Country Club Rd./ Lincoln St. vicinity.

### **A.5 The Built Environment**

The majority of the built environment consists of housing that ranges from 20 years old to 100 years old. Newer housing (less than five years old) consists of approximately 24 percent of the housing stock. Each neighborhood has a unique character depending on its historical significance. While new construction is typically rare in historic areas, there has been local interest in the rehabilitation of older structures as well as creating new homes that match the existing historic context. Housing architectural styles in the historic areas tend to range from Queen Anne Victorian to a preponderance of Craftsman style bungalows. Newer areas tend to follow suite with the region's vernacular, consisting of brick and vinyl siding materials with traditional design elements. Housing values tend to be higher north of the core, with enclaves near JBU and in the Dawn Hill area. Attainable housing is concentrated nearer to the industries and in older post-war neighborhoods.

Shopping centers are generally 20 years old or slightly newer. An update of commercial development has occurred in 2005-2006 with the construction of two new shopping centers, and several big box retail stores. Approximately 264,945 sq. ft. was constructed or planned during that two year span. These are all primarily sited along or in the vicinity of Hwy. 412.

The core downtown remains comparatively inactive in terms of redevelopment, but this is changing as interest in redeveloping the downtown is growing. New housing opportunities have been made available with higher income lofts and new apartments added above the street level commercial use. The downtown has a unique quality that is an incubator for many niche outfitters and services. It is also the cultural and heritage center for the community.

## **A.6 Community Character**

Siloam Springs retains an abundant amount of natural beauty within its City limits and planning area. One of the most treasured natural features is Sager Creek, which flows through the historic downtown area. It is a destination spot for the community during all seasons. There are also many festivals, craft fairs, and live entertainment shows in Twin Springs Park and City Park throughout the year, the principal of which is the Dogwood Festival.

The City is also rich in parks including the City Park, Bob Henry Park and the Twin Springs Park, which houses the historic Twin Springs Fountain. The fountain is an important element in the downtown area. It was first constructed in 1913 and later restored in 1936. During the 1940's winter damage from freezing and thawing set in and continued until the fountain was in disrepair. The fountain's system was recently disconnected in 2003. Currently the fountain is being rebuilt to resemble its original state through grants and private funding.

The City maintains approximately six miles of lighted multi-use trail, which extends from La-Z-Boy Park to the JBU campus and beyond. This element is a major draw for new residents seeking active outdoor lifestyles. Other natural features include the Siloam Springs Lake (referred to as City Lake) which is fed by Flint Creek and provides fishing areas to the public. These natural features should be reflected in the character of the City as a whole as new development occurs within the City and its outlying areas.

Additional community attributes that contribute to a viable and desirable quality of life include:

- Small town ambience that retains a neighborly and friendly atmosphere and charm.
- A university influence that contributes to the areas intellectual capital as well as expanded cultural activities and a high paying, stable economic base.
- Outdoor recreational settings through Ozark National Forest and City Lake.
- A diversified economy through the presence of several different kinds of major industries requiring a skilled and diverse workforce.
- Regional access to major trade centers such as the Fayetteville-Springdale-Rogers area and Tulsa, Oklahoma.
- A strong sense of civic pride, community involvement, and volunteerism through multiple civic organizations and special events.

## **A.7 City Facilities**

There are approximately 21 City facilities located within the City limits. The facilities range in age from 2 to 107 years. The oldest facility, the City Compound, was constructed around 1900 and is used as the City's maintenance shop. The newest facility is the Transfer/Sanitation Station built in 2005 and contains the City's recycling station. There are five sanitation trucks, one cardboard compactor truck, and two recycling trucks, operating from the Transfer Center. In addition, the City operates four electric substations. Two substations are located on the south and two are on the north sides of the City. An additional substation may be proposed and is discussed in Section IV-A.1. Table 1 indicates the facilities locations and the approximate year each structure was built.

*Table 1: City Facilities*

Facility	Location	Year Built
Airport -Cecil Smith	4600 Smith Field Rd.	1963
Animal Shelter	200-A N. Lincoln St.	2000
Aquatic Center	1800 N. Mt. Olive St.	1995
City Compound	500 E. Tahlequah St.	1900
City Hall	400 N. Broadway St.	2000
City Maintenance Shop	917 E. Main St.	1960
Community Building	110 N. Mt. Olive St.	1934
Electric Warehouse	1600 W. Quarter Rd.	1994
<b>Fire Department</b>		
Station 1	1450 Cheri Whitlock Rd.	2001
Station 2	100 S. Mt. Olive St.	1966
Station 3	2001 S. Lincoln St.	1974
Museum	112 N. Maxwell St.	1951
Oak Hill Cemetery	2122 W. University St.	1880
Parks and Recreation	120 S. Mt. Olive St.	1957
Police/District Court	410 N. Broadway St.	1964
Public Library	401 W. University St.	1962
Rodeo Grounds	2590 Cheri Whitlock Dr.	-
Siloam Springs Memorial Hospital	205 E. Jefferson St.	1950
Transfer Station	745 E. Tahlequah St.	1970
Sanitation/Transfer Station	1108 E. Ashley St.	2005
Wastewater Plant	975 Anderson Dr.	1958
Water Treatment Plant	2600 S. Carl St.	1957

### **A.8 Existing Land Use Classification and Analysis**

The City currently contains 7,098 acres or 11.1 sq. mi. The City’s planning area encompasses 36,819 acres or 57.5 sq. miles. The planning area includes the existing City limits and the lands that surround the community. The planning area is used for making plans for future expansion and was established by ordinance in 1978. Part of the planning area will be within the scope of this Plan.

The existing land use map provides an overview of all existing land uses. The map divides land use into four major categories: residential, commercial, industrial, and institutional. These are shown in Map 2 with a map key describing each land use type.

Analysis of Map 2 shows that the vast majority of land uses (49 percent) consists of single-family residential housing. This is due to the existing zoning patterns that support this type of development density and use. Higher densities of housing are typically found behind commercial areas or are islands within lower density areas. Density, in general, rises as one enters into the City’s downtown core district. Almost all industry is situated along the north/south Kansas City Southern (KCS) rail Lincoln St. corridors. Commercial uses are clustered along Hwy. 412 as well as other minor arterials, such as Tulsa, Mt. Olive, and E. Main Streets.

The downtown core also has a concentration of commercial uses, consisting mostly of service oriented businesses. Institutional uses are scattered throughout the community. The highest concentration is at the intersection of Holly and University Streets. This is the 275 acre JBU

campus and Oak Hill Cemetery, the community's principal cemetery. Other institutional centers are found to the north at Hwy. 43 and Dawn Hill Rd. and in the City's downtown. Lastly, agricultural uses are in the periphery of the community north and east of the City limits. In addition, there is a sizable tract of land east of the City's core that remains vacant and agricultural in nature. This land is rapidly developing as residential and commercial infill. Table 2 below indicates the land uses within the City limits and the City's planning area.

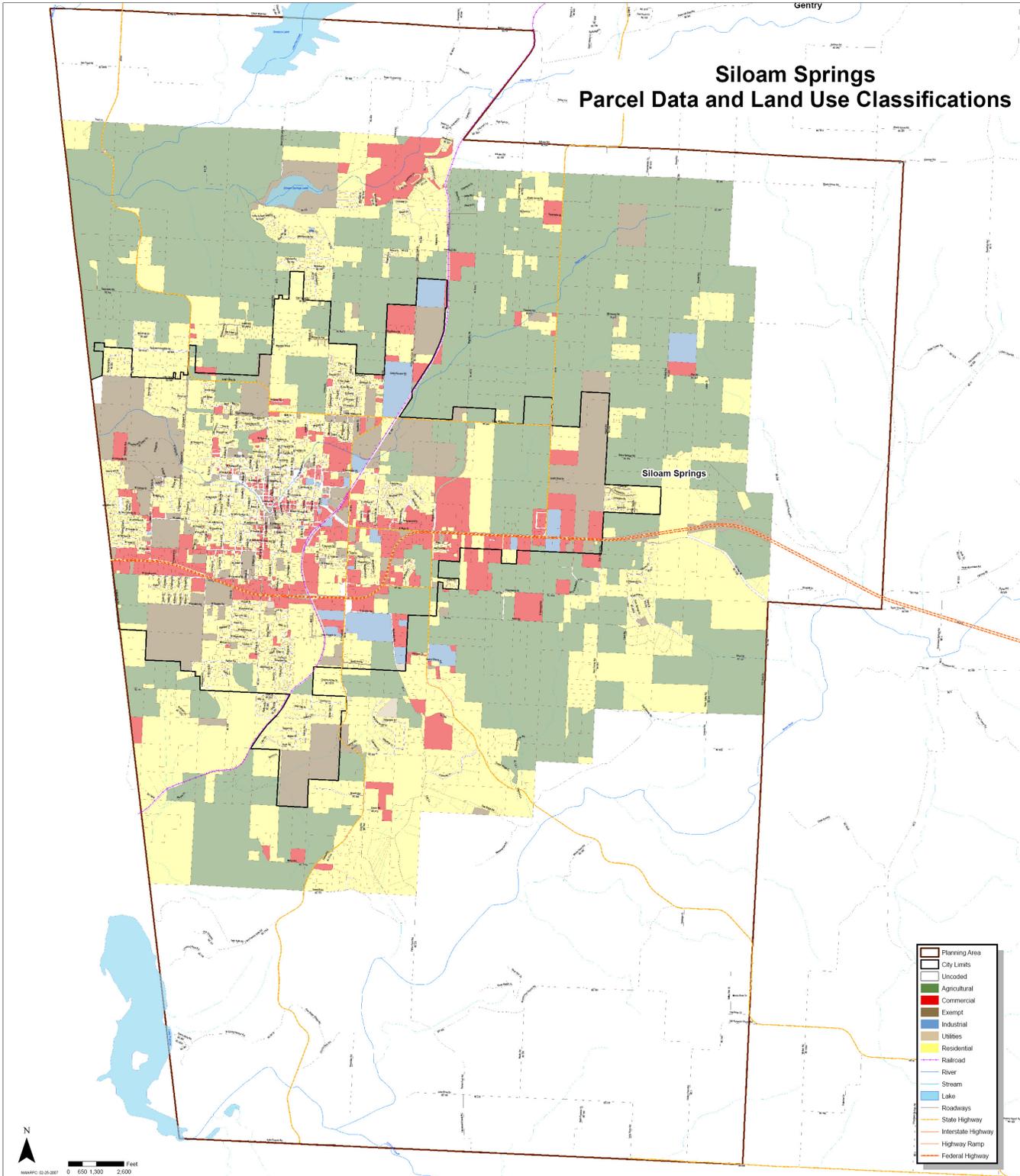
**Table 2: Land Use Break Down by Type**

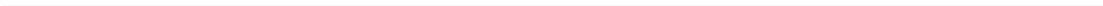
	<b>Unincorporated</b>	<b>City Limits</b>	<b>Total</b>	<b>Percentage of</b>
	<b>Acres</b>	<b>Acres</b>	<b>Acres</b>	<b>Planning Area</b>
Agricultural	28,960	996	29,956	81.40 %
Residential	512	3494	4006	10.89 %
Public and Quasi Public	0	838	838	2.28 %
Parks	163	87	250	0.68 %
Commercial	45	875	920	2.50 %
Industrial	80	750	830	2.26 %
Total	29,760	7040*		

\* 58 acres have been recently annexed into the City after this analysis.



Map 2: Parcel Data and Land Use Classifications





## B. Demographics

### B.1 Population

As of the special census conducted on April 20, 2006, the City's official population was 13,990. This is an increase of 3,147 people or 22 percent from the year 2000 Census. Within Benton and Washington County, the population increases on average 1,200 people a month or 14,400 a year. The current population of Benton and Washington County is 382,566. Map 3 shows the population distribution by census tract.

### B.2 Ethnicity

Taken from the same special census data, the City's ethnicity is made up of the following ethnic groups and percentages:

Table 3: Race

Race	Total Population	Percentage
White	10,299	73.62 %
Hispanic	2,629	18.79 %
American Indian	451	3.22 %
Asian	350	2.50 %
African American	148	1.06 %
Native Hawaiian/ islander	18	0.13 %
Other race	95	0.68 %

Source: U.S. Census Bureau

### B.3 Housing

According to the 2006 special census, there were 5,521 housing units of which 4,911 units were occupied all year. The homeowner vacancy rate is seven percent, while the rental vacancy rate is higher at 8.6 percent. Regarding the household tenure, 56 percent is owner-occupied housing units, while the residual, 44 percent, is renter occupied.

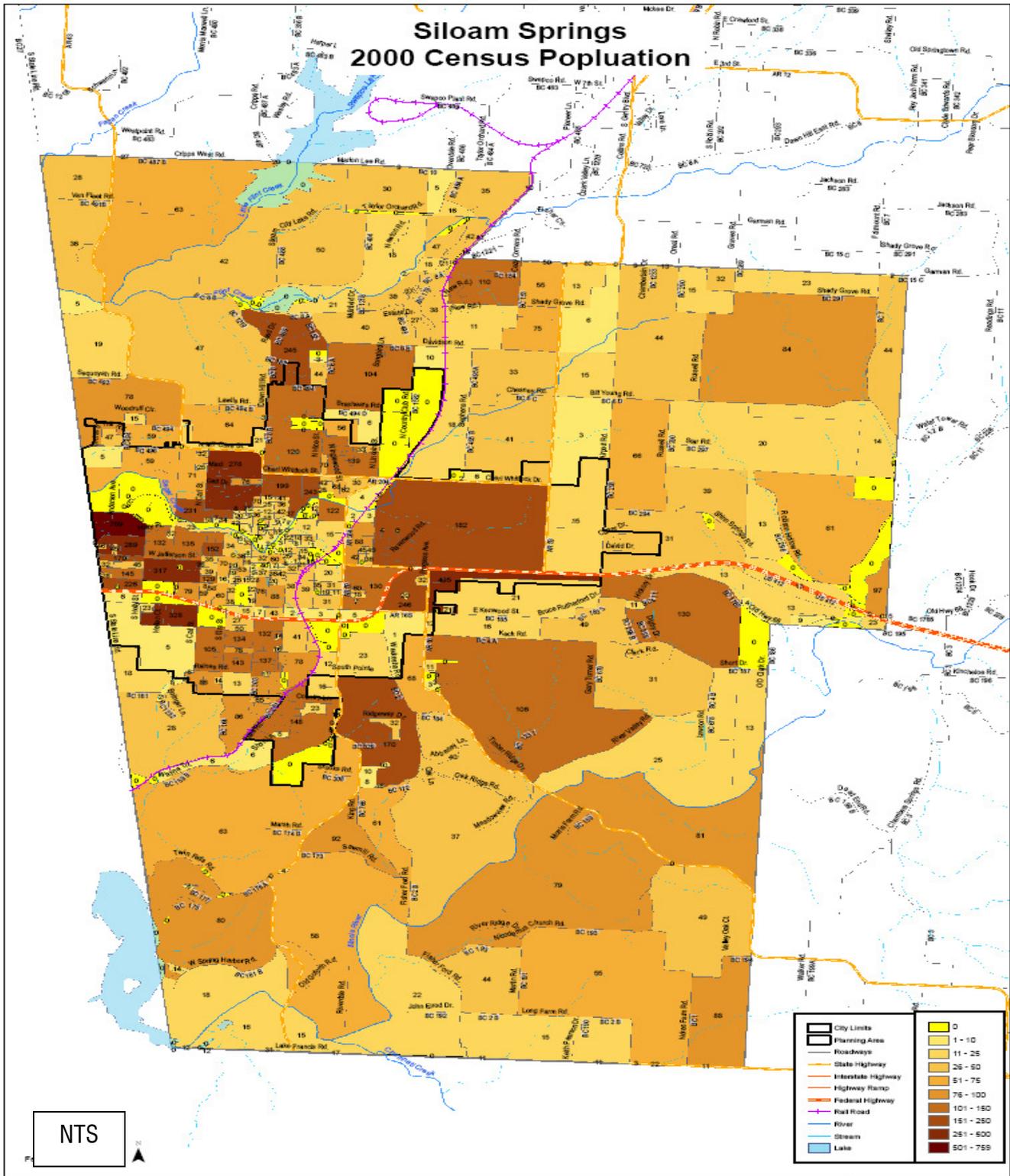
Housing types generally fall along the lines shown in the table below. These have been divided into the following types based upon the current zoning usage within the City limits:

Table 4: Housing Types

Type	Acres	Percentage
Single-Family (less than ½ acre lots)	3,450.11	85.65 %
Two-Family	370.93	9.21 %
Multi-Family	166.55	4.13 %
Single Family (½ acre lots or larger)	40.58	1.01 %

Source: City Staff Analysis

Map 3: Population Distribution by U.S. Census Tract



#### B.4 Employment

The job growth rate in the community is 6.6 percent as of May 2005. This is an average from the previous 12 months. The 9,127 person workforce consists of primarily manufacturing and retail. Table 5 indicates the employment for selected industrial sectors for the 2000 Census. The percentages in Arkansas and the United States are provided for comparison. The average personal income in Siloam Springs was \$34,000 in 2000. In Benton County, the average personal income for the same year was \$40,281 Source: 2000 U.S. Census.

Table 5: Civilian Employment by Industry within Siloam Springs

Industry	Number	Siloam Springs	Arkansas	U.S.
		Percent	Percent	Percent
Manufacturing	1,694	32.0 %	19.4 %	14.1 %
Retail trade	579	10.9 %	13.0 %	11.7 %
Finance/ insurance	146	2.8 %	3.5 %	5.0 %
Information	96	1.8 %	2.2 %	3.1 %
Wholesale trade	64	1.2 %	3.3 %	3.6 %
Professional/ technical service	56	1.1 %	2.8 %	5.9 %

Source: U.S. Census Bureau

#### B.5 Economy and Industry

Siloam Springs is predominately a blue collar manufacturing town. The unemployment rate is below the national average at 3.2 percent. Table 6 includes many of the areas top employers in 2006. Some industries indicated are in the immediate surrounding communities, which provides jobs for the citizens of Siloam Springs.

Table 6: Major Employers and Number of Employees

Industry	Employees	Percentage
Simmons Foods	1,881	20.61 %
McKee Foods	1,450	15.89 %
Allen Canning Company	1,000	10.96 %
Gates Corporation	650	7.12 %
Franklin Electric	650	7.12 %
La-Z-Boy of Arkansas	525	5.75 %
Wal-Mart Super Center	450	4.93 %
DaySpring Cards	425	4.66 %
John Brown University	407	4.46 %
Ozark Electronics Repair	350	3.83 %
Cherokee Casino	285	3.12 %
Siloam Springs Memorial Hospital	300	3.29 %
City of Siloam Springs	200	2.19 %
Cobb-Vantress	200	2.19 %
Webb Wheel Productions	162	1.77 %
Syroco Arkansas	100	1.10 %
PipeLife Jet Stream	92	1.01 %
Total	9,127	100.00 %

Source: Siloam Springs Chamber of Commerce

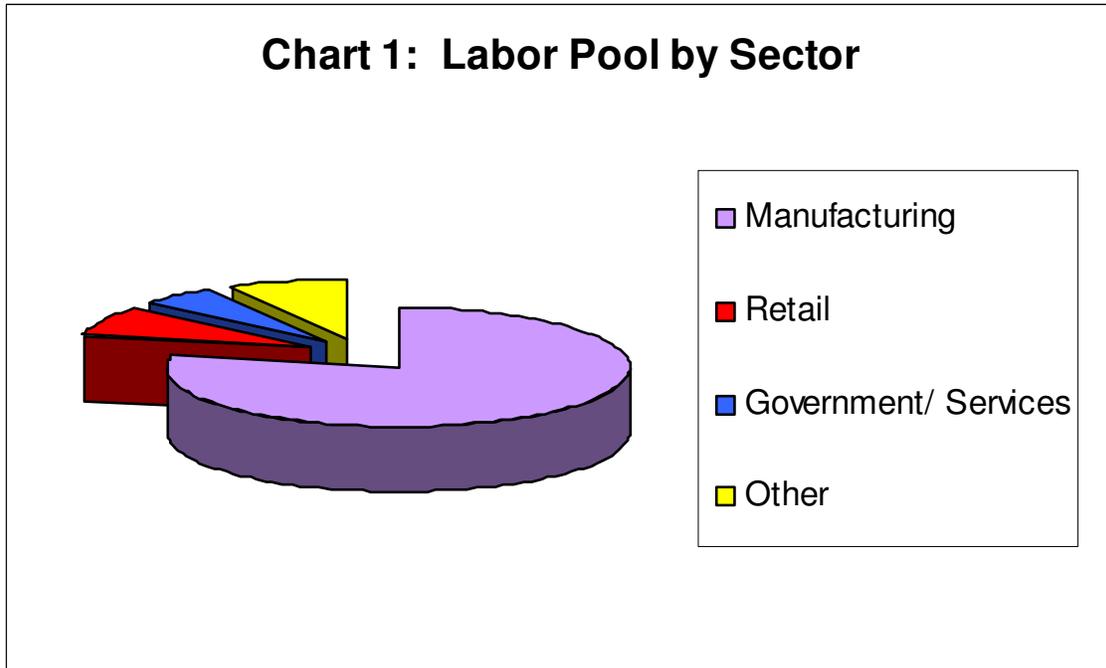
Of the top 17 area employers, 78.17 percent are manufacturing. This is indicated in Table 7 below. Note: Total manufacturing employment is higher than the U.S. Census number due to employers located outside of the City limits but within the local labor market.

Table 7: Labor Pool Employment by Sector

Industry	Employees	Percentage
Manufacturing	7,135	78.17 %
Retail	735	8.05 %
Government/ Services	500	5.48 %
Other	757	8.29 %
Total	9,127	100.00 %

Source: [www.siloamsprings.com](http://www.siloamsprings.com)

Chart 1



*Source: U.S. Census Bureau*

The industrial nature of the local economy relates to the County's agricultural base in the poultry industry and the City's ideal location for trucking operations. The City is situated on Hwy. 412, the state's major northern east/west corridor that links Tulsa to Fayetteville/Springdale/Rogers MSA, making the community the state's third largest port of entry after Texarkana and West Memphis. The highway received an average of 26,000 Average Daily Trips (ADT) in 2006. Due to its location, Siloam Springs receives significant business activity from motorists passing through the community.

In addition to manufacturing, the local economy has benefited from a residential construction boom that was propagated by population growth. Housing prices have risen in Benton and Washington County due to the tremendous job growth the region is undergoing, the majority of which is fueled by Wal-Mart's expansion.

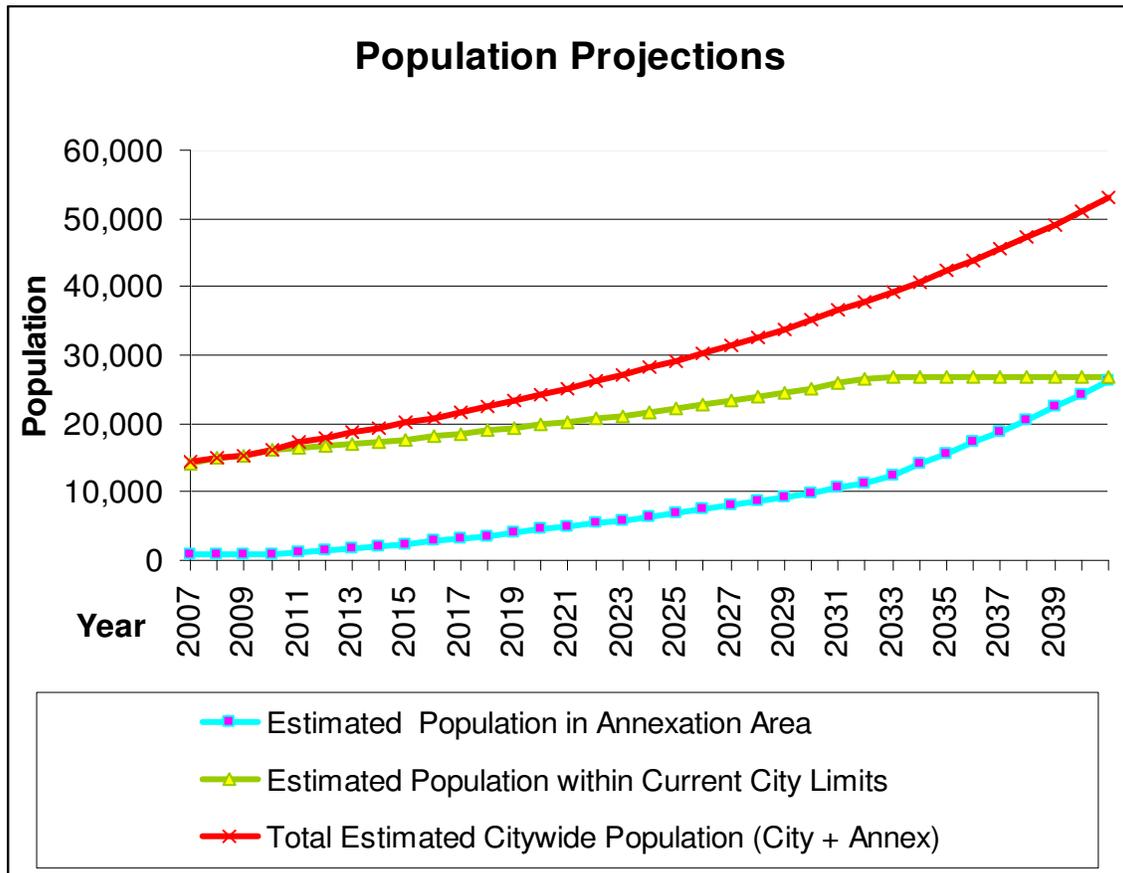


C. Growth Trends

C.1 Housing and Population Growth Projections

Siloam Springs planning staff has preformed a housing and population growth projection analysis for an annexation fiscal study. Taking the latest special census information, it was determined that the average dwelling unit occupancy is 2.534 persons per dwelling unit. This was the basis used to determine the future population projection. In order to determine the City's growth rate, the average dwelling unit growth was compiled for the last 15 years, 1990 through 2006. It was calculated that the City's dwelling unit growth increases by an average of 3.79 percent per year. Assuming housing occupancy and growth rate remain constant; it was possible to project outward future immigration to the community. Table 8 and Chart 2 indicate the growth projection as associated with and without the potential annexation. The estimated population growth in the City will reach full capacity in 2032 due to the full utilization of available lots. The green line remains constant at 26,779 people due to reaching the City's carrying capacity. (See Section IV-C.2.) Conversely, growth was projected out in the annexation area. The red line indicates the new total community population, at current rates, if the City includes potential annexations. (For more information on the annexation see Section IV-B.9.)

Chart 2



Source: City of Siloam Springs

Table 8

**Estimated City Population Projection With and Without Annexation**

Average Dwelling Occupancy  
2,534 people

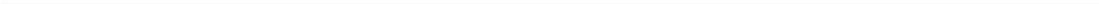
Date	Max New Population for Annexed Area	Estimated Population in Annexation Area	Estimated Population within Current City Limits	Estimated Citywide Population (City + Annex)	Population Growth Rate
Base	0	722	14,229	14,299	0 %
2007	0	722	14,865	14,865	3.96 %
2008	0	722	15,428	15,428	3.79 %
2009	0	722	16,013	16,013	3.79 %
2010	304	1,026	16,317	17,342	8.30 %
2011	633	1,355	16,646	17,999	3.79 %
2012	974	1,696	16,987	18,682	3.79 %
2013	1,328	2,050	17,341	19,390	3.79 %
2014	1,695	2,417	17,708	20,125	3.79 %
2015	2,077	2,799	18,090	20,887	3.79 %
2016	2,472	3,194	18,486	21,679	3.79 %
2017	2,883	3,605	18,896	22,501	3.79 %
2018	3,309	4,031	19,323	23,353	3.79 %
2019	3,752	4,474	19,765	24,238	3.79 %
2020	4,211	4,933	20,225	25,157	3.79 %
2021	4,688	5,410	20,701	26,110	3.79 %
2022	5,183	5,905	21,196	27,100	3.79 %
2023	5,696	6,418	21,710	28,127	3.79 %
2024	6,229	6,951	22,243	29,193	3.79 %
2025	6,783	7,505	22,796	30,300	3.79 %
2026	7,357	8,079	23,370	31,448	3.79 %
2027	7,953	8,675	23,966	32,640	3.79 %
2028	8,571	9,293	24,585	33,877	3.79 %
2029	9,213	9,935	25,226	35,161	3.79 %
2030	9,879	10,601	25,893	36,493	3.79 %
2031	10,571	11,293	26,584	37,876	3.79 %
2032	11,811	12,533	26,779	39,312	3.79 % City Build Out 100 % Capacity
2033	13,301	14,023	26,779	40,802	3.79 %
2034	14,847	15,569	26,779	42,348	3.79 %
2035	16,452	17,174	26,779	43,953	3.79 %
2036	18,118	18,840	26,779	45,619	3.79 %
2037	19,847	20,569	26,779	47,348	3.79 % Annex. Build Out 100 % Capacity
2038	21,641	22,363	26,779	49,143	3.79 %
2039	23,504	24,226	26,779	51,005	3.79 %
2040	25,437	26,159	26,779	52,938	3.79 %

Source: City of Siloam Springs

## **C.2 Build Out Analysis**

It is certainly possible to project population out indefinitely; however, as seen in Chart 2, there are clear limits as to how much housing development can occur within the City before the lack of land availability and zoning density restrictions prevent growth. The build out analysis looked at how much growth can be sustained within the City limits and how much growth can occur in the most developable portions of the planning area. This designated tract, subject of the study, was demarcated for a potential annexation of approximately 3,800 acres situated to the north of the current City limits.

The build out analysis indicated that the City can sustain 26,779 people until full build out occurs in 2032, based off of the percentage breakdown of the current maximum zoning densities. Conversely, the Planning Area can sustain 20,569 people for an overall total of 47,346 people. If growth continues at the same rate, the maximum build out capacity (City and annexed area) will occur in 2037. After 2037, the population growth will require an increase in density within the City limits, or new annexations of lands south of the community. (For more information on the annexation build out process see Section IV-B.9.)



### III. COMMUNITY CORE VALUES AND VISION

#### A. Public Involvement

##### A.1 Planning Process

###### 1.1 Comprehensive Plan Advisory Committee

The planning process began in early 2006. The City of Siloam Springs planning staff established an advisory committee to act as a steering committee for the plan and its process, as it moved from concept to reality. In May 2006, the Comprehensive Planning Advisory Committee (C-PAC) convened. It was comprised of 11 individuals representing City staff, the City Board of Directors, the City Planning Commission, the Northwest Arkansas Regional Planning Commission (Regional Planning), the Siloam Springs Chamber of Commerce, and individual citizenry.

