CHAPTER II

BASIS FOR
CONNECTING TO THE FUTURE:
SAPULPA 2030 COMPREHENSIVE PLAN (2030 PLAN)

INTRODUCTION

The basis for the 2030 Plan is formed by major forces which have shaped the development of the Planning Area in the past and which can be expected to be determinants of development during the Planning Period. The present development of the Planning Area has been referred to as the "physical facts" which must be considered in public policy decisions related land use planning. The future development of the Planning Area will be shaped by the public policies adopted as a result of the Planning Process which results in "*Connecting to the Future: Sapulpa 2030 Comprehensive Plan" (2030 Plan).*

The location of the Planning Area and Corporate Limits Boundary are shown on the **Location and Planning Area Map (Map 1).** The Sapulpa Corporate Limits contains 24.6 square miles and the unincorporated area within the Annexation Fenceline including Creek and Tulsa County is 68.2 square miles.

The total area included within the Planning Area is 92.8 square miles. The largest part of the Planning Area is in Creek County, encompassing 69.1 square miles and 22.57 square miles of incorporated area. Approximately 1.1 square mile is included in the northern part of the Planning Area and Tulsa County. Maps referred to in this section are included at the end of this Chapter except for **Map 1** which is included at the end of Chapter I.

This Chapter will present, discuss and analyze the following physical, social and economic determinants of development:

Physical Features:

- Physical features and the natural environment
- Man-made physical features and the built environment

Social Factors and Demographic Factors
Economic Factors

PHYSICAL FEATURES

The physical features of the Planning Area are discussed below in terms of **natural** and **man-made physical** features and determine to a large extent the nature and type of

development that will occur and the general direction and areas where future growth will take place.

NATURAL PHYSICAL FEATURES AND THE ENVIRONMENT

The natural physical features discussed in this section include the following:

- Soils
- Depth to Bedrock
- Drainage Basins and Watersheds
- Floodplains
- Slopes and Topography
- Major Geologic Formations
- Wetlands and Impaired Streams

SOILS

Information concerning the different soil types found within the Planning Area is useful in planning and constructing sites for residences, roads and highways, water and sewer systems. From the soil data, the potential of each soil for specified land uses can be determined and any soil limitations associated with these land uses can be identified and mitigated if construction is to proceed.

Soil formations are shown on the **Major Soil Formations Map (Map 2)**. A further detailed breakdown of soil characteristics is available in the Natural Resources Conservation Services (NCRS) Soil Survey of Sapulpa at http://websoilsurvey.nrcs.usda.gov. Soils are grouped on the basis of soil characteristics, including, but not limited to permeability, percolation, ponding, drainage conditions, shrink-swell potential, depth to cemented pan, depth to hard/soft bedrock, soil texture, flooding frequency, filtering capacity, topography, seepage, subsistence and organic content. Soil characteristics also influence the future construction for roads, residences, small commercial structures and septic tank absorption.

Map 2 identifies the following six (6) primary soils found within the Planning Area:

- The most common soils are the Darnell and Niotaze soils and the Dennis, Okema and Carytown loams. These soils are not generally conducive to septic systems, lagoons, sanitary landfills or fill for roads. Residential development on these soils is severely limited due to the underlying sandstone; however, these soil classifications do not prohibit development, but measures must be taken during site planning and construction phases to mitigate the limiting factors of the soils.
- The Dennis, Okema and Carytown loams are the next most commonly occurring soil classifications. These soils are very clayey, percolate slowly, are not conducive to septic systems, lagoons, sanitary landfills or fill for roads. The

shrink-swell factor of these soils is severe and can also contribute to the deterioration of roads. This classification does not prohibit development, but measures must be taken during site planning and construction to mitigate the limiting factors of the soils.

- The remaining portions of the Planning Area include over 25 soil types and also include the Mason Silt loam which is located in the floodplain areas. The Mason Silt loam is deep, well drained and permeable and follows Rock and Polecat Creek; this particular soil type is best suited for agricultural or recreational land.

Soil Limitations on Roads Map (Map 3). The majority of the soils found within the Planning Area have a Very Limited Rating for road construction. Soils in areas classified as the Very Limited Rating do not prohibit road construction, but if roads are to be built and stand the test of heavy use and time, measures must be taken during site planning and construction to mitigate the limiting factors of the soils. The two (2) primary measures that will assure that the roads will withstand the test of use and time is the testing of the soils prior to construction and proper preparation of the roadway base.

Soil Limitations on Dwellings and Small Commercial Structures Map (Map 4). The majority of the Planning Area has a Somewhat Limited to Very Limited Rating for construction of dwellings and small commercial structures. These limiting factors do not prohibit construction but if such construction is to take place, measures must be taken in the site planning and construction phases of the improvements to mitigate the limiting factors of these soils.

Soil Limitations on Septic Tank Absorption Map (Map 5). The vast majority of the Planning Area has a Very Limited Rating for septic tank absorption and use; however in some cases, this limitation can be overcome by reducing the density of development, increasing the area of septic fields, or by the use of aerobic onsite systems and lagoons. If development is to take place, all options should be explored to extend and connect to a public collection and wastewater disposal system.

Soil Permeability. According to the NRCS Soil Survey of Sapulpa found at http://websoilsurvey.nrcs.usda.gov the majority of the soils in the Planning Area is classified as having a Moderate (0.6”-2” per hour) and Moderately Rapid (2”-6” per hour) permeability. The permeability of soil is an indication of the suitability of such soils for development using on-site septic or aerobic disposal systems. Even if soils show Rapid permeability, the preferred and often mandated (depending on the distance of extension) type of wastewater disposal system for urban areas is a public sewer system, especially when such systems are available within a short distance.

Development within areas not served by public sanitary sewer is allowed by the Oklahoma Department of Environmental Quality (ODEQ) as follows: minimum 0.5 acre lot with public water and private sewer and 1.0 acre lot with private sewer and private water wells.

Significance of Soils to Planning:

- Soil surveys help make decisions that translate into comprehensive land use plans, zoning ordinances, subdivision regulations, authorizations for sewer extension and other regulations that mold a growing community;
- Roads and highways can be routed to avoid major soil hazards and contractors can bid work more accurately when they consider soil suitability and limitations in planning and designing highway structures and roadways;
- Soil properties can be used to determine the suitability of areas for on-site septic tank absorption fields. When developed, areas for which sanitary sewer is not available should be developed at a much lower density than would otherwise be allowed if a public collection and disposal system was available; and
- Information about soil limitations helps prevent major mistakes in land use planning and can eliminate unnecessary future costs required to repair public infrastructure.

DEPTH TO BEDROCK

Depth to bedrock is shown on the **Depth to Bedrock Map (Map 6).**The majority of the Planning Area is included within the 0-20 inch Depth to Bedrock category as shown on **Map 6**. Depth to Bedrock is a major consideration for development, whether construction takes place on the surface or when excavation is required for the construction of roads or for the installation of water and sewer lines and other utilities below ground.

DRAINAGE BASINS AND WATERSHEDS

The **Drainage Basins and Watershed Boundaries Map (Map 7)** indicates that the Planning Area's primary drainage basin is Polecat Creek and the tributaries of other local creeks which drain into that basin. Sub-basins of Polecat Creek include Rock Creek, Little Polecat Creek, Clear Creek - Polecat Creek, Euchee Creek, Skull Creek – Polecat Creek, City of Sapulpa – Polecat Creek and Nickel Creek. The City's gravity flow public collection and disposal sanitary system is located within the central portion of the Planning Area. The wastewater treatment plant is located in the eastern part of the incorporated area. Extension of the City's gravity flow sanitary system beyond the present boundaries of service could require costly lift stations and force mains and could require another pump station or even adding another wastewater treatment plant.

The Hydraulic Unit Code (HUC) shown on **Map 7** is a system of delineating the size of watersheds. The smaller the number, the larger the watershed. Each HUC-8 watershed is subdivided into the next smaller size, HUC-11; a single HUC-8 watershed may have six (6) to ten (10) HUC-11 watersheds. The smallest watershed is the HUC-12 which has an area of ten (10) to twenty (20) square miles.

The City of Sapulpa Stormwater, Utilities and City Drainage Plan (Drainage Plan) was prepared by Meshek and Associates, PLC. The work was completed in three (3) phases

and was adopted by the City Council in 2010. Phase I consisted of an "Impervious Area Study" including the development of a Stormwater Utility Fee to fund future Stormwater quality issues, capital improvements and ongoing maintenance to the drainage system. Phases II and III focused on the study of the numerous drainage basins within the City and the Planning Area.

A total of 20 drainage basins were identified for study. In order to study that large a number of drainage basins, the basins were aggregated within the Drainage Plan into six (6) major drainage systems: Downtown Systems, Rock Creek Systems, South Polecat Systems, East Polecat Systems, Nickel Creek and North Polecat Systems. The total estimated cost for the Recommended Plans for all studied basins within the City of Sapulpa is $30.34 million. The Drainage Plan is also discussed under Stormwater facilities below. Prior to the Drainage Plan the Liberty School Drainage Basin Study (Liberty Study) was completed. The Liberty Study details storm drainage needs in the northeastern neighborhoods of Sapulpa lying east of Mission Street and north of Dewey Avenue.

FLOODPLAINS

The **100 Year and 500 Year Floodplains Map (Map 8),** depicts 100-year and 500-year "Special Flood Hazard Areas" as identified by the Federal Emergency Management Agency (FEMA) and as shown on the Flood Insurance Rate Maps (FIRMs). A "Special Flood Hazard Area" is defined by FEMA as "...that area subject to inundation by the 1% annual chance floods…also known as the base flood". The FIRM maps for the City were last updated by FEMA in 2009.

On March 15, 2004 Ordinance No. 2435 was passed by the City Council adopting the Sapulpa Flood Damage Prevention Program. The Sapulpa Flood Damage Prevention Program and Drainage Studies serve as guides to future development and also serve as a policy-guide and template to solving flooding problems within developed areas. The City has completed a Floodplain Buyout Program which purchased and cleared properties located within the floodplain of Bivens Creek.

Heyburn Lake was constructed in 1950 by the U.S. Army Corps of Engineers and serves as a flood control structure protecting the Planning Area. Heyburn Lake and Dam is located approximately ten (10) miles west of the City and at river mile 48.6 on Polecat Creek. The flood control storage capacity of Heyburn Lake is equal to about 7.5 inches of runoff from the upstream drainage area, which provides storage for runoff somewhat greater than that resulting from a 100-year storm.

Significance of Drainage Basins, Watersheds and Floodplains to Planning:

- Absent expansion of the public sanitary sewer system, future development within drainage basins and watersheds lacking such public systems will continue using on-site disposal systems in conjunction with large lot and low density development which increases the cost for provision of City services;

- Development is allowed within the 100 year floodplain; however, it must conform to the City's regulations and be otherwise permitted as required;
- Lands subject to flooding and along streams that carry watershed runoff effectively dispose of storm water and should be preserved and protected to prevent damage to the natural and built environment and to protect the safety of residents of the Planning Area;
- If development is allowed in flood prone areas, such development should receive special consideration to properly mitigate the hazards of flooding to residents and improvements to property; and
- Land along creeks and drainage ways typically contain significant trees and vegetation that can serve as amenities to urban development with proper design and mitigation of flooding.