###### 1.1.1 C-PAC Activity

C-PAC met from May 2006 through May 2007. Its milestones during this process were the following:

May 2006 - June 2006: Plan Kickoff meeting; general objectives

June 2006 - August 2006: Vision building

September 2006 - February 2007: Stakeholder vision meetings

March 2007: Future Land Use Map Draft

April 2007 - May 2007: Public meetings and map refinement

May 2007 – March 2008: Plan Presentations to Elected Officials; Plan approval.

###### 1.2 Plan Development Process

The Plan was managed by City staff following these process steps from inception to completion:

1. Review Current Comprehensive Plan.
2. Plan Research.
3. Plan Process Development.
4. Develop Draft Plan Outline.
5. Assemble Planning Staff; request assistance from Regional Planning.
6. Develop C-PAC Member List and Work Program.
7. First C-PAC Kickoff Meeting.
8. Community Vision Session.
9. Draft Plan Document (6 months).
10. Stakeholder's Meetings.
11. Future Land Use Map.
12. Open House Comment Meeting.
13. Plan Refinements.
14. Final Public Meetings.
15. Final Draft of Plan.
16. Public Review and Comment Period.
17. Final Plan Revisions.
18. Presentation made to Planning Commission and Board of Directors.

19. City Planning Commission Approval.
20. City Board of Directors Approval.
21. Plan Adoption.
22. Plan Implementation.

## A.2 Vision Workshops



*Grady Nichols and David Allen are shown outlining ideas on the composite maps.*

The City conducted two public visioning workshops on July 24, 2006 and August 3, 2006. The three-hour visioning sessions actively involved participants throughout the community in setting a hands on vision of the community's future. The participants were randomly dispersed into seven teams (the second workshop had six) in which participants collaborated on developing improvement maps through vision building exercises. The participants were provided with a base map, current zoning and an

aerial image of the City. They were assisted by a facilitator who instructed them to use markers and colored stickers to identify what areas they felt were important to address. The maps are unbiased and reflect the participant's opinions.

Each group focused on six areas of study including: infrastructure, urban design, public facilities, circulation, the natural environment, housing, and economic development. They were allotted timed 10 minute increments for addressing each area. Participants used each color coded sticker or marker to outline new streets, identify new public facilities, as well as brainstorm on preserving natural areas for the future.



*These jars represent the community's top three areas on which to focus funding. (Coin drop exercise)*

In the coin drop exercise, seen above, participants were given 10 coins that represented their tax resources. Participants were given the opportunity to distribute the funding as they desired. The jars were covered and identified by specific funding areas including public facilities, downtown enhancements, parks, street maintenance, environmental aspects, new street locations, economic development, affordable housing, gateways and the industrial park.

The coin drop exercise indicated that downtown enhancements (17 percent), public facilities (16 percent), and parks (13 percent), were the top three areas where resources were distributed. At both sessions, similar priorities were chosen, even though both groups did not interact. Other areas were tabulated and are shown in Appendix C, Master Comments Concurrency Matrix (MCCM).



*Participants focused on areas such as streets, parks, new industries, and downtown revitalization.*

Once the visioning workshops were complete, staff used the comments provided by the public, all concept maps, comment cards received by participants, and surveys sent in utility customer bills to formulate an overall vision.

In conclusion, the vision workshops were a tremendous success both in the attendance, and the level of engagement.

Overall, the workshops were attended by 65 citizens, 6 staff people, and 3 additional C-PAC facilitators (some staff were also facilitators), for a grand total of 74 people involved in the process. The results of these workshops were included in a composite map, seen in Map 4.



*Patti Eiland (left) facilitated this group providing ideas and materials to the participants*



*Planning Commissioner Ron Drake and Board Director Carol Smiley are brainstorming during the process.*

### 2.1 Session Results

As stated earlier, the workshops were recorded in two ways. First, concurrent features of the group maps were recorded and combined into one master composite map. Second, was to record comments written on the maps, or comments voiced by each group's presenter in order to capture an idea of the general sentiments and philosophies of each group. These are seen in the MCCM, Appendix C.

## 2.2 Composite Map

The composite map shows the current features that came out of two or more independent groups arriving at a similar concept or design feature. It was important to ensure that these features were indeed concurrent. Otherwise, if all the features of 16\* independent table groups were shown the maps would no longer be legible and would conflict.

\*Three table groups originated from a C-PAC work session.



From the composite map (Map 4), some of the major themes included:

- Enhancements to the downtown.
- Move major public facilities, Siloam Springs High School, Public Library, and the Sager Creek Arts Center, to the corner of Progress Ave. and Hwy. 43.
- More gateways at north and west entry points.
- Retain some rural lands for agricultural purposes.
- Protect all riparian zones.
- Increase multi-family throughout the City.
- Increase attainable housing opportunities.
- Improve major streets including:
  - Dawn Hill Rd.
  - Hico St.
  - Country Club Rd.
  - Main St.
  - Tulsa St.
  - Lake Francis Dr.
- Expand new single-family residential areas to the north and south of the current City limits.
- Build the following new streets:
  - Oak Crest Rd. extension from Hwy. 43 to Country Club Rd.
  - Tahlequah from Country Club Rd. to Hwy. 59.
  - Unnamed north-south street from Hwy. 412 to the future Tahlequah extension.
- Expand park system to the south side of Hwy. 412.
- Increase residential to the northeast of the City, between Dawn Hill Rd. and Hwy. 43.
- Expand the existing industrial park east of the railroad and north of Sager Creek to Hwy. 59.

The continued effort by the community in preserving the City's character demonstrates that the citizens recognize a shared vision of Siloam Springs for the next 20 years. Communication,

coordination and cooperation between all stakeholders will be important in achieving a community vision.

### 2.3 Master Comments Concurrency Matrix

In Appendix C, the MCCM, similar to the composite map, tracks what ideas were repeated among different groups. Unlike the map, the matrix goes into more detail and does not attempt to eliminate unique ideas that may have only been identified by a single group. As a result, there are more issues identified under each of the 12 major categories. Each category is color coded. One can read this matrix one of two ways, horizontally or vertically. When reading horizontally, the bars indicate the prevalence of a specific idea or topic amongst different groups. When reading vertically, the bars indicate which groups had specific ideas. For example, when reading vertically, you can see Group C in the first workshop vision session advocated parks and Group A in the second session was behind street improvements. Similarly, when reading horizontally, you can see that the issue of parks south of Hwy. 412 is a popular issue amongst many different groups.

As there were so many types of suggestions, they were sorted into various classes. This was done so that the improvements/ suggestions could be better organized and understood. The classes are divided into: goals, objectives, or map points. Many of these are combined. For example, an objective may also be a point on the map, so it would read, “Objective/ Map Point.”

Lastly, in order to highlight what suggestions were most selected among all the groups, a weighting was applied. As one horizontally reads across each suggestion, a ranking was applied based on how many hits a suggestion would have. The ranking was as follows: one to five hits, the rank would be *low*; six to ten hits, the rank would be *medium*; and eleven to sixteen hits, the rank would be *high*. There were 16 independent table groups. The high ranks obviously suggest a level of consensus among all participants. The high ranking suggestions are listed in the table below.

**Table 9: MCCM high rankings**

Category	Suggestion	Class
Parks	Parks South of Hwy. 412	Objective
Parks	Park at Hwy. 43 and Progress Ave.	Objective / Map Point
Public Facilities	New High School	Goal
Downtown Enhancements	Improve/ Enhance Downtown	Goal
Industrial Park	Expand to the east	Map Point
Gateways	Holly Street/ West Entry	Map Point
Gateways	Improve existing gateway	Goal/ Map Point

Map 4: Vision Session Composite

(on following page)

### A.3 Community Assessment Surveys

#### 3.1 Survey Results

In addition to the vision workshops, staff wanted to provide an opportunity for residents to engage in the process through the relative ease and convenience of completing and returning a written survey. The survey, shown in Appendix B, is a one page questionnaire consisting of four categories: general quality of life, rating factors in the overall quality of life, quality of service, and respondent demographic data. In each category there were multiple items that could be rated as “excellent” to “very poor”, and “very important” to “very unimportant”.

The City mailed approximately 6,800 surveys to all utility customers. Seven-hundred and seventy-two surveys were returned, for a 10.6 percent return rate. Although the survey was more geared towards assessing rather than visioning, the respondents shared many of the same issues identified at the public meetings. Some of the major themes include: improving public facilities and streets, maintaining parks, and developing recreational areas. The library, museum, and hospital improvements were also mentioned. For a full disclosure of the results of the public survey, see Appendix B, the Community Assessment Survey Report. Table 10 and 11 are sample tables from the report. The table indicates the overall percentage (out of a perfect score) and average response. One equals “poor/ very unimportant” and five equals “excellent/ very important”. It is important to note that surveys with no response were factored, however they were scaled neutrally so as to not negatively skew the overall average.

Table 10: Ranking of Quality of Life

Quality of life	Percentage (%)	Average
Neighborhood	78.7	3.94
City as a whole	75.8	3.79
Public safety	93.1	4.65
Neighborhood cleanliness	91.0	4.55
Economic development	88.9	4.44
Affordable housing	87.5	4.37
Street network/ traffic management	84.9	4.25
Beautification of the city	83.6	4.18
Parks – opportunities	82.8	4.14
Historic preservation	79.0	3.95
Citizen participation	78.4	3.92
Downtown redevelopment	76.7	3.83
Cultural Activities	75.6	3.78
Public transportation	73.9	3.69

Table 11: Ranking of Quality of Service

Quality of Service	Percentage (%)	Average
Fire	84.9	4.25
Resident trash collection	79.3	3.97
Police	78.4	3.92
Parks and recreation – facilities	78.0	3.90
Parks and recreation – locations	77.4	3.87
Water	77.3	3.87
Sanitary sewer	72.4	3.62
Storm water drainage	69.1	3.45
Library	69.1	3.45
Street maintenance/repair	66.8	3.34
Cultural arts	66.5	3.33
Building code/ zoning enforcement	65.6	3.28

#### A.4 Public Open House Meetings

##### 4.1 April 9, 2007 Public Meeting

This public meeting focused on the first draft of the future land use map and the supportive maps that led up to its inception. The meeting exhibits included: existing land use data from Benton County Assessors Department, area environmental conditions, composite map from the vision session workshops, the community core values, pictorial examples of development types, and the future land use map.

The meeting was attended by forty-eight citizens and organized by seven volunteer staff. The participants were supportive of the draft future land use map concepts. Staff received 19 written comments as well as verbal comments. The majority of the comments were divided between operational questions regarding the planning process and support for the general planning concepts presented on the land use map. The most notable positive responses supported the expansion of the trails system, increasing parks and open space, and the prevalence of mixed land use districts.

A portion of the comments offered concrete suggestions on enhancing the land use plan. These comments were analyzed and addressed by C-PAC on May 4, 2007. The major changes to the map included:

- Expanding the trail system to make a complete circuit around the City.
- Expanding parks.
- Increasing housing density.
- Adding more open space buffers.
- Refining existing land use to conform with the map.
- Include the new library near the proposed high school (2 comments).
- Include a communitywide tree planting program.
- Establish a historic preservation district and design/ maintenance guidelines.
- Address pedestrian protection for Sager Creek by adding rails to prevent falls.
- Ensure all walking trails are safe and inviting.

- Look at incorporating more pocket parks into mixed use areas to denote additional parks.
- Include sidewalks and pedestrian accessibility as a major goal in the circulation plan.
- Include general aesthetic considerations in design standards.
- Ensure industrial areas have sufficient vehicular and rail accessibility.



*Fire Chief Jimmy Harris reviews the draft future land use map.*



*C-PAC members Dawn Denton and Larry Winder help sign in meeting participants.*

4.2 May 14, 2007 Public Meeting  
The final public meeting was held on May 14, 2007. Its purpose was to show the revised changes to the future land use map. At the meeting the public also reviewed the community core values and 2007 aerial images of the community.

The meeting was attended by 40 participants, which was 16.6 percent lower than the April 9, 2007 meeting. Unlike the April meeting, the participants were given a

copy of the future land use map as well as a listing of the major revisions from the first presentation. They were also given an opportunity to either leave comments at the meeting itself or provide them later after reviewing the map. All participants were also encouraged to review the Plan document, which would be made available to them upon request. Overall, response was positive regarding the revision of the future land use map.

#### 4.3 Public Response

Both the future land use map and a draft copy of the Plan were on display at City Hall. In addition, a copy of the Plan and map were available for review on the City's website. Overall, staff received 24 written comments at the public meetings, three phone calls regarding the meetings, and seven phone calls regarding the Plan. Staff received seven e-mails and four comment cards during the official 30 day public comment period, from May 15, 2007 to June 15, 2007. These comments were reviewed and considered by the City officials, C-PAC, and staff upon the conclusion of the comment period. All public comments from April 9, 2007 to June 15, 2007 are included in Appendix D.

**A.5 Future Public Involvement**

5.1 Additional public input.

Due to the nature of the Plan’s implementation, it will be necessary to hold additional public meetings in order to explore and further refine the policy goals and objectives. The following chart represents plan goals and objectives that would require additional public meetings, educational seminars, hearings, workshops, or design charrettes in order to ensure each endeavor meets the public’s best interest and community buy-in.

Table 12 Future Public Involvement

Goal Location	Topic	Public Involvement Process
B4-Landscaping Plan	Landscaping Regulations	Public Input Meeting
B5-Neighborhood Plan Concept	Neighborhood Planning	Neighborhood Input Meetings
B7-Code Revisions	Updating Development Codes	Public Input Meeting/ Committee Meetings
B8-Historic Preservation	Education and recognition for preservationists	Individual and small group meetings of property owners
B9-Annexation	Annexation	Community Information Meeting

## B. Core Values Statement

As indicated above, the citizens of Siloam Springs have had several opportunities to indicate their general goals and values for the City. These core values effectively consist of the City's Plan structure, as they are most closely representative of the citizen's voice through the public involvement process. These values are the foundation by which a vision is cast and from where development goals and objectives are born.

In order to synthesize these into one concise statement, the four primary sources of input were combined to form one concurrent statement. The source of each value is indicated by a letter as shown below. Many of the values were ordered as they appeared in the coin drop exercise at the vision workshop sessions. These were taken from the following public input sources:

- (a) 1996 Comprehensive Plan for Siloam Springs.
- (b) The Community Assessment Surveys.
- (c) The Vision Session.
- (d) Stakeholder Meetings.

### **THE CITY OF SILOAM SPRINGS IS A CITY THAT VALUES:**

#### **1. IMPROVE AND ENHANCE THE DOWNTOWN**

- Improve signage in the historic district. (c)
- Encourage more retail in the downtown. (c) (d)
- Maintain and enhance as a central hub for activity. (a)
- Improve the appearance through revitalization. (a) (d)
- Expand parking in the downtown. (a)
- Keep Sager Creek Arts Center downtown. (a) (c)
- Improve Sager Creek Arts Center. (c) (d)

#### **2. IMPROVE AND EXPAND EXISTING PUBLIC AND QUASI PUBLIC FACILITIES**

- Hospital.
  - Improve hospital. (b) (c)
  - Construct a new hospital at a new location (c), or Rehabilitate the existing facility. (b)
- Library.
  - Construct a new library near the high school (c), or Rehabilitate the existing facility. (b) (c)
- High School.
  - Construct a new facility at a new location (c) (d), or Rehabilitate the existing facility. (c)
- Sager Creek Arts Center.
  - Rehabilitate the existing facility. (c)
  - Relocate to another location – either in a new structure, or rehabilitating an existing structure. (d)

- Roadside Rest Area.
  - Construct a new facility located on the east side of the City. (c)
- Rodeo Grounds.
  - Relocate the facility to grounds that allow for more space. (c)
- Fire Station.
  - Construct a potential facility on the east or west of the City. (c)
- Boys and Girls Club.
  - Construct a new facility in the Tulsa St. and Carl St. vicinity. (d)
  - Expand outreach programs. (d)
- Siloam Springs Museum.
  - Construct a new facility. (b)
- New City Recreational Center.
  - Construct a recreation/ youth center. (b) (c)
- Improve City Drainage. (b)

### **3. PARKS**

- Expand and improve park system and designate open space. (c)
- Allow for more opportunities for parks. (b)
- Allow for more opportunities for multi-generational use. (b)
- Increase green space in the City. (b)
- Develop a park centered on children's activities. (b)
- Physically connect different types of parks to serve the entire community. (a)
- Establish neighborhood and pocket parks. (a) (c)
- Improve and expand the trails system. (a) (c)
- Distribute parks evenly throughout the community. (c)

### **4. CIRCULATION/ STREET MAINTENANCE AND IMPROVEMENT**

- Continue to maintain and improve the existing street network. (a) (b) (c)
- Increase capacity of existing thoroughfares. (a)
- Integrate all transportation systems into a multi-modal system for communitywide mobility. (a)

### **5. ENVIRONMENTAL STEWARDSHIP**

- Sustainability. (a)
- Preserve and expand open space, preserve farmland. (c)
- Improve the Sager Creek riparian corridor. (a) (c)
- Wildlife preserve at City Lake. (c)

### **6. NEW STREET EXPANSION**

- Expand the street network to include all types of functional design, i.e., interstate quality, arterial, collector, and local. (a) (b) (c)
- Expansion focused on the high growth areas to the north and east of the City. (c)

**7. ECONOMIC DEVELOPMENT**

- Increase economic development in the form of new and expanded retail (restaurants, hotels, businesses). (c) (d)
- Create opportunities for new business and industry to locate to the City by providing incentives. (d)

**8. ATTAINABLE HOUSING**

- Maintain existing supply of attainable housing choices. (a)
- Integrate quality attainable housing into market driven housing development. (a) (b)
- Alter development regulations to increase housing attainability. (a) (d)
- Provision of attainable housing for the elderly. (c) (d)
- Provision of additional multi-family housing at various locations. (a) (c) (d)
- Allow for manufactured homes in various locations. (a) (c)

**9. THE CITY'S IMAGE AND SENSE OF PLACE**

- Gateways:
  - Improve the existing gateway features on east Hwy. 412 and E. Main St. (c)
  - Provide additional gateway features/ amenities at logical entry point locations. (c)
  - Design to allow for a sense of arrival into the City. (a)
- Improved architectural design standards. (c)
- Maintain clean neighborhoods. (b)
- Encourage aesthetic enhancements of the City. (b)
- Inclusion and enhancement of older historical areas with improved historical architectural design standards. (c)
- Improved Sign regulation standards. (b) (c)
- Redevelopment and street improvement of E. Main St corridor. (b) (c) (d)

**10. EXPANDED INDUSTRIAL PARK**

- Development and redevelopment along the railroad corridor for new and expanded industrial uses. (c) (d)
- Expand existing industrial park. (c) (d)
- Provide incentives for industrial development (utility discounts, etc.). (d)

(The following are other community values that were not prioritized in coin drop exercise.)

**11. PUBLIC TRANSPORTATION**

- Encouragement of a private taxi service. (b)
- Public transportation/ bus shuttle service. (c) (d)
  - Fixed route east/ west between JBU and Wal-Mart.

**12. EXPANDED SIDEWALKS AND PEDESTRIAN MOBILITY**

- Improved sidewalk connectivity and linkages. (a) (c)
- Maintain and repair existing sidewalks. (b) (a)
- Allow for expanded bicycle and walking trails. (a)

**13. GROWTH MANAGEMENT**

- Proactively manage land use density and development areas through the future land use map. (a) (d)
- Allow for increased community cohesion, compactness, infill, and accessibility. (a) (c)

### **C. Future Land Use Map**

The future land use map is intended to act as a guide for private future development, private redevelopment, and public infrastructure expansion. The map is not detailed as a parcel specific zoning map and is not intended to be used as a zoning map. The lack in specificity is intentional in order to allow for greater flexibility for the map's implementation at the zoning or re-zoning phase.

When viewing a future land use map, there is no direct relationship between land use designation and zoning districts, but rather an indirect relationship. For example, the map may designate an area as residential, but there may be a range of zoning district types that satisfies this designation. It is generally the role of the Plan's practitioners, all stakeholders, and elected officials to provide input in order to make parcel specific determinations of land use. This is generally done incrementally through the zoning or re-zoning process over the lifespan of the Plan.

This incremental zoning or re-zoning approach is known as the incremental planning theory developed by Charles Limblom in 1959. Incremental planning refers to the process of planning through specific zonal increments, rather than planning for the whole at one point in time. The strength of this approach lies in that changing conditions may factor in each decision and each area may be reviewed at a higher level of scrutiny because the project's size is in a manageable unit of space. The incremental approach allows decisions to be weighed on pragmatic community needs and the individual desires of the stakeholders while maintaining the overall principals of the land use map as a flexible developmental land use guide.

If a property is presently zoned inconsistently with the proposed future land use map, the existing zone takes precedence over the land use map's designation. However, should that same property be submitted for a re-zoning, the future land use map will act as a guide for the appropriate zone for that area.

If there are zoning designations not consistent with the city's vision as shown on the future land use map, the city may elect to offer incentives, such as extending utilities, to encourage a shift in land use and, therefore, a property owner initiated re-zoning request would be likely. In cases where there are areas designated for public use, such as a park, the City may need to pursue property ownership, negotiate a Transfer of Development Rights (TDR) or negotiate the Purchase of Development Rights (PDR). The TDR concept effectively separates the development rights from land ownership. A site that is desired to be kept rural can have a conservation easement placed on it. The property owner would be financially compensated for this through the rights to develop an area desiring development. Development rights are effectively transferred from the conserved property (the sending property) to another property (the receiving property) designated for such development. The TDR program would only include participating properties. PDR concept is similar; however the rights are essentially purchased outright rather than transferred to another propriety. Once the rights are purchased the owner will no longer have the right to develop on the property. This may be usual in cases where the property owner does not desire to develop elsewhere or if there are no available receiving properties.

In summary, the future land use map is primarily valuable for determining the direction of developing areas through land use designation and public infrastructure expansion. This focus on developing areas is due to fringe areas typically not being annexed within the city, so therefore no zone district would apply. However upon development and annexation into the city, these areas will be zoned and therefore guided by the future land use map.

The C-PAC met on March 16, 2007 to discuss options for the future land use map. The committee reviewed three different map options. These options were devised by planning staff. These options took into account soils, development patterns, and general sound planning principles. Each option had a slant or emphasis. The first map was a general map that sought to evenly incorporate all aspects of sound planning and the community's land use goals. Utilizing sound planning aspects, the second map sought to emphasize industrial development, and the third map sought to emphasize parks, trails, and open space.\*

The Committee decided to use the third map, emphasizing parks, trails, and open space as the base map. The maps were divided into four sectors. The committee reviewed the sectors individually to determine what changes needed to be made in order to further refine the map. All of the changes were noted by staff and were drafted into a single future land use map.

The map classifies the following land uses:

- **Low Density Residential**—Maximum of 2 dwelling units per acre.
- **Medium Density Residential**—3-10 dwelling units per acre.
- **High Density Residential**—11-30 dwelling units per acre.
- **Mixed Use**—A mixture of housing types, commercial and open space. This would involve different densities of residential, commercial, and institutional uses depending on the context of the neighborhood.
- **Public Facilities**—Any public facility, including parks.
- **Industrial**—General and light industry.
- **Commercial**—Roadway and neighborhood level commercial.

The map (Map 5) was then reviewed by members of the Siloam Springs Planning Commission, before it was finalized as a first draft for review at the April 9, 2007 public meeting.

At the April 9, 2007 public meeting, the community was given an opportunity to view the map and was prompted to leave comments on index cards. Staff received 19 comments and tabulated these in a spreadsheet shown in Appendix D. These comments were taken by staff and incorporated into categories. Staff and C-PAC reviewed these comments and looked for patterns, or consistent themes. These were discussed and the map was changed accordingly.

The final map focuses on the following planning concepts:

- Promoting mixed uses.
- Ample parks and open space.
- Universally accessible trails system.
- Public facility expansion.
- Variety of housing densities.
- Preservation of small town and rural character through mixed use.

- Expansion of industry and commerce.

\*The term open space refers to land that is maintained in its natural undeveloped form. Lands for open space may contain agricultural uses administered through the A-1 zone district.

In order to make the future land map more legible, staff designed a map that looks strictly at the areas that represent a change for the future. The planned area map shows existing land uses in white, with changed or new land uses shown in color. Both of these maps are shown on the proceeding page.

Map 5: 2030 Land Use Map:

(on following page)

Map 6: 2030 Planned Area Map:

(on following page)



## IV. POLICY

### A. Infrastructure Element

This section provides a brief overview of the goals and objectives of the infrastructure layout for the City. This includes the Electric and Water and Waste Water Departments infrastructure needs and plans for the future.

#### A.1 Electric Department

##### 1.1 Existing Conditions

The City currently purchases its power from Grand River Dam Authority (GRDA). GRDA is an agency of the State of Oklahoma which sells electric power to the City and in turn, the City sells the power to its citizens. The City's electrical system is distributed throughout the City's service territory and currently has four substations. The 2007 electric system peak was 63-megawatts (MW) and the City purchased 275,000,000 Kilowatt hours (KWh) annually.

##### 1.2 Goals

Goal # 1—Improve distribution reliability and circuit capacity of the entire system.

Goal # 2—Increase carrying capacity of the entire system.

##### 1.3 Objectives

Goal # 1 (Improve distribution.)

- Objective A—Upgrade and add feeder circuits within the City.
- Objective B—Add two new substation breakers and two miles of feeder line from the Southwest Substation.
- Objective C—Add one new substation breaker and 1.5 miles of feeder line to the Moss from the Substation.
- Objective D—Construct one mile of feeder line from the North Substation.

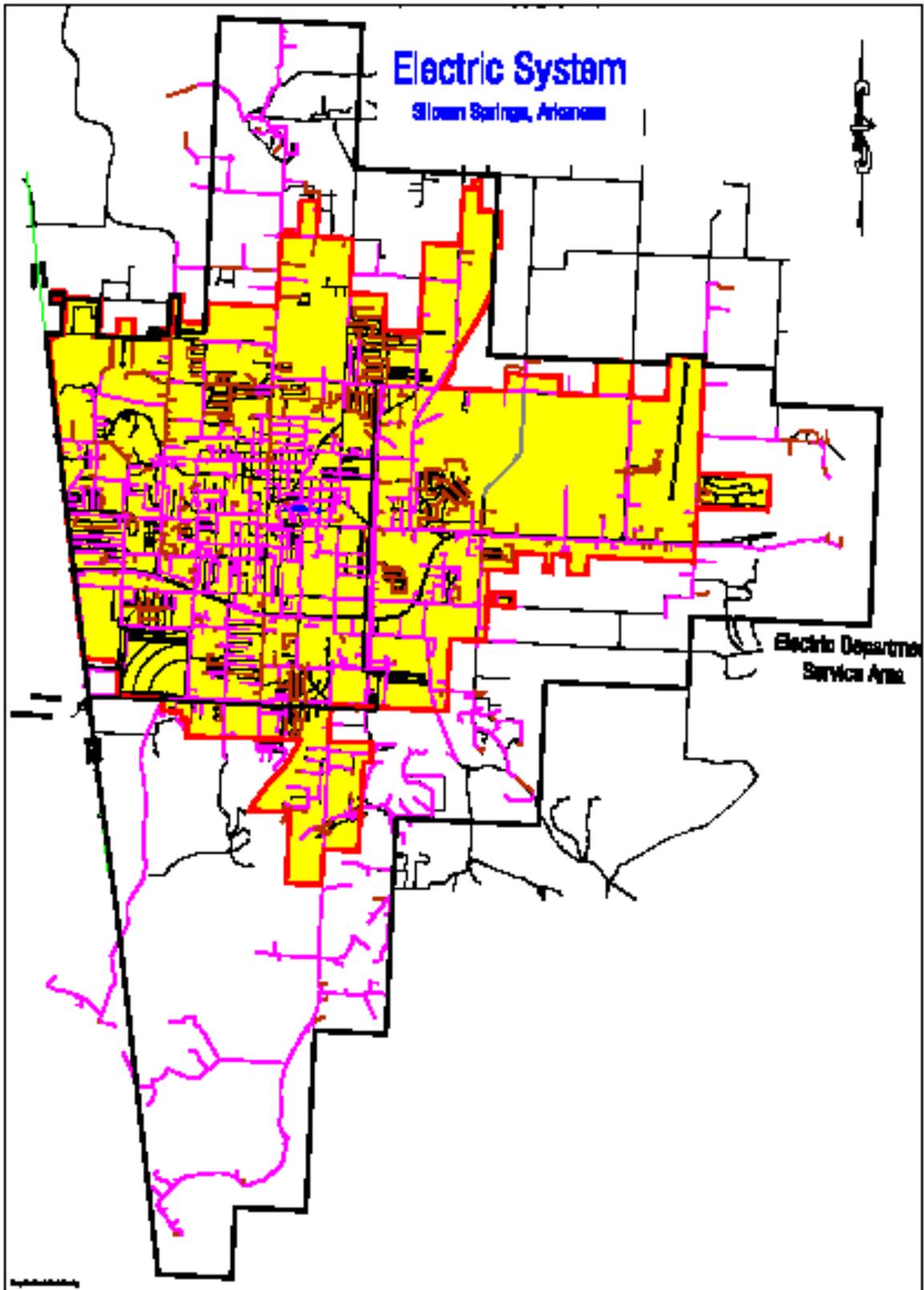
Goal #2 (Increase carrying capacity.)

- Objective A—Establish a new 69 Kilovolt (KV) transmission tie with GRDA northwest of Siloam Springs.
- Objective B—Complete 69 kv loop from new transmission tie to existing transmission backbone.
- Objective C—Acquire two acres of land area for the addition of the Northwest substation.
- Objective D—Acquire two acres of land area for the addition of the Southeast substation.
- Objective E—Consider improving electrical utilization by pursuing an electric water heater program.
- Objective F—Pursue new industries within the electric service area.

##### 1.4 Future Expansion Plan

Three out of the four substations will be exceeding 80 percent loading within five years, and any industrial additions will shorten the five year five year period. Due to the growth rates in the last five years, assuming a continued growth rate, staff would anticipate reaching system capacity unless new infrastructure is added.