SLOPES AND TOPOGRAPHY

This section discusses slope of the land within the Planning Area in terms of the percent of slope. Just as knowledge of area drainage basins, watersheds and soils is important to planning and development, so is the knowledge of the slope of the land. The Planning Area is comprised of level to steep terrain as shown on the **Percent Slope Map (Map 9)**. The slope of the ground within the Planning Area is expressed on **Map 9** in terms of the percentage of the slope of the land within the following categories:

Categories of Percent Slope	Percent of the Planning Area
0.00%	Less than 1%
0% to 2.00%	32.01%
2.01% to 4.00 %	14.59%
4.01% to 10.00%	27.86%
10.01% or Greater	24.96%

As shown on **Map 9** the land with the steepest slope (10.01% or Greater) is found in the southwest portion of the Planning Area, much of which is presently unincorporated. Land can be considered relatively flat if the slope is 0.00% to 4.00% and a total of 46.6% of land within the Planning Area would be included in that combined category. **Map 9** also shows that almost one-third (32.01% of the total) of the Planning Area is found within the 0% to 2.00% category and is land that would typically be located along the floodplains of the major creeks. While the 4.01% to 10.00% slope category may present some special challenges to development it would not preclude development with proper land planning and design.

During the Planning Process, it is important to carefully consider the slope and topographic limitations of each specific area to assure that any constraints which are present are properly addressed. In some cases land with steep slopes may also include highly erodible soils.

The Planning Process may determine that such areas should be designated as Development Sensitive and Conservation Areas requiring careful engineering and construction techniques if development is to take place.

Significance of Slopes and Topography to Planning:

- Construction of streets and other public and private infrastructure must take into account the slope of the land in combination with the characteristics of the soil;
- Development of areas with moderate slopes should follow the contours of the land to reduce construction costs;
- The slope of the land will have a significant impact on the planning, design and construction of large-scale industrial projects; and
- Incorporation of Development Sensitive and Conservation Areas into developments where possible is an important element in planning, design and construction and can add fiscal and aesthetic value to the finished product.

MAJOR GEOLOGIC FORMATIONS

The major geologic formations found within the Planning Area are shown on the **Major Geologic Formations Map (Map 10).** As shown on **Map 10**, the pattern of the major geologic formations is predominantly found in strips lying adjacent to each other in a north-south pattern. The descriptions of the geological formations included in the text that follows were found at http://search.usgs.gov/geology/state/oklahoma.

The eastern portion of the Planning Area is dominated by the Coffeyville, Checkerboard Formation or Limestone Formations; Limestone is a crystalline formation from 2" to 15" thick. The western portion of the Planning Area is dominated by the Nellie Bly Formation and Hogshooter Limestone Formation which is mainly composed of shale with many fine-grained sandstone beds and limestone beds. The western portion of the Planning Area located west of Main Street/SH-97 is dominated by Hogshooter Limestone which is a massive cranial limestone formation 1' to 50' thick. Alluvium (loose gravel, sand or clay deposited by streams) is found along Polecat and Rock Creeks. Areas of Alluvium are also typically classified as floodplains and should be designated as Development Sensitive and Conservation Areas requiring special attention if allowed to develop.

Significance of Major Geologic Formations to Planning:

According to **Tulsa's Physical Environment** published by the Tulsa Geological Society (at page 487), the significance of knowledge of and respect for the geology of the Planning Area should be expressed in the 2030 Plan as follows:

> "By planning to cooperate with nature and by properly using rather than abusing our physical environment, [thereby] our growth can proceed with the minimum of chaos, cost and confusion."

WETLANDS AND IMPAIRED STREAMS

Wetlands and impaired streams within the Planning Area are shown on the **Wetlands and Impaired Streams Map (Map 11).** Wetlands are found throughout the Planning Area along lake shorelines, major creeks and streams. As shown on **Map 11**, wetlands exist along the reaches and tributaries of Polecat Creek and Nickel Creek within the eastern regions of the Planning Area. Wetlands are also shown along the shores of the Sahoma Lake, Pretty Water Lake and Country Club Lake.

Wetlands are among the most significant physical features of the natural environment. According to the U.S. Fish and Wildlife Service:

> "Wetlands slowly release flood water and snow melt, recharge groundwater, act as filters to cleanse water. Wetlands... provide a multitude of ecological, economic and social benefits. They provide habitat for fish, wildlife and a variety of plants. Wetlands are nurseries for many saltwater and freshwater fishes and shellfish of commercial and recreational importance. Wetlands are also important landscape features because they hold ... impurities, recycle nutrients and provide recreation and wildlife viewing opportunities for people."
> National Wetlands Inventory (http://www.fws.gov/wetlands)

Map 11 shows that streams classified as "impaired" within the Planning Area include portions of the southern and eastern reaches of Polecat Creek and the northeastern reaches of Nickel Creek. Impaired streams within the Planning Area would be included on the 303(d) List compiled by the ODEQ as required by EPA. The "Water Quality in Oklahoma 2010 Integrated Report" listing impaired streams is updated every two (2) years by the ODEQ. The 303(d) List is a compilation of lakes and streams that are not meeting one or more beneficial uses assigned in the Oklahoma Water Quality Standards, or lakes or streams that might be expected to exceed water quality standards within the next two-year period. The 2010 Water Quality in Oklahoma Integrated Report and letter from EPA can be found on the ODEQ website: http://www.deq.state.ok.us/WQDnew/305b_303d/index.html

Significance of Wetlands and Impaired Streams to Planning:

- Wetlands and impaired streams carry watershed runoff and effectively dispose of stormwater;
- Wetlands should be preserved and protected to prevent damage to the natural and built environment and to protect the safety of residents of the Planning Area;
- Areas which include wetlands and impaired streams, if developed, require special measures to mitigate any negative or unintended outcomes; and
- Wetland areas should be designated as Development Sensitive and Conservation Areas on the 2030 Plan.

MAN-MADE PHYSICAL FEATURES AND THE BUILT ENVIRONMENT

This section discusses major man-made and physical features, sometimes referred to as the "built environment". The man-made and physical features of the built environment discussed in this section are as follows:

- Public Facilities
- Water Distribution and Water Treatment Facilities
- Wastewater Collection and Treatment Facilities
- Solid Waste
- Stormwater Management and Drainage
- Transportation Systems
- Oil and Gas Well Drilling and Mining Activities
- Environmental

PUBLIC FACILITIES

The following major public facilities and buildings are discussed in this section and the locations of the listed public facilities are shown on the **Public Facilities Map (Map 12):**

- Sapulpa City Hall
- Sapulpa City Annex Building
- Sapulpa Police Department
- Sapulpa Fire Stations
- Sapulpa Public Works Facilities
- Sapulpa Parks, Recreation, Trails and Open Spaces
- Senior Citizens Centers
- Booker T. Washington Community Center
- Sapulpa Historical Museum
- Bartlett-Carnegie Sapulpa Public Library
- St. John's Medical Center in Sapulpa
- Creek County Courthouse
- Creek County Collins Building
- Creek County Fairgrounds

The **Sapulpa City Hall** was built in 1986 and is located east of the Downtown and Central Business District (CBD). The City Hall houses the City's Administrative offices, City Clerk, City Attorney, Human Resources and Accounting. In 2006, upon completion of the new Police Department facilities, the City Hall Offices were expanded into the remodeled former Police facility which is located north of the City Hall Building.

The former Police Department headquarters, which is now the **City of Sapulpa Annex Building,** is home to the Public Works Administrative Offices, Building Permitting and Inspections, Stormwater Management Department, GIS Mapping, Code Enforcement

and the Urban Development and Planning Department which were transferred from City Hall to the Annex.

The **Sapulpa Police Department** Headquarters is located north of Dewey and east of the City Hall. The relatively new home for the Police Department houses the Police Administrative Offices, Detective and Traffic Divisions. The Sapulpa Police Department has 47 full-time/commissioned police officers.

The **Sapulpa Fire Department** currently has four (4) Fire Stations and a fifth station is in the planning stages to serve the growth of the City during the Planning period. The Central Fire Station (Station 1) is located east of the CBD at 800 E. Dewy Avenue. Station 2 is located at 911 North 9th Street and Station 3 is located at 10 East Murphy Avenue. Stations 2 and 3 serve the north and south sides of the City respectively. Station 4, the City's newest Fire Station, is located at 7400 New Sapulpa Road and was constructed in November 2006 to serve the north and east sides of the City. The Fire Department has completed the location study for future Station 5 which is planned for the vicinity of Hilton Road and South 49th West Avenue. The City currently has 49 full-time firefighters.

The main location of the **Sapulpa Public Works Facilities** is 410 S. Hawthorne; the Central Garage, Parks and Maintenance and Street Department are all housed here.

Map 12 also shows the location of the following larger public parks and recreation facilities: Sapulpa Municipal Golf Course – 18-holes, Aaron's Angels Park, Kelly Lane Park and East Kelly Lane Park and the Liberty Park which is the site of the Aquatics Center and splash pad, the private Oaks Country Club and the private Clary Fields Golf Course. The Sapulpa Parks and Recreation Department is responsible for a total land area of 384 acres and 364 surface acres of water. The webpage of the Sapulpa Parks and Recreation Department is www.**cityofsapulpa.net**/parksoverview.asp. Additional information about the Sapulpa Parks and Recreation is included in a section that follows.

The City's community centers include the **Senior Citizens Center** located at the intersection of Taft and Bixby Streets and a Senior Center housed at the offices of the Sapulpa Park and Recreation Department, 515 East Dewey Avenue east of the Central Business District. The Senior Citizens Center provides daily noontime meals and recreational programs for the City's seniors. A senior citizens bus is operated to enable many area seniors to utilize the Center on a regular basis.

The **Booker T. Washington Community Center** is located at the intersection of Martin Luther King Blvd and Grey Streets and originally served as Sapulpa's African American High School, formerly known as Booker T Washington High School. This historic building has important cultural, historical and community significance and provides space and programs for indoor recreational games; the gym provides daily users with a variety of activities for school age children and physical fitness programs for adults.

The **Sapulpa Historical Museum** (Historical Museum) is centrally located south of Dewey Street in the Wills Building. The Willis Building was built in 1910 is located at 100 East Lee Avenue. The Historical Museum has three (3) floors of exhibits depicting Sapulpa's history, including a small historical village exhibit which showcases some of Sapulpa's early businesses. The small historical village includes an early-day blacksmith shop, a sheriff's office, the John F. Egan General Merchandise Store, Rock Creek Indian Methodist Church, Euchee Mission Boarding School and a diorama of the Frisco Railroad shops that were located in Sapulpa in the early 1900's. Other Historical Museum exhibits include Creek and Euchee Native American artifacts, an early territorial courthouse, a military room and some artifacts dedicated to prominent early Sapulpans.

The **Bartlett-Carnegie Sapulpa Public Library** (Library) was built in 1917 and expanded in 1969. In 1997 and 1998 the Library was completely remodeled and returned to the quiet elegance of the early 1900's with a major expansion and ground level access. The Library provides area residents with traditional library services and has 52,354 titles. Library resources also include the genealogy collection of the U.S. Census, history and genealogy texts and Creek County newspapers on microfilm. The Library also provides access to online services via six (6) public use computers and has extensive collections of video and audio cassettes and CDs. The Library Annex located just north of the main Library offers literacy services to those who need to learn how to read, as well as classes for volunteers who would like to help serve as volunteer teachers/tutors. The Sapulpa Library Five Year Plan was adopted in 2010 by the Sapulpa Library Board and includes the following: plans for a Community Center/Library Branch; plans for connection to the Tulsa City/County System and the other six (6) libraries in Creek County; and plans for a bookmobile for reaching small communities in Creek County. According to conversations in February 2012 with Martha Stalker, Director, Sapulpa Public Library, library staff are proactively pursuing grants for the library connection project and funding for the bookmobile.

In June 1997, St. John's Health System became the sponsor of the City's former Bartlett Memorial Medical Center. In April 2000, the Bartlett name was changed to **St. John's Medical Center at Sapulpa** and ground was broken on the first phase of a master plan to provide expanded and improved health services to the City and the surrounding area. Plans for growth included: renovation of the existing building, a surgery suite addition, a new central plant, a dialysis treatment center and a new medical office building. Additional improvements also include new parking areas, a new helicopter landing port, perimeter and courtyard landscaping, sidewalks, site lighting and improved signage. St. Johns serves as a modern "medical campus" located in the heart of the City and the Planning Area.

Sapulpa serves as the Creek County Seat of government. The CBD is the location of the historic **Creek County Courthouse (Courthouse) and the Creek County Collins Building (Collins Building)**. The Courthouse houses courtrooms and offices of the Creek County District Judges, the Creek County District Attorney and the Creek County Court Clerk. In March 1986 the Court House was placed on the National Registry of

Historic Places. A major renovation of the Courthouse was dedicated in March 2013. The Collins Building was first occupied by the County in 1996 and houses the administrative offices of the Creek County Commissioners, Creek County Clerk, Creek County Treasurer, Creek County Assessor and the Creek County Planning Department. The Collins Building was constructed in 1928 as a Masonic Lodge. The Collins Building has a magnificent ballroom on the second floor which is available for public and private events.

Creek County facilities serving the Planning Area also include the **Creek County Fairgrounds**, located southwest of the City on SH-66. The 50-acre Creek County Fairground has two (2) barns, a banquet facility and an indoor arena with seating capacity for 1,000 spectators. The Oklahoma State University Extension office is located at the Fairgrounds.

Significance of Public Buildings to Planning:

- Public buildings and spaces become important places of community gatherings and identity;
- The location and planning for public buildings contributes to and supports the pattern of existing and future development of the City;
- Public buildings provide points for the provision of important public services to City and area residents; and
- Public buildings provide locations for delivery of services to help improve the health, safety and quality of life for the City residents and contribute to the overall quality of life of the residents of the Planning Area.

PARKS, RECREATION, TRAILS AND OPEN SPACE

The City of Sapulpa Parks and Recreation Department (Parks Department) is responsible for 19 public parks and recreation facilities, totaling 384 acres; fifteen (15) facilities are currently “developed” and open to the public. These developed parks and recreation facilities total approximately 152 acres of developed parkland and 364 surface acres of water. Sahoma Lake and Pretty Water Lake are owned by the City and operated by the City Park Department and provide open space, boating, fishing and a recreation vehicle campground. The City has four (4) additional “undeveloped” park and recreation areas that the Department oversees including Aaron’s Angels Park, Dorcas Park, an Unnamed City Park and the Overlook Park at Sahoma Lake; some of these areas are open to the public on a limited basis. (Source: Sapulpa Parks Facilities/Amenities Inventory July 31, 2012). Parks range in function from tot lots to large baseball facilities. An 18 hole golf course operated by the City provides the Planning Area with a recreation facility that draws from all of Creek County and from across the region. A centerpiece of the Parks program is the recently completed Aquatics Center located in Liberty Park. The latest addition to the Parks inventory is the pedestrian bridge over Rock Creek to Kelly Lane Park. The Sapulpa School system owns an additional 22.5 acres of recreational space.

The revenues from the recreation and sports programs make an important contribution to the City's budget and to the funding for the respective programs supported and managed by the Parks Department. The Parks Department also supports City-wide programs for softball, football and soccer.

The City currently has 3.85 miles of developed recreational trails, some of which are lighted, located in several City parks and at Pretty Water Lake. There is an additional 7.15 miles of recreational trails planned to be developed during the Planning Period.

The City's walking trails will be connected to the additional planned bike and multi-use trails which are included in the Sapulpa/Creek County Trails Master Plan, which is discussed in Chapter IV. The City's trails system is planned to connect to the INCOG Regional Trails Plan.

The 2030 Sapulpa Parks, Recreation, Open Space and Trails Plan (2030 Sapulpa Parks Plan) is being prepared under the direction of the Parks Superintendent. When completed the 2030 Sapulpa Parks Plan should be adopted as an official element of the "*Connecting to the Future: Sapulpa 2030 Comprehensive Plan" (2030 Plan)*.

Significance of Park and Recreation Areas to Planning:

- A high quality, balanced and well-managed park and recreation program is essential to the quality of life of Sapulpa;
- The level of public investment in parks and recreation programs and facilities reflect their importance to the community;
- A strong park and recreation system is essential for a thriving and healthy community; and
- Parks and recreation facilities provide both passive and active programs for all ages to stimulate physical and mental health.

WATER DISTRIBUTION AND WATER TREATMENT FACILITIES

Water service to the Planning Area is provided by the City's public system, several rural water districts and from private water wells. The network of City and rural water systems and facilities is shown on the **City Water Distribution System and Treatment Facilities Map (Map 13).** The service area of the rural water service districts included within the Planning Area is shown on the **City and Rural Water District Service Areas Map (Map 14).** Within the City limits and the Planning Area, water is supplied by the City from surface water stored at Sahoma Lake and delivered from Skiatook Lake, the City of Tulsa in the northeast area and the City of Sand Springs in the northwest area. The City also stores water in both above and below ground storage tanks: two (2) two million gallon standpipes, one (1) 0.25 million gallon elevated tank and two (2) two million gallon ground tanks bringing the City's total storage capacity to 8.025 million gallons. The City's potable water treatment plant is located on Rock Creek and has an average demand of 3.5 MGD and a peak daily capacity of 12 MGD, a limit frequently

reached on extremely hot days in summer; the location of the water treatment plant is shown on **Map 13.**

A key to supporting the City's growth during the Planning Period will be increasing the allocation and capacity to deliver water from Skiatook Lake or identification of another water source not determined at this time.

Major existing City water distribution lines are shown on **Map 13. Map 13** shows that the core incorporated areas of the City are well-served by the City's public distribution system. The City has adopted a schedule and plan of water line improvements for each quadrant of the City.

Significance of Water Facilities to Planning:

- Major improvements and expansion of the capacity of the water system require long periods of advance engineering and fiscal planning;
- The orderly extension of the City's water distribution system to the surrounding areas secures an important source of revenue for the City from which to provide companion City services such as police and fire;
- Water facilities play a significant role in the future growth and in forming and shaping the developed pattern of the Planning Area;
- Growth and development is limited by the capacity of the City's water system;
- The capacity of the water storage and treatment facility is a major factor in supporting the growth of the City and service to the immediately surrounding areas; and
- An adequate supply of potable water for both domestic and emergency purposes is basic to the quality of life of the City.

WASTEWATER COLLECTION AND TREATMENT FACILITIES

The City's wastewater collection system is shown on the **City Wastewater Treatment System and Facilities Map (Map 15). Map 15** shows that the core of the City's incorporated and most densely populated areas are well served by public wastewater facilities. The City's gravity flow public collection and disposal sanitary system is located within the central portion of the Planning Area. The wastewater treatment plant is located in the eastern part of the incorporated area. Extension of the City's gravity flow sanitary system beyond the present boundaries of service could require costly lift stations and force mains and could require another pump station or even adding another wastewater treatment plant.

Map 15 shows the location of the City's Wastewater Treatment Plant (WTTP) and Pump Station. The WTTP treats sewage and uses an extended aeration process to achieve secondary treatment of the wastewater. The total capacity flow of the WTTP is 7 million gallons per day (MGD) and the current daily average flow is 3.0 MGD; treated water is discharged to Polecat Creek and ultimately flows to the Arkansas River. The Pump

Station is the collection point for wastewater collected in the south and southeast areas of the City which is then pumped by force main to the WWTP for treatment.

Portions of the northeastern area of the City are served by the Taneha Utilities Authority (TUA) sewer collection system; the TUA is also classified as a "rural sewer district". Effluent from the TUA system is collected and treated at the City's WWTP. TUA has the authority to serve areas not served by the City and presently services the industrial areas which have been developed in the north and northeast portions of the Planning Area. The TUA is an important element of the public and quasi-public utility system serving the Planning Area in combination with the City.

Significance of Wastewater Facilities to Planning:

- Major improvements and expansion of the City's wastewater treatment and collection system require long periods of planning, engineering and fiscal advance planning;
- The orderly extension of the City's wastewater system to the surrounding areas secures an important source of revenue for the City from which to provide companion City services such as police and fire;
- Wastewater facilities play a significant role in the future growth of a community and in forming and shaping the development pattern of the Planning Area;
- The capacity of the wastewater collection and disposal system and the ability of that system to meet the federal and state mandated treatment levels are key factors in the growth of the City;
- Premature extension of wastewater facilities into undeveloped areas could negatively impact the quality and sustainability of future growth and development;
- Development on private on-site sewer systems reduces urban densities for residential development which can reduce the potential for future commercial and retail development; and
- Presently, significant new residential development is taking place on private on-site treatment systems within the Planning Area resulting in decreased densities and increased cost in the long-term to the City for provision of public services.

SOLID WASTE

Presently, solid waste is collected and disposed of by private contractors within the City. There are no multi-purpose landfills for disposal of municipal waste located within the Planning Area, but there are several construction and demolition landfills available. The City has recently established a site for a convenience disposal center where residents can temporarily dump solid waste which is then trucked by the City to a landfill site. The Creek County Construction Landfill is located north of the Creek Turnpike and west of South 33rd West Avenue and provides a location for disposal of construction material only.

STORMWATER DRAINAGE SYSTEM

Sapulpa's stormwater drainage system is shown on the **City Stormwater Drainage System (Map 16)**. Curb and gutter and underground pipes along City streets serve to divert stormwater to area creeks and tributaries. In newly platted subdivisions, curb and gutter is mandatory where developed lots have an area of less than one (1) acre and prior to grading the City requires approval of an Earth Change and Sediment Control Permit.

The City's Stormwater Utilities Plan and Drainage Plan were prepared by Meshek and Associates, PLC. The work was completed in three (3) phases and was adopted by the City Council in 2010. The total cost for the Recommended Plans and improvements is estimated to be $30.34 million. Phase I consisted of the Impervious Area Study, including the development of a Stormwater Utility Fee to fund stormwater, capital improvements and ongoing maintenance of the drainage system. Phase II and III focused on the study of the numerous drainage basins within the City.

In 1991 the EPA developed regulations aimed at curbing the pollution of stormwater run-off. Contaminated storm water run-off was known to be a major contributor to pollution of surface waters. Contamination of stormwater can result from exposure of storm water to materials such as fuels, chemicals, raw materials, fertilizers, pesticides and wastes. It can also result from dirt and debris accumulated on streets and in municipal storm sewer systems.

In August of 2006, the City entered into an agreement with the Creek County Board of Commissioners (BOC) to develop, operate and maintain a combined program as co-permittees to monitor stormwater runoff from the areas designated as "Urban Areas."

Under the co-permit the City and County were required to develop a comprehensive Stormwater Management Program (SWMP) that addresses the following six (6) "Minimum Control Measures" (MCM) which include: public education and outreach; public participation and involvement; illicit discharge detection and elimination; construction site stormwater runoff control; post construction management in new development and re-development; and pollution prevention and good housekeeping for City and County operations.