Map 7: Electric Infrastructure Map



## **A.2 Water and Wastewater Department**

### **2.1 Existing Conditions**

The Water and Wastewater Department's mission is to provide quality water and wastewater services to the public at the most competitive rates possible. The City provides a competitive rate structure per thousand gallons of usage per month to its customers. The City's maximum day usage in 2006 was 7.7 million gallons, approximately 80 percent of the total water treatment capacity. At this time there appears to be adequate water supply, water pressure, and fire flow around the City. The growth rate of the City's water consumption has continued at 3.97 percent per year on average, increasing the demands of water and sewer services throughout the City's service area.

### **2.2 Goals**

- Goal # 1—Research treatment of natural waterways to increase the City's drinking water supply.
- Goal # 2—Expand the City's capacity of water services.
- Goal # 3—Attract water intensive industries to the City.
- Goal # 4—Increase the City's capacity of wastewater services to all residents and businesses within the service area.

### **2.3 Objectives**

#### **Goal # 1 (Increase City's drinking water supply.)**

- Objective A—Construct a new raw water transmission line from the Illinois River for drinking water.
- Objective B—Determine a water treatment method capable of utilizing water from the existing raw water reservoirs.
- Objective C—Construct an additional water treatment facility.
- Objective D—Secure funding through a drinking water revolving loan fund.

#### **Goal # 2 (Expand water service.)**

- Objective A—Annex additional land area for extension of services.
- Objective B—Develop a possible emergency connection with the Two Ton waterline.
- Objective C—Repair the existing water tank by the City's compound area.
- Objective D—Increase fees collected in rural areas.
- Objective E—Secure funding through a rate increase in sales tax.

#### **Goal # 3 (Attract water intensive industries.)**

- Objective A—Coordinate with the Chamber of Commerce to promote new industries which support an increased usage of water.

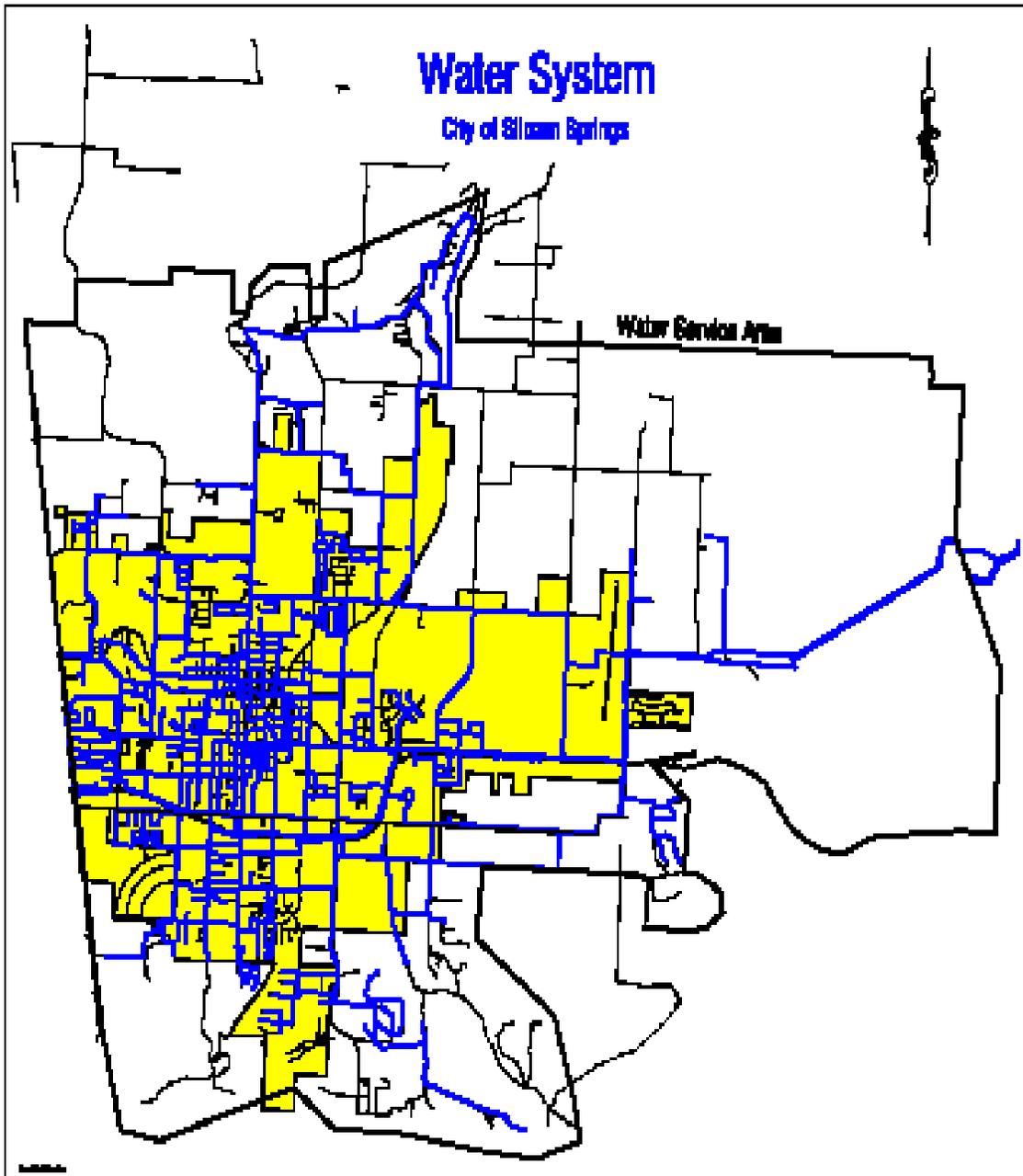
#### **Goal # 4 (Increase wastewater services.)**

- Objective A—Construct an additional wastewater treatment facility.
- Objective B—Upgrade existing lines and extend services to all residents.
- Objective C—Secure funding through a rate increase in sales tax.
- Objective D—Increase fees collected in rural areas.
- Objective E—Secure funding through a revolving loan fund.

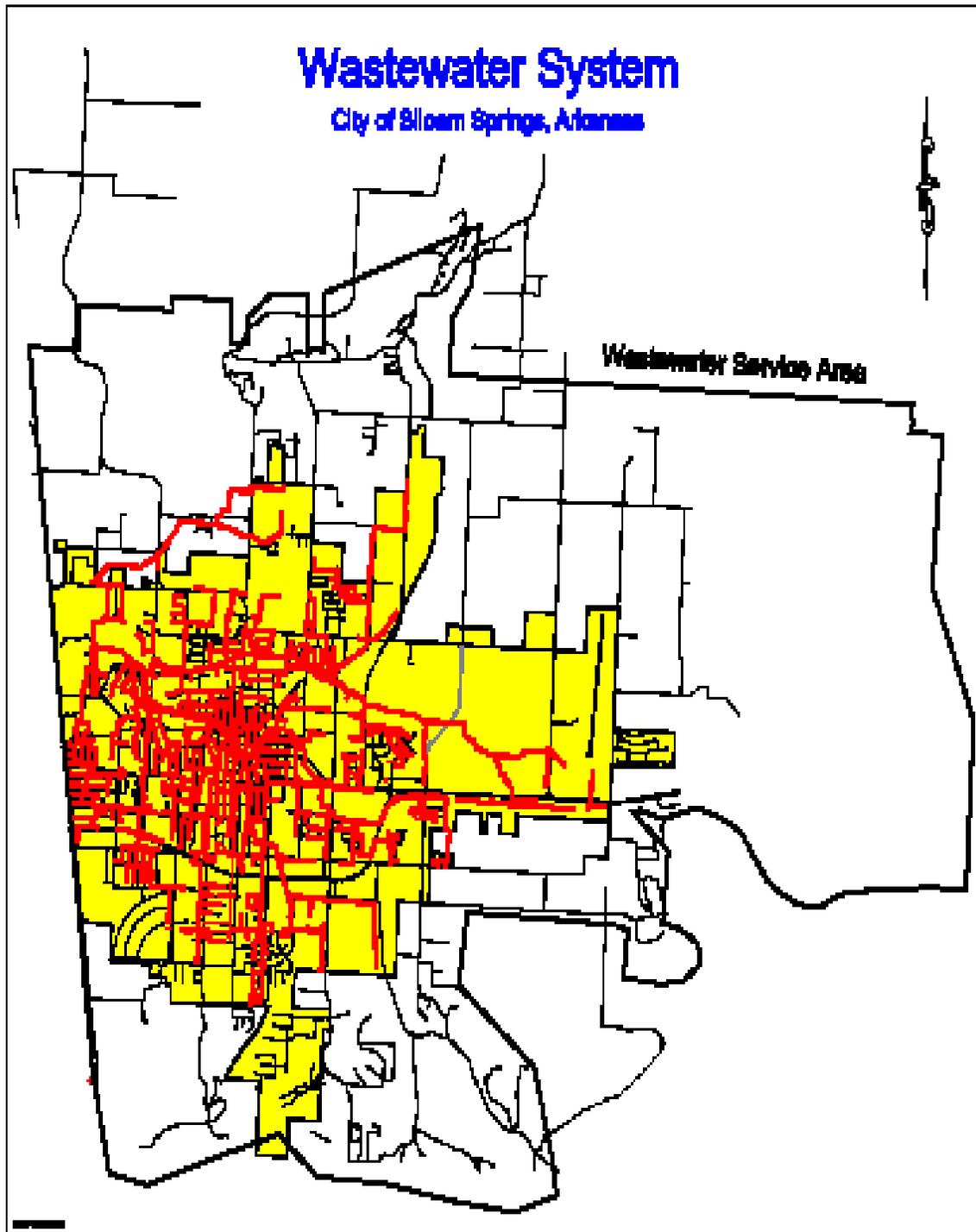
### 2.4 Future Expansion Plan

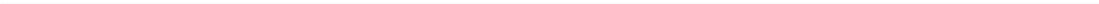
The location of new water tanks will play a role in the new service area on the north side of the City encompassing 3,600 acres. A new water improvement district may provide an opportunity for the development of approximately three million dollars in improvements. Cost sharing of this development will be coordinated through City and developer contributions as this extension will be developer driven.

Map 8: Water Infrastructure Map



Map 9: Wastewater





## **B. Urban Design Element**

### **B.1 Existing Conditions**

Siloam Springs is best classified as a mid-century craftsman style town consisting of much of the region's architectural vernacular. There are a variety of housing types and styles that constitute the community's sense of place. This is especially true in the community's historic downtown and surrounding historic neighborhoods. The community has a strong diversity of urban design that has evolved over time to create a rich scenic environment.

The development community has responded to the area's unique design overtones by redeveloping properties which fit into the surrounding design context. However, there tends to be a general post-war suburbanization on the periphery of the community's urban core. Despite these decentralizing forces, commercial properties have developed to high standards in design and materials used without government sponsored regulation.

When discussing urban design, it is important to first consider density. It is clear that low density suburban development, also known as "sprawl," has impacted the sense of place and general livability of many communities nationwide. This form of development, when left unchecked, can promote unhealthy communities by forcing a dependence on an automobile as the sole means of transport. Low density development tends to not allow for inter-connectedness between different neighborhoods or ample public/ civic space as well as semi public spaces, such as the use of front porches. By addressing density, many of the other beneficial qualities of healthy communities, such as walkability and mixed uses, can be accommodated rather simply.

According to the housing growth projections discussed in Section II-C, in 2040 there may be as many as 15,000 new dwelling units. When factoring in the common suburban density of four units/ acre, the City's size would increase remarkably. The City's size would develop approximately 74.5 percent of the existing 59 square mile planning area, while at the same time only producing a fourfold increase in population. This low density style of development will cost more than the quality of life, but also in the degradation of rural life, the increased costs of utility extensions, and a general inefficient use of land. If the population growth continues at its current rate, it will be necessary to employ different densities in order to grow in a sustainable fashion while at the same time providing a variety of housing types and same service levels to meet the citizens' needs.

### **B.2 Goals**

There are a variety of ways to address the needs of the community through urban design. The following is a listing of basic goals and objectives to achieve the sustainable growth in a character that can promote quality neighborhoods, livability, and a strong sense of place.

Goal #1—Promote quality traditional neighborhood design (TND) that is livable and sustainable.

Goal #2—Allow for inter connectedness between neighborhoods.

Goal #3—Amplify local commerce.

- Goal #4—Enhance pedestrian level scale and neighborhood amenities.
- Goal #5—Develop private, semi public, and public spaces.
- Goal #6—Promote creative, conservation, and low impact development.
- Goal #7—Intensify the use and function of the downtown.
- Goal #8—Coordinate transportation systems development with urban design.
- Goal #9—Protect natural resources through creative design.

### **B.3 Objectives**

#### Goal #1 (Quality TND.)

- Objective A—Adopt a comprehensive form-based code.
- Objective B—Adopt design standards that incorporate local architectural styles and natural building materials.
- Objective C—Develop an intentional educational program for local builders and developers to review design expectations, practices, and the best means to implement new code requirements.
- Objective D—Ensure that new standards do not inflate the cost of housing beyond acceptable affordability ratios.

#### Discussion:

Also called New Urbanism, TND seeks to reform conventional development and urban planning to contain a diverse range of housing, retail, and office types within a pedestrian friendly district. The TND goal is perhaps one of the more monumental within the urban design aspirations of this Plan. This is due to its implementation and how it will affect the building and development industry in Siloam Springs. It will be critical to adhere to these objectives in order to ensure that the goal is attained. The greatest challenge will be in implementing new code requirements. An integral part in this process will be taking proactive steps to educate the local construction and development community on the new standards and governmental expectations. A partnership will be required in order to see that quality design becomes a reality in the community.

In addition, throughout this process, it will be necessary to review how design standards affect the bottom line for housing costs. Housing attainability is also a major goal of this Plan, and the Plan does not desire to mandate changes that will drive housing out of that range. A variety of solutions to this issue may include reducing minimum lot size requirements or dwelling unit square footage, while still maintaining quality building materials and aesthetics. The key is to provide a range of suitable market products so that all income levels may be integrated within the community. Careful consideration must be taken when implementing new code requirements to ensure that changes will remain reasonable and workable for the construction industry and home buyers.

#### Goal #2 (Improve street interconnectivity.)

- Objective A—Merge the master street planning process with urban design to ensure the interconnectivity of streets and neighborhoods.
- Objective B—Require that all residential and commercial development provide street stub outs so that future subdivisions may connect.
- Objective C—Discourage an excessive use of cul-de-sac streets.

- Objective D—Provide adequate north/ south and east/ west collector streets so that all future developable lands are accessible in a grid network.
- Objective E—Ensure that all new streets at all functional classifications tie in with the existing street network and avoid street jogs.

Discussion:

It is important to address interconnectivity in sound urban design. Streets that tie in logically with multiple interfaces to the street grid promote enhanced accessibility, improved services, and navigation. Traditional blocks, grids, and radials are desired for their focal points and walkability. In lower density areas with many natural features, curvilinear streets may be used, but interconnectivity is still desired with local collector streets.

Goal #3 (Amplify local commerce.)

- Objective A—Allow for more flexibility within zoning regulations for outdoor markets, such as the Farmer’s Market.
- Objective B—Promote mixed use zoning that provides for several levels of commercial scale within residential areas.
- Objective C—Provide more incentives for businesses to move to the urban core or established neighborhoods, through mixed use zoning, parking reduction allowances, and the relief of other zoning provisions that do not apply to dense areas.
- Objective D—Promote the use of joint identification signs to aid businesses with increased exposure and to reduce excessive sign clutter.

Discussion:

The objectives seek to allow for additional opportunities for businesses to disperse away from Hwy. 412, and to reduce their scale of operation and service areas to fit into a neighborhood scale and design. These businesses may be positioned on collector level streets and will be integrated with residential areas. Doing this allows residents to walk or cycle to reach basic consumer services. Allowances and incentives may be promoted to make this commercial format work economically for smaller businesses.

Goal #4 (Enhance the pedestrian level scale.)

- Objective A—Implement a form-based code that uses transportation infrastructure as an active driver to mandate appropriate scale and design of all structures within a neighborhood.
- Objective B—Promote the use of conservation developments to ensure smaller building lots and ample public spaces in order to foster pedestrian movement and enhanced livability.
- Objective C—Ensure that all structures are designed in such a manner as to address the street and pedestrians through semi public spaces such as front porches.
- Objective D—Customize design standards to fit specific appropriate scales and densities.
- Objective E—Develop a pedestrian circulation master plan that will allow for adequate sidewalks in residential and commercial areas in order to provide a comprehensive pedestrian network.

- Objective F—Develop a master schedule to replace and add new sidewalks.

Discussion:

This goal seeks to address the treatment of different development densities and ensure that all development within different neighborhoods are consistent and harmonious. The concept behind addressing pedestrian scale is to design urban spaces that address pedestrian needs as well as the needs of the automobile. The outcome of this will create a livable community that is pedestrian friendly.

Typically, in post-war subdivisions and strip commercial developments, scale is addressed towards the automobile. This is seen with the replacement of front porches with garages and the proliferation of parking that dominates the front of retail stores. For example, larger retail stores with massive parking needs are not appropriate next to single family detached housing. Maintaining a pedestrian oriented design scale will seek to make walking as a more attractive alternative to driving.

Goal #5 (Develop private, semi public, and public space.)

- Objective A—Plan for more mixed use developments that incorporate pocket parks, governmental, educational, and religious institutions as a focal point within a residential setting.
- Objective B—Provide incentives to developers to set aside a portion of the development for public dedications for parks, trail connections, and open space.
- Objective C—Create design standards that provide bonuses to builders that provide covered front porches in their designs.
- Objective D—Create design standards that provide bonuses to builders that situate the garage to the side or rear of the structure rather than the front. Promote subdivision design that contains alleyways in order to facilitate rear loading dwellings.
- Objective E—Ensure that all properties have incentives to create and maintain landscaped front yards (when the density is appropriate) as another level of semi-private space.

Discussion:

The idea behind this goal is to allow for a greater level of interaction and socialization among people. Due to forces in the post-war era, the automobile has isolated neighbors resulting in decreased social interaction. Front porches were replaced with garages that permit occupants to enter into his or her home without ever leaving private space. This goal does not eliminate vehicular use or access, but rather shifts the emphasis to the pedestrian rather than the automobile. Dwellings can be designed so that garages are accessible on the side of the structure or by a rear alleyway. Occupants would be drawn to their front porches and yards to interact with their neighbors.

By creating a variety of public and semi public spaces, residents would be given improved opportunities to socialize with their neighbors at different levels. Ideally neighbors would use public parks or their yards, which would closely interact with the street/sidewalk. Should a neighbor desire more privacy, he or she could retire to their front porch and still interact with

those on the street. Neighbors can easily invite individuals into their semi private spaces to socialize and in turn build a stronger community. This residential model is traditionally seen in pre-war neighborhoods.

**Goal #6 (Promote low impact development.)**

- Objective A—Promote development that maximizes the use of existing utilities and infrastructure through creative design and cost saving incentives.
- Objective B—Encourage infill development through developer incentives, while discouraging low density greenfield development.
- Objective C—Make necessary changes to drainage and engineering standards to promote low impact development through:
  - Smaller street right-of-way requirements (reduces vehicular speeds.)
  - Traffic calming measures (reduces vehicular speeds and increases aesthetics.)
  - Storm water reclamation and on site detention (through the use of appropriate vegetation rather than the use of a drainage structure.)
  - Increase utilization and construction of regional detention facilities with landscaping to promote outdoor view corridors.
- Objective D—Promote design that addresses site characteristics, including vegetation resources, so that the design is harmonious with existing landscapes, rather than the design significantly altering the natural landscapes.
- Objective E—Ensure that lot sizes are small, less than 7,000 sq. ft., so that housing can be clustered and significant areas of open space may be maintained within the design.

**Discussion:**

According to the Low Impact Development Center, low impact development is defined as “a new, comprehensive land planning and engineering design approach with a goal of maintaining and enhancing the pre-development hydrologic regime of urban and developing watersheds.” The goal is to implement new technologies and design techniques that may act to maintain as much of the natural ecology and hydrology as possible, while still permitting adequate livability.

**Goal #7 (Intensify the use and function of the downtown.)**

- Objective A—Create a comprehensive marketing plan for the downtown to encourage specialty businesses to relocate in vacant store fronts.
- Objective B—Coordinate with the Main Street Organization and the Chamber of Commerce to create programs and incentives that encourage redevelopment and reinvestment into the downtown.
- Objective C—Establish a general improvement district or a Tax Increment Financing District (TIF) to ensure there are adequate resources to make improvements dedicated to the downtown.
- Objective D—Determine an identity or brand for downtown Siloam Springs that can act as an attraction point for tourists and visitors to the area.
- Objective E—Create a downtown enhancements plan, as outlined in the Downtown Parking Plan (Appendix F), to make physical improvements to the downtown.
- Objective F—Work with current businesses by providing support and retention plans to keep businesses profitable in the downtown.

- Objective G—Ensure that there is a healthy mix of residential, office and retail uses so that the downtown remains diverse and a lively activity center and destination district.
- Objective H—Promote the downtown through cultural events so that the area can be established as a destination for residents and tourists.

**Discussion:**

It is important, when considering urban design, not to neglect the downtown. In any community, the downtown is the heart of the community and needs to be a major activity center. Downtowns are becoming integrated with mixed uses so that the area is lively after regular business hours. This can be attained by adding more evening destinations such as restaurants and entertainment venues as well as businesses that service the local resident population, such as a laundry mat or a drug store. It is important to ensure that new businesses, such as restaurants, be unique and not be limited to formulaic chains. Investing in additional enhancements, such as uniform planters, event flags, and public art will also act to promote the downtown and a festive atmosphere. (See Appendix F for more details.)

It is also important to develop a partnership between the Chamber of Commerce, the Main Street Organization, and the City Government in order to find a niche that will encourage visitors and tourists to come to the area. This may include emphasis on the fine arts, nature, parks, water, or higher education through JBU. A detailed survey of the community will be necessary in order to determine what best represents Siloam Springs' identity and brand.

**Goal #8 (Coordinate transportation with urban design.)**

- Objective A—Keep urban design concepts in mind when revising the Master Street Plan.
- Objective B—Ensure that all modes of transportation are addressed in transportation planning.
- Objective C—Provide cross sections that allow for traffic calming, pedestrian access, and appropriate scale.

**Discussion:**

Good planning is tied to transportation planning; it is the principal means of controlling land use and urban design through accessibility. A concerted effort must be made to link all transportation planning to land use planning so that both systems complement each other. (See Section IV-F for more detail).

**Goal #9 (Protect natural resources.)**

- Objective A—Prevent residential development in areas designated as open space or wildlife preserves.
- Objective B—Discourage development in sensitive riparian areas and species habitats.
- Objective C—Encourage development with increased permeable surfaces to reduce excessive storm water run off.

**Discussion:**

One of the best ways to protect the environment and natural resources is through sound urban design. Unfettered greenfield development is a significant source of farmland loss and

environmental degradation. By encouraging urban infill and smart growth practices, much of the natural environment may be preserved and protected for future generations. Siloam Springs' natural beauty and rural small town character is one of the chief qualities that sets it apart from other communities.

#### **B.4 Landscaping Plan**

This section focuses on an overview of the landscape features seen throughout the City and provides suggestions for implementing a specific landscaping plan. Siloam Springs has maintained a unique landscape due to existing natural waterway and tree cover features specifically displayed throughout the downtown. This unique landscape continues to be one of the major focal points of the City. Twin Springs and Bob Henry Parks encompass this unique downtown area with mature plantings of dogwoods, oaks, tulip poplars, maples, catalpas, and several varieties of evergreens including spruces, pines, and cedars.

Coupled with the Sager Creek waterway, the tree cover and trail network is widely used by citizens of all ages. These important aesthetic landscape qualities are desired elements in the community. This need to sustain the natural quality of life was voiced at all vision sessions and public meetings and is critical in development areas. Continued residential suburban growth has taken shape in the last decade with minimal landscaping requirements.



Comprehensive landscaping standards will help achieve a higher quality of life for all citizens. Incorporating Code changes is a method to bring about improved landscaping standards. The changes may require certain landscape specifications within industrial, commercial, and residential developments. Landscaping may help interconnect all developments into one cohesive transportation and greenway system, as shown (below) in a mixed use setting. A complete interconnected system of landscaped view corridors will help ensure the preservation of the natural character in the community while also increasing social interactions among all citizens.

Landscape requirements should allow for flexibility while also maintaining Siloam Springs as a natural and aesthetically pleasing community. Upon the onset of a new development, a site analysis should be conducted that determines which features provide the most pleasing natural landscape. The site analysis should be integrated into structural designs, parking placement, and ingress/ egress points.



All landscape requirements may be based on the amount of area the site encompasses and irreplaceable natural features such as: waterways, mature tree cover, and specific historic elements.

#### 4.1 Goals

Goal #1—Increase the City’s landscape requirements.

Goal #2—Establish Siloam Springs as a Tree City U.S.A.

Goal #3—Establish continuing education landscape seminars for all residents.

#### 4.2 Objectives

Goal #1 (Increase landscape requirements.)

(See Table 12)

- Objective A—Adopt a universal landscaping plan.
- Objective B—Coordinate plan with all applicable City departments and community organizations.
- Objective C—Educate City staff on proper design review procedures to ensure the appropriate enforcement of new landscaping standards.
- Objective D—Increase landscaped connections to the City’s trail network through neighborhoods and public areas.

Goal #2 (Siloam Springs as a Tree City U.S.A.)

- Objective A—Educate Parks Advisory Board and all applicable City departments on the benefits of becoming designated.
- Objective B—Create an action plan to accomplish the goal.
- Objective C—Adopt a citywide tree ordinance.

Goal # 3 (Education landscape seminars.)

- Objective A—Provide educational seminars to all residents in community visions and expectations for landscaping.
- Objective B—Establish a citywide volunteer system to assist residents physically unable to maintain their landscaping.
- Objective C—Present to school children the benefits of environmental preservation through educational materials and demonstrations.

**Discussion:**

The Plan has outlined several Code changes discussed earlier in the urban design section. It will be vital to review and revise the City's development codes to provide for specific landscape requirements for industrial, commercial, and residential developments.

In order for this Plan to be a success, it will be necessary for City departments directly involved in development approval to enforce and promote landscaping standards. City departments will also be the primary means by which to educate the developer and building community.



Landscaped bike path  
[www.ruhraebiettouristik.de](http://www.ruhraebiettouristik.de)

### **B.5 Neighborhood Plan Concepts**

Neighborhood planning is system plan that utilizes a smaller scale design concepts and encompasses a smaller area, focused around established neighborhoods. Unlike the urban design concepts discussed in Section IV-B.1-B.3, neighborhood planning works within established areas. It is necessary to use the future land use map as a coordination tool when developing plans for each existing and future neighborhood, as they are interactive parts to the whole, rather than identical independent enclaves. During the re-codification process, it will be important to consider what level of TND design and appropriate form-based zoning should be applied to different areas based on their needs.

Each neighborhood in Siloam Springs is special in its own way and has something to offer to the City. It is important while planning for the City to address the various needs of individual neighborhoods and how they may contribute to the overall community image and character. The scope of this Plan will not go into the detail needed to properly address the needs of each area. However, it is the Plan's intent that the overall TND design and planning concepts be sufficient to initially address the basic needs of each neighborhood.

Drafting individual neighborhood plans will be a necessary step within the implementation of this Plan. While in this planning and re-codification process, the following concepts or questions represent some of the areas that should be addressed while planning for each neighborhood:

- Is the neighborhood functioning well? Do the residents feel safe?
- Is the neighborhood well maintained and inviting?
- Is the supporting infrastructure in good condition?
- Do the residents walk? Are there sidewalks?
- What type of housing is there? What is appropriate? Is there a need for another type or style of housing?

- Does the neighborhood integrate a healthy mix of residents with varied incomes? If not, how may this be accommodated?
- Should density be increased or decreased?
- How effective is vehicular circulation in the neighborhood?
- Are there public open spaces or parks within walking distance?
- Are there areas where landscaping standards may be improved?
- How might the neighborhood be visually enhanced? What visual resources need to be maintained or protected? What elements need to be added or removed?
- How does this neighborhood interact with or impact the surrounding neighborhoods?
- What strategic role does the neighborhood play in the City as a whole, what needs to be maintained or changed?
- What other planning and quality of life issues are present? How might the area be improved to better serve its residents and the community as a whole?
- Have the residents been involved in planning issues? Has there been outreach, or public comment made regarding needed improvements?

## **B.6 Gateway and Corridor Concepts**

### **6.1 Existing Hwy. 412**

Hwy. 412 is the principal mercantile corridor for Siloam Springs. The facility was constructed as a bypass from the urban core and was made open access, permitting businesses to add driveways. With this allowance and the increased exposure, new commercial development became prevalent along this corridor.

The commercial nature of the corridor has been misunderstood as the core of the community business and financial districts, bypassing the traditional downtown. The community is fortunate to not have a major arterial bisect the downtown as such a facility would undoubtedly disrupt the urban fabric of a traditional downtown. However, the disadvantage of the bypass is that often the downtown is itself bypassed by motorists, and therefore receives minimal public exposure by visitors.

Efforts are needed to ensure that motorists are aware that there is a downtown. This has been addressed by the treatment of the E. Main St./ Hwy. 412 gateway and sign that directs motorists to the downtown. In addition, identical signs are at the Mt. Olive St. and at the Holly St. intersections with the highway to indicate the “historic downtown” location. These are the first of many designs that may address this issue.

It is clear that the corridor will remain commercial and industrial in the future; however, plans may improve the overall image of the corridor by introducing commercial building design standards, landscaping, green space requirements, and signage controls. All of these controls will either be introduced or revised as part of the implementation of this Plan.

The following are concepts that may be applied to further enhance the corridor as one enters into the City:

### Signage

- Reduce the overall display area of signs seen as one enters into the community.
- Regulate the visual impact of new billboards or similar advertising structures.
- Encourage that all signs are legible for traffic traveling at 40 to 50 mph.
- Ensure that new signs do not stack with adequate spacing between different signs.
- Encourage the use of monument or decorative signs, made of natural materials.

### Gateways

- Further develop the landscaping and design of the gateway on the west entry into the downtown (E. Main and Hwy. 412).
- Add provisions for public art, flags, and green spaces accessible to foot traffic.

### Commercial Design Standards

- Ensure that new developments are linked into surrounding neighborhoods through pedestrian access.
- Implement “build to” line requirements, rather than “set back” lines, to push structures closer to the street. Require parking in the interior, side, or the rear of commercial lots.
- Require enhanced greenspace and landscaping requirements for all parking areas.
- Enforce property maintenance and structural design standards.