Presently, the areas included within the Urbanized Area (UA) and included within the Planning Area are as follows:

- Sapulpa City Limits UA:14.8 square miles in Creek County and 0.45 square miles in Tulsa County
- Creek County UA outside the City Limits: 9.2 square miles.

Significance of Stormwater Drainage to Planning:

- Urbanization affects the amount and quality of stormwater runoff and can increase the variety and amount of pollutants in streams, rivers and lakes;
- Stormwater drainage facilities play a significant role in future growth;
- Drainage basins/watersheds are basic elements in determining the best locations for stormwater detention systems;
- Land along creeks and drainage ways typically contain significant trees and vegetation that if protected can serve as amenities to urban development while supporting the natural cleansing of pollutants and reducing the impacts of flooding and soil erosion;
- Porous and varied terrain of natural landscapes like forests, wetlands and grasslands, traps rainwater and snowmelt and allows them to filter slowly into the ground;
- Controlling runoff from existing urban or improperly developed areas can be more costly than controlling runoff from new developments;
- Pollutants can harm fish and wildlife populations, kill native vegetation, foul drinking water supplies and make recreational areas unsafe and unpleasant; and
- Developers and the City should attempt to control the volume of runoff from development by using Low Impact Development (LID), structural controls and pollution prevention strategies including measures that conserve natural areas, reduce development impacts and reduce site runoff rates.

TRANSPORTATION SYSTEMS

The transportation of goods, services and pedestrians within and through the Planning Area is a major source of support for economic development and livability. The following transportation systems presently serve the City and the Planning Area and will be discussed in the section that follows:
:

- Trafficways
- Corridors and Gateways
- Railways

Trafficways

The **Major Street and Highway Plan and Map (Map 17)** illustrates the 2025 Sapulpa/Creek County Major Street and Highway Plan and Trails Plan (MSHP) and was adopted as an official element of the Sapulpa Comprehensive Plan:1988–2005 (2005 Comprehensive Plan). The MSHP Plan was prepared by INCOG at no cost to the City or Creek County in conjunction with the Public Participation Work Element of the INCOG Transportation Work Program. The MSHP was completed in 2004 and adopted by Resolution No. 2004-28 by the County and by City Resolution No. 2507.

The MSHP was amended in 2004 to include a map of planned trails and trail heads and the existing and planned routing of local trails with connections to the INCOG Regional Trails Master Plan. The MSHP was amended by the County by Resolution 2004-79 and

by the City by Resolution 2573 to add the now completed Centennial Trail, Plaza and Buffalo Sculpture that is located north of the City on SH-66.

Map 17 shows the location of expressways/freeways, primary arterials, secondary arterials, collectors and railroads. The most dominant man-made transportation feature impacting the Planning Area is the Interstate Highway 44/Turner Turnpike (I-44). I-44 runs northeasterly across the Planning Area and connects to SH-66, SH-33 and SH-97. Sapulpa has the additional following points of access: one in the north central area at SH-97and one at a westbound ramp at West 91st Street South and one at the junction of I-44 and West 61st Street South and the Creek Turnpike which runs east/west across the area. These highways provide excellent access from Sapulpa to the metropolitan area, region and nation. SH-66 runs east/west and south of the Planning Area while connecting to US-75 and US-75A. SH-97 runs north and south between Sapulpa and Sand Springs and provides excellent access to I-44 and to the US 64/Sand Springs Expressway north of Sapulpa.

The trafficways in the Planning Area are also mapped on the **Functional Classification for Roads Map (Map 18). Map 18** shows the following functional classifications of trafficways within the Planning Area:

- Interstate I-44/Turner Turnpike;
- Freeway/Expressway;
- Principal Arterial;
- Minor Arterial;
- Urban Collector;
- Minor Collector; and
- Streets/No Classification

Oklahoma Route 66 Scenic Byway (Byway) runs through the State of Oklahoma and is divided into eight (8) segments starting from the northeast corner to the southwest corner of the State. The original Route 66 from Tulsa through the Planning Area to Stroud is included in Segment 3 of the Byway.

Significant and contributing resources to the Byway in the Sapulpa area are the Rock Creek Bridge, Frankoma Pottery, West Sapulpa Highway (New Sapulpa Road), Sapulpa Historical Museum and Waite Phillips 1922 Filling Station, Heritage Park, Sapulpa Trolley and Rail Museum and the Guardian of the Plains Buffalo Statue. According to the Oklahoma Byways webpage: www.okscenicbyways.org.

> "The Oklahoma Byways programmatic focus is centered on the community and the importance of transportation to the economic livelihood of our cities and towns. A variety of direct support is provided to businesses along the route to encourage innovative growth and small business development."
>
> (Oklahoma Route 66 Corridor Management Plan) Oklahoma Scenic Byway program: www.okscenicbyways.org.

Corridors and Gateways

The Sapulpa Corridor and Gateway Development (Map 19) show the planned locations of ten (10) designated Corridors and eight (8) Gateways. Corridors and Gateways are designated for expansion of existing businesses and for new commercial developments that will contribute positively and aesthetically to the appearance, economic vitality, convenience and safety of the community. During the Planning Period, development is expected to occur at the intersections of the major highways. Major highways and corridors are also expected to develop in a linear fashion along either side of the trafficways with commercial and industrial activities locating in close proximity to the highways because of good visibility and access. In some cases frontage roads or shared points of access should be provided to assure safe and convenient access to businesses.

Also important to the major transportation facilities are the primary and secondary arterial streets serving the interior portions of the Planning Area. The system of arterial streets and section line roads within the Planning Area form the framework for primary and secondary arterial streets now and in the future.

The Corridor Design Criteria (Criteria) were adopted in the Sapulpa Creek County MSHP dated 2004. City of Sapulpa staff will provide a proposed revision of the corridor locations and criteria for future review and adoption into the City of Sapulpa Municipal Code. The current edited City revisions will be shown on the future corridor and gateways map.

The purposes of the Criteria are as follows:

- Identify issues which commercial developers should address in preparing their plans;
- Clarify the standards which the City expects private developers to meet; and
- Assist Staff, the Sapulpa Metropolitan Area Planning Commission (SMAPC) and the City Council in evaluating expanded and new commercial projects.

The **Sapulpa Corridor and Gateway Development Map #19** identifies the following Planning Corridors:

1. Taft /SH-117: 33rd West Avenue to Brenner Road/ South 81st West Avenue
2. SH-97: West 61st Street South to West 101st Street South
3. Historic Route SH-66: Municipal Golf Course to South 177th West Avenue
4. Sapulpa West Creek Turnpike
5. South Main Redevelopment Corridor: SH-117/Taft to Teel Road
6. US-75A: South of Teel on US 75-A
7. Teel Road: Main to Wickham
8. SH-66: 51st Street South to Taft/SH-117
9. Wickham Road: Taft/SH-117 to Teel Road
10. Hickory Street: Taft/SH-117 to 141st Street

The **Sapulpa Corridor and Gateway Development Map** identifies the following Gateways:

1. Taft/SH-117 and 49th West Avenue
2. 49th West Avenue and West Creek Turnpike
3. SH-66/New Sapulpa Road and West Creek Turnpike
4. SH-97 and West 91st Street South
5. SH-97 and I-44 (Turner Turnpike)
6. SH-117 and SH-66/SH-33
7. US-75 A South of Main Street
8. I-44 and South 49th West Avenue

The draft West Creek Turnpike Corridor Plan includes general corridor plan goals and objectives and a zoning matrix that illustrates the district plan map categories relationship to zoning districts. The purpose of the West Creek Turnpike Plan is to provide for the orderly growth and coordinated public-private physical development of the corridor area located generally one mile north and south of the Creek Turnpike. When completed the West Creek Turnpike Corridor Plan should be adopted as an official element of "*Connecting to the Future: Sapulpa 2030 Comprehensive Plan" (2030 Plan).*

Railways

Railways in the Planning Area are shown on the **Railway Systems Map (Map 20).** Two (2) major railroads serve the Planning Area, the Burlington Northern Santa Fe (BNSF), formerly the Burlington Northern Railroad (BNRR) and the Tulsa Sapulpa Union (TSU) Railroad. The BNSF and TSU are freight lines and do not provide passenger service.

Jurisdiction over rail track quality is under the Federal Railroad Administration (FRA) which first began overseeing track standards after the passage of the Railroad Safety Act of 1970. Rail lines are inspected and maintained by the railroad companies as well as FRA. As part of its jurisdiction, the FRA categorizes all rail track into six (6) classes based on maximum speed limits for both freight and passenger service. Although the railroads have to meet certain standards for the track, the classification of specific segments of rail is determined by each railroad based on the maximum permissible speed.

The BNSF is a Class I railroad line running in a northeast to southwest direction serving the middle portion of the Planning Area and the middle portion of the City. BNSF services Sapulpa to Tulsa with two (2) main lines and operates west beyond the Creek County line into Payne County and beyond to trans-continental locations. Additionally, the tracks go south through Kiefer to Okmulgee County and beyond to intersect with the BNSF's national railroad system. The BNSF provides rail freight transportation to the Port of Catoosa.

The TSU is a Class lII railroad which is primarily a switch carrier to the BNSF and the Union Pacific (UN) and customers located on the TSU railway. The TSU maintains a line that runs along SH-66 northeast of downtown Sapulpa serving the 350 acre Polson Industrial Park in the northeast quarter of the Planning Area and into Tulsa County to serve the west Jenks industrial area with a total of 23 miles of track. It is considered one of Oklahoma's oldest and smallest operating railroads. (Source: Connections 2035 Regional Transportation Plan)

Significance of Trafficways, Corridors and Gateways and Railways to Planning:

- Corridors form the main avenues of transportation and access within and through the Planning Area and should be well planned and present a quality image for the City;
- Gateways form the entrances to the City and should be well maintained and distinctive while giving a positive first impression to residents and visitors alike;
- The Planning Area's existing and proposed system of trafficways provides the means of access between working, living, recreation, shopping areas and commercial/industrial areas;
- The type of trafficways in an area determines the land use type and intensity of potential land uses; therefore, land use and transportation must be planned together;
- Movement systems for goods and people are principal determinants of urban form. Trafficways and railways are used as tools to guide and stage the development and growth of an area; and
- Trafficways and railways can serve as buffers between different types and intensities of land use.

OIL AND GAS WELL DRILLING AND MINIING ACTIVITIES

The location of oil and gas well drilling activities is shown on the **Oil and Gas Wells Map (Map 21).** Oil and gas wells are common in and around the Sapulpa area and are especially concentrated in the southeastern portion of the Planning Area. Oil and gas well sites can best be identified by consulting an area geologist, well records of the Oklahoma Corporation Commission, Sooner Well Log Service, or field checking and surveying specific areas of interest.

The location of oil and gas pipelines is shown on the **Oil and Gas Pipelines Map (Map 22**) and more detailed information can be secured from the various owners and operators doing business within the area and surface markers placed along the alignment of pipelines.

Significance of Oil and Gas Well Drilling to Planning:

- Development over oil and gas fields requires careful research and site studies;

- Consideration must be given to providing continued access to active and inactive oil and gas well drilling areas;
- Abandoned or closed oil and gas wells must be properly capped and the location accurately noted when urban development of these areas is planned and proper setbacks must be established from these locations to surface development;
- Development over existing oil and gas pipelines and their rights-of-way is generally greatly restricted and often not possible for reasons of continuing oil or gas production or for reasons of safety;
- The rights of subsurface owners are protected by law and must be considered by surface owners and developers; and
- Construction of major trafficways and railway improvements over pipelines is sometimes prohibited and if allowed will typically be more expensive than if these facilities were not present.

ENVIRONMENTAL

The following environmental considerations are discussed in this section:

- Sensitive environmental sites and areas
- Water quality
- Air quality
- Noise
- Odor
- Climate
- Fish
- Birds, mammals
- Endangered species

Sensitive Environmental Sites and Areas

The Planning Area includes Development Sensitive and Conservation Areas with certain unique environmental and aesthetic qualities that should be protected and preserved; any significant change within these areas could have a negative impact on the environment, whether natural or man-made. Natural areas include lands designated within the 100-year and 500-year floodplains of area creeks and rivers. Floodplain areas are typically designated as Development Sensitive and Conservation Areas within which limitations should be placed on development to protect these areas and to mitigate any negative impacts from development if development is allowed.

Water Quality

According to http://www.deq.state.ok.US/wqdnew/index.htm the Planning Area is predominantly drained by Polecat Creek and its tributaries which flow east to the Arkansas River near Jenks. Rock Creek is the major tributary of Polecat Creek and drains 71 square miles into Polecat Creek. Sahoma Lake is a City-owned reservoir and

water supply on Rock Creek. Pretty Water Lake is located on Polecat Creek west of the City. Country Club Lake (Sapulpa Lake) is located west of Sapulpa on Euchee Creek which is a tributary of Rock Creek.

There are no active water quality sampling sites on Rock Creek or its tributaries at present and no water quality assessments have been done for Rock Creek or its tributaries. However, Sahoma Lake has five (5) active sampling stations used by the Oklahoma Water Resources Board (OWRB).

Nickel Creek is located north and east of the City and is listed as impaired for bacteria (E. coli) in the 2010 Oklahoma 303(d) List. The segment of Polecat Creek from the eastern City limits boundary towards Jenks is listed as impaired for bacteria (Enterococcus). No other streams or tributaries within the Planning Area are listed as impaired for any OWRB parameter.

During the 2000's, INCOG performed water quality studies of several segments of Polecat Creek and did not find any evidence of beneficial use impairment for the parameters that were measured. In years past, water quality data for Rock Creek and its tributaries as well as for Polecat Creek had been collected by INCOG for the purpose of determining impacts from the Sapulpa WWTP and for aiding in modeling by INCOG to revise, if necessary, WWTP discharge permit limits. The ODEQ established new advanced treatment discharge limits in the 1990s for the Sapulpa WWTP that were based upon the wasteload allocation (WLA) modeling performed by INCOG. If problems are identified in the monitoring program they are dealt with by ODEQ's permit inspection and enforcement process.

The City also has a Phase II stormwater permit that requires the City to implement a suite of best management practices (BMPs) to control pollutants in urban stormwater runoff. The Phase II stormwater program and permit is discussed above in the Stormwater section of this Chapter.

Air Quality

According to http://www.deq.state.ok.US/aqdnew/index.htm the Planning Area is affected by ground level ozone pollution and is included in the regional Tulsa Air Quality Management Program supported by Sapulpa and area cities and is staffed by INCOG.

According to http://www.incog.org/EnvironmentalPlanning/environmentairquality.html due to the presence of ozone-forming emissions from sources, such as motor vehicles, in combination with the Planning Area's climate and topography, the overall region must take important measures to reduce emissions and avoid being classified as "non-attainment" based on EPA's air quality standards for ozone. A "non-attainment" designation could pose a significant negative impact on growth and economic development for the Planning Area and the entire Tulsa Metropolitan Area.

The effectiveness of INCOG's voluntary program has been and will continue to be key to continued compliance with EPA's ozone standards and avoiding the "non-attainment" designation during the Planning Period. The Tulsa Area Ozone Alert! Program http://www.ozonealert.com/index.htm has received national recognition and is considered a model air quality program for the nation.

Air quality data in the Planning Area also indicates that another source of air pollution is suspended particles (dust) due mainly to agricultural, construction and mining activities. However, these pollutants are considered minimal and levels recorded are in compliance with EPA's air quality standard for particle pollution. Presently the EPA has not adopted regulatory standards for the suspended particles.

Noise

The Planning Area is relatively free from any major noise pollution problems. Noise pollution could be a problem for any low density development that might take place along or in close proximity to highway and railroad corridors. Noise is experienced throughout the Planning Area due to construction activities, oil or gas drilling activities, existing active oil and gas wells, industrial areas and vehicle noise from traffic along major highways.

Odor

There are usually no odor problems in the Planning Area other than occasional odor incidental to industrial, agricultural or oil and gas drilling activities.

Climate

According to http://climate.ok.gov/index.php the climate in the Planning Area is characterized by moderate winters and comparatively long summers with relatively high temperatures. Summer rains usually occur as thunderstorms of short duration and limited extent, but with intense rainfall. Winter rains and precipitation are generally of low intensities, but can cover large areas and be of several days duration.

The average annual precipitation in Oklahoma is 40.56 inches. The maximum annual precipitation was 61.28 inches in 1941 and the minimum was approximately 15.02 inches in 1924. The average temperature for the area is approximately 60°F with an average maximum of 72^{o}F and an average minimum of 49 degrees. The average date of the first freeze is between November 1 and November 10 and the earliest first freeze is between October 2 and October 11. The prevailing winds in the area are southerly and the greatest wind movements occur in the spring months.

Fish

According to http://www.fws.gov/southwest/refuges/Plan/planindex.html there are 73 species of fish listed by U.S. Fish and Wildlife Service in the Planning Area. The most

important species of sport fish in this region include channel catfish, flathead catfish, crappie, largemouth bass, spotted bass and various small sunfish.

Birds

According to http://www.fws.gov/southwest/refuges/Plan/planindex.html there are approximately 300 species of birds that inhabit the Planning Area: only 50 species are permanent residents while the remaining species are transitory or migratory.

Mammals

According to http://www.fws.gov/southwest/refuges/Plan/planindex.html there are about 50 species of mammals indigenous to the Planning Area number while approximately 31 other species are widespread throughout the regional area. White-tailed deer are the most important hunting resource of the region. Other species inhabiting this region and important to hunting activities include fox, squirrel, cottontail rabbit and swamp rabbit. In the past, some trapping was done in the area and important fur-bearing species included mink, raccoon, skunk, fox, opossum, beaver and muskrat.

Endangered Species

According to http://www.fws.gov/endangered/ there are no known rare or endangered non-bird species within the Planning Area. The only species that might be considered rare and/or endangered is the Slenderhead Darter fish; however, the Committee on Rare and Endangered Species indicates that additional information is needed before making a final determination. Endangered bird species whose range includes the Planning Area are the Southern Bald Eagle and possibly the Peregrine Falcon.

Significance of Environmental Considerations to Planning:

- As an area that combines the advantages of a rural life style, good accessibility to urban services and abundant natural resources, the Planning Area can expect to experience continued new growth, which should occur only in harmony with the natural environment in order to preserve these unique physical features;
- Environmental problems associated with and experienced by older urbanized cities can be avoided or mitigated by adopting best management practices (Low Impact Development) that includes proper design and development guidelines intended to preserve natural features as an amenity to development;
- The preservation of natural features contributes positively to the beauty of the natural environment and the livability and sustainability of the built environment;
- Urbanization of undeveloped areas must include consideration of both the surface and subsurface conditions that are present; and
- The quality of life and livability of the City and the Planning Area can be positively improved and enhanced by preservation of natural environmental features within the man-made physical environment.

SOCIAL AND DEMOGRAPHIC FACTORS

The data in this section includes detailed demographic and economic data for Sapulpa, Creek County and the Tulsa Metropolitan Statistical Area (MSA) population as follows:

- 2030 Projected Populations
- Population Change 2000-2010
- Percent of Population Change by Census Block Group
- Population Growth
- Median Age
- Race

2030 PROJECTED POPULATIONS

The 2030 projected population by INCOG for Sapulpa is 23,392. The 2030 projected population by INCOG for Creek County is 83,448.

POPULATION CHANGE 2000-2010

Map 24 identifies the **percent change** in population based on the Census Block Group data from 2000-2010; areas of **negative percent changes** on **Map 23** correlate to areas designated as experiencing a "Population Decrease" on **Map 23**. **Map 24** adds a category to show which parts of the Planning Area and incorporated City Limits are experiencing the greatest negative population change (-9.99% to 0 and -10.00% or Less) within areas experiencing a "Population Decrease."

Table 1

Population Growth by Place & County 1980 - 2010

Community	Population				% change 1980-2010	Average Annual Growth Rate 1980-2010	% change 1990-2010	Average Annual Growth Rate 1990-2010	% change 2000-2010	Average Annual Growth Rate 2000-2010
	1980	1990	2000	2010						
Sapulpa	15,853	18,074	19,166	20,544	29.59%	0.99%	13.7%	0.68%	7.19%	0.72%
Creek County	59,016	60,915	67,367	69,967	18.56%	0.62%	14.9%	0.74%	3.86%	0.39%
Tulsa MSA*	657,367	708,954	803,235	937,478	42.61%	1.42%	32.2%	1.61%	16.71%	1.67%

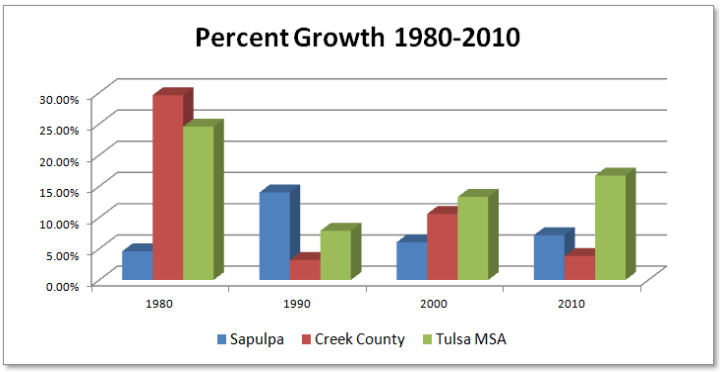
Source: US Bureau of the Census

*The Tulsa MSA prior to June 6, 2003 consisted of only 5 counties, Creek, Osage, Rogers, Tulsa & Wagoner

PERCENT OF POPULATION CHANGE BY CENSUS BLOCK GROUP

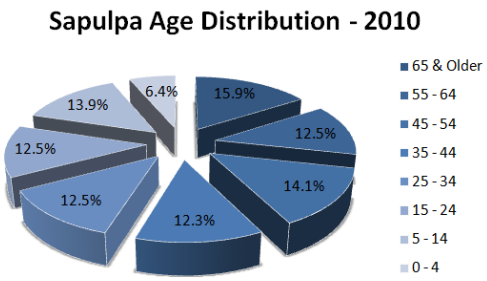
According to the 2000 and 2010 Census Block Group Data for the Planning Area, the areas of the largest percent changes from 2000-2010 shown on **Map 24** were concentrated in the northeast and southeast areas. **Map 24** also shows the corridor with the greatest percent change to be located along South Hickory Street within which two (2) of the City's largest subdivisions were developed between 2000-2010. Areas in the northwest portion of the Planning Area (north, south and west of Sahoma Lake) showed percent changes from of 5.00% to 19.99% demonstrating the middle highest percentage. It is noted that the actual numbers of persons added to a small base will demonstrate a much larger percent change than would that same number added to a larger population base.