### Pedestrian Access

- Develop pedestrian linkages from surrounding neighborhoods to commercial uses.
- Extend sidewalks and ensure structures address the sidewalk and street (see figure on the following page).



Plan of 29<sup>th</sup> Street Shopping Center, Boulder Colorado. [www.dailycamera.com](http://www.dailycamera.com)

The example shown is of a shopping mall in Boulder, Colorado. The concepts displayed in the design engage the public at different scales, both at the standard vehicular access as well as through pedestrian access. Parking is in the interior of the lot, with ample landscaping within the gross interior area of the lots. Sidewalks are on major arterials and collector streets with structures built to them. Sidewalks are wider and planters are displayed and maintained by the businesses to help the area become vibrant and pedestrian friendly.



*29<sup>th</sup> Street Shopping Center, City of Boulder, Colorado*



*29<sup>th</sup> Street Shopping Center, City of Boulder, Colorado.*

## 6.2 Proposed Hwy. 412 Bypass and Impacts

In early 2007, the decision was made to improve Hwy. 412 by adding two travel lanes and a center median to create a six lane facility. This was after a feasibility study and several years of deliberation as to the best manner to solve increasing traffic demands for the corridor. Approximately 32,000 vehicles enter and exit the state each day, making it the third largest port of entry in Arkansas. Four options for alignment were reviewed by the Arkansas State Highway

and Transportation Department (AHTD) through an Environmental Assessment process. These options included two routes to the north of the City, one route to the south of the City, and improving the existing alignment.

Careful consideration must be made when discussing the corridor as a viable multi-modal facility. With increased traffic and speeds on the facility, it may be necessary to reduce conflicts with motorists having to turn right upon egress from commercial uses. It will be safer to route access to side streets and to signalized intersections in order to access the highway. An adequate buffer will be needed between people and vehicles to ensure that sidewalks remain a viable, safe, and pleasant walking environment. Ensuring speed limits remain low will also help achieve this.

The City has partnered with AHTD in order to ensure the completion of the facility within a timely manner. This includes major utility relocations, and may also include lighting packages, and coordination on any applicable access/ frontage roads, and the potential for a pedestrian overpass. (See Section IV-F.) Improvements on the highway will likely occur in early 2009, with utility relocations occurring in 2008.

### 6.3 East Main St.

This corridor was the subject of review by City staff in 2004 as part of an overlay district to coordinate the street improvement with urban design for the area. These efforts, although not finalized, should resume through an overlay zoning district. (See Section IV-B.7.3.4 for more details on overlay districts.) Special considerations should be made regarding the emerging cultural aspects of this area and how they play a role in the City as a whole. The City will be able to utilize this emerging urban trend to foster a vibrant district to help pedestrians and motorists feel welcomed while en route to the downtown. The following represent basic design features needed when developing the overlay district for this corridor:

- Sidewalk railing under the railroad overpass.
- Five to eight foot sidewalks.
- Plantings for screening of industrial areas.
- Curb and gutter.
- Defined driveways.
- Parallel parking.
- Street amenities and furniture.
- Bricked pedestrian crosswalks.
- Landscaping and green space requirements.
- Stringent signage regulations.
- Decreased front setbacks.
- Parking in the rear of structures.
- Property maintenance and structural design standards.

### 6.4 Mt. Olive St.

Mt. Olive St. needs to take a similar approach as with E. Main St. Mt. Olive St. is an emerging mixed use corridor that transitions from commercial to residential several times. This corridor is

ideal as a major entry point into the historic downtown. The following design features are needed when developing plans for this corridor:

- Landscaping both on public and private property.
- Street art/ banners to introduce the downtown.
- Stringent sign regulations.
- Property maintenance and structural design standards.
- Bricked pedestrian crosswalks.
- Street furniture and amenities.

### 6.5 Progress Ave.

The scale of Progress Ave. (to be completed in 2008) will be larger than that of Mt. Olive and E. Main Streets. The corridor will be a major activity center for retail and civic uses, as the proposed High School will be located at the corner of Cheri Whitlock Dr. and Progress Ave. However, considerations must still be made for all modes of transportation, including pedestrian and bicycle access. Like the concepts mentioned for the Hwy. 412 corridor, similar treatment must be made in order to ensure that this area meets sound planning requirements for the betterment of the entire community. The following design concepts are needed when planning for this area:

#### Signage

- Limit the overall display area of signage.
- Encourage that all signs are legible for traffic traveling at 30 to 40 mph.
- Ensure that new signs do not stack with adequate spacing between different signs.
- Encourage the use of monument or decorative signs, made of natural materials.

#### Commercial Design Standards

- Ensure that commercial developments are linked to abutting mixed use neighborhoods through pedestrian access.
- Encourage structures are to a human rather than a vehicular scale.
- Implement “build to” line requirements, rather than “set back” lines, to push structures closer to the street, creating a street wall. Require parking in the interior or the rear of commercial lots.
  - This street wall will foster a sense of higher density, slow traffic and improve the pedestrian walking environment.
- Require enhanced interior green space and landscaping requirements for all parking areas.
- Require property maintenance and design standards.

#### Pedestrian Access

- Develop pedestrian linkages from surrounding neighborhoods to commercial uses.
- Develop sidewalks along the corridor, have structures address the sidewalk and street.
- Ensure that bicycle paths are included along all walking trails and appropriate street connections.
- Encourage street trees in the median and cross walks to act as traffic calming measures.

## B.7 Development Standards and Guidelines

### 7.1 Unified Development Code

The Unified Development Code (UDC) is defined as an overarching code that combines stand alone development codes into one master document. In the case of Siloam Springs, it would combine the Subdivision Regulations, Master Street Plan, and Zoning Code into one set of standards. (See figure 2 below.)

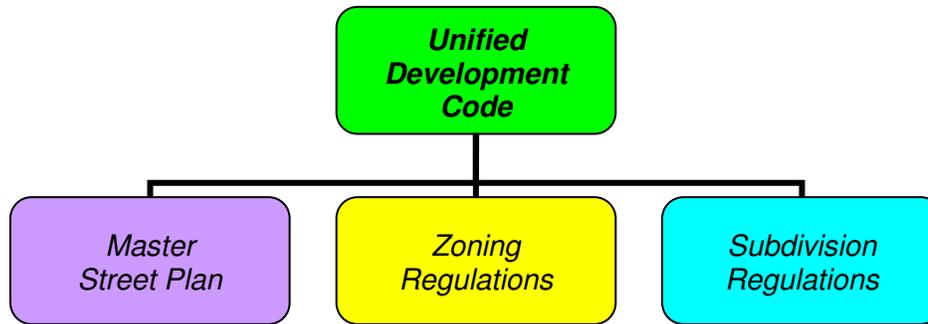


Figure 2 Unified Development Code

It is proposed that the UDC would be one chapter in the current Code. During the re-codification process, it will be necessary to consult with other experts and communities that have UDCs in order to learn the most effective approaches in implementing the new standards.

The UDC has several advantages. Some of these include:

- New standards may be added into the UDC as necessary. Examples of this include the sign code, landscaping regulations, or drainage standards.
- The UDC can streamline development regulations into one set of standards.
- The UDC can use easy to follow tables and diagrams to demonstrate standards pictorially.
- The UDC can eliminate Code redundancies or conflicting provisions.
- The UDC will establish one set of guidelines and development ideology to provide a unified development approach.

### 7.2 Update the Master Street Plan

In order for TND principles to take shape effectively throughout all of the development regulations, it will be necessary to update the current Master Street Plan (MSP). The current document was drafted and approved in 1999, and is overdue for a major update. The new MSP needs to take into consideration such factors as street widths related to the adjacent height and bulk ratios, street cross sections that allow for alternative modes of transportation (such as bike paths and sidewalks), and the greater connectivity between and among developments in order to establish a street grid network. (For more information about the MSP as well as goals and objectives relating to the needed update, see the Circulation Element, Section IV-F.)

### 7.3 Update Zoning Regulations

Updating zoning regulations is perhaps the single most effective way to implement the Plan as it is the principal vehicle used to implement land use controls. Siloam Springs currently uses Euclidean zoning that was adopted in 1963. The current zoning regulations effectively attempts to separate uses and protect the single-family attached home from all other uses. It is clear that there are other TND goals that need to be addressed that would require an overhaul of existing regulations.

#### 7.3.1 Form-Based Code

Currently there is a movement to reform zoning codes as the regulatory foundation of the Smart Growth movement. Form-based codes are the result. The concept looks at redefining the traditional principle that form follows function. The code's primary relationship is centered on regulating the structures, their form, rather than use, or their function. The code actively regulates visual aspects such as height, bulk, and façade treatments. The code also looks at the relationship of structures to the street, the built environment, and managing the appearance of the public realm. Form-based codes may be applied to existing and developing areas through an overlay district or through the base code for the entire community. It will be important to target key areas for a pilot study in order to ensure appropriate changes work before all zones are re-codified to form-based coding. This transition will depend on the direction of future committees, City leadership, and City staff.

The following are key Form-based code conceptual principles:

**Zoning Districts**—Defined around districts, neighborhoods and corridors where conventional zoning districts may bear no relationship to the transportation framework or the larger area.

**Regulatory Focus**—De-emphasize density and use regulation in favor of rules for building form. They recognize that uses may change over time, but the building will endure.

**Uses**—Emphasize mixed use and a mix of housing types to bring destinations into close proximity to housing and provide housing choices to meet many individuals' needs at different times in their lives. The code discourages single use developments.

**Design**—Greater attention is given to streetscape and the design of the public realm, and the role of individual buildings in shaping the public realm. Recognizes how critical these public spaces are to defining and creating a "place."

**Public Participation**—A design-focused public participation process is essential to assure thorough discussion of land use issues as the code is created. This helps reduce conflict, misunderstanding, and the need for hearings as individual projects are reviewed.

(Local Government Commission; Form-based code Fact Sheet)

When addressing many of the design concepts explored in this Plan, the use of form-based codes should be considered as an effective vehicle to achieve preferred urban design outcomes.

In many ways it addresses the core concerns head on by regulating the aesthetic appearance of structures. Form-based coding is compatible with the concept of mixed uses, discussed in Section III-C, as the separation of uses, or single use developments, is not the primary objective.

In order to implement all of the urban design goals of the Plan, the following guidelines need to be addressed within form-based coding and TND concepts.

- Establish design standards for all new commercial construction and construction in historic areas.
  - Provide approved building materials lists.
  - Provide appropriate architectural standards and design as appropriate to the context of the area. New structures need to blend in and contribute to the neighborhood.
  - Implement through a points/ incentive system so builders and developers have options to adhere to their choice of standards.
  - Ensure structures meet the scale of the surrounding neighborhood.
  - Encourage the adoption and active use of protective and restrictive covenants for further control.
  - Target form-based controls in pilot commercial and historic areas.
- Codify principles from the communitywide landscape plan. (See Section IV-B.4 for more details.)

### 7.3.2 New Zone Districts

In order to implement all urban design goals of this Plan, adding new zone districts for a more precise definition of use will be required. The following new zones should be considered:

- Establish office zoning.
- Establish institutional/ church zoning.
- Establish mixed use zoning, define the use and appropriate implementation of the Planned Development (P-D) district.
- Expand densities for residential, commercial, and industrial uses.
- Establish viable overlay zones.

### 7.3.3 Planned Unit Development Design Standards

As mentioned above, the P-D district should be established in order to allow for and also promote Planned Unit Developments (PUDs). The true advantage of PUDs is the flexibility they afford to the developer to customize their own standards based strictly off of the site characteristics and development style. The City should play an active role in the design process by adding conditions to these approvals that are based off of the sites unique needs that address the public interest, i.e. additional sidewalks, additional parks, etc. PUDs should also have specific guidelines. Some of these can include:

- Neighborhood context sensitive design.
- A maximum lot size.
- Open space requirements.
- Design considerations for natural features on the development site.

As this program of development is new to Siloam Springs, there should be incentives offered to encourage this style of development over the conventional forms.

#### 7.3.4 Overlay Zone Districts

Overlay districts are another valuable tool to further add regulations over a base zone. An overlay zone is applied on top of the provisions of the base zones. Overlay zones are needed in order to better target specific areas of the community that need particular urban design and zoning considerations. As mentioned in Section IV-B.6.3, the E. Main St. corridor is a prime example of an area that can benefit from an overlay zone district. Additional areas that may be considered include historic districts, major corridors, or cultural districts.

#### 7.4 Update the Subdivision Regulations

In order to fully address needed changes, it will be important to review the current Subdivision Regulations within the City. While form-based codes address individual structures and their contribution to the neighborhood, they do not address the macro design of neighborhood street layout. The City is currently reviewing the Subdivision Regulations to make some functional based changes. During this process, design changes should be taken into consideration in order to elicit quality urban design, while still allowing the developer the flexibility of design choice through a variety of concepts.

The Conservation Design concept is a possible approach when updating the Subdivision Regulations. Similar to the Smart Growth movement, there are changes in thought as to the best approach to develop a livable and sustainable subdivision design. Conservation design takes into account environmental and cultural conditions as part of the design process. This is achieved through an intensive and detailed site survey prior to any design. Natural features are identified and the design occurs around these features. The identification of relevant site features is the most important part of the process as it is the foundation of the design to follow. The following steps should be incorporated to achieve quality conservation in subdivision design:

1. Step-One: Identify existing resources.
  - a. Create a site analysis map.
    - i. Include wetlands, floodplains, existing terrains, woodlands, and geological site features (such as rock outcroppings).
    - ii. Include cultural, historic, aesthetic, and scenic features (such as hedgerows, large trees, stonewalls, meadows, scenic views, etc.).
2. Step-Two: Conduct an on-site visit.
  - a. Once the site analysis map is completed and submitted with the application, plan reviewers make a site visit with the resources analysis map in hand.
  - b. Reviewers corroborate actual features against map analysis.
  - c. Reviewers determine what intensity and manner of development would be appropriate for the site.
3. Step-Three: Sketch Plan.
  - a. Conceptual plan for the initial layout of the development.

- i. Includes areas for development and areas for conservation.
  - ii. Prepared as an overlay sheet on top of the site resource analysis, with the development footprint.
4. Step-Four: Design Approach.
- a. Conservation areas are determined first.
  - b. Ensure that a certain percentage of unconstrained (usable) land is designated as open space.
  - c. Select development location, position dwellings to maximize natural features such as: open space, commons, greenways, playing fields, farmland, water features, or forest preserves.
  - d. Align streets and trails to serve dwellings and open spaces.
  - e. Insert lot lines (this is the least significant part of this process).



In addition to conservation design, as mentioned in Section IV-B.2-B.3, the Subdivision Regulations needs to address drainage design that works to minimize storm water run off. For more information, refer to the goals in this area for direction on additional revisions to the Subdivision Regulations.

### 7.5 Summary of Code Updates

The following represents a summary of the code updates and how they relate to one another as part of the UDC.

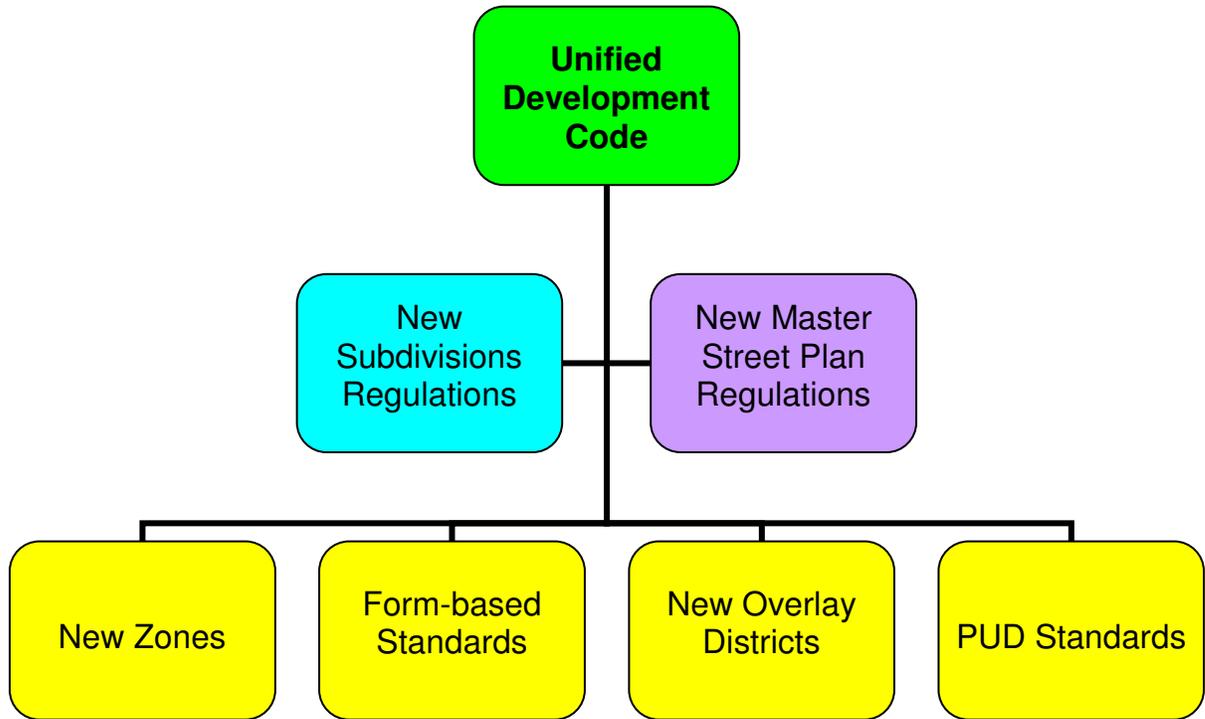


Figure 3 Zoning and Unified Development Code

## **B.8 Historic Preservation**

### **8.1 Background Information**

Historic preservation tends to be handled through the broader powers associated with zoning and the designation of specific districts in which additional regulation would be set upon all structures therein. This approach tends to be more effective for general enforcement than other options. There are two general designations of historic districts:

- The National Register of Historic Places – Maintained by the U.S. Park Service to recognize significant structures and places, including historic parks, battlefields, historic landmarks, memorials, and monuments. This designation is widely used, but does not provide actual protection to structures. Structures may be individually added to the National Register, or included in a historic district, again with no enforcement abilities.
- Local Preservation Ordinance – This ordinance is the regulatory approach to mandating preservation within a municipality. There are two ways to create a local Historic District (HD):
  - Overlay on an existing National Register Historic District.
  - Create boundaries specific to the wants and needs of the City.

Once the municipality has determined that a HD is desired, a Historic District Commission (HDC) will be appointed to oversee all exterior changes in the locally designated historic district(s). The following is a listing of how an HDC is set up and how it operates.

- Process in developing a HCD and a regulatory HD:
  - The Mayor appoints the members on the HDC (the State will assist in training of Commissioners).
  - The HDC prepares a report on historic structures in proposed district(s).
  - HDC reports to the Board of Directors and recommends a preservation ordinance.
  - Passage of the preservation ordinance by the Board of Directors.
  - City applies to become a Certified Local Government (CLG).
  - City applies for grant to develop guidelines for district.
  - HDC works in conjunction with a non-profit group, such as Main Street Partners, or “Neighbors for Preservation.”
- How the Historic District Commission works:
  - The applicant within a HD presents proposed building alterations to the HDC.
  - HDC reviews changes for their appropriateness, including a public hearing and adherence to specific design guidelines.
  - Upon approval, HDC issues a Certificate of Appropriateness (COA).
  - The applicant applies for a building permit.
  - Enforcement – the City will not issue a work permit without a COA; violators of the preservation ordinance can be found guilty of a misdemeanor in municipal court. Aggrieved property owners can appeal HDC decisions in circuit court.

It is important to note that historic preservation is a movement that needs to be promoted in order for it to succeed. Listed below are several options and incentives available to encourage historic preservation for individual property owners as well as municipal governments.

Historic Preservation Tax Incentives– Fosters private sector rehabilitation of historic buildings and promotes economic revitalization. These programs are available for structures that are listed in the National Register or that contribute to National Register Historic Districts and certain local historic districts.

Federal Rehabilitation Tax Credit – This program allows private owners of certified historic properties to take 20 percent of qualified costs as a credit on their federal income taxes. (Several Arkansas preservation groups have advocated for a corresponding state tax credit in recent years.)

Historic Preservation Easement – Enables a historic property owner to establish certain preservation restrictions while retaining possession and use of the property, in exchange for a one-time charitable deduction on their income taxes.

Certified Local Government Grant – Arkansas Historic Preservation Program receives an annual allocation from the Federal Historic Preservation Fund (HPF). If a city has a locally designated Historic District, the City may apply for funding from this source. At least 10 percent of the HPF is passed through to CLG. This money can be used anywhere within the City, for activities such as: training for commissioners, staff assistance, architectural surveys, National Register nominations, restoration, and rehabilitation work.

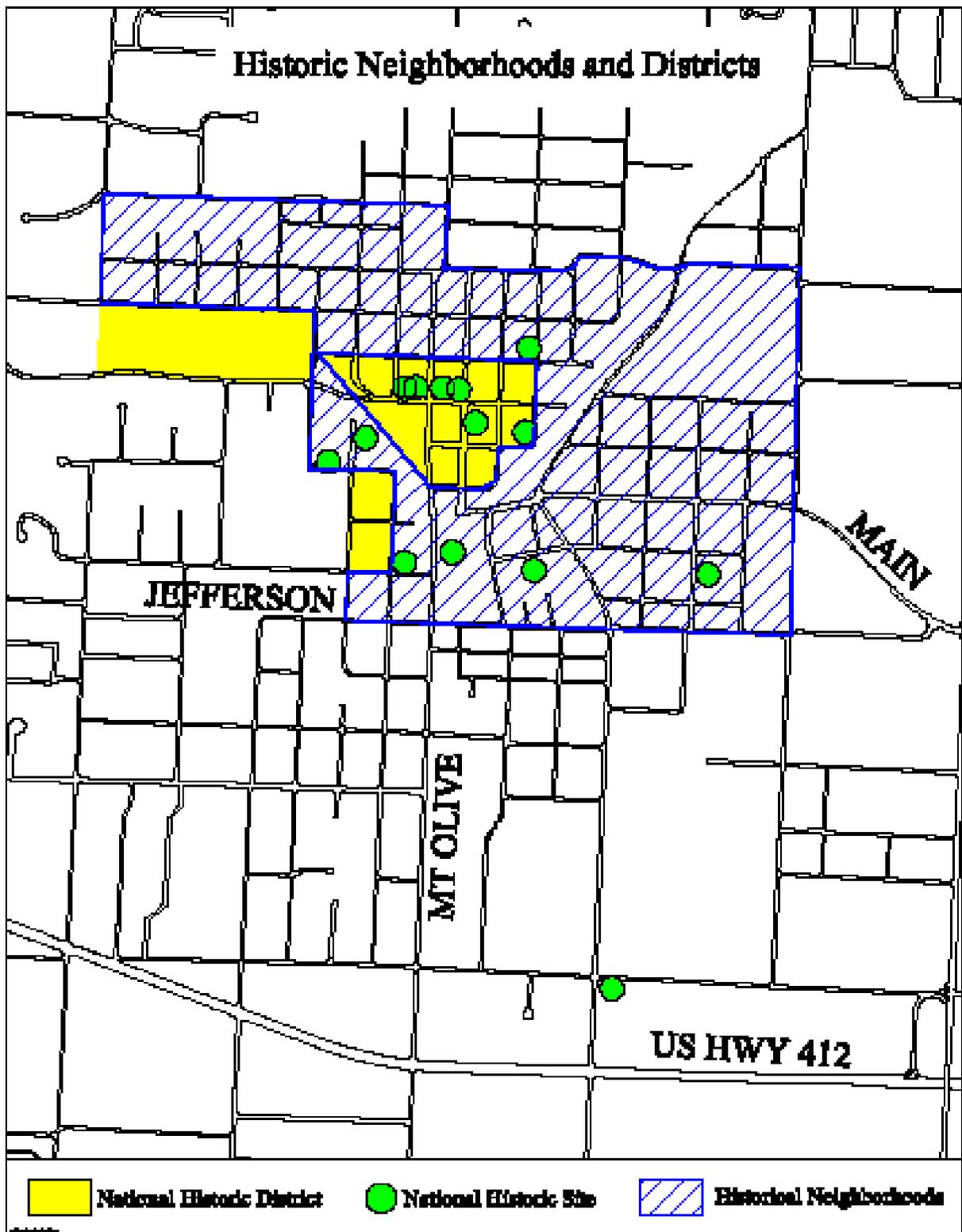
In addition to these incentives, the Arkansas Historic Preservation Program, the National Trust for Historic Preservation, and other entities offer a variety of grants, loans, and technical assistance for preservation projects.

## 8.2 Existing Conditions

In many ways, Siloam Springs' historic resources are similar to its natural resources. Like natural resources, historic properties are finite and endangered. Also like natural resources, once a historic property is lost it cannot be authentically recreated. The community has a rich fabric of historic properties that are listed on the National Register. There are 24 listings on the register, of which 21 are habitable properties. The remaining three consists of monuments or landmarks and the Siloam Springs Downtown Historic District. (See Appendix E for a photo listing of the 24 places in the National Register Historic Places.)

The majority of structures listed on the National Register date from the community's early days in the second half of the nineteenth century and early twentieth century. It is clear that there is a rich history and heritage upon which the community should focus and preserve. Currently there are no regulations on demolition or alterations to any structure on the National Register or in the designated Downtown Historic District.

Map 10: Historic Neighborhoods District Map



The City of Siloam Springs has a vast collection of historic properties not listed on the National Register. These are better classified as historic or potentially historic neighborhoods. The following is a listing of the principal neighborhoods in the community that require special care and attention while developing new regulations as well as specific plans.

Historic Neighborhoods:

- College Addition.
- Carl's Addition.
- Siloam Springs Original Addition.
- Beauchamp's Addition.
- Old Quaker Town.
- Couches Addition.
- Hico Area.
- Teague's Addition
- Crain's Addition
- R.S. Morris Addition
- Bartel's Addition
- Gunter's Addition
- W.M.C. Tates Addition
- Carter's Addition
- Ford's Addition



### 8.3 Justifications

In addition to being a tool in creatively maintaining the historic built environment, historic preservation can be a powerful community and economic development strategy. Historic preservation can:

- Maintain a sense of place and strengthen community pride – the community has a lot of potential in this regard, including the historic downtown and Sager Creek.
- Stabilize and increase residential and commercial property values through a local historic district.
- Increase the availability of affordable housing through the utilization of the City's existing historic housing stock.
- Draw investment and activity back to the downtown and historic areas.
- Create jobs and increase local business, through historic building rehabilitation, which can be more labor intensive than traditional home construction.
- Increase the benefits of heritage tourism. These tourists typically remain longer and invest more into the community during their visit.

- Reduce needed construction materials by reusing the original structure, thereby requiring less consumption of natural resources.

#### 8.4 Goals

This element of the Plan sets forth goals and a course of action for the preservation and treatment of these historic resources. The goals reflect local attitudes and values toward historic preservation.

Goal #1—Establish historic preservation as high priority in the development of future City programs.

Goal #2—Devise and implement strategies and incentives that encourage historic preservation.

Goal #3—Strengthen the integration of historic preservation into the broader land-use planning and decision-making policies.

Goal #4—Assist and cooperate with owners of historic property and sites to identify, recognize, and plan for the use of their property to ensure compatibility with preservation objectives.

Goal #5—Pursue membership in the Main Street Arkansas program.

#### 8.5 Objectives

Goal #1 (Historic preservation as high priority in City programs.)

- Objective A—Increase the connection between preservation and the City functions of economic development and planning.
  - Require a critical project review and evaluation prior to the demolition of publicly-owned structures or sites that are eligible for or listed on the historical register.
- Objective B—Create and adopt appropriate HD and a governing HDC.
- Objective C—Create a Historic Preservation Plan (HPP).
  - Use the HPP as a statement of the community's goals and objectives for its historic resources.
  - Coordinate the HPP with other policies for housing, economic development, transportation, etc.
  - Institute a continuous process to unite the preservation goals of citizens and interest groups to coordinate local preservation efforts.
  - Seek membership to the CLG program as a means to establish partnerships in historic preservation activities.

#### Discussion:

The HPP is intended to be a supporting document to this Plan. It will work in concord with all other planning goals and objectives so preservation efforts are not bypassed during the local planning process.

Goal #2 (Strategies and incentives that encourage historic preservation.)

- Objective A—Propose and support state legislation that encourages historic preservation.
  - Emphasize tax reform legislation that makes historic preservation more economically feasible. This should include legislation that offers such incentives for privately-owned historic properties.
- Objective B—Coordinate preservation of existing attainable housing with the City preservation program.
- Objective C—Research the availability of grants from state or federal agencies for the promotion of citywide enhancements and preservation efforts.

Goal #3 (Integration of historic preservation into the broader land-use planning.)

- Objective A—Review existing ordinances and develop new ordinances to implement the HPP.
- Objective B—Promote adaptive reuse of existing structures and adopt regulations that reinforce the historic character of certain districts.
- Objective C—Allow the deviation of parking requirements and reduction of site dimensional standards to alleviate regulatory conflict with historic structures.
- Objective D—Obtain the report on the Siloam Springs Downtown Historic District from the state.

Discussion:

It is important to review all current Code requirements to ensure preservation remains a priority at all levels. Regulations should promote preservation and renovation, rather than demolition. Review of current regulations should be extended to include the zoning ordinances, building regulations, and design standards. The report on the Downtown Historic District will help provide a base line of what historical aspects need to be preserved and the scope of what regulations are needed.

Goal #4 (Ensure historic property owners comply with preservation objectives.)

- Objective A—Assist property owners with identification, recognition, and planning for the use of their properties to meet preservation goals.
- Objective B—Create preservation incentives.
  - Preservation incentives can include reduced taxes and deviation from development standards.
  - Public recognition of owners who have undertaken appropriate rehabilitation of historic properties may also serve as an incentive.

Goal #5 (Pursue membership in Main Street Arkansas.)

- Objective A—Ensure that the local Main Street organization has the tools it needs to obtain Main Street Arkansas membership status.
- Objective B—Coordinate membership process with the local Chamber of Commerce.

Discussion:

Main Street Arkansas is a program of the Arkansas Historic Preservation Program, an agency of the Department of Arkansas Heritage. The program provides technical assistance, design services, and small business consultations that help create economic development in the state's downtown areas and thus encourage preservation of historical buildings within the downtown area.

**B.9 Annexation/ Future Growth Area**

9.1 Goal and Objectives

During the planning process for this Plan, the City has looked into expanding north and east as part of a major annexation. The City's primary goals and objectives for the annexation are as follows:

Goal—To effectively plan for the City's future growth with the least financial impact on existing City residents.

- Objective A—Use Carroll Electric's existing system as a driver for the land area proposed.
- Objective B—Ensure that City Lake is included in the annexation.
- Objective C—Determine all the potential costs and projected revenue that will occur should the proposed annexation area be annexed.

Discussion:

This annexation project has been a goal for the City for approximately three years. The City has desired to increase potential revenue and plan for future growth by annexing lands that are considered prime growth areas. The annexation project was initially broken into several phases, intended to be implemented over a three to five year time frame. The first phase of the annexation accepted an area in northwest Siloam Springs comprising the Villa View Addition. The annexation occurred in October of 2004 and consisted of 31 properties containing 94.3 acres.

After Phase 1 was completed, the annexation project took a new direction where there was increased emphasis in the analysis of the annexation's projected costs and potential revenue. This on-going in-depth analysis took into account predicted growth rates in housing starts, a build out analysis, and potential future density. Much of the data used for this analysis is discussed in Section II-C.1 Growth Trends.

Phase 2 initially contained 3,847 acres to the north and east of the current City limits. Based off of the fiscal findings of the Phase 2 analysis, it was determined there are challenges that remain in order to ensure that the annexation is not cost prohibitive. However, analysis was also made to indicate that the costs of not annexing may be even greater in the long run.

It is inevitable that the City and the surrounding urbanized area will continue to develop. Historically, over the previous 15 years, the City's housing stock has grown on average by

3.79 percent. There is no indication that this will falter despite the 2007 slump in housing demand. In 2004, the City also completed 13.5 miles of new wastewater lines that are situated primarily in the annexation area. By adding services to the area, the land is prime for future development.

Should the City fail to annex these potentially high growth areas, the City will lose potential tax and utility revenue as well as land use control through zoning. Furthermore, it has been shown through the build out analysis that, at the current growth rate, the City will run out of developable land within the current City limits by 2032. Once this growth threshold is reached, the City's growth will be stifled, further degrading tax revenue growth of the City's share of state turn back funds and its share of the Benton County Sales Tax, which is based off of the City's percentage of population to the County's total population. Finally, and perhaps most importantly, the future land use map, as discussed as part of this Plan, would fail to be realized without the required zoning land use controls.

The City staff is continuing to work on determining the best area to annex to reduce costs and ensure the goals of this project are fulfilled. The project continues past the scope of this Plan, however it remains an integral part of the implementation of this Plan in order for the proposed land uses to become legally binding.

## **C. Public Facilities Element**

### **C.1 Parks and Trails**

#### **1.1 Existing Conditions**

Siloam Springs maintains a high standard for its parks and recreational facilities, events, and programs. The focus is to provide opportunities for individuals and families to participate in a variety of recreational activities. Residents have access to 15 acres of park land. In addition, the community also has six miles of multi-use trail that connects schools, neighborhoods, and recreational facilities. The Community Building, Family Aquatic Center, and park pavilions are some of the recreational facilities available to the community.

#### **1.2 Goals**

The community desires to lay out a framework to develop a comprehensive park system in a logical and efficient manner. The community, as assisted by the Parks and Recreation Department, shall be guided by the following goals intended to serve the public's interest, protect public parks, enhance trails, and preserve open space assets.

Goal #1—Acquire new parks, trails, green space, and facilities.

Goal #2—Improve current parks and facilities.

Goal #3—Increase citizen involvement.

Goal #4—Enhance community programs and events.

#### **1.3 Objectives**

Goal #1 (Acquire new parks, trails, green space, and facilities.)

- Objective A—Develop a new park on the south side of Hwy. 412.
- Objective B—Research and draft funding for future park and trail expansion projects.
- Objective C—Locate and purchase land for future park space.
- Objective D—Design themed parks that connect to the existing and future trail system.
- Objective E—Build a multi-use community family center.

Discussion:

The community family center is conceptualized as an “indoor park,” (Objective E) and is located on the future land use map at Hwy. 43 and N. Hico St. This will be geared towards families with children through the provision of indoor play equipment and a child sized climbing wall. The family center would also have a gymnasium to be used by teens and young adults for basketball and potentially indoor soccer. The City currently has no dedicated facility, apart from the school's system facilities, for indoor basketball and soccer. In addition to the gymnasium, the facility will have a walking/ running track. The scope of this facility would be independent from the Boys and Girls Club facility, thereby necessitating both facility services due to the different targeted age groups and programming.

The community family center would also feature space for nature classes, community gathering spaces, and possibly a green house, if the facility was integrated with a larger park.

In addition, the facility would be opened to the public, but only during the colder months or during special events, as an indoor recreation alternative.

In addition to the family center, it will be important to look into the development of specific parks for various user groups. This would include gated dog parks, themed parks, passive recreational parks, and active recreational parks. Having a wide range of park schemes will ensure that the largest percentage of citizenry is served through a well programmed parks system.

**Goal #2 (Improve parks.)**

- Objective A—Update Master Trail Plan.
- Objective B—Develop a master greenway plan.
- Objective C—Continually evaluate parks and facilities for diversity and quality.
- Objective D—Maintain and improve existing natural resource features.
- Objective E—Expand Bob Henry Park to the west.

**Goal #3 (Increase citizen involvement.)**

- Objective A—Create citizen awareness.
- Objective B—Seek funding to support volunteerism.
- Objective C—Design programs and events that are multi-generational.
- Objective D—Improve communication outlets.

**Goal #4 (Enhance programs and events.)**

- Objective A—Gather feedback and understand the needs of the community through active involvement.
- Objective B—Update current facilities.

**1.4 Policy**

1. **Parkland Acquisition Policy.** It is the intent of the City to:
  - a. Develop, adopt, and maintain procedures for selection, classification, and acquisition of parklands.
  - b. Utilize the resources of local, state, regional, and national conservation organizations, corporations, non-profit associations, and benevolent entities to identify and acquire environmentally sensitive land, urban wildlife habitat, or open space/ preservation areas within the City and its planning area.
2. **Park and Facility Improvement Policy.** It is the intent of the City to:
  - a. Prepare a master plan to guide the use and development of all City-owned and/ or operated parks. In preparing the master plan, the City shall actively involve the community, neighboring property owners, potential users and professionals in the field of parks and recreation.
  - b. Provide parks amenities such as lighting, seating, drinking fountains, trash receptacles, bicycle racks, and shelters wherever possible.

- c. Provide barrier-free (ADA compliant) access, where achievable, by modifying existing facilities, and did in the design of new facilities.
  - d. Park design shall conform to local ordinances or recognized state and national standards for access, safety, health, and protection of humans and domestic animals.
  - e. Park development shall be of high quality and aesthetically pleasing.
3. Citizen Involvement Policy. It is the intent of the City to:
- a. Encourage and support development of local neighborhood, volunteer, and community based programs for park improvements. Include participation of civic clubs, non-profit organizations, and organized groups interested in recreation.
  - b. Encourage a sense of parks and recreational stewardship among citizens.



## **C.2 Hospital and Public Safety**

### **2.1 Siloam Springs Memorial Hospital**

#### **2.1.1 Existing Conditions**

Siloam Springs Memorial Hospital (SSMH) is a licensed 73 bed, community-based, not for profit, acute care facility, accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), State of Arkansas Department of Health Services, and meets all conditions of participation with the Medicare/ Medicaid programs certification. ([www.ssmh.us/Navigation.htm](http://www.ssmh.us/Navigation.htm).)

SSMH is located in the center of Siloam Springs in a 70,000 sq. ft. facility, with a service area that includes much of eastern Oklahoma, western Benton County, and southwest Missouri. Approximately 40 percent of the patients originate from Oklahoma. The hospital services approximately 16,000 patients annually, of which 80 percent are admitted in the Emergency

Room. SSMH employs 258 staff, making it the largest health care provider in the area. SSMH is presently owned by the City of Siloam Springs and is governed by a seven member Board of Governors, who are appointed by the City Board of Directors. The SSMH Board provides support and guidance to the hospital management. Presently, the City is looking into selling the facility to a private operator.

SSMH provides primary care, internal medicine, surgical and obstetrical services, inpatient and outpatient care, Intensive Care Unit, and 24 hour emergency services. In addition, SSMH provides wellness educational programs, support groups, and community outreach services. The hospital is funded in part through the assistance of the non-profit SSMH Foundation. The SSMH Foundation, Inc. was organized and incorporated in October, 1990, at the end of a capital campaign that raised \$700,000 from the corporate and private community. The Foundation consists of a volunteer board, an executive director, and an administrative assistant. ([www.ssmh.us/Navigation.htm](http://www.ssmh.us/Navigation.htm).)

### 2.1.2 Goals and Objectives

The hospital is currently at 68 percent capacity. This percentage is increasing. In February of 2007, there was a period when new admissions needed to be halted and diverted to other health care facilities due to patient capacity threshold issues. There is a need for a larger facility in order to meet the growing needs of the community and to retain as many potential patients as possible. SSMH estimates that as many as 50 percent of potential patients are lost through migration to other, more modern, health care facilities. SSMH desires to expand its services to the community. The following is a listing of SSMH goals.

Goal #1—Meet future healthcare needs of the community and region.

Goal #2—Provide healthcare in a modern facility.

Goal #3—Expand healthcare services.

### 2.1.3 Objectives

Goal #1 (Meet future healthcare needs.)

- Objective A—Construct a new healthcare facility.

Discussion:

It will be necessary to raise private investment funds for this endeavor. The new facility would need to have at least 60 beds and may need expansion after the first year of service. The new facility would need to be coordinated with major transportation systems as well as air travel for helicopter service.

The future land use map has selected a potential location for the medical complex that best meets the needs of the community and the facility itself. This potential location is on the south side of Hwy. 412 between Progress Ave. and Hwy. 59, although other locations may be considered as well depending on land availability and strategic community accessibility.

Goal #2 (Provide modern care.)

- Objective A—Construct a new healthcare facility.

Goal #3 (Provide more services.)

- Objective A—Construct a new healthcare facility.
- Objective B—Hire staff in the areas of desired expansion. SSMH desires to expand in the following service areas: cardiology, pediatrics, ENT, urology, and a vascular specialist.

2.2 Police Department

2.2.1 Existing Conditions

The City of Siloam Springs Police Department (PD) is responsible for public safety, emergency response, and law enforcement. The PD employs 29 police officers through a centralized command post. The PD also receives 911 calls from throughout the area through their central dispatch call center. The PD defines its service around the following basic functions: law enforcement, crime prevention and investigation, and managing administrative operations.

2.2.2 Goals

The PD has identified the following expansion needed upon the proposed annexation. The funding objectives for the following goals are provided through the City's annual budgeting process and capital outlays over a five to ten year span. Additional goals would need to be evaluated within five years or less, depending on the PD's needs.

Goal # 1—12 new officers.

Goal # 2—12 new squad cars.

Goal # 3—New Police Facility and Jail.

Goal # 4—\$450,000 of new equipment.

2.3 Fire Department

2.3.1 Existing Conditions

The City of Siloam Springs Fire Department (FD) is responsible for the protection of life and property through fire prevention education, hazardous materials mitigation, fire suppression, and emergency medical and rescue services. Medical emergencies account for 75 percent of the calls for service. The FD operates out of three stations, 24 hours per day, and includes 42 full time, 3 part-paid and 6 administrative employees.

The FD Strategic Plan provides plans for the Insurance Services Office (ISO) to improve the community's fire classification and illustrates future growth objectives.

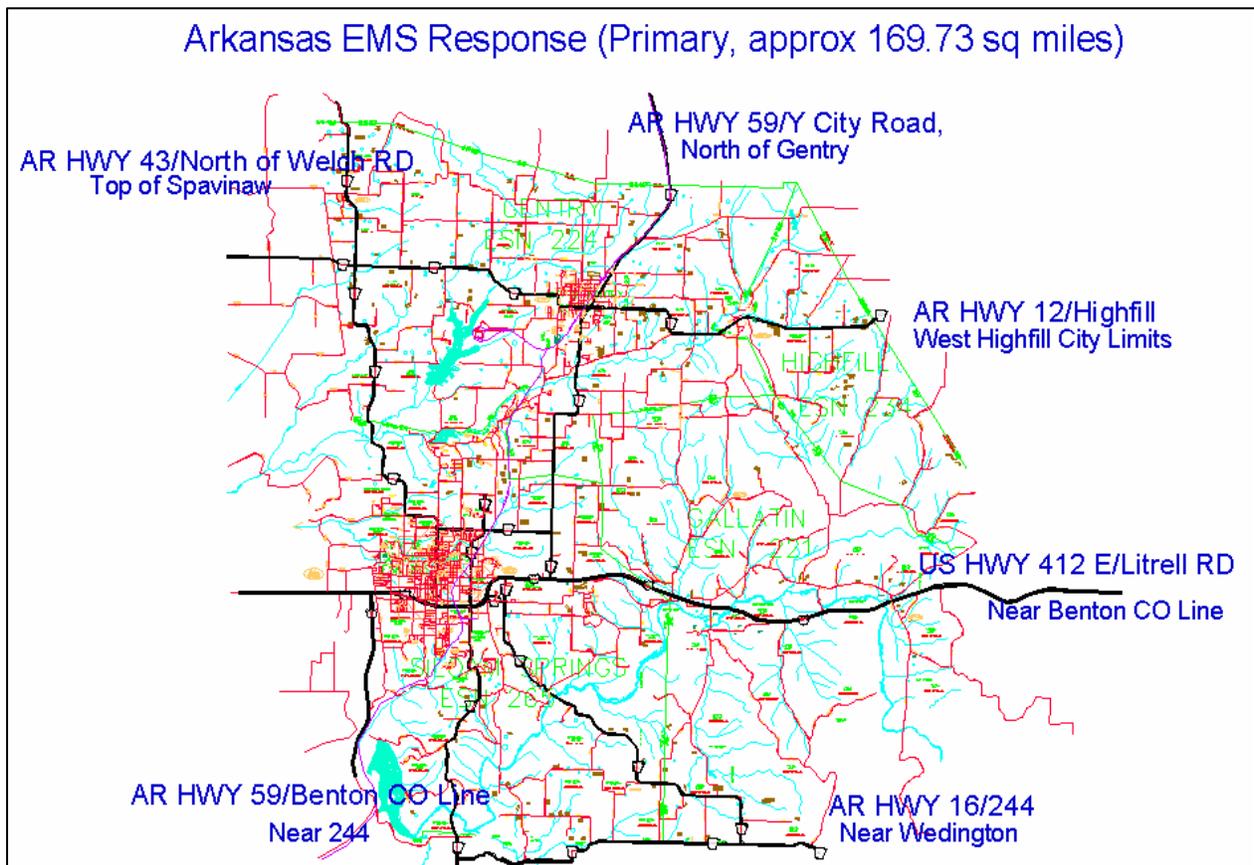
2.3.2 Goal and Objectives

Below are goals the FD has identified in order to meet future growth pressures put upon the community. The funding objectives for the following goals are provided through the City's annual budgeting process and capital outlays over a five to ten year span. Maps 10-13 indicate the present and proposed levels of service with different proposed station options.

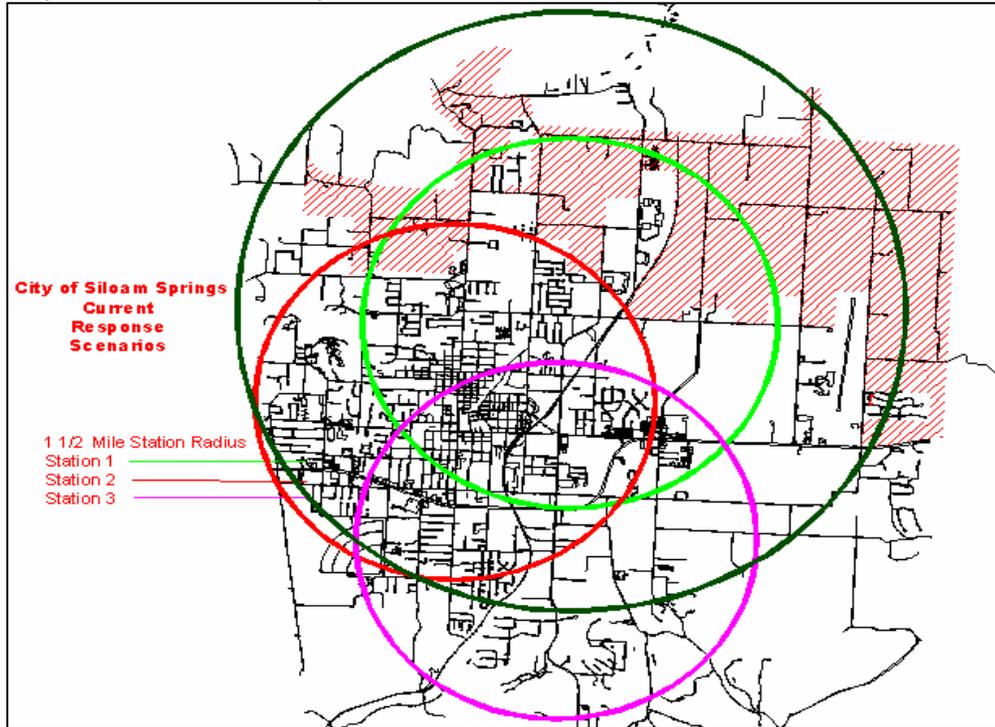
The smaller circles represent the fire station Insurance Services Office (ISO) recommended service range. The larger circle indicated the ladder truck service range from Station No. 1.

- Goal # 1—Additional facilities.
- Goal # 2—Additional personnel.
- Goal # 3—Additional apparatus.
- Goal # 4—Remodel/ replace existing stations.
- Goal # 5—Maintain/ reduce response times.
- Goal # 6—Code enforcement.
- Goal # 7—Training building/ improved training in all services.

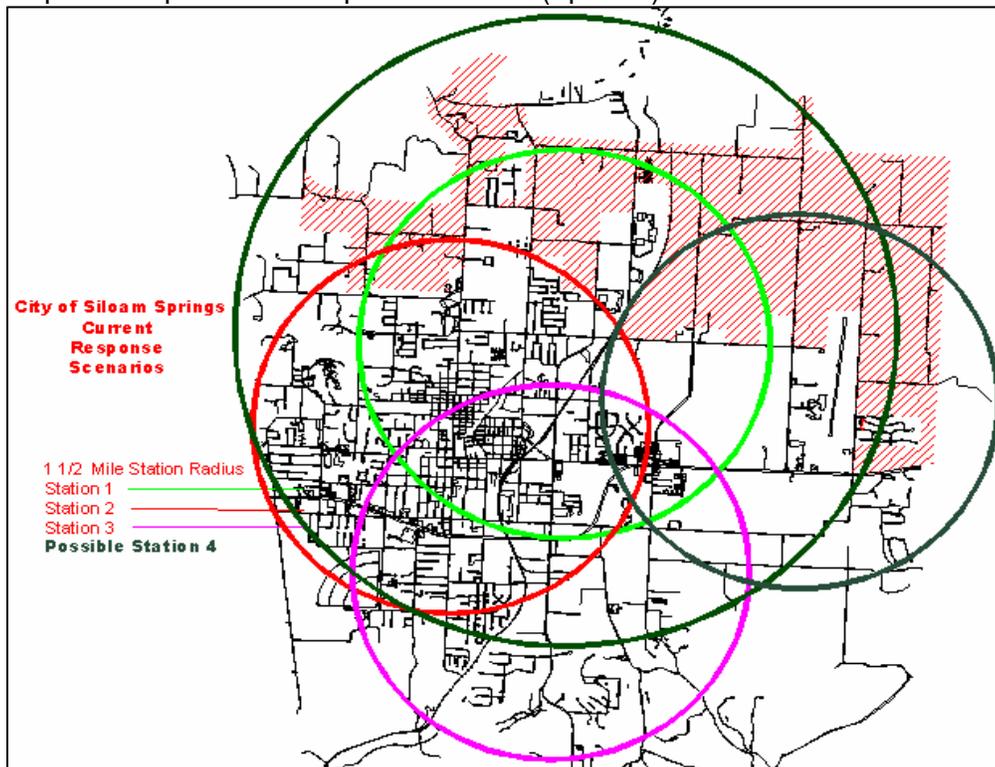
Map 11: Arkansas Emergency Medical Service Response Map



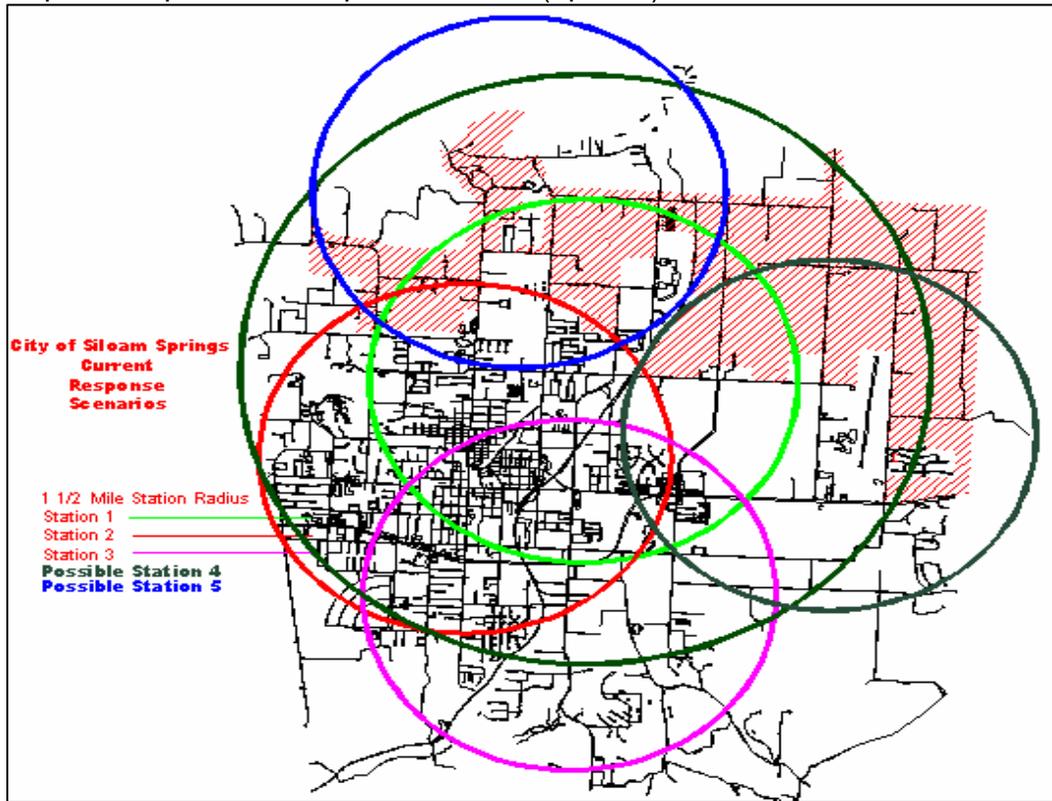
Map 12: Current Fire Response Scenarios



Map 13: Proposed Fire Response Scenario (Option 1)



Map 14: Proposed Fire Response Scenario (Option 2)



### C.3 Educational Facilities

#### 3.1 Existing Conditions

##### Public Education:

The Siloam Springs School District's future vision assumes the responsibility of providing students attending its schools, a high quality educational environment challenging each student to achieve their maximum potential. It shall be the district's mission to achieve the following values:

- Value student's dignity, worth, and their capacity to contribute.
- Provide equitable opportunity for each student.
- Attain an environment conducive to learning that promotes a feeling of trust, integrity, respect, excellence, and security among students, staff, and the community.
- Provide the curriculum relevant to the needs of students living in a complex multicultural and technological world.
- Maintain strong positive relationships among the school, home, and community.

Siloam Springs School District has five public school facilities. These include:

- Northside Elementary: Grade Kindergarten
- Delbert "Pete" and Pat Allen Elementary: Grades 1-2
- Southside Elementary: Grades 3-5
- Siloam Springs Middle School: Grades 6-8
- Siloam Springs High School: Grades 9-12

Enrollment in 2006-07 was 3,577 students. The newest school facility, Delbert “Pete” and Pat Allen Elementary, was completed for the 2006-07 school year. The facility is situated north of the current Middle School and Family Aquatic Center on Hwy. 43. The school system is growing at an average three percent annual growth rate and is expected to outgrow the current facility capacity. The school district anticipates the need of a new high school facility within the next three years as well as a new elementary school.

Higher Education:

JBU, founded in 1919, is located in western Siloam Springs. JBU is a private four year university and it serves over 1,900 students from 40 nations and 43 states. JBU has plans to expand its facilities to meet the needs of the growing student population. The University’s master plan addresses these growing needs as well as offering education and professional advancement opportunities for its students, faculty, and staff. Land to the north and west of the current campus has been allotted for the university’s future expansion on the 2030 land Use map.

([www.jbu.edu](http://www.jbu.edu))

3.2 Goals

Public Education:

The school system is rapidly growing along with the community. Expansion is necessary in order to meet new growth demands and to maintain state regulated student to teacher ratios. The following are the school system’s recommended goals:

Goal #1—Improve the learning environment for all students.

Goal #2—Provide safe, up to date, and age appropriate technological equipment, and appropriate staff training to enhance student achievement and learning.

3.3 Objectives

Goal # 1 (Improve learning environment for students.)

- Objective A—Expand facilities to meet future needs.
  - Short term growth needs (three to five years):
    - New high school. (Target open by Aug. of 2010)
    - Convert existing high school to a junior high for grades 8-9.
    - Construct a new elementary school for grades 1-4. (Target open by Aug. of 2011)
- Objective B—Purchase land for additional school facilities.
  - Short term land needs (three to five years):
    - High school. (55 acres)
    - Elementary school. (15 acres)
- Objective C—Maintain facilities in good repair and provide an environment conducive for learning.

Goal #2 (Provide up-to-date technology and training.)

- Objective A—Replace existing technology and other equipment on rotation plan to ensure equipment is in working order and suitable to current education standards.

Discussion:

The projected need within the next three to five years would be seven total facilities, a net increase of two. With continued robust growth in student enrollment, facilities would eventually need to be converted to zones for designated neighborhoods rather than a facility that would service the entire community. The existing school facilities may potentially be converted to meet the future needs as shown below. The following needs list would account for that occurrence.

*Table 13: Proposed School Capacity*

School	Student Capacity	Grade Range
(1) Elementary School	450	Kindergarten and Pre-K
(3) Elementary Schools	2,400	1-4
(1) Middle School	1000	5-7
(1) Junior High	950	8-9
(1) High School	1,200	10-12

In this scenario, 6,000 total students are served. However, within the end of the first five year period it is assumed there will be about 4,323 students enrolled, which is an increase of 746 students currently enrolled, or at 72 percent capacity. The additional capacity served would come out of a new elementary school facility serving 750 students and a new high school. Other capacity increases come out of facility upgrades. It is anticipated that the new elementary school would be built within a mixed use area, as institutional uses often work as a center piece or anchor within mixed use developments. The district would aim to meet these expansion goals, however fiscal allocations may inhibit expansion within the designated timeframe.

**C.4 Other Public Facilities**

4.1 Library

4.1.1 Existing Conditions

The Siloam Springs Public Library sits in the heart of Siloam Springs and the current facility has served the community since 1962. The library is equipped with the latest technology to serve the growing information needs of the reading public.

4.1.2 Goals

The Siloam Springs Public Library desires to be a safe and accessible facility with a welcoming atmosphere that provides the residents of Northwest Arkansas and Northeast Oklahoma with the latest in information technology. The library also desires be a gathering place for recreational use, leisure activities, and educational programs in order to inform and inspire lifelong learning and reading.

In order to achieve these desires, there is need for the library to expand, as patronage has increased within the last 30 years. The following have been identified as goals for this facility:

Goal # 1—Move/ expand to a new location.

Goal # 2—Construct a new library.

Goal # 3—Make programs/ activities available to all ages.

Goal # 4—Keep technology updated.

#### 4.1.3 Objectives

Goal # 1 (Expand to a new location.)

- Objective A—Purchase land for a facility.

Goal # 2 (Construct a new library.)

- Objective A—Design the new facility.
- Objective B—Promote fundraising projects.
- Objective C—Pursue grant writing projects.
- Objective D—Run a public awareness campaign.

Goal # 3 (Make programs/activities available to all ages.)

- Objective A—Conduct fundraising/ grant writing to hire staff to lead programs and activities.
- Objective B—Pursue media advertising.

Goal # 4 (Update technology.)

- Objective A—Pursue grant writing projects.
- Objective B—Promote fundraising projects.
- Objective C—Attend conferences / keep updated on the latest technology.

#### 4.1.4 Policy

- Locate available land to move to new location.
- Work in partnership with an architect to design the facility.
- Work in partnership with the Friends of the Library for fundraising projects.
- Create a steering committee to manage the development of the new facility.
- Create an ongoing grant writing committee to help locate possible funding for the new facility and support for additional programming and technology updating.

### 4.2 Cemetery

#### 4.2.1 Existing Conditions

Oak Hill Cemetery has served Siloam Springs' residents for over 100 years as a peaceful and revered site where family and friends honor and celebrate the lives of their loved ones. The cemetery's excellence in maintenance care preserves and honors past generations and staff strives to meet the needs of present generations while anticipating the needs of future generations.

#### 4.2.2 Goals

The following are the long term goals of Oak Hill Cemetery:

Goal # 1—Extending longevity of the cemetery.

Goal # 2—Implement cemetery enhancement plan.

Goal # 3—Complete additional cemetery improvements.

#### 4.2.3 Objectives

Goal # 1 (Extending longevity of the cemetery.)

- Objective A—Permit the burial of five interments per space. This has been implemented through a City ordinance.
- Objective B—Continue offering cremation services as a means to extend the cemetery's longevity.
- Objective C—Allow the ability to reclaim abandoned burial sites after a period of 75 or more years, thus adding more land for burial. This has been implemented through a City ordinance.

Discussion:

According to staff calculations based on yearly sales and burials, this cemetery location will be viable for 30 years or more.

Goal # 2 (Implement enhancement plan.)

- Objective A—Implement approved enhancement plan through specified phase approach.