POPULATION GROWTH



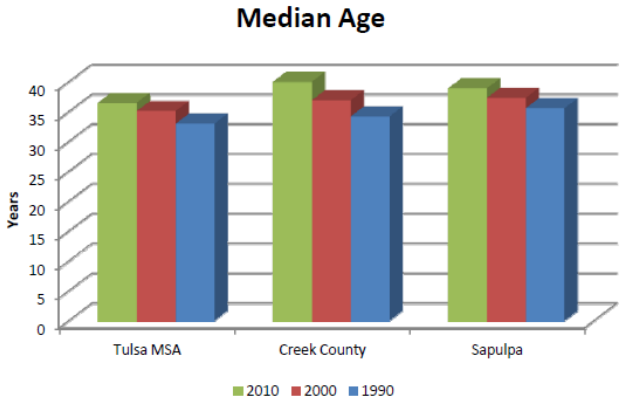
- The MSA was expanded in 2003 to include Pawnee and Okmulgee Counties and that accounts for a portion of the population increase.
- The 2010 Census shows that Sapulpa had a total population of 20,544 residents which is an increase of 13% from the 2000 population of 19,166 persons. From 2000-2010 Creek County had an increase of 4% in population and the MSA had an increase of 17%. **Therefore, Sapulpa is growing faster than the County but not as rapidly as the MSA from 2000-2010.**
- Census data from **1980-2010** shows Sapulpa increased in population by 30% from 15,853 to 20,544. Creek County increased in population by 19% and the MSA 43%. **During this time, Sapulpa grew faster than the County but not nearly as rapidly as the MSA**. (A comparison of the Census from **1980-1990** shows a large population increases due to the annexation of large areas of Creek County into the City. **The Sapulpa population increased 14% from 15,853 in 1980 to 18,074 in 1990, which exceeded the 3% rate of growth for Creek County and the 8% growth of the MSA during that same period.**
- **Projections from 2010-2020** by the Oklahoma Department of Commerce (ODOC) **show Sapulpa to grow at 7%, as compared to Creek County at 10%and the MSA, losing 2%.** Negative growth in the MSA would not be unexpected as area cities annex and incorporate their adjacent areas in the coming decades.
- **ODOC projections for 2020-2030 show Sapulpa to grow at the rate of 5%, an identical rate for Creek County of 5%and 5% for the MSA.**
- Based on current patterns of growth in the MSA to the south, Sapulpa can be expected to continue to grow during the Planning Period due to the presence of excellent transportation and access to the overall metropolitan area by state and interstate highways.

MEDIAN AGE



- **In 1990**, the **Median Age of Sapulpa was 35.6 years**, higher than Creek County at 34.2 years and the MSA at 33 years.
- **In 2000**, the Median Age of Sapulpa was 37.3 years and Creek County was 36.9 years and

the MSA was 35.1 years, showing **Sapulpa residents to be older than the County and the MSA.**



- **In 2010**, the Median Age of Sapulpa was 38.9 years compared to Creek County was 40 years and the MSA was 36.5 years, **showing an increasing Median Age which is also the nationwide trend.**
- The trends in the population age groups from 1990-2010 for Sapulpa show an increase in the 45 and Older Populations, with the largest increase in the 55-64 age groups of 55%. Population age groups 44 and Younger show a decrease, with the largest decrease in the 35-44 age group from 2.9% in 1990 to – 9.9 % in 2010, a decrease of 76%.

Table 2

Sapulpa Population Pyramid 1990-2010					
Age Groups	*Totals*			*% Growth Total Pop 1990-2000*	*% Growth Total Pop 2000-2010*
	1990	*2000*	*2010*		
65 & Older	2,844	2,844	3,268	0.0%	14.9%
55 - 64	1,662	1,917	2,572	15.3%	34.2%
45 - 54	1,974	2,624	2,888	32.9%	10.1%
35 - 44	2,725	2,795	2,518	2.6%	-9.9%
25 - 34	2,546	2,478	2,559	-2.7%	3.3%
15 - 24	2,441	2,347	2,578	-3.9%	9.8%
5 - 14	2,609	2,800	2,853	7.3%	1.9%
0 - 4	1,273	1,361	1,308	6.9%	-3.9%
Totals	18,074	19,166	20,544		

Source: US Bureau of the Census, 1990, 2000, 2010

RACE

2010 Census data shows the race/ethnicity populations for Sapulpa, Creek County and the MSA to be as follows:

- **White population** for Sapulpa is 77.5% compared to 79.7% in Creek County and 70.9% in the MSA.
- **African American population** for Sapulpa is 3.0% compared to 2.2% for Creek County and 8.4% for the MSA.
- **American Indian/Alaskan Native** population for Sapulpa is 10.9%, compared to 10.0% for Creek County and 8.3% for the MSA.
- **Hispanic** population for Sapulpa is 4/1% compared to 3.1% for Creek County and 8.4% for the MSA.

- **In 2010** the percent of white population in Sapulpa and Creek County was quite comparable; the African American percent of the population was larger in Sapulpa than Creek County but less than one-half that of the MSA; the Hispanic population for Sapulpa was larger than Creek County but less than one-half the MSA: and the American Indian/Alaska Native population for both Sapulpa and Creek County was significantly larger as the percent of the total population than the MSA.

Table 3

Race of Sapulpa, Creek County and Tulsa MSA: 2010

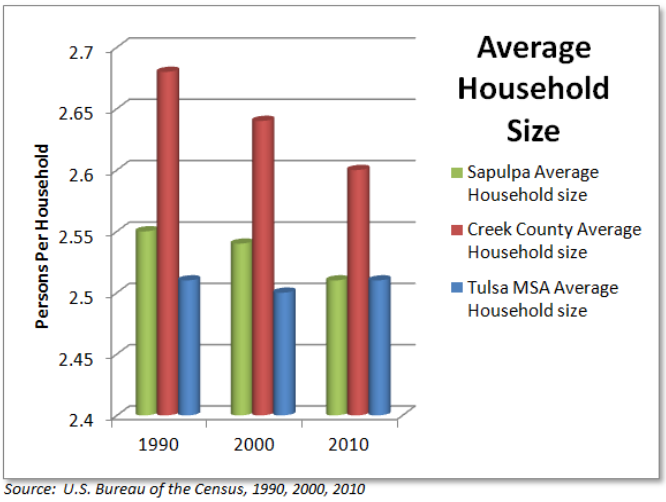
Race/Ethnicity	Sapulpa		Creek County		Tulsa MSA	
	Total #	%	Total #	%	Total #	%
Total Population	20,544		69,967		937,478	
White	15,928	77.5%	55,764	79.7%	664,988	70.9%
African American	623	3.0%	1,544	2.2%	78,928	8.4%
American Indian & Alaska Native	2,233	10.9%	7,001	10.0%	77,388	8.3%
Asian	117	0.6%	230	0.3%	16,546	1.8%
Native Hawaiian & Other Pacific Islander	31	0.2%	45	0.1%	577	0.1%
Other	316	1.5%	734	1.0%	39,270	4.2%
Two or More Races	1,296	6.3%	4,649	6.6%	59,781	6.4%
Hispanic	845	4.1%	2,152	3.1%	78,446	8.4%

Source: US Bureau of the Census 2010

ECONOMIC FACTORS

This section presents and discusses the following economic factors which bear upon the economy of the City and the Planning Area and future economic development as follows:

- Average Age per Household
- Labor Force
- Population Trends and Projections 1970 to 2030
- Household Income
- Educational Attainment
- Employment by Industry
- Occupational Structure Trends
- Housing Data
- Building Permits
- Growth in Net Assessed Valuations



Source: U.S. Bureau of the Census, 1990, 2000, 2010

AVERAGE PERSONS PER HOUSEHOLD

- In 1990, the **Average Persons per Household** was 2.55 in Sapulpa, 2.68 in Creek County and 2.51 in the MSA.

- In 2000, the **Average Persons per Household** was 2.54 in Sapulpa, 2.64 in Creek County and 2.50 in the MSA.
- In 2010, the **Average Persons per Household** was 2.51 in Sapulpa, 2.6 in Creek County and 2.51 in the MSA.
- From 1990-2010, the **Average Persons per Household** in Sapulpa declined 0.04 persons, Creek County declined 0.08 persons and the MSA remained steady at 2.51 persons.

LABOR FORCE

Table 4

Labor Force & Average Household Size for Oklahoma, Creek County & Sapulpa 1990 - 2010

	Sapulpa			Creek County			Tulsa MSA		
	1990	2000	2010*	1990	2000	2010*	1990	2000	2010*
Population 16 years & over	13,900	14,574	16,378	45,644	51,175	54,658	538,637	613,503	725,912
Percent Population 16 yrs & over	77%	76%	80%	75%	76%	78%	76%	76%	77%
Percent in Labor Force	61%	60%	57%	62%	61%	61%	66%	66%	65%
Percent Employed	57%	57%	50%	58%	58%	55%	62%	63%	60%
Percent Unemployed	4%	3%	7%	4%	3%	6%	4%	3%	5%
Average Household Size	2.55	2.54	2.51	2.68	2.64	2.6	2.51	2.50	2.51

*Source: U.S. Bureau of the Census, 1990 & 2000, *ACS for 2009-2011*

- **1990 Labor Force data for Sapulpa** shows the percent of population over 16 years as 77% with 61% of that population in the labor force (57% were employed and 4% were unemployed).
- **1990 Labor Force data for Creek County** shows 75% of the population is over 16 years of age with 62% were in the labor force (58% were employed and 4% unemployed).
- **1990 Labor Force data for the MSA** shows a total of 76.0% of the population over 16 years old with 66% in the labor force (62% were employed and 4% unemployed).
- **2000 Census data for Sapulpa** shows a total of 76% of the population over 16 years old with 60% in the labor force (57% were employed and 3% were unemployed).
- **2000 Labor Force data for Creek County** shows 76% of the population over 16 years old with 61% in the labor force (58% were employed and 3% unemployed).
- **2000 Labor Force data for the MSA** shows 76% of the population over 16 years of age with 66% in the labor force (63% were employed and 3% unemployed).
- **2010 Labor Force data for Sapulpa** shows 80% of the population over 16 years of age with 57% in the labor force (50% were employed and 7% unemployed).
- **2010 Labor Force data for Creek County** shows 78% of the population over 16 years of age with 61% in the labor force (55% were employed and 6% unemployed).
- **2010 Labor Force data for the MSA** shows 77% of the population over 16 years of age with 65% in the labor force; (60% were employed and 5% were unemployed).

- **From 1990-2010 the Population over 16 years of age** in Sapulpa increased from 77% to 80%, in Creek County from 75% to 78% and the MSA increased from 76% to 77%.
- **From 1990-2010, the percent of the Labor Force employed** decreased from 57% to 50% for Sapulpa, decreased from 58% to 55% for Creek County and from 62% to 60% for the MSA.
- **From 1990-2010, the percent of the unemployed in the Labor force** increased from 4% to 7% for Sapulpa, increased from 4% to 6% for Creek County and 4% to 5% for the MSA.