Discussion:

The entrance enhancement plan is to be done in phases beginning in the spring of 2007. The entrance will be beautified, increasing the park-like setting. Another phase is to construct interior walkways, exterior sidewalks, and benches throughout the cemetery. All improvements will provide accessibility to existing and new areas.

Goal # 3 (Improve cemetery roadways.)

- Objective A—Improvement of roadways within the next 15 years through yearly budgeting of capital outlay.

Discussion:

The existing roadways are difficult for walking, especially for the elderly and maintenance is extensive. The roadways may be completed by the beginning of 2009. This project could be accomplished in a minimum of three years with a capital outlay budget of \$20,000 per year or it may be done over a longer period of time at a lesser amount per year.

### 4.3 Municipal Airport

#### 4.3.1 Existing Conditions

Cecil Smith Airfield (Smith Field) is located three miles east of the center of Siloam Springs. With a paved runway of 5,000 ft., Smith Field is able to accommodate most jets and all sizes of propeller airplanes. This airport has been a part of Siloam Springs since 1963 and primarily serves the local business community and pilots.

Smith Field's vision is to continue to develop the airport by adding safeguards that will enhance the facility with the latest technology available in the industry. This measure will ensure this facility will provide for the needs of the future.

The following is a summary of the airport's services:

- Fuel jet availability.
- Airplane hangars and tiedowns.
- Major airframe service.
- Major power plant service.

The following are airport statistics:

- Aircraft based on the field: 28
- Single engine airplanes: 24
- Multi engine airplanes: 4
- Aircraft operations: greater than 800/ month
- 77 percent local general aviation.
- 23 percent transient general aviation.
- Less than one percent military.

#### 4.3.2 Goals

The following is a listing of the general goals for the airport. The objectives for these goals will be attained through Federal Aviation Administration approval and municipal capital outlays and other funding sources.

Staff plans to address the ongoing issue of structure height in this area. An overlay zoning district may be applied to regulate the proper height to be consistent with Federal Aviation Administration height limits.

Goal # 1—Implement global positions system approaches and improved navigation equipment.

Goal # 2—Expand runway to 6,000 ft. by 100 ft. within three years.

Goal # 3—Improve airport terminal and ramp area within ten years.

Goal # 4—Implement overlay zoning district to regulate structural height in the vicinity of the airport.

## **C.5 Cultural and Recreational Facilities**

### **5.1 Sager Creek Arts Center**

#### **5.1.1 Existing Conditions**

As of 1984, the mission of the Sager Creek Arts Center (SCAC) is to promote and facilitate the arts in Siloam Springs through personal involvement, education, and participation in community theater, visual arts, literature, music, dance, and youth activities. In order to make this possible, SCAC envisions a facility that fulfills the need for access to all in the arts. “Access to the arts for all” – means physical access, as well as access for those of ethnic and diverse backgrounds.

SCAC is currently located in downtown Siloam Springs at the location of the original First Methodist Church site. There are currently no parking constraints at SCAC, as many of the events are held at times when parking is not in demand by other uses. SCAC desires to promote the downtown and would like additional activities for their patrons, such as shopping and dining, as part of the theater experience.

#### **5.1.2 Goals**

Goal #1—Increase public awareness of the importance of SCAC on a social and economic level.

Goal #2—Promote and facilitate the arts.

Goal #3—Construct a new facility in Northwest Arkansas.

Goal #4—Expand multi-cultural programs with an emphasis on the needs of the City’s diverse community.

#### **5.1.3 Objectives**

Goal #1 (Increase public awareness.)

- Objective A—Obtain local backing on the individual, corporate and industrial level.
- Objective B—Greater public involvement.
- Objective C—Form partnerships with the museum, the City’s Parks and Recreation Department, and JBU.
- Objective D—Add additional full time employees.

Goal #2 (Promote and facilitate the arts.)

- Objective A—Facilitate the expression of the arts in the Siloam Springs public schools.
- Objective B—Continue to serve as a leading organization for the enrichment of culture and the arts through partnering with the Bella Vista Village artists, Northwest Arkansas artists, JBU, the public schools, and other non-profit organizations.
- Objective C—Support emerging artists.

Goal #3 (Construct a facility in Northwest Arkansas.)

- Objective A—Determine the best location for accessibility.
- Objective B—Develop a design concept that would accommodate future growth.
- Objective C—Activate the Sager Creek Arts Center Foundation for fundraising and building grants.

Goal # 4 (Expand multi-cultural programs.)

- Objective A—Inclusion of at least one bi-lingual board member.
- Objective B—A minimum of one multi-cultural event a year.
  - Ideally a music event held outdoors and is family oriented.
- Objective C—Partner with JBU during their International Festival.

Discussion:

The existing facility is no longer modern and lacks universal accessibility. Questions remain as to the programming of the new facility in terms of size and design. The facility should accommodate future growth as well as offering the following features.

- Areas for all the rehearsals.
- Large and small theater.
- Classrooms.
- Seating for 250 to 300 people (double the existing facility).

Additional expansion areas for SCAC include:

- Reactivate the Sager Creek Arts Center Foundation, in order to obtain supplemental funding, through community involvement.
- Form a partnership with JBU to allow course credit for students participating in events.
- Allow events and programs to be available to home-schooled students.
- Procure space in the facility for conferences.

## 5.2 Boys and Girls Club

### 5.2.1 Existing Conditions

The Boys and Girls Club mission is to provide youth with quality programs and experiences which enhance character and self-esteem, are educational, fun, and contribute to youth realizing their maximum potential as responsible citizens and leaders.

(<http://eteamz.active.com/bgcwbc/index.cfm?>)

Many of the recreational services provided by the Boys and Girls Club were thought to be potentially duplicated by the Parks and Recreation Department. Department facility plans and the youth center plans were compared and it was determined that there is no duplication, due to the programming differences between both organizations.

### 5.2.2 Goals and Objectives

Goal # 1—Construct a youth center facility, 12,000 to 14,000 sq. ft. located on the trail system.

Goal # 2—Create a pocket park and amenities for joint use by the facility and the public.

Goal # 3—Expand the facility (listed in Goal #1) for future uses in five to ten years.

Discussion:

The Boys and Girls Club is in the process of building a youth center facility. The new facility will be geared towards children (aged 6 to 18) and their recreation throughout the year. The facility will contain a gymnasium, recreation rooms, and meeting rooms. The youth center's location will tie in with the existing trails system so that it may be integrated with that system. In order to further enhance this integration, the Boys and Girls Club envisions a node or rest stop along the trail, which could include a miniature pocket park. The park would encompass approximately 500 sq. ft., and would include several amenities that may be jointly used by the Boys and Girls Club patrons and the trail users.

## D. Economic Development Element

### D.1 Existing Conditions

The current economic conditions in the community are good. As stated earlier, the community maintains a high job growth rating and a low unemployment rate at approximately 5 percent. The community also has an excellent industrial base, including 12 strong industrial employers. Of all employment in the City, approximately 17 percent of the workforce originates from Oklahoma.

In terms of the construction industry, the mid decade, 2004-2006, witnessed robust growth in the single-family product with, at one point, over 1,600 lots approved for development, both in the City and planning area. It is surmised that this housing boom was a direct result of the job growth occurring in the two county region. Siloam Springs is within easy commuting distance from many of the Wal-Mart offices, the area's largest employer and the largest global retailer in the world. With an ever increasing demand for housing in Bentonville, (Wal-Mart's headquarters) and the surrounding communities, Siloam Springs has witnessed an overflow of home buyers, desiring more affordable housing as compared to the communities along the I-540 corridor. This is further supported by the 1.1 percent excess that the housing growth has over job growth rate in the community.

In late 2006 and early 2007, the national economy and Siloam Springs witnessed a major slow down in residential housing starts. The community is down 100 percent in January 2007, when compared to the same time in 2006, for single-family permits. However, there were seven permits for four-plex units in January 2007, indicating that higher density housing growth persists. The market has become over saturated, ultimately lowering prices and slowed new housing starts. On the other hand, the commercial growth increased in 2006 and shows promise to keep growing in 2007. This change in the type of building activity relates to commercial development beginning to meet the demand of previous residential growth.

### D.2 Goals

According to the APA Planning Advisory Report No. 541, economic development is defined as follows:

The process of improving a community's well-being through job creation, business growth, and income growth (factors that are the typical and reasonable focus of economic development policy), as well as through improvements to the wider social and natural environment that strengthen the economy.

A strategy is useful for retaining the current employment, allowing for opportunities to retain and increase the industrial base and expanding commerce. The following is a listing of the City's goals with respect to economic development.

Goal #1—Implement the Arkansas Community of Excellence program (ACE).

Goal #2—Develop and implement a business/ industrial retention and attraction plan.

Goal #3—Provide a planned and managed approach for guiding growth and commerce.

Goal #4—Grow commerce that enhances the quality of life for the community's citizens.

Goal #5—Help stabilize, renovate, and energize the downtown.

Goal #6—Retain strong employment base and local economy.

### **D.3 Objectives**

Goal #1 (Implement the ACE program.)

- Objective A—Submit a letter of commitment to the Arkansas Department of Economic Development (ADED).
- Objective B—Create an advisory board of local business and industry leaders to provide insight for the program.
- Objective C—Comply with the requirements and components list provided by the ADED.
- Objective D—Maintain the program with resources adequate to manage it.

Discussion:

The ACE program is essentially a strategic plan for economic development. The community can take the best of what the ACE program offers and use it to further its economic development goals. The City must have a single point of contact, as well as a prospect team with the knowledge of the City's processes and the authority to negotiate such plans. The community has the infrastructure in place which will advance the certification process. As of 2008, the ADEC is revamping the ACE Program. This may change some of the Goal 1 objectives due to any programmatic changes.

Goal #2 (Business/ industrial retention and attraction plan.)

- Objective A—Partner with the Chamber of Commerce and establish clearly defined roles and expectations.
- Objective B—Meet with each industry and identify their needs and expectations.
- Objective C—Partner with the local real estate industry to develop a master list of available office, commercial, and industrial sites.
- Objective D—Identify the target market to further develop and implement a marketing plan.

Discussion:

The City and Chamber of Commerce must ensure information is shared via links on their websites. In marketing the plan, a "virtual tour" of the City should be available on the City's website. This would give potential businesses and industries the ability to learn about the City. In working together with the Chamber of Commerce, the City can negotiate the supply of utilities and provide information on service locations, while the Chamber of Commerce can promote the City and attract new businesses/ industries. Also, in working with the ACE plan, the City and Chamber of Commerce should address existing businesses, while recruiting for new investment.

Goal #3 (Provide a planned and managed approach for guiding growth and commerce.)

- Objective A—Completion of the comprehensive land use plan.
- Objective B—Completion and implementation of the ACE program.
- Objective C—Focus efforts of the Water/ Wastewater, Community Development, and Electric Departments on economic activities.
- Objective D—Identify, research, and acquire sites for annexation; develop and implement an annexation plan that does not place an undue hardship on the existing community.
- Objective E—Purchase land with rail access.
- Objective F—Upgrade utilities to handle additional industry.
- Objective G—Ensure that the current workforce can support future industrial needs.

Discussion:

Balanced growth is critical for a sustainable community. The City must accommodate this growth to ensure sustainable economic prosperity. Industrial growth will remain a centerpiece of City policy, as approximately 70 percent of City revenue originates from industrial electric utility usage. There is a need for an expanded industrial park, but this must be located strategically. The future land use map guides this process and ensures industrial growth occurs in an orderly, sustainable, and managed pattern. According to the map, the City should consider purchasing property along the existing rail corridor.

In addition, it will be vital for the Chamber of Commerce and the City to maintain relations with all major employers to sustain a diverse job base in the community. Care should be taken in attracting new industries and businesses that complement the current job market, while still attracting a skilled labor pool. This will assist in maintaining and growing the current workforce.

Goal #4 (Grow commerce that enhances the quality of life.)

- Objective A—Identify management contacts of large local retailers.
- Objective B—Partner with the local real estate industry to develop a master list of available office, commercial, and industrial sites.
- Objective C—Establish a booth and market the City at retail/ industry conventions.
- Objective D—Enhance the current City website so that information may be accessed from both the City and Chamber of Commerce websites, such as current demographic data, growth rates, median household income, housing starts, traffic counts, etc.
- Objective E—Hire a full time communications director (completed in June 2007).
- Objective F—Receive, process, and reply to prospective referrals.

Discussion:

These objectives are geared towards attracting job growth to the community by means of quality websites and a presence on the national retail/ industrial scene. The City and the Chamber of Commerce actively seek to ensure potential investors receive the information they desire and receive a positive impression of the community and its services. It is the primary

aim of both entities to foster job growth as a means to enhance quality of life through a strong employee work force and low unemployment.

It will be helpful in handling prospective referrals, to have all the information required upon request. The City's website and other available resources will assist in this effort. In addition, the ACE certification will potentially boost prospective referrals from ADED.

**Goal #5** (Help stabilize, renovate, and energize downtown.)

- Objective A—Keep the Chamber of Commerce involved in the downtown.
- Objective B—Support developers willing to invest in downtown.
- Objective C—Focus on the historic district and Main Street's potential for promotion of downtown.
- Objective D—Continue efforts to implement the Parking Plan (executive summary in Appendix F) and other improvements to downtown.

**Discussion:**

The City has an established downtown historic district and the City needs to find ways to encourage businesses to locate downtown, thereby making downtown a "destination" for tourists and residents. Additional tools to equip downtown include promotion of vacant office/retail space, addition of easy access parking, and the general physical enhancements to improve the downtown's image. A vehicle to achieve much of this is the Main Street organization. The Main Street Program needs to continue to grow and should be encouraged to join the State Main Street Program for additional support and resources.

**Goal #6** (Retain strong employment base and local economy)

- Objective A—Dialog with the City, Chamber of Commerce, and industries on infrastructure improvements.
- Objective B—Focus on meeting the needs of existing industries.

**Discussion:**

Approximately 75 percent of jobs in the community come from the existing industries. It is important to recognize that growth may occur from supporting the current industries, as the community has a strong and desirable industrial base.

#### **D.4 Policy**

- The Chamber of Commerce will be a leading representative and spokesperson for the community to business, the media, government, and the general public.
- All individuals and businesses will be encouraged to join the Chamber of Commerce to provide broad coverage of interests and financial strength.
- Growth will be welcomed and encouraged, but managed to avoid problems and stress on infrastructure and the quality of life.
- High ethics, integrity, and values will be embraced and observed at all times, creating trust and sharing of goals with all business and industrial stakeholders.

**E. Attainable Housing**

**E.1 Existing Conditions**

**1.1 Housing Types and Densities**

Single family housing remains the predominate housing type at 85 percent of the total housing stock. This housing type is also the fastest growing type. Despite this, it is clear that there is a need in the community for more attainable housing options for working class families. Less than five percent of total housing types are classified multi-family.

**1.2 Current Housing Supply Trends**

As stated in Section II-B.3, there are 5,521 housing units in Siloam Springs. When factoring in the population, the housing density becomes 2.53 persons per average household. The housing stock increases by 3.79 percent per year and occupancy decreases on average by 0.30 percent per year over the past 15 years. This indicates that there will be more housing units needed, as densities are declining and population is increasing at a similar rate, 3.24 percent.

The chart below indicates the housing needs projected to 2030 based off of a linear projection of historical building permit data. A precise housing unit increase was not factored into the planning area; however it is anticipated that much of this area will be annexed into the City, therefore many of the same assumptions were used for the planning area projection.

*Table 14: Siloam Springs Housing Needs*

City Dwelling Units		Planning Area (annex) Dwelling Units*	
Year 2007	Year 2030	Year 2007	Year 2030
5,652	10,218	285	4,184

The maximum housing units that can fit at current housing densities within the City is 10,568. All remaining housing growth must occur in the City’s planning area. According to growth projections, the City may reach build out in the year 2032, assuming steady growth rates.

\*The housing in the planning area only includes the area considered under the proposed annexation as discussed in Section IV-B.9.

**1.3 Affordability**

The term affordable housing is based off of two factors: average medium income (AMI) and medium housing cost. The Federal Department of Housing and Urban Development (HUD) defines affordability as no more than 30 percent of an occupant’s income should be dedicated to housing costs. Any more spent on housing is defined as unaffordable, which applies to home owners and renters.

In Siloam Springs, affordability is a growing issue. Housing appreciation is continually out pacing income growth. According to HUD the median family income of four people in the

MSA, including Benton and Washington counties, has decreased from \$52,000 in 2005 to \$47,400 in 2006, although income increases over a longer time frame. On average, the median housing price increases 5.6 percent a year or \$125,552 in 2005 to \$133,000 in 2006, which is an increase to the median home price of \$7,448 per year. This appreciation rate is slightly below the national average of 9.8 percent. (<http://www.bestplaces.net/>).

Based off of a 30-year fixed rate mortgage with 100 percent financing, a borrower making the median income could afford a home of \$133,000, at 26.7 percent of their monthly income available to pay for principal, interest taxes, and mortgage insurance. This percentage is 3.3 percent away from meeting the maximum loan amount. The median income buyer can afford \$149,000 home or an increase of \$16,000 over the median house price. The figures suggest a tight affordability ratio that appears to be narrowing.

Table 14 suggests the range of housing that was on the market in the first quarter of 2007. Notice that the majority of the housing available is out of the price range of the median income home buyer, indicating that there is not enough supply of affordably priced homes on the real estate market. According to the data, of the 228 homes surveyed on the market, 90 of them, or 39 percent, are in the price range of the median home buyer.

Table 15: Dwelling Unit Cost Range and Quantities

Dwelling Unit Cost Range and Quantities		
Cost in dollars	Quantity on Market	Percentage of total
0 - 30,000	0	0%
30,000 - 50,000	0	0%
50,000 - 75,000	6	3%
75,000 - 100,000	20	9%
100,000 - 125,000	34	15%
125,000 - 150,000 (Median Range)	52	23%
150,000 - 175,000	33	14%
175,000 - 200,000	31	14%
200,000 - 225,000	12	5%
255,000 - 250,000	14	6%
250,000 - 275,000	14	6%
275,000 - 300,000	12	5%
<b>Total</b>	<b>228</b>	<b>100%</b>
Units Under 149 K	90	39%

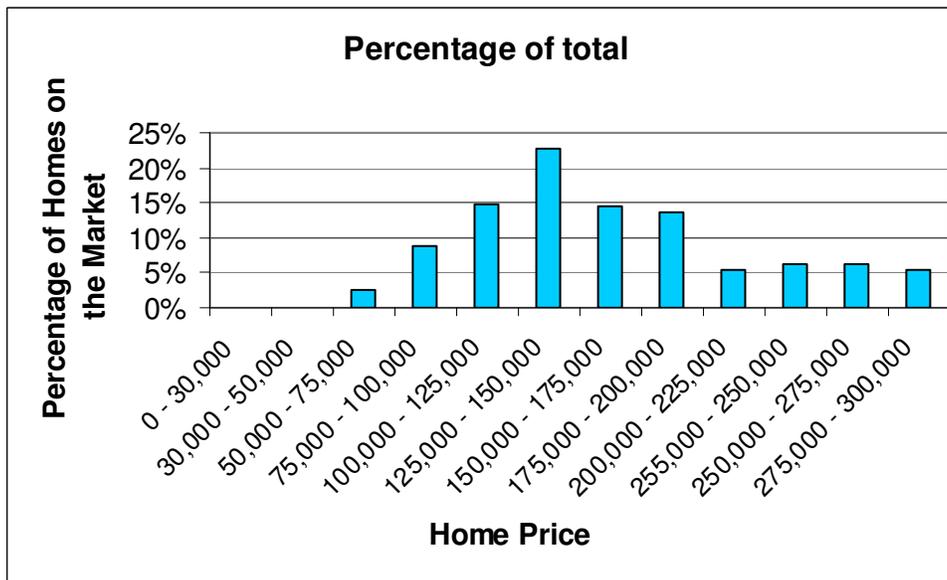
Most Expensive House someone with median income can afford: \$149,000. Source: Simmons First Bank

Chart 3 Quantity of Housing on the Market



Source: [www.realtor.com](http://www.realtor.com)

Chart 4 Percentage of Price Points on the Market



Source: [www.realtor.com](http://www.realtor.com)

Using the same assumptions, a family of four, at median income, can afford 39 percent of the homes on the housing market. If housing appreciation continues to out pace income growth,

this percentage of homes available to the median income home buyer will decline, further pushing the community into unaffordable status.

The market will respond to demand, which will spur developers to build homes that are at the edge of the affordable range, as generally the new homes that are \$100,000 to \$149,000 are on the market the shortest time, 118 days. Homes in the upper range tend to be on the market almost a year before closing.

According to employment and income data, the average per capita income in Siloam Springs area, including all adults and working children, is \$17,438. Taken further, approximately 9.5 percent of families and 12.5 percent of the population are at or below the poverty line, including 17.6 percent of those under age 18 and 8.6 percent of those are age 65 or over. ([www.wikipedia.com](http://www.wikipedia.com)) ([www.bestplaces.net](http://www.bestplaces.net))

It is clear that due to the increase in housing costs through appreciation, and the lackluster income growth in the City, affordability is a growing issue. With so few properties under the \$100,000 range and some apartment rent rates that may also be unattainable for some of the population, government assistance may be needed. The average apartment rent in Siloam Springs is \$554 per month.

The Siloam Springs Housing Authority attempts to manage some of this need. The authority currently manages 197 units in three apartment complexes that are maintained at fair market rental rates. Fair market rent is based off of HUD's standards for the area's median income and housing choices. Currently, there are approximately 150 families on the waiting list for the existing dwelling units in the program.

## **E.2 Goals**

The following is a listing of the Housing Authority's needs as well as other housing goals for the community.

Goal #1—Build more affordable units in Siloam Springs dispersed throughout the City.

Goal #2—Do more outreach to the community about affordable housing.

Goal #3—Expand HUD Section 8 housing in the community.

## **E.3 Objectives**

Goal # 1 (More attainable housing in Siloam Springs.)

- Objective A—Improve the City Zoning Code to allow for more affordable units with smaller lots.
- Objective B—Provide financial incentives for builders who build designated affordable housing, through utility fee reduction, or other reduced or eliminated fees.

**Goal # 2 (Community outreach.)**

- Objective A—Provide more information to realtors, builders, and landlords about attainable housing, its impacts, and strategies to promote the concept.
- Objective B—Promote outreach through the Housing Authority.

**Goal # 3 (HUD Section 8 Expansion.)**

- Objective A—Work with landlord's on becoming designated as Section 8 housing units.

**E.4 Policy**

**4.1 Mixed Use/ Planned Unit Development**

It is considered a positive move to not only encourage a mixture of land uses within a planned unit development, but also a mixture of housing types and costs. Promoting smaller dwellings in a Planned Unit Development (PUD) is a key component to provide affordable housing types. Attainable housing does not necessarily result in cheap housing. Much of the affordability can be attained through smaller lot sizes, reducing land purchase costs, as well as smaller loft/studio apartments that can fit in with commercial and recreation type uses. The photo below indicates a typical pictorial example of mixed use development integrating apartments with commercial uses.



#### 4.2 Affordability/ Federal Aid

The Housing Authority and the City need to be aware of and actively pursue all Federal HUD housing options and grants that are available to the community in order to increase affordable housing and make the community more diverse in housing products and types, rendering a more livable and balanced community.

## F. Circulation Element

### F.1 Existing Conditions

#### Master Street Plan:

In 1999 the MSP was adopted as the City's long range guide for future street development. The MSP primarily focuses on vehicular mobility within the community. The MSP is organized by establishing the criteria for street classifications; this includes the function, spacing, and width classification of existing and proposed streets. The MSP defines six types of streets. These include expressway, principal arterial, minor arterial, parkway, collector, and local streets. The MSP takes a critical review of the City's street network and evaluates the street classifications and their service area based off of current conditions and use standards.

Once all the streets were classified, the MSP established design standards and specifications, including cross sections in order to promote traffic safety and the continuity of street improvements within the street network. The MSP concludes with a map showing proposed street improvements and new street locations.

#### Level of Service:

According to the 1996 Comprehensive Plan, the City has elected to use a Level of Service (LOS) "C" criterion as the minimum design standard. The Plan describes LOS C as a level of stable traffic flow, but speeds and maneuverability are more restricted by the higher volumes. Most drivers are restricted in their freedom to select their own speed, change lanes, or pass. A relatively satisfactory operating speed is still obtained.

#### Thoroughfare Deficiencies:

The 1996 Comprehensive Plan describes the thoroughfare deficiencies as relating specifically to both poor LOS (capacity deficits) and routing issues (connection deficits). The 1996 Plan identified 16 corridors that needed improvements at that time. Approximately 37.5 percent has been improved in the decade following their identification.

#### 2006 Street Improvement Program:

In the spring of 2006, City staff sought to update the evaluation of street needs based off of more criteria than simply connection and capacity. A committee was formed to address street improvements for the upcoming three years using an objective point classification system to evaluate the streets that were deemed needing improvements. The following is a listing of the criteria used for the evaluation:

- Traffic Count.
- Lanes Evaluation.
- LOS (Level of Service).
- Safety Evaluation.
- Street Conditions.
- Existing Commercial Development.
- Existing Residential Development.
- Existing Industrial Development.
- Surrounding Zoning.
- Percent of Undeveloped Land.
- Known Potential Development.
- Projected Future Land Use Designations.
- Other Factors.

Each criterion had a point system associated with it so that a street in severe need would receive the most points, i.e., LOS F would receive 13 to 15 points depending on severity. After evaluating 38 streets, the following list was determined as the streets that required the greatest priority.

Table 16: Ranking of Streets with Greatest Needs

Rank	Street Name
1	Main St.
2	Kenwood St.
3	Lake Francis Dr.
4	Hico St.
5	Dawn Hill Rd.
6	Carl St.
7	Quarter Rd.
8	Villa View Dr.
9	Country Club Rd.
10	W. Tulsa St.
11	Waukesha Rd. (Hwy. 16 Spur & Qtr Rd.)
12	Progress Ave. (Construction Phase)
13	Airport Rd.

**F.2 Goals**

The following represent general goals that should be addressed to advance transportation circulation throughout the community. The goals attempt to not only address current vehicular needs, as is the traditional approach in transportation planning, but to also address alternative modes of transport and flexibility of street design in order to meet the varying needs of different neighborhood scales.

- Goal # 1—Ensure that the street network meets LOS C standards for all existing and future traffic needs.
- Goal # 2—Include alternative modes of transportation in planning for future mobility needs.
- Goal # 3—Ensure that street cross sections reflect current design standards and are varied in width to meet different design scales.
- Goal # 4—Allow for flexibility in design standards so streets may be modified in order to be compatible with the neighborhood scale.
- Goal # 5—Include traffic calming techniques in design standards and specifications.
- Goal # 6—Explore options for developing public transportation service.

**F.3 Objectives**

Goal # 1 (Street network meets existing and future needs.)

- Objective A—Complete a major update of the MSP. Including:
  - New street locations.
  - Cross sections.

- Needed street improvements based off of the Street Improvement Program.
- Objective B—Continually evaluate and update Street Improvement Program.
- Objective C—Allocate funds into capital improvement program to complete needed street improvement projects.

Goal # 2 (Alternative modes of transportation.)

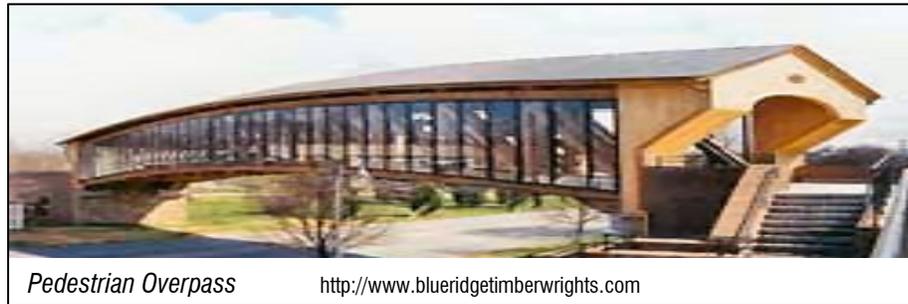
- Objective A—Consider expanding the scope and create a transportation master plan that would include the MSP and the development of alternative modes.
- Objective B—Create capital improvement planning that would include investment in alternative modes development at the time of major street improvement allocations.
- Objective C—Ensure that alternative modes are considered at the design phase of all street improvement and development projects. Alternative modes include:
  - Bicycle paths.
  - Sidewalks.
  - Pedestrian overpasses.
  - Multi-use trail right-of-way dedications and their integration into the street network.
- Objective D—Invest in an education campaign to inform the public of alternative modes and provide incentives for them to engage in these modes.

Discussion:

Any well planned community will provide opportunities for their citizens to utilize alternative modes of transportation. Land use decisions will often have an impact on these modal choices. Care must be taken when planning for developing areas to provide opportunities for residents to walk or cycle, not only for recreational purposes, but for short range trip making.

Promoting the use of alternative modes is achieved by two means: land use control and the provision of adequate facilities. Land use control may permit a mixture of land uses within a neighborhood unit. For example, dwellings may be constructed in proximity of neighborhood level retail and services, allowing for residents to walk rather than drive for their routine errands. The provision of adequate facilities goes beyond simply adding a sidewalk. It starts with ensuring there are linkages to activity centers, a safe walking environment (traffic calming), creating adequate buffering between autos and pedestrians, and ensuring that the walking experience engages the pedestrian through landscaping and pedestrian amenities (street furniture).

There are specific key areas where this pedestrian system can begin connecting the quasi public neighborhood areas to public areas. There is a potential for at least three major gateway areas that can utilize landscaping, lighting, signage, and water features that will enhance the City limit boundaries. These include the following: Hwy. 412 and E. Main St., Hwy. 412 and Stateline Rd., and Hwy. 43 and Dogwood St. In addition, overpasses can help identify the City limits and enhance the major view corridors while calming traffic flows. The photo shows the concept of an overpass to connect pedestrians from the north and south sides of Hwy. 412. The concept of pedestrian overpasses is necessary in order to allow foot traffic to connect both the north side and the south side of the community. This will become essential with the expansion of Hwy. 412 to a six lane divided median facility.



Goal # 3 (Improved street cross sections.)

- Objective A—Adopt the approved street cross sections found in the 2030 Northwest Arkansas Regional Transportation Plan.
- Objective B—Ensure that all cross sections are of a variety of scales appropriate for all types of neighborhood designs.
- Objective C—Include measures for traffic calming options in all cross sections.
- Objective D—Ensure that cross sections include alternative modes of transportation, including sidewalks and bicycle paths.