POPULATION TRENDS AND PROJECTIONS: 1970 TO 2030

Table 5

Population Trends & Projections 1970 to 2030										
	1970	1980	1990	2000	2010	2015	2020	2025	2030	
Sapulpa	15,159	15,853	18,074	19,166	20,544	21,280	21,984	22,688	23,392	*Estimated Trend**
	15,159	15,853	18,074	19,166	20,544	21,220	21,910	22,500	23,020	*ODOC Projection*
Creek County	45,532	59,016	60,915	67,367	69,967	74,865	77,726	80,587	83,448	*Estimated Trend**
	45,532	59,016	60,915	67,367	69,967	74,600	77,000	79,100	80,900	*ODOC Projection*
*Tulsa MSA***	525,852	657,367	708,954	803,235	937,478	968,857	1,017,313	1,065,769	1,114,225	*Estimated Trend**
	525,852	657,367	708,954	803,235	937,478	956,300	987,400	1,015,500	1,040,300	*ODOC Projection*

Source: US Bureau of the Census, Oklahoma Department of Commerce

**Estimated trends were computer generated by INCOG 2012*

***The Tulsa MSA prior to June 6, 2003 consisted of only 5 counties, Creek, Osage, Rogers, Tulsa & Wagoner; after June 6, 2003 Pawnee and Okmulgee counties were added to the existing Tulsa MSA*

The 2012 INCOG population projections are as follows: Sapulpa 23,392 and Creek County, 83,448. The 2030 projected population by the Oklahoma Department of Commerce (ODOC) for Sapulpa is 23,020 and the projected population for Creek County in 2030 is 80,900.

- Population projections from INCOG for **2010 to 2030 for Sapulpa shows a 14% increase** from 20,544 to 23,392.
- Population projections from INCOG for **2010 to 2030 for Creek County shows a 19% increase** from 69,967 to 83,448.
- Population projections from INCOG for **2010 to 2030 for the MSA shows a 19% increase** from 937,478 to 1, 114,225.

HOUSEHOLD INCOME

- **In 1990 Median Household Income** was $23,810 in Sapulpa, $23,795 for Creek County and $27,288 for the MSA.
- **In 2000 Median Household Income** was $32,245 for Sapulpa, $33,168 for Creek County and $38,261 for the MSA.

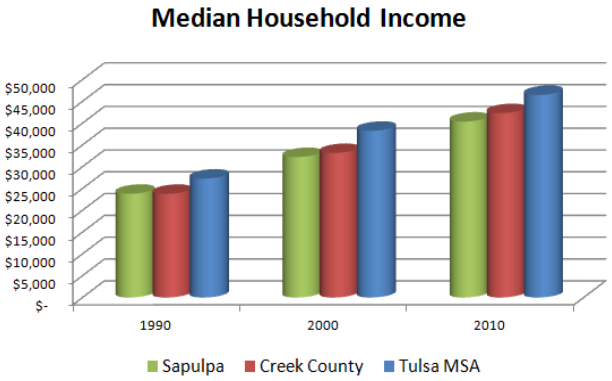


Table 6

Median Household Income			
Place	*1990*	*2000*	*2010*
Tulsa MSA	$ 27,288	$ 38,261	$ 46,494
Creek County	$ 23,795	$ 33,168	$ 42,314
Sapulpa	$ 23,810	$ 32,245	$ 40,372

Source: U.S. Bureau of the Census, 1990 & 2000, ACS 2010

- **In 2010 Median Household Income** was $40,372 for Sapulpa, $42,314 for Creek County and $46,494 for the MSA.
- **From 1990-2010 Median Household Income** in Sapulpa increased from $23,810 to $40,372 (70%), in Creek County from $23,795 to $42,314 (70%) and in the MSA from $27,288 to $46,494 (77%).

EDUCATIONAL ATTAINMENT

Table 7

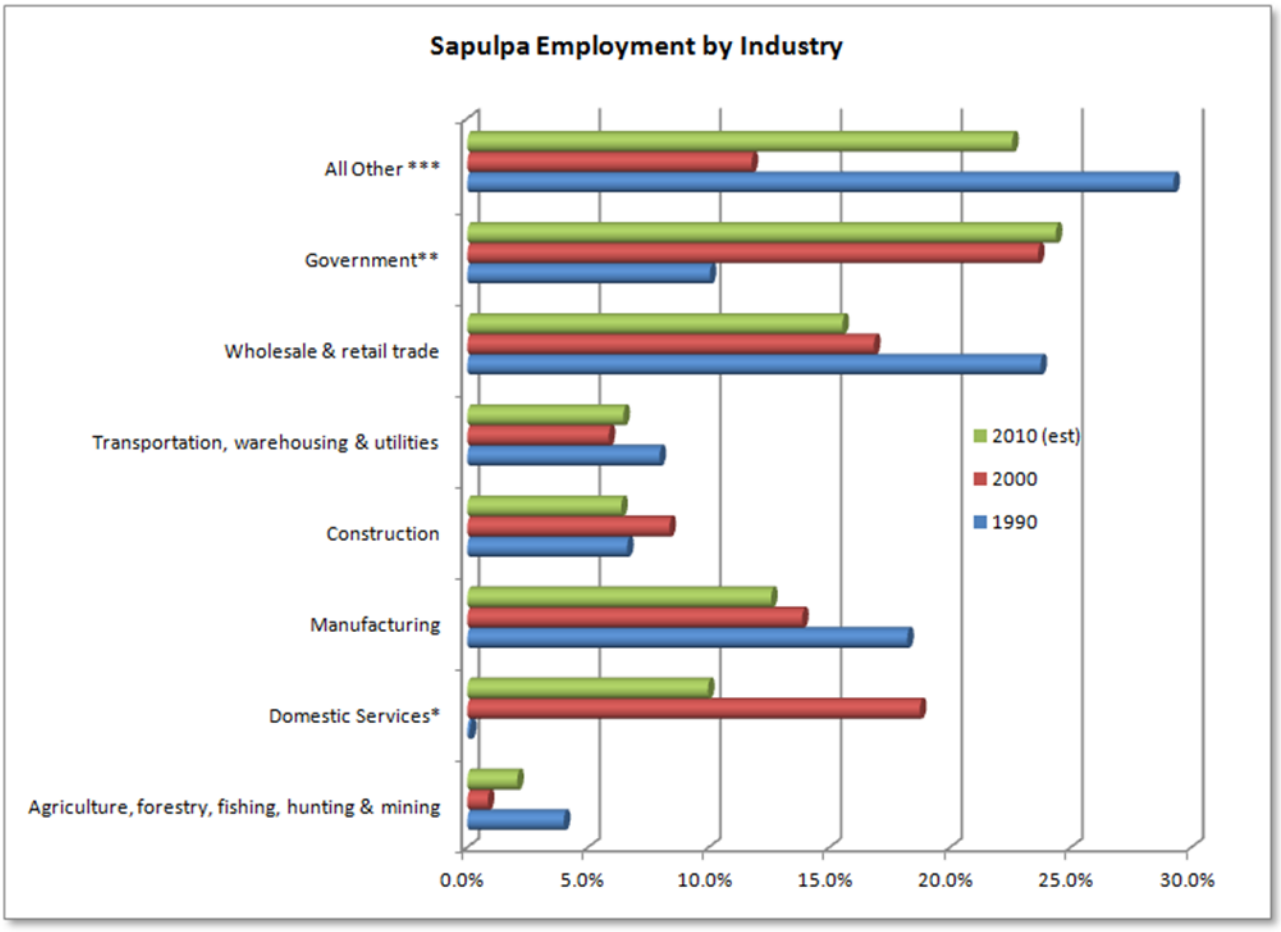
Year and Place	Total Population 25 years and over		Less than 9th Grade		9th to 12th Grade, No diploma		High School Graduate (includes equivalency)		Associates Degree or some college with no bachelors degree		Bachelors, Graduate or Professional Degree		Median School Years Completed
1990	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Sapulpa	11,733	100%	1,303	11.1%	2,157	18.4%	4,126	35.2%	2,691	22.9%	1,456	12.4%	12.6
Creek County	38,689	100%	4,284	11.1%	7,764	20.1%	14,536	37.6%	8,020	20.7%	4,085	10.6%	12.5
Tulsa MSA	453,071	100%	29,447	6.5%	64,017	14.1%	135,975	30.0%	131,449	29.0%	92,183	20.3%	12.9
2000													
Sapulpa	12,583	100%	853	6.8%	1,843	14.6%	4,632	36.8%	3,584	28.5%	1,671	13.3%	12.7
Creek County	43,523	100%	3,024	6.9%	6,722	15.4%	17,425	40.0%	11,254	25.9%	5,098	11.7%	12.7
Tulsa MSA	514,373	100%	24,130	4.7%	58,552	11.6%	151,467	29.4%	159,803	31.1%	119,421	23.2%	13.1
2010													
Sapulpa	13,895	100%	624	4.5%	1,462	10.5%	5,079	36.6%	4,251	30.6%	2,479	17.8%	13.0
Creek County	46,115	100%	2,117	4.6%	5,517	12.0%	18,322	39.7%	13,283	28.8%	6,876	14.9%	12.8
Tulsa MSA	597,920	100%	24,550	4.1%	50,609	8.5%	183,868	30.8%	189,760	31.7%	149,133	24.9%	13.2

Source: US Bureau of the Census, 1990 & 2000; ACS 2006-2010

- **From 1990-2010 Median School Years Completed** in Sapulpa increased from 12.6 to 13.0 years, in Creek County increased from 12.5 to 12.8 years and in the MSA increased from 12.9 to 13.2 years.
- **From 1990-2010** the percentage of the population in the **High School Graduate and Equivalent** categories in Sapulpa increased from 35% to 37%, Creek County increased from 38% to 40% and the MSA increased from 30% to 31%.
- **In 1990** Sapulpa had 23% of the population with an **Associate's Degree or Some College with No Bachelor's Degree**, Creek County had 21% and the MSA had 29% of the population with an Associate's Degree or Some College with No Bachelor's Degree.
- **In 2010** Sapulpa had 31% of the population with an **Associate's Degree or Some College with No Bachelor's Degree**, Creek County had 29% and the MSA had 31%. Sapulpa and Creek County both had increases from 2000 to 2010 in the populations with an Associate's Degree or Some College with No Bachelor's Degree.

- **From 1990-2010** Sapulpa showed an increase from 12% to 18% in the **Bachelors, Graduate or Professional Degree** category, Creek County had an increase from 11% to 15% and the MSA had an increase from 20% to 25%

EMPLOYMENT BY INDUSTRY



- **From 1990-2010**, Sapulpa showed an increase in **Total Employed** of 14%.
- **From 1990-2010**, the three largest categories of employment for Sapulpa were **Other**, **Wholesale and Retail Trade** and **Manufacturing.**
- **From 1990-2010,** Sapulpa showed a decline of the total employment by industry categories: **Other (**information, finance, insurance ,real estate, professional, scientific, management, administrative and waste management services and other except public administration) declined from 29% to 23%, **Wholesale and Retail Trade** from 24% to 16% and **Manufacturing** from 18% to 13%.
- **From 1990-2010**, Sapulpa showed the greatest increase of all the categories in the **Domestic Services** 0.1% to 10% due to additional classifications being added to the Domestic Services Category in 2000 (arts, entertainment, recreation, accommodation and food services).

From 1990-2010, Sapulpa showed an increase in Government, which includes Educational services, healthcare, social assistance and public administration, from 10% in 1990 to 24% in 2010.