Goal # 4 (Flexibility in design standards.)

- Objective A—Ensure that developers have flexibility in the street design in order to promote creativity while still meeting prudent safety and engineering standards.

Goal # 5 (Traffic calming.)

- Objective A—Develop a variety of traffic calming techniques during the design phase for streets. These can include, but are not limited to:
  - Street trees.
  - Narrow travel lanes.
  - On-street parking.
  - Speed bumps or speed tables.
  - Different roadway surfaces.
  - Appropriate curvilinear street layouts.

Goal # 6 (Public transportation.)

- Objective A—Establish an exploratory committee to study the feasibility for a transit system.
- Objective B—Conduct public opinion surveys on public transit within the community.
- Objective C—Determine the number and nature of inquiries made to the Chamber of Commerce and other civic organizations relating to transit services.
- Objective D—Help fund a pilot program for six months to determine potential ridership, if the results of Objectives A and B are favorable for transit investment.
- Objective E—Should the City determine the pilot program a success, Ozark Regional Transit will conduct a route study to determine the best route and frequency.
- Objective F—Form an implementation plan and partnership with Ozark Regional Transit.

- Objective G—Execute the implementation plan and begin transit services. The goal is to begin transit within three years after the initiation of Objective A.

Discussion:

There has been much discussion on the opportunity of adding a public transit system in Siloam Springs. In August of 2005, Hurricane Katrina devastated the state of Louisiana and Mississippi. As a result of this disaster, many of the affected Louisianan and Mississippian residents were evacuated to the Siloam Springs area. It quickly became apparent at that time, that the community was lacking in public transit to serve the needs of people that had no means of private transportation. This need is also apparent at JBU, where a large percentage of students are without private vehicles, leaving them somewhat isolated from major retail and entertainment activity centers.

It is clear that the reduction of single occupied vehicles (SOVs) remains a goal within the national planning community. It is not too early to begin addressing these issues before the community begins to suffer from traffic congestion and other ill effects of excessive private vehicle travel.

The City currently operates a public taxi service as a quasi para transit service for elderly and disabled residents. The program has been in operation since the mid 1990s for elderly (over 50) and permanently disabled residents. The two vehicle taxi program service includes four part-time drivers and has on average 30 riders per week. All trips are routed via phone requests and coordinated through City administrative offices. The service costs three dollars per trip, but vouchers are available for low income riders, issued through the Housing Authority.

Approximately 16 percent of the population in the City is over 60 and seven percent have a permanent disability. As the population ages, the needs of the elderly and disabled population will increase. The services will need to be expanded in order to meet the growing need. Ozark Regional Transit has approached the community about partnering to meet the growing needs through the introduction of a limited fixed route service. The service would run as a trial to determine optimum ridership and net benefit to the community.

Funding for transit is highly subsidized by the federal government through the Federal Transit Authority. For a transit system in a rural area, such as Siloam Springs, operations and maintenance is subsidized by a 50/50 match. All capital and administrative costs are covered up to 80 percent of overall annual costs. Subsidies include all fixed route, para transit, and commuter express services. It is estimated that capital, administrative, and operation costs for a community fixed route service, depending on the scale, would be between \$60,000 to \$200,000.

As the price of oil continues to rise, it will become a reality that the cost of operating a personal vehicle will become a constraint to lower income residents. Additional transit services would be an ideal solution to the mounting needs of the community as well as promoting ecologically responsible and sustainable alternatives to driving alone.

## F.4 Policy

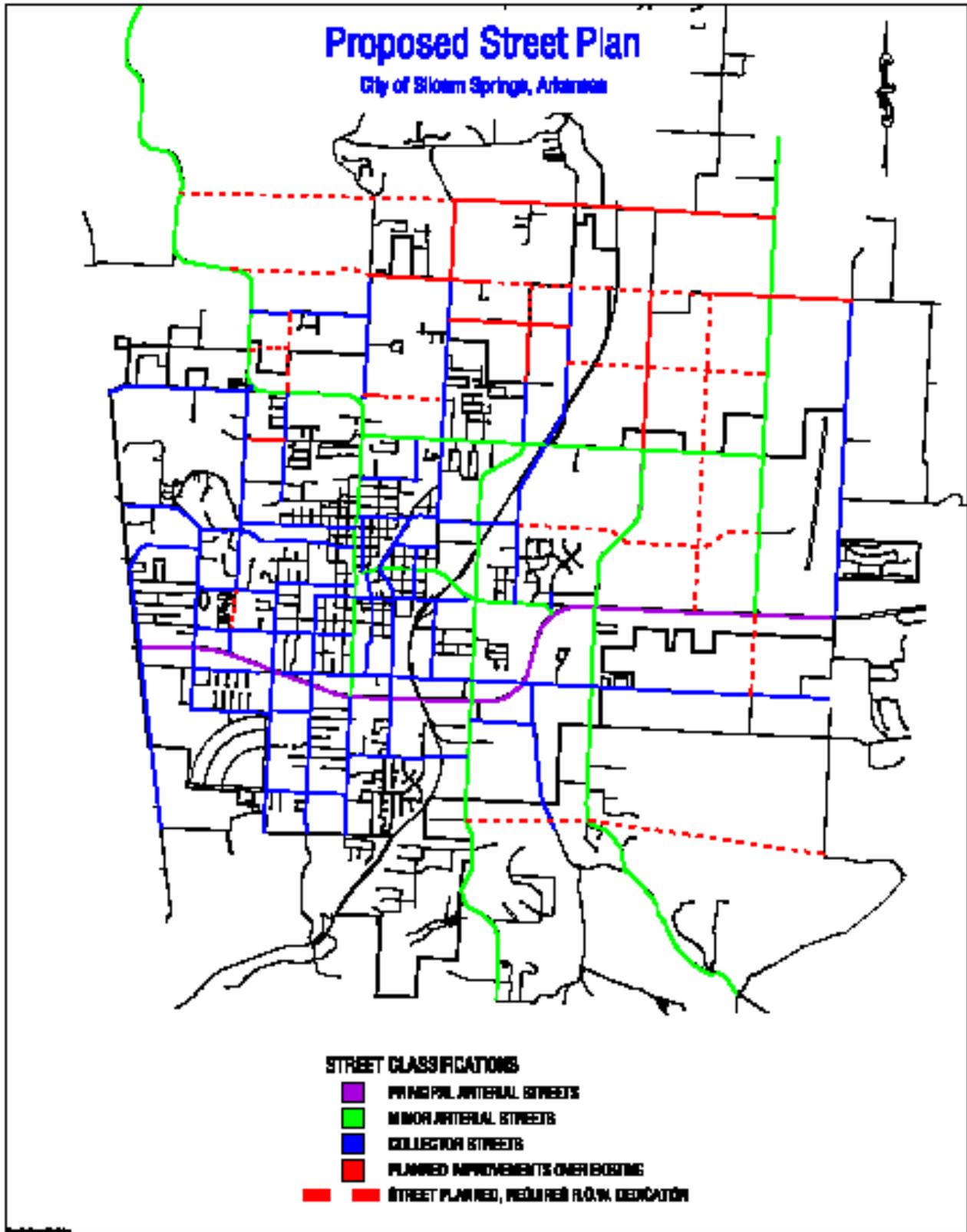
### 4.1 Street Improvement Projects

The following street improvement projects have been identified as high priority corridors to be improved or constructed in the short term (three to five years) in order to meet the growing transportation needs by 2030. It is anticipated that this will be updated with the next major Plan update.

Table 17: Street Improvement Projects

	Street Name	Extends	Requirements	Length (Ft.)
1	Hico St.	Hwy. 43 to Oakcrest Rd.	Upgrade to Street Standards	L-5300'
2	Dawn Hill Rd.	Hwy. 43 to Oakcrest Rd.	Upgrade to Street Standards	L-4200'
3	Tahlequah St.	Progress Ave. to Hwy. 59	Complete New Street	L-7900'
4a	Carl St.	Elgin St. to Cheri Whitlock Dr.	Upgrade to Street Standards	L-1790'
4b	Carl St.	Cheri Whitlock St. to Hwy. 43	Upgrade to Street Standards	L-1790'
5	Country Club Rd.	Hwy. 43 (City Limits)	Leveling Course, Filter Fiber, Striping, Overlay, No Drainage Work	L-6730' W-20'
6	Country Club Rd.	E. Main St. to Tahlequah St.	Upgrade to Street Standards	L- 2800'
7	Main St.	Country Club Rd. to Maxwell St.	Milling, Overlay (3"), Striping, Turn Arrows (Light)	L-1325' W-30'
8	Dogwood St.	Jefferson St. to Tulsa St.	Complete New Street and Looping Waterline	L-1400'
9a	Kenwood St.	Hwy. 412 to Lincoln St.	Upgrade - Collector Street (\$1,038,175 and box \$30,000)	L-1585' W-28'
9b	Kenwood St.	Hwy. 412 to Lincoln St.	Overlay	L-1585' W-28'

Map 15: Proposed Street Plan Map





## **G. Environmental Element**

### **G.1 Existing Conditions**

#### **1.1 Background**

Retaining the viability and ecological functions of natural systems and protecting those areas that are sensitive to development is paramount to maintaining a healthy natural environment and a high quality of life. Preserving and protecting the natural environmental resources is an important component for the vision of the City.

Citizens of Siloam Springs enjoy and value the area's natural environment. The community assessment survey indicated that the citizens support the preservation of environmentally sensitive areas and agricultural lands. As the City grows and develops, continued protection of varied open space areas and environmentally sensitive landscapes is necessary to maintain the quality of life that is currently enjoyed in the community.

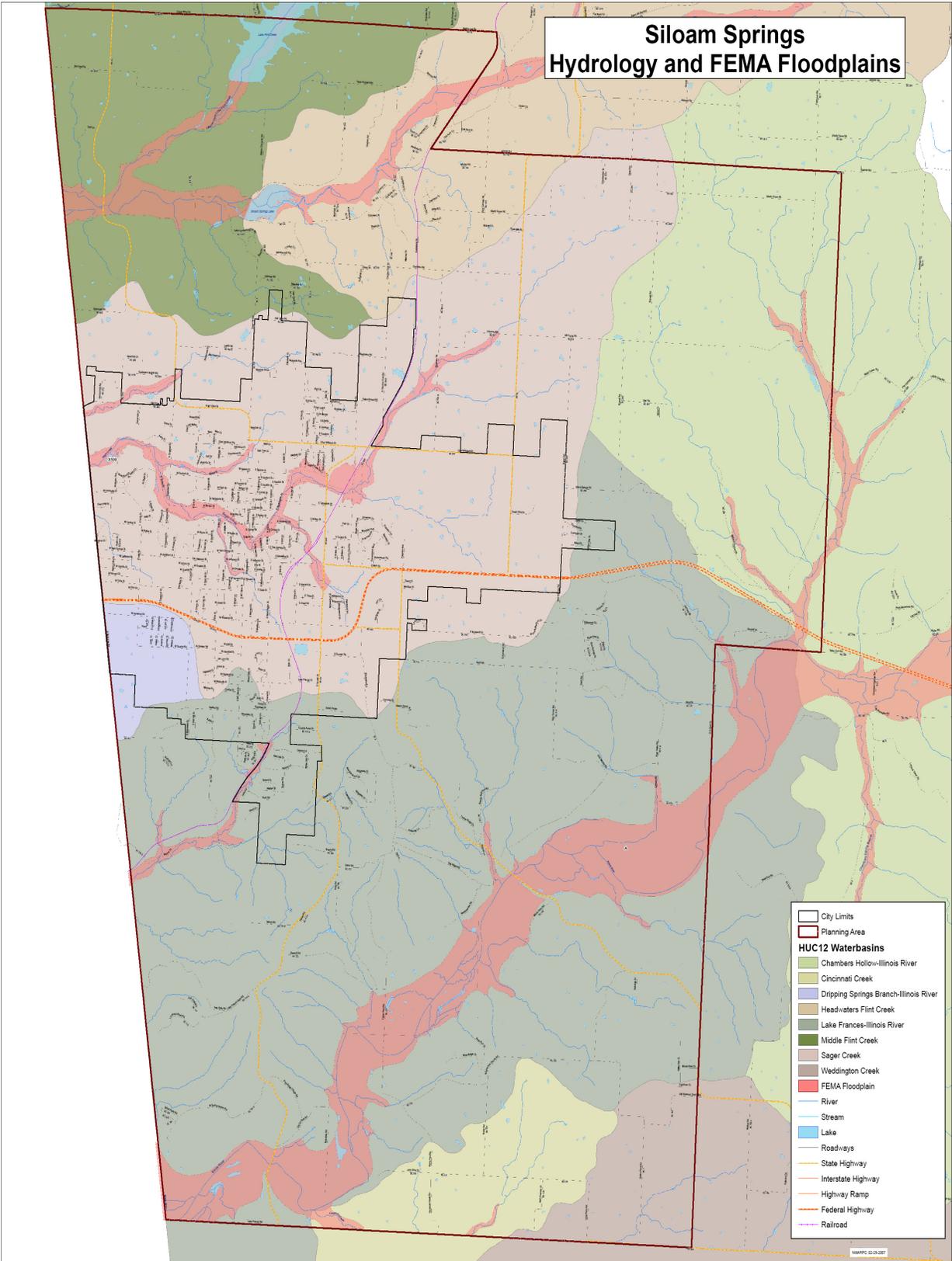
#### **1.2 Climate**

The climate in Siloam Springs is generally characterized by mild, wet winters and warm, dry summers. The average winter daytime temperature is 30 to 40 degrees F, and the average summer daytime temperature is 70 to 80 degrees F. Annual rainfall averages 45 inches.

#### **1.3 Hydrology**

Sager Creek runs through the middle of the downtown area. Land in the watershed is mostly agricultural (pasture and hay land uses at 69 percent). The City lies in the center of the Sager Creek watershed. The watershed is approximately 17 square miles in size. Located in the Ozark Highlands Ecoregion of Northwest Arkansas, it rests on the Springfield Plateau physiographic area. Its urban and suburban land uses comprise a relatively high percentage of the total watershed (19 percent), including low to high-density residential, commercial, and industrial uses, as well as urban/recreational grasses. Mostly deciduous hardwood forests comprise five percent of the watershed and occur almost entirely in the eastern portion or along the stream corridor. The soils in the watershed are dominated by Jay, Captina, and Taloka silt loams, with slopes typically in the one to three percent range. Higher slopes occur along Sager Creek in its middle and downstream reaches.

Map 16 : Hydrology Map



### 1.3.1 Floodplains and Wetlands

Identified flood-prone areas within the City limits are based off the National Flood Insurance Program (NFRIP) using Flood Insurance Rate Maps (FIRM) and coordinated through the Federal Emergency Management Agency (FEMA). The limits of the detailed study from September 18, 1991 within the City limits includes the area northeast of N. Country Club Rd. and Tahlequah St. and continues west to the east side of the Britt St. and Helena St. intersection and southward to University St. From University St. the floodway forks into two channels running southeast and southwest. The southeast fork continues to the east side of Hwy. 59 and Harvard St. and the southwest fork to the north side of Twin Springs St. and continues northwest to Carl St. An additional tributary flows from the University St. and Elm St. intersection to the southernmost point of the study to the Mt. Olive St. and Granite St. intersection. These areas include, but are not limited to, properties within Flood Zones A, AE, AO, and the shaded Zone X. The floodplain areas are located in the north-central side of the City and run westward to the state line of Oklahoma. Table 17 below describes the types of flood zones within the City.

Table 18: Flood Zone Types

Zone	Description
Zone A	No Base Flood Elevations (BFE) determined
Zone AE	(BFE) are determined
Zone AO	Flood depths of one to three feet usually sheet flow on sloping terrain avg. depths determined
Zone X- Shaded	Areas of 100-year flood with average depths of less than one foot or with drainage areas less than one sq. mi.; and areas protected by levees from 100-year flood
Zone X- Non- Shaded	Areas determined to be outside 500-year floodplain

Source: FEMA

All developable areas that are located within flood zones A, AE and shaded X are subject to additional review and approval by the City’s designated Floodplain Administrator and through FEMA’s rules and regulations. In cases where a subject property is located within the floodplain, special Base Flood Elevation Certificates may be required prior to any development. To obtain more information regarding Base Flood Elevation data and flood prone locations one should consult the flood profiles and data within the Flood Insurance Study. The Flood Insurance Rate Maps are available at the City offices, or through the FEMA website at: [www.fema.gov](http://www.fema.gov).

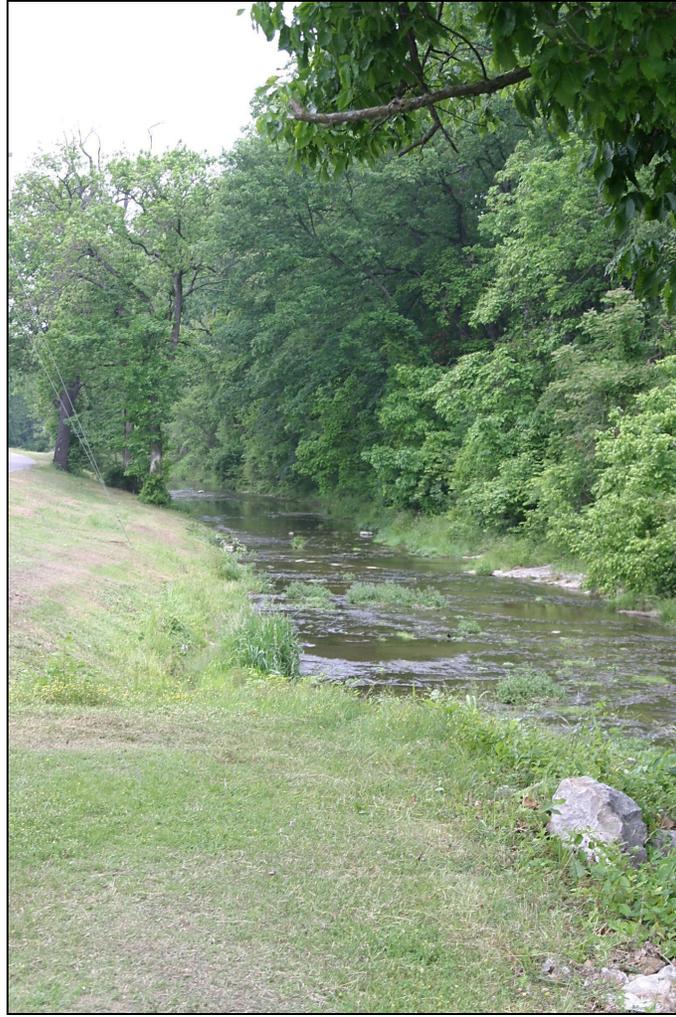
Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (EPA, 40 CFR 230.3). Wetlands support predominantly hydrophytic vegetation, the underlying material is predominantly not drained hydric (water-logged) soils, and is saturated or inundated by water for a period of seven days or more during the growing season each year.

Wetlands play a vital role in providing habitat for fish and wildlife, storm water retention/detention, water quality improvement, groundwater recharge and discharge, recreation, opportunities for scientific research, and public education. Wetlands are identified by the

drainage basin in which they are located, by the U.S. Fish and Wildlife Service vegetation community classification.

### 1.3.2 Sager Creek Environmental Study

The following is a summary of the existing conditions, analysis, and recommendations of the Sager Creek Environmental Study, conducted by GBMc & Associates in 2005. The study was commissioned with the intent to improve the water quality as well as other environmental conditions of Sager Creek.



*Sager Creek at N. Washington St.*

#### Water Quality

“In general, water quality during non-storm runoff events, although not pristine, is reasonably good, particularly for an agricultural and residential/urban setting. It is unlikely that improvements in baseline water quality would result in improved aesthetics, i.e. reduced algal growth in the downstream reach of Sager Creek. However, storm water runoff events did produce high pollutant loadings. Reduction of storm water loads would result in reduced overall phosphorus loading to the stream as well as reduced sediment accumulation. Reduction of

storm water loads will improve the overall water quality in the creek, but alone, would probably not result in appreciable reduction of algal growth in the downtown reach of Sager Creek.”

Visual based field assessment

“A visual based field assessment is a screening level tool intended to determine what the most significant problems in each stream reach are from a physical, ecological, chemical and hydrologic perspective.” “Riparian buffer (the vegetated zone, including stream banks, along stream corridors) impacts were noted at several areas along Sager Creek. These areas are generally represented by turf grasses manicured to the stream bank edge and the absence of well developed vegetated buffers (both trees and under story vegetation) along the stream. Riparian buffers provide streams with shading that helps cool the water and limit periphyton growth, they provide organic matter inputs which serve as food and habitat for aquatic biota, and they provide stabilization to stream banks that prevents erosion and provides additional habitat for biota. Well developed riparian buffers can also filter storm water pollutants and allow for increased rainwater infiltration which aids in protecting the streams hydrology (decreased peak flows and increased baseflow).”

“The critical areas of impacted buffers identified include pastures upstream of Cheri Whitlock Road, the golf course (both banks), the north bank along the baseball complex, both banks adjacent to the Simmons Foods corporate property, the south bank along Washington St., some areas on both the north and south banks in the city parks (City Park and Henry Park), and an area near the Benton Street bridge. The riparian areas downstream of Dogwood Road, adjacent to JBU, are in moderately good shape as compared to those in the upstream reaches.”

“...Four run of the river dams were identified along the stream course through town... Each of these dams impacts the natural hydrology of the system, serving to back up stream water forming large pools or ‘ponded areas’. The large pools had a much larger residence time as compared to natural pools in the stream. Increased residence time equals more time for temperatures and algal growth to increase. In addition, the slower water transport time could have a detrimental effect on flood elevations in the downtown area. One potentially positive benefit of the dams is that they serve as detention basins, allowing time for pollutants to settle out, making the water discharging at the downstream end a better quality water, particularly during storm flow events. However, the detention function also allows a buildup of pollutants in each of the pools which must be removed periodically to reduce the occurrence of nuisance conditions.”

“Another significant hydrologic problem was discovered at Cheri Whitlock Road. The box culvert under the road was found to be elevated above the streambed elevation. This higher elevation allows the culvert to serve as a dam during high flow events... In addition, the damming effect has allowed sediment to buildup for about a hundred yards upstream of the road changing the streambed elevation (aggradations). The new higher streambed elevation forces storm flows to be retained in a makeshift pool until the volume is attained such that the bed elevation is surpassed allowing water to move downstream. After storm flows pass, the remaining water in the makeshift pool dries up unless enough additional rainfall keeps it inundated. This cycle

keeps sediment depositing in the streambed and allows further aggradation of the stream channel.”

### Ecological Condition

“... The condition of the fish community (abundance, species present, etc.) is an indicator of the water quality and habitat quality of a water body. Monitoring the fish community is useful in assessing the aquatic life status of a water body and indication perturbations to the system. Indication of perturbation, as shown by a poor quality fish community, is important in watershed planning to focus effort on problem areas and to suggest the type of remedies for those problems.”

### Sampling Stations

“Station SC-2 - minnow and darters were the dominant family groups; sunfish and livebearers also. “SC-2’s overall fish community conditions, as compared to Arkansas’ Fish Community Biocriteria or Index of Biological Integrity (IBI) for the Ozark Highlands Ecoregion, yielded a total score of 25, which means the creek at this station is generally supporting the expected fish community.”

Station SC-6 – Minnow, sunfish and darters dominant families. The IBI indicated a generally supporting community.

Station Pond-1 – The sunfish family was the dominant family group, with the minnow family second. The IBI showed an impaired community.

Control Station FC-1 (on the Flint Creek) – Minnow family was dominant, with the sculpin family coming next. The IBI showed a generally supporting community.”

### Fish Community

“Fish communities in two of the three Sager Creek study reaches (SC-6 and SC-2) were found to be in support of the Ozark Highlands Fishery Use, while the third reach (Pond-1) was not.” When compared to the reference condition in Flint Creek (FC-1) the Sager Creek fish community in SC-6 and SC-2 was of very good quality and similar to that at FC-1. The fish community at Pond-1 was found to be sub-standard, likely the result of insufficient habitat, caused by the pooled conditions behind the dams. Water quality could also play a role as the accumulated pollutants retained behind the dams could cause dissolved oxygen deficits during the hot summer months.”

### Hydrologic Analysis

“The hydrologic regime of a stream (magnitude and frequency of flow) influences the shape of the stream channel, the type and abundance of habitat available to biota, and the type and load of pollutants transported in the system. As such, an understanding of a stream’s hydrology is integral to the assessment of stream stability, ecology and water quality. Three types of hydrologic assessments were completed as part of the Sager Creek study.” Of concern was the “water balance (losing/gaining reach assessment).” The study revealed that routine watering of greens at the City golf course did not appear to impact stream flows significantly. However, when substantial watering is occurring, the flow in the Box Springs decreases to near zero. “In order to ensure Sager Creek summer flows remain as high as possible, an alternative water source should be considered by the golf course for watering.”

### Geomorphology and Channel Stability

“Fluvial geomorphology refers to the interrelationship between the land surface (topography, geology, and land-use) and stream channel shape (morphology). When the force of running water is exerted on the land surface, it can have significant effects on the morphology of stream channels. A stable stream, or one said to be in ‘equilibrium’, is one where water flows do not significantly alter the channel morphology over short periods of time. The most important flow level in defining the shape of a stream is its bankfull flow (or effective discharge). Bankfull discharge is the stage at which water first begins to enter the active flood plain and is sometimes referred to as normal high water level. A geomorphology assessment of Sager Creek was completed to determine the stability of the stream, the classification of the stream, and to provide a model of natural channel dimension, pattern and profile.”

Comprehensive geomorphology stream surveys were completed on Sager Creek at three locations, and on Flint Creek. Each stream reach surveyed was found to be “fairly stable with only minimal to moderate bank erosion hazard and little or no signs of degradation (channel enlargement and deepening) or aggradation (channel filling, shallowing).”

### Non-point Source Pollution Assessment

The Sager Creek watershed was divided into five sub-watersheds to simplify the identification of potential non-point sources of storm water runoff pollution sources. The study identified potential sources, including industries, commercial uses, urban and suburban areas in general, cattle, poultry houses, row crops, and fertilized pastures. Of the five sub-watersheds studied, four were found to be significant sources of sediment and phosphorus to Sager Creek.

### Study Recommendations

- Development of a Sager Creek Management Advisory Group.
- Establishment of broad riparian buffers adjacent to the creek along a stretch of Washington St.
- Removal of the downstream dams and stream channel enhancement.
- Implementation of sub-watershed storm water treatments.
- Riparian zone improvements in selected locations.
- Implementation of best management practices in the watershed.

## 1.4 Geology

This area was once covered in a shallow tropical sea. When ancient marine organisms died, their calcium rich shells and skeletons sank to the bottom of the sea, forming thick calcareous deposits. These deposits became today’s bedrock of limestone and dolomite. Later a magma pulse pushed up the Ozarks and fractured the limestone. Fractures are enlarged with the dissolution of limestone by mildly acidic waters. These processes formed the caves, springs, and other underground passageways seen today.

In northwest Arkansas, including Benton County, Siloam Springs and its planning area, is in the Ozark Highlands Ecoregion. This is a region of karst topography, eroded to form steep hills, valleys, and bluffs. Karst is a distinctive topography in which the landscape is largely shaped by the dissolving action of water on carbonate bedrock (usually limestone, dolomite, or marble).

This geological process, occurring over many thousands of years, results in unusual surface and subsurface features ranging from sinkholes, vertical shafts, losing streams, and springs, to complex underground drainage systems and subterranean caves. Surface waters are commonly transported through these underground conduits and contribute to the groundwater basin. If the surface water is contaminated, the groundwater will become polluted.

Source: “*Community Growth Best Management Practices for Conservation of the Cave Springs Cave Recharge Zone*”, June 2005, written by the U.S. Fish and Wildlife Service’s Ecological Services division in Arkansas.

#### 1.4.1 Karst Topography

The following is a description of the principal karst sensitive areas; see Map 16 for further detail.

##### City Limits:

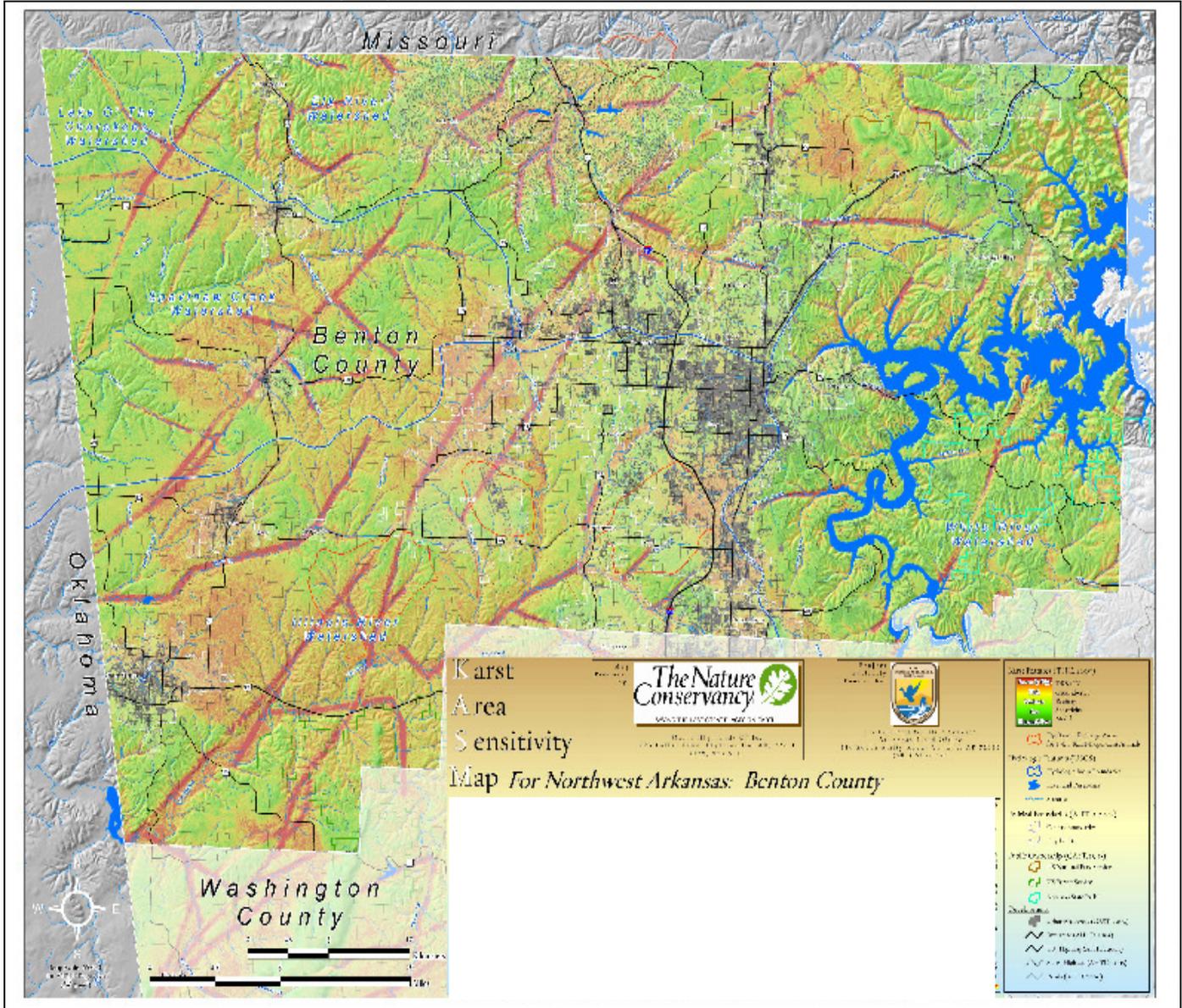
- Existing built-up urban area – low to moderate sensitivity.
- Area to the northwest, south of Hwy. 43 – moderate to high sensitivity.
- Area to the north, north of Hwy. 43 – moderate to high sensitivity.
- Area to the east, between Hwy. 43 and Hwy. 412 – moderate to high sensitivity

##### Planning Area:

- Area to the south, from the Stateline Rd. to Hwy. 16 – low to moderate sensitivity, except along stream and riverbeds where the landscape sensitivity is extremely high.
- Area to the south of Hwy. 412, east of Hwy. 16 – moderate to high sensitivity landscapes.
- Area along Flint Creek – high sensitivity.

Source: “*Karst Area Sensitivity Map for Northwest Arkansas: Benton County*”, produced by the Nature Conservancy, Ozark Highland Office.

Map 17: Karst Sensitive Area (NTS)



"Karst Area Sensitivity Map for Northwest Arkansas: Benton County", produced by the Nature Conservancy, Ozark Highland Office.

#### 1.4.2 Land Soils Analysis

Soil data, such as soil surveys, describe important soil properties, such as the hazard of flooding, natural drainage, depth to bedrock, permeability, potential for shrinking and swelling, bearing capacity, and content of silt, sand, and clay. Interpretations of soil suitability and limitations can be used for the following land uses:

- Foundations for houses, schools, commercial, and industrial buildings.
- Recreational uses, such as camps, parks, picnic areas, and sports fields.
- Local roads and streets.
- Farming and ranching activities.

Soil data can help planners make and substantiate the decisions that local government officials translate into land use planning that shape a growing community. In the comprehensive Plan process, soil data, specifically the U.S. Department of Agriculture Soil Conservation Service and Forest Service Soil Survey of Benton County, was used in order to assist in the evaluation of land use districts for the future land use map. As the future land use map translates into zoning districts, the districts for housing, recreation, commercial use and other kinds of development utilized the patterns of soil suitability and limitations to determine appropriate land uses, whether prime farmland or areas suited for development.

Table 19 (pg. 128) gives the degree and kind of limitation of the soils for dwellings and light industry of Siloam Springs and its planning area for dwellings without basements and light industrial uses.

Soil limitations are indicated by the ratings *slight*, *moderate*, and *severe*.

- Slight – means soil properties are generally favorable for the rated use, or limitations are minor and easily overcome.
- Moderate – means some soil properties are unfavorable, but the limitations can be overcome or modified by special planning and design.
- Severe – means soil properties are so unfavorable and so difficult to correct or overcome that major soil reclamation, special designs, or intensive maintenance is required.

Dwellings, as rated in Table 19, are generally no more than three stories high and are supported by foundation footings placed in undisturbed soil. The features that affect the rating of a soil for dwellings are those that relate to capacity to support load and resist settlement under load and those that relate to ease of excavation. Soil characteristics that affect the capacity to support load include: wetness, susceptibility to flooding, density, plasticity, texture, and shrink-swell potential. Those that affect excavation include: wetness, slope, depth to bedrock, and content of stones and rock.

Ratings for light industry are for undisturbed soils that are used to support structural foundations. Emphasis is on foundations, ease of excavation for underground utilities and corrosion potential of uncoated steel pipe. The undisturbed soil is rated for spread footing foundations for structures less than three stories high or foundation loads not in excess of that weight. Characteristics affecting load-supporting capacity and settlement under load include: wetness, flooding, texture, plasticity, density, and shrink-swell behavior. Characteristics affecting excavation include: wetness, flooding, slope, and depth to bedrock. Characteristics affecting corrosion of buried uncoated steel pipe are wetness, texture, total acidity, and electrical resistance. Map 18 shows favorable soils for development in brown.



Map 18: Favorable Soils for Development

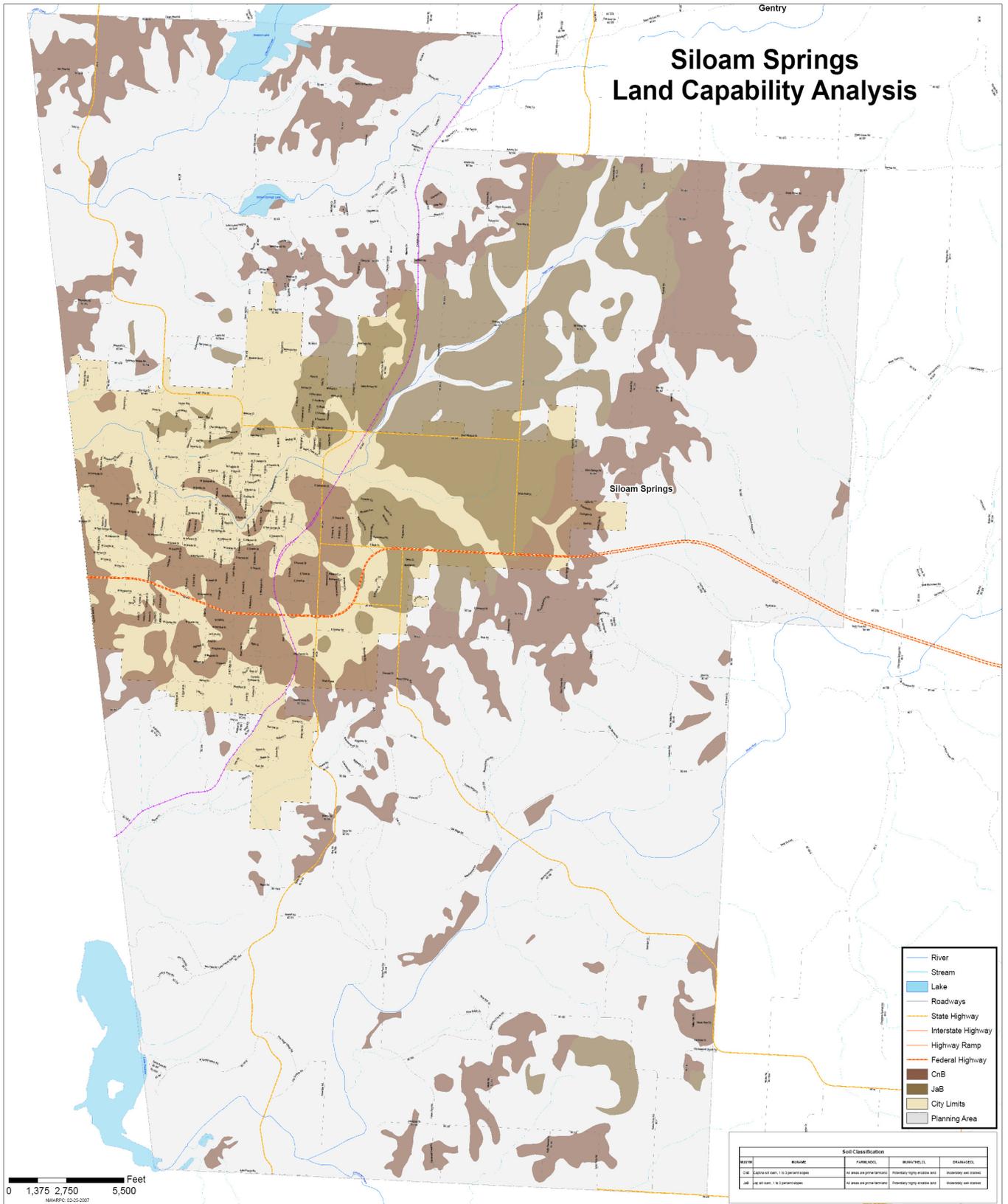


Table 19: Soils Types

Soil Type and Symbol	Dwellings Without Basements	Light Industry
Britwater: BtC	Moderate: moderate shrink – swell potential; moderate bearing capacity.	Moderate: moderate shrink-swell potential; moderate bearing capacity.
<b>Captina: CnB</b>	<b>Moderate: moderate bearing capacity; perched seasonal high water table.</b>	<b>Moderate: moderate bearing capacity; perched seasonal high water table; slope.</b>
Careytown: Co	Severe: poorly drained; perched seasonal high water table; low bearing capacity; high shrink-swell potential.	Severe: poorly drained; perched seasonal high water table; low bearing capacity; high shrink-swell potential.
Cherokee: Cs	Severe: low bearing capacity; perched seasonal high water table.	Severe: low bearing capacity; perched seasonal high water table.
Clarksville: CvF	Severe where slopes are more than 15 percent. moderate where slopes are less than 15 percent.	Severe.
Elsah: Eg	Severe: subject to occasional flooding to frequent flooding.	Severe: subject to occasional flooding to frequent flooding.
Enders: EnD	Severe: low bearing capacity; high shrink-swell potential.	Severe: low bearing capacity; high shrink-swell potential; Slopes of more than eight percent in some places.
Enders: EoD	Severe: low bearing capacity; high shrink-swell potential; stony; slopes of more than eight percent in some places.	Severe: low bearing capacity; high shrink-swell potential; stony; slopes of more than eight percent in some places.
Fatima: Ft	Severe: subject to occasional flooding; perched seasonal high water table.	Severe: subject to occasional flooding; perched seasonal high water table.
Healing: He	Severe: subject to rare flooding.	Severe: subject to rare flooding.
Healing: Hf	Severe: subject to occasional flooding.	Severe: subject to occasional flooding.
<b>Jay: JaB</b>	<b>Moderate: moderate bearing capacity; perched seasonal high water table.</b>	<b>Moderate: moderate bearing capacity; perched seasonal high water table.</b>
Johnsburg: Jo	Severe: perched seasonal high water table.	Severe: perched seasonal high water table.
Linker: LrC	Moderate: bedrock at a depth between 20 and 40 inches.	Severe: bedrock at a depth between 20 and 40 inches.
Mayes: Me	Severe: perched seasonal high water table; low bearing capacity; high shrink-swell potential.	Severe: perched seasonal high water table; low bearing capacity; high shrink-swell potential.
Mountainburg: MuD	Severe: bedrock at a depth between 12 and 20 inches; stony; slopes of more than eight percent in most places.	Severe: bedrock at a depth between 12 and 20 inches; surface stones; slopes of more than eight percent in most places.
Newtonia: NeB	Moderate: moderate bearing capacity.	Moderate: moderate bearing capacity.
Nixa: NfC, NfD	Slight in NfC Moderate in NfD; slope.	Slight: moderate where slopes are four to eight percent; severe where slopes are more than eight percent.
Noark: NoD, NoE, NoF	Moderate where slopes are less than 15 percent; moderate bearing capacity. Severe where slopes are more than 15 percent.	Severe.

Peridge: PeB, PeC	Slight.	Slight: moderate where slopes are more than four percent.
Secesh: Se	Severe: subject to occasional flooding.	Severe: subject to occasional flooding.
Summit: SeD2	Severe: low bearing capacity; high shrink-swell potential.	Severe: low bearing capacity; high shrink-swell potential; slopes of more than eight percent in most places.
Taloka: ToA	Severe: low bearing capacity; high to moderate shrink-swell potential; perched seasonal high water table.	Severe: low bearing capacity; high to moderate shrink-swell potential; perched seasonal high water table.
Tonti: TsC	Slight.	Moderate: bedrock at a depth between 40 and 60 inches; slopes of more than four percent in some places.
Waben: WeC, WeD	Generally slight. Moderate where slopes are more than eight percent.	Slight where slopes are three to four percent. Moderate where slopes are four to eight percent. Severe where slopes are more than eight percent.

\*Engineers and others should not apply specific values to the estimates of bearing capacity.

\*\*Onsite studies of the underlying strata, water table, and hazards of aquifer pollution and drainage into ground water should be made of land fill deeper than 6 ft.

\*\*\*Bold soils represent restrictive soils types found within the planning area.

Source: Soil Survey, Benton County, Arkansas. U.S.D.A., Soil Conservation Survey, 1972

Most of the land within the City limits and the planning area has some restrictions for urban development, however, there are some tracts of land that are appropriate for urban development. The soils with slight to moderate development limitations include:

BtC CnB JaB NfC NfD PeC PeB TsC WeC WeD.

Large areas of JaB soil within the City limits, on the east side of the City, south of Cheri Whitlock Dr. are suitable for both residential and light industrial uses. This type of soil continues northeast of the City limits into the Planning Area.

CnB soils are located throughout the downtown area of the City, as well as south of Hwy. 412. This band of soil continues east/ north east into the planning area. This soil type is plentiful and may also support urban development.

The remaining soils that have slight to moderate limitations for urban development are scattered throughout the City limits and the Planning Area. They constitute individual smaller tracts, and can be used successfully for urban infill projects within the City limits, as well as smaller scale projects in the planning area.

Soils with severe development limitations include: Co Cs CvF Eg EnD EoD  
DoD Ft He Hf Jo LrC Me MuD NeB NoD  
NoE NoF PeB Se SsD2 ToA.

These soils are located throughout the area north of Sager Creek and west of the Kansas City Southern railroad within the City limits. They are also found throughout the planning area to the

south, continuing north/northeast, and to the north of the City limits. These soils are *not* suitable for urban type development, or any type of large scale development. Much of the soil in this area is susceptible to flooding and severe erosion on hillsides.

By evaluating the soils types within the City limits and the planning area, the following conclusions have been drawn:

- JaB and CnB soil types are most suitable to urban development, such as residential, commercial, and industrial uses.
- Within the City limits:
  - The location of the CnB soil type occurs in large tracts within the City limits south of Sager Creek and west of S. Country Club Rd. to the City limits.
  - The location of the JaB soil type occurs in large tracts within the City limits south of Cheri Whitlock Dr., east of S. Country Club Rd., west to Hwy. 59.
- Within the planning area:
  - The location of the CnB soil type occurs in large tracts north of Benton County Road 294 and west of Russell Rd., continuing to the east until encountering the foothills.
  - The location of the JaB soil type occurs in large tracts north of Cheri Whitlock Dr., east of the rail road tracks, terminating at Russell Rd.
- Interspersed with these two soil types are many other soil types, not as suitable for urban development. Specifically, the ToA soil type has large tracts in the northeast part of the planning area.

## **G.2 Goals**

Goal #1—Preserve and enhance Siloam Spring’s natural systems, natural beauty, and environmental quality.

Goal #2—Encourage sustainability in City government operations.

Goal #3—Consider the impact on critical areas at the subdivision stage.

Goal #4—Protect and enhance the water quality and natural environment of Sager Creek through the Best Management Practices (BMP) recommendations of the “Sager Creek Watershed Assessment.”

Goal #5—Minimize pollution of surface waters that enter the groundwater on Karst topography.

Goal #6—Protect the natural functions of floodplains and floodways.

Goal #7—Ensure that development occurs on the most suitable soils types.

Goal #8—Protect existing agricultural and natural landscapes through open space preservation.

Goal #9—Minimize conflict between agricultural and non-agricultural uses.

## **G.3 Objectives**

Goal #1 (Preserve and enhance Siloam Springs’ natural systems.)

- Objective A—Make land use decisions that consider the overall goal of protecting the natural environment.

- Objective B—Build a cooperative relationship for environmental protection between the City, residents, related agencies, and local utilities.
- Objective C—Encourage community land use plans and development patterns that maintain and restore natural systems and protect open spaces.
- Objective D—Create overlay maps which identify watersheds, wetlands, floodplains, streams, open space and agricultural lands. This will form the basis for protection measures through implementing ordinances.

Goal #2 (Encourage sustainability in City government operations.)

- Objective A—Take reasonable steps in managing City government operations to reduce impact to the environment.
- Objective B—Continue to minimize the quantity of toxic materials used and waste generation through the practice of reduction, reuse, and recycling.
- Objective C—Invest in new technologies to reduce environmental impacts.

Goal #3 (Consider the impact on critical areas at the subdivision stage.)

- Objective A—Promote conservation subdivision design to minimize the impact to sensitive environmental areas natural systems protection.
  - In order to protect sensitive areas, the full density permitted under the zoning ordinance may not be achieved in all cases.
- Objective B—Explore creative solutions, such as flexible lot design, transfer of development rights (TDRs), Purchase of Development Rights (PDRs), and conservation easements, which may cluster development to protect sensitive areas.
- Objective C—Ensure subdivision lot areas to be of a sufficient size in order to maximize the clustering of structures away from sensitive areas.

Goal #4 (Protect the water quality of Sager Creek.)

- Objective A—Adopt and implement storm water BMPs. These include:
  - For agricultural land uses, encourage landowners to consider implementation of the BMPs. This encouragement may occur as some form of educational materials mail-out or forum. Applicable treatment areas include:
    - For pastures with on-going cattle operations,
    - Vegetated buffers along stream corridors,
    - Alternative water sources (away from streams) for cattle use,
    - Fencing cattle from the stream,
    - Rotating pasture usage,
    - Control stocking rate, number of head per acre of pasture,
    - Control nutrient applications (magnitude, timing and method) according to soil testing and nutrient management plans.
  - For agricultural land being used for row crops or small grains (and hay operations):
    - Establish vegetated buffers along stream corridors.
  - Control fertilizer applications (magnitude, timing and method) according to soil testing:
    - Use of cover crops during off season,
    - Crop rotation,

- Contour farming.
- For highly urbanized or industrial area:
  - Vegetated buffers along stream corridors,
  - Limit and/ or reduce impervious surfaces on new and existing developments,
  - Encourage good housekeeping practices. Keep outside storage areas covered, immediately clean up spills of liquid or dry materials, etc.,
  - Enforce construction storm water management plans,
  - Attain land or establish conservation easements in areas critical to the creek (i.e. buffer zones, wetlands, etc.) and maintain these as open space,
  - Require placement or retrofit of storm water treatment practices for new industrial or commercial developments,
  - Adhere to, as required (or proactively develop) storm water pollution prevention plans.
- For residential developments:
  - Vegetated buffers along stream corridors,
  - Limit impervious surfaces on new and existing developments by encouraging green area enlargement and enhancement,
  - Encourage good neighbor practices by keeping properties free of debris, proper disposal of pet waste and household chemicals, etc.,
  - Strictly enforce construction storm water management plans,
  - Encourage (through incentives) or require use of low impact development (LID) techniques in new developments,
  - Regulate selected fertilizer application through ordinances,
  - Encourage watershed stewardship through education.

Discussion:

As the vast majority of the pollutant load enters the Sager Creek during storm water (surface) runoff events, the implementation of the above actions could improve upon the quality of storm water runoff, thus improving the overall quality of the water in Sager Creek.

- Objective B—Protect the stream channel from elevated storm water runoff events and reduce pollutant loading with the following storm water treatment practices:
  - Detention basins (wet/ dry) – Basins designed to catch storm water and provide sufficient retention time to allow pollutants to settle, while discharging the runoff at a controlled rate.
  - Wetlands – Create treatment wetland systems that filter out pollutants naturally using native wetland plants.
  - Bio-retention – Route runoff into a landscaped depression that is engineered to mimic natural sylvan infiltration process.
  - Filters – Route runoff to a filter containing media(s) (sand, gravel, peat, etc.) with filtered outflow exiting via a surface conduit or via infiltration.
  - Vegetated channels and swales – Create densely vegetated channels with broad bottoms and low slopes, which reduces water speed. Swales are a variation where water is retained by check dams and sub-surface soils are “prepared” to provide rapid infiltration and drainage.

- Filter strips – Create densely grassed/ vegetated zones which reduce sheet flow runoff and filter pollutants through the vegetation.

Discussion:

Storm water treatment practices can be retrofitted in strategic locations throughout the sub-watersheds and other areas where treatment is possible. Many of the BMP can be implemented through revisions to standard subdivision design municipal storm water management regulation.

- Objective C—Aid in riparian buffer restoration and/ or enhancement by the following:
  - Channel restoration using natural channel design techniques,
  - Consider selective dam removal to restore the stream to a more natural hydrologic regime and to thwart algal growth.

Discussion:

Of particular concern is the stream bank along N. Washington St. This area has very little space for riparian development as the street infringes upon the creek. Efforts should be made to provide space for the development of a wide riparian buffer strip and increased vegetation along the creek bank. Buffers should be composed of native vegetation including trees, shrubs, herbaceous plants, and grasses. Buffer strips should be at least 25 ft. wide on each side of the stream, with ideally 50 ft. on each side.

Some dams should be removed following a restoration plan that would include flood analysis; dealing with any accumulated sediments, removing the dams in an incremental fashion, and re-establishing natural channel features.

- Objective D—Continue the work of the Sager Creek Advisory Commission in order to develop and implement the watershed management of Sager Creek.

Goal #5 (Minimize pollution of surface waters that enter the groundwater on Karst topography.)

- Objective A—Reduce erosion and sedimentation into streams and karst features.
  - Filter fences, or a combination of filter fences and straw bales, should be installed to minimize sediment run off from steep slopes and disturbed areas.
  - Sediment traps, small temporary ponding areas, should be located to intercept runoff from disturbed areas and should be located away from natural stream channels.
  - Mulching and re-vegetation should be quickly established on disturbed ground, including access roads and trench backfill.
  - Permanent stabilization of the disturbed area should occur as soon as possible. Materials pushed aside to make temporary level working areas should be replaced onto the disturbed area. The original contours of the land should be restored as closely as possible. The topsoil should be redistributed across the surface of the area.
- Objective B—Additional measures should be required for construction near sensitive areas including stream channels and karst features. This may include surveying for

existing and new right-of-ways; obtain Federal permission for blasting in the vicinity of any known karst features.

- Objective C—Use BMPs to prevent petroleum products from contaminating soils and water bodies.
  - Construction equipment and vehicles should be properly maintained to prevent leaking of petroleum products.
  - Containment systems should be used when changing oil and other fluids.
  - Petroleum products and other chemicals should be properly stored and labeled.
  - Materials for mitigating spills should be kept on site.
  - Any contaminated soils or materials should be disposed of off-site in proper receptacles or at an approved disposal facility.
- Objective D—Solid wastes should be collected and disposed of according to applicable regulations or recycled/reused.
- Objective E—Standard BMPs for pipeline construction in trenches, construction near sensitive areas, and construction staging areas should be applicable to all stream crossing methods.
- Objective F—All available BMPs should be used to manage storm water runoff from disturbed areas.

**Goal #6 (Protect the natural functions of floodplains and floodways.)**

- Objective A—Minimize public and private losses due to flood conditions by limiting development in floodplains, as identified on the Flood Insurance Rate Maps.
- Objective B—Updating flood hazard maps should be pursued as resources become available.
- Objective C—Limit the alteration of natural floodplains, stream channels, and natural protective barriers that help accommodate, dissipate, or channel flood waters.
- Objective D—Emphasize nonstructural methods, such as setbacks and vegetation, to prevent or minimize flood damage.
- Objective E—Locate public infrastructure outside of frequently flooded areas.

**Goal # 7 (Ensure development occurs on the most suitable soils types.)**

- Objective A—Ensure the future land use map indicates the most intensive development on sites with suitable supportive soils.
- Objective B— Ensure project engineering takes into account any soil limitations for infill development.
- Objective C—Limit development in flood plains to light use, such as parks and trails.

**Goal #8 (Conserve and protect existing agricultural uses and preserve open space.)**

- Objective A—Control the development of agricultural land uses by using preservation methods including incentive-based programs.
- Objective B—Establish TDRs, PDRs programs with overlay districts.

Goal #9 (Minimize conflict between agricultural and non-agricultural uses.)

- Objective A—Minimize the potential development impacts to existing agricultural activities.
- Objective B—Require notification on all plats, development permits, and building permits of the existence of any agricultural lands within 300 ft. of the development.
- Objective C—Consult with the University of Arkansas Cooperative Extension Service to facilitate the BMP.



## V. IMPLEMENTATION AND MONITORING

### A. Implementation

#### A.1 Regulatory Changes

In order for the prescriptive changes and recommendations of this Plan to be implemented, it will be necessary to make regulatory changes to the Siloam Springs Municipal Code. It is only through these changes that the Plan can truly be implemented through the police power of zoning law, subdivision regulations, and the land use Code.

It has become apparent as part of the process of developing this Plan a extensive overhauling of the existing Code is required to attain the goals and objectives that have been established. It is recommended that the current Subdivision Regulations, Master Street Plan, and Zoning Code be redrafted into a Unified Development Code (UDC).

Many of the urban design ideology and philosophies as recommended as current sound planning practices can be realized through a UDC that focuses on form-based zoning codification. The advantage of utilizing an UDC approach is that all the regulations that affect a given geographical area would be coordinated. Combining the three regulatory documents will minimize internal code conflicts that may emerge between different sets of concurrent regulations. These conflicts, as they exist in the current regulations, have been identified by the City planning staff as a serious hindrance to sound planning practices. See Figure 2 below.

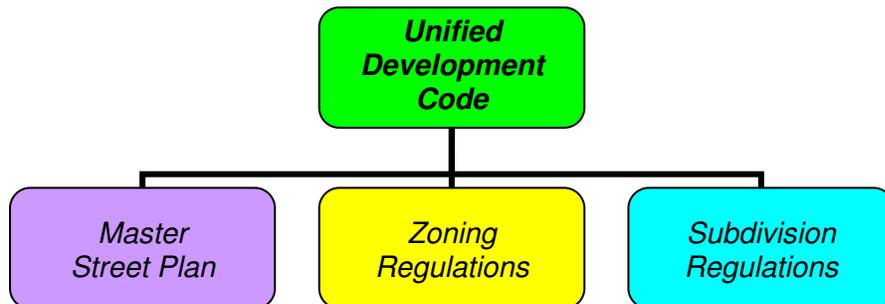


Figure 2 Unified Development Code

Form-based code, as addressed in Section IV-B.7, is an emerging approach to administer modern urban design concepts through the zoning administration. It is anticipated that City staff, community leaders, and other stakeholders, will endeavor to implement form-based code re-codification as part of the larger architecture of the UDC. The re-codification process should be completed within 12 to 18 months after the adoption of this Plan. The process should be administered through a city sponsored advisory committee that consists of all stakeholders and city staff directly impacted by the Code's jurisdiction. The direction taken by this advisory committee should be governed by the Plan's philosophies, while the actual Code language should be taken from different sources and assembled in a manner that best accomplishes the outcomes desired by the Plan.

In addition to the re-codification process, it will be necessary to make additional ordinances and internal policy that would work to promote each objective of this Plan. As part of the implementation process of this plan, a stand alone planning guide should be produced that directs the logistical administration and coordination of the changes that are necessary as well as guide the priority and timing of each objective. This tool is not included in this document as it will be fluid and changed as the circumstances, staffing and leadership of the City changes over time, thereby functioning more as a flexible itinerary rather than as the road map itself.

## **A.2 Procedural Changes**

Procedural changes are necessary in order to actively enforce the Municipal Code changes. Procedural changes include such items as: budgeting process, capital improvement programming, development review procedures, sign review, and building permit review. It will be necessary to meet with all the staff over each regulatory area to train them in the processes necessary to implement the Code changes. These changes should be referenced the planning guide. (See Section V-A.1.)

An area needing specific attention is the building permit review procedures. This is because it will involve a new level of review by staff to evaluate design standards that have not been evaluated in the past. This will likely initially impact review times. In addition, the scope of plan review will have to be broadened in order to ensure that paving new areas is reviewed for landscaping and other requirements. This may likely require additional permitting for such improvements to properties.

## **B. Monitoring**

### **B.1 Review Periods**

The Plan may be reviewed and updated at any time based strictly off of need. However, the Plan will officially be expired upon five years after its adoption. The Plan will be required to be updated by staff, or a consultant, and reauthorized by the City Board of Directors. It is important to continually update the Plan as new trends arise and new projections can be made. This Plan at its original draft time, in 2007, represents a snapshot of what issues were apparent upon its creation. Issues and needs are expected to change in time as well as the prime directive of the Plan itself. It should always be a mirror of the community's desires.

The areas that should be updated upon the five year review include:

- Planning area expansion and service area expansions.
- Future land use map updates.
- Updates to the Master Street Plan and its impacts on land use.
- Major shifts in policy or planning philosophies.

Upon the five year update, it is recommended that an advisory panel be convened to review the existing Plan, review its progress, determine critical areas of change, and make final recommendations. A report should be presented by the City planning staff that details the Plan's implementation progress, current status, and future benchmarks. The report should not include any area that is out of the scope and administration of the City, as accounting for these areas needs to come from the lead agency or entity involved. For example, progress on the goals ascribed to the Boys and Girls Club should come from the leadership of that organization when requested by the advisory panel. The advisory panel should consist of members of the City Board of Directors, the Planning Commission, City staff, and stakeholders from within the community.

### **B.2 Amendments**

Minor updates may be applied to the Plan at anytime. Depending on the nature of update the review process shall vary. If the nature of the amendment is typographical, graphic, format related, or relating strictly to the Plan's organization and structure, these changes may be made and approved by City staff and the appropriate City department head.

If amendments are needed to the future land use map, policy or any conceptual features of the Plan, these shall be drafted in a Resolution and adopted through the Planning Commission and the Board of Directors. It is anticipated that such alterations will occur on an at need basis as required through the execution of the Plan. They may be initiated either through City staff, legislative request, or by the request of any affected property owner. Such changes will not require the convening of any advisory bodies.



**VI. APPENDIX**

**APPENDIX—A**

# APPENDIX—B

# APPENDIX—C

# APPENDIX—D

# APPENDIX—E

# APPENDIX—F