Table 8

Employment by Industry for Sapulpa 1990-2010

Industry	Sapulpa					
	1990		2000		2010 (est)	
	No.	%	No.	%	No.	%
Agriculture, forestry, fishing, hunting & mining	319	4.0%	71	0.9%	188	2.1%
*Domestic Services**	9	0.1%	1,558	18.8%	905	10.0%
Manufacturing	1,453	18.2%	1,153	13.9%	1,142	12.6%
Construction	528	6.6%	696	8.4%	579	6.4%
Transportation, warehousing & utilities	635	8.0%	487	5.9%	587	6.5%
Wholesale & retail trade	1,893	23.8%	1,400	16.8%	1,410	15.5%
*Government***	801	10.1%	1,965	23.6%	2,212	24.4%
*All Other ****	2,332	29.3%	979	11.8%	2,048	22.6%
Total Employed	7,970		8,309		9,071	

Source: US Bureau of the Census 1990, 2000 & ACS 2010; Universe - Civilian Employed Population 16 years or older

**1990 category called domestic services, self-employed, & unpaid workers, for 2000 and 2010 estimate it included arts, entertainment, recreation, accommodation & food services*

***Government includes Educational Services, healthcare services & social assistance and public administration for 2000 and 2010 estimate*

****All other includes information, finance, insurance, and real estate (FIRE), professional, scientific, management, administrative, and waste management services and other except public administration*

OCCUPATIONAL STRUCTURE TRENDS

- **From 2000-2010**, Sapulpa increased in **Management, Professional and Related Occupations** from 26% to 30%.
- **From 2000-2010**, Sapulpa increased in **Service Occupations** from 14% to 19%.
- **From 2000-2010**, Sapulpa decreased in **Sales Occupation and Office Occupations** from 30% to 28%.
- **Farming, Forestry and Fishing Occupations** were not recorded in 2010 for Sapulpa and were only 0.03% in 2000.
- **From 2000-2010**, Sapulpa decreased in **Construction, Extraction and Maintenance** occupations 12% to 11%.
- **From 2000-2010**, **Production, Transportation and Material Moving** occupations decreased from 18% to 12% for Sapulpa.
- **For Sapulpa in 2010, the two (2) highest percent of Occupational Categories** of the six (6) categories were **Management, Professional and Related Occupations**

Table 9

Occupational Structure Trends Sapulpa 2000-2010

Occupational Group	Sapulpa			
	2000		2010 (est)	
	No.	%	No.	%
Management, Professional, and related occupations	2,151	25.9%	2,697	29.7%
Service Occupations	1,149	13.8%	1,679	18.5%
Sales and Office Occupations	2,497	30.1%	2,612	28.8%
Farming, Fishing, and Forestry Occupations	21	0.3%	-	0.0%
Construction, Extraction, and Maintenance occupations	1,021	12.3%	1,008	11.1%
Production, Transportation and Material moving occupations	1,470	17.7%	1,075	11.9%
Total Civilian Employed Population 16 years and over	8,309		9,071	

Source: US Bureau of the Census 2000, ACS 2006-2010

with 30% and **Sales and Office** occupations at 29%, which represents a combined total of 59% of the total occupations.

- **In Sapulpa for 2010 the two (2) smallest Occupational Categories** (Farming, Forestry and Fishing occupations were not recorded), were **Construction, Extractions and Maintenance** at 11% and **Production, Transportation and Material Moving** occupations at 12%.
-

HOUSING DATA

Table 10

Housing Data Sapulpa, Creek County, and Tulsa MSA 1990-2010

	Sapulpa			*Creek County*			*Tulsa MSA*		
	1990	***2000***	***2010 (est)***	***1990***	***2000***	***2010 (est)***	***1990***	***2000***	***2010 (est)***
Total housing units	7,614	8,114	9,244	25,143	27,986	29,517	311,890	341,415	403,175
occupied	6,946	7,430	8,431	22,470	25,289	26,633	277,202	315,532	361,758
owner occupied	4,990	5,256	5,512	17,440	19,731	19,937	181,627	211,183	244,236
renter occupied	1,956	2,174	2,919	5,030	5,558	6,696	95,575	104,349	117,522
vacant	668	684	813	2,673	2,697	2,884	34,688	25,883	41,417
Units in Structure	***Sapulpa***			***Creek County***			***Tulsa MSA***		
single family	6,489	6,808	7,174	18,481	20,070	20,948	219,387	243,635	289,354
multiple family	781	698	1,556	1,539	1,403	2,681	67,091	70,217	84,866
mobile home or trailer	304	467	496	4,937	6,353	5,805	22,118	26,729	28,548
*other**	40	37	18	186	160	83	3,294	834	407

Source: US Bureau of the Census 1990, 2000, American Community Survey 2006-2010

**other includes boat, RV, van, etc.*

- **From 1990-2000**, **Total Housing Units** in Sapulpa increased from 7,614 to 8,114 units, an increase of 6%.
- **From 2000-2010**, **Total Housing Units** increased from 8,114 to 9,244, a total increase of 14% for Sapulpa.
- **From 1990-2010**, in Sapulpa **Total Housing Units** increased 21%.
- **From 1990-2000** Sapulpa showed an increase in **Vacant Units** from 668 to 684, an increase of 2%.
- **From 2000-2010**, total number of **Vacant Units** was 813, an overall increase of 19% of vacant housing units for Sapulpa.
- **From 1990-2010**, in Sapulpa, total number of **Vacant Units** increased 22%.
- **From 1990–2000** the number of **Owner Occupied Units** in Sapulpa increased 4,990 to 5,256, an increase of 5% for Sapulpa.
- **From 2000-2010**, the total number of **Owner Occupied Units** increased from 5,256 to 5,512, an increase of 5% for Sapulpa.
- **From 1990-2010**, in Sapulpa total number of **Owner Occupied Units** increased 10%.
- **From 1990-2000**, **Renter Occupied Units** increased from 1, 956 to 2,174, a total increase of 11% for Sapulpa.
- **From 2000-2010**, **Renter Occupied Units** from 2,174 to 2, 919, an increase of 34%.

- **From 1990-2010**, in Sapulpa, **Renter Occupied Units** increased 49%.
- **In 2010, Sapulpa showed the highest percent of Units in Structure** at 78% as **Single Family** compared to 72% in the MSA and 71% in Creek County.
- **In 2010,** Sapulpa showed **Units in Structures as Multiple Family** as 17% compared to 9% in Creek County and 21% in the MSA.
- **In 2010**, Sapulpa showed 5.4% of **Units in Structure Mobile Home or Trailer**, 20% for Creek County 20% and 7% in the MSA.
- **Median Gross Rent** for Sapulpa showed increases from 1990 ($334), 2000 ($455) and 2010 ($688); the increase from 1990-2010 was 106%.
- **In 2010,** Sapulpa showed the highest **Median Gross Rent** at $688 per month, the lowest rent was $621 in Creek County and the rent in the MSA was $677.
- **From 2000-2010 Median Value for Owner Occupied Housing** in Sapulpa increased from $45,800 to $99,600 an increase of 46%, in Creek County from $44,500 to $100,600, an increase of 44% and in the MSA from $58,800 to $121,900, an increase of 48%.

BUILDING PERMITS

Table #11 summarizes building permit activity from 2000-2012 for residential single-family building permits and for commercial construction.

The five (5) categories with the largest permit value from 2000-2012 was as follows:

1. Commercial-Hospital - $178,139,101
2. Single Family Residential - $136,870,710
3. Commercial-Industrial - $51,861,600
4. Commercial-School - $33,074,251
5. Commercial – $15,680,874

Based on the 987 permits issued in the Single-Family Residential (SFR) category and a total permit value of $136,870,710, the average value of a Single Family Residential permit was $138,673.47.

Based on the six (6) permits in the Commercial Industrial (COM IND) issued and a total permit value of $51,861,600, the average value for an Industrial permit was $8,643,600.

TABLE #11
Building Permit Activity for Residential Single-family and Commercial Construction: 2000-2012

Permit Category	# of permits	Valuation
COM (Commercial)	70	$15,680,874.00
COM-AMU (Amusement)	14	$4,615,500.00
COM–APT	3	$300,000.00
COM-CHUR (Church)	19	$6,618,000.00
COM-ETC (Storage)	34	$9,683,000.00
COM-GAR (Garage)	1	$481,000.00
COM-HOSP (Hospital)	8	$178,139,101.00
COM-IND (Industrial)	6	$51,861,600.00
COM-ODD	4	$165,000.00
COM-OFFICE (Office)	19	$3,668,850.00
COM–PARK	1	$80,000.00
COM-RET (Retail)	11	$2,347,870.00
COM-SCH (School)	13	$33,074,251.00
COM-UTIL (Utility)	7	$880,000.00
MFAM (Multifamily)	9	$4,665,000.00
RAB (Residential Access Bldg.)	292	$2,702,837.00
ROW (Right of Way)	14	$0.00
SFR (Single-Family Residential)	987	$136,870,710.00
SWM (Swimming Pool)	4	$50,595.00
Totals	**1,450**	**$445,884,188.00**

GROWTH IN NET ASSESSED VALUATION

Table #12 summarizes Net Assessed Valuation for Sapulpa from 2001-2012 in Creek County. Net Assessed Valuation is the assessed value of real property minus the homestead and other exemptions.

The trend in growth of net assessed valuation is a strong indicator of the growth in the City in terms of dollars and percent as well as measuring trends, past or present, that have taken place. The Net Assessed Valuation is also an important measure of the City's ability to incur general obligation bonded indebtedness for capital improvements and the millage that would be required to be paid by property owners in support of that debt.

Average Annual Growth in Net Assessed Valuation

From 2001-2012, taking out the lowest and highest percentages of change and dividing the remaining total by ten (10), the projected Average Annual Rate of Growth in Net Assessed Valuation for Sapulpa in Creek County was 6.81%.

TABLE #12
Net Assessed Valuation

Year	Net Real*	Personal	Public	Grand Total	% of Change
2001	$48,248,790	$7,284,303	$5,800,084	$59,333,177	
2002	$49,069,820	$7,321,108	$6,486,210	$62,877,138	5.97%
2003	$51,367,443	$7,240,852	$6,617,547	$65,225,842	3.74%
2004	$62,667,788	$7,725,210	$6,863,336	$77,266,334	18.46%
2005	$66,946,047	$14,023,368	$11,163,226	$92,132,641	19.24%
2006	$71,171,767	$14,149,143	$7,343,203	$92,664,113	0.58%
2007	$90,285,519	$25,744,036	$12,608,166	$128,637,721	38.82%
2008	$97,202,090	$24,395,545	$12,327,684	$133,925,319	4.11%
2009	$102,834,161	$27,360,004	$13,129,284	$143,323,449	7.02%
2010	$102,834,161	$27,360,004	$13,159,420	$143,353,585	0.02%
2011	$107,136,993	$25,638,765	$13,453,598	$146,229,356	2.01%
2012	$114,763,328	$27,773,120	$13,859,498	$156,395,946	6.95%
*	Homestead and other exemptions have been calculated				

Years of Double Digit Annual Growth from 2001- 2012

During this period double digit growth in Net Assessed Valuation was experienced in the following years:

- 2004 at 18.46%
- 2005 at 19.24%
- 2007 at 38.82%

In summary:

- 2007 was **the highest** period for the Actual Average Annual Rate in Growth of Net Assessed Valuation of 38.82%.
- 2005 Actual Average Annual Growth in Net Assessed Valuation is the **second highest** of 19.24%.
- 2004 Actual Average Growth in the Net Assessed Valuation is the **third highest** of 18.46%.
- 2012 Actual Average Annual Rate in Growth of Net Assessed Valuation is the **fourth highest** of 6.95**%**.