Osage Hills State Park
Resource Management Plan
2012 [updated Feb. 2014]

Osage County, Oklahoma

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Assistance was also provided by Deby Snodgrass, Kris Marek, and Doug Hawthorne – all from the Oklahoma City office of the Oklahoma Tourism and Recreation Department. Greg Snider, northeast regional manager for Oklahoma State Parks, also assisted throughout the project.

It is the purpose of the Resource Management Plan to be a living document to assist with decisions related to the resources within the park and the management of those resources. The authors’ desire is to assist decision-makers in providing high quality outdoor recreation experiences and resources for current visitors, while protecting the experiences and the resources for future generations.

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Abbreviations and Acronyms

ADAAG .................................................. Americans with Disabilities Act Accessibility Guidelines
CCC .................................................................................. Civilian Conservation Corps
CDC .................................................................................... Centers for Disease Control
CLEET ........................................................................... Council on Law Enforcement Education and Training
CPSC .............................................................................. Consumer Product Safety Commission
GIS .................................................................................. Geographic Information Systems
GPS .................................................................................. Global Positioning System
EPA .................................................................................. Environmental Protection Agency
mcf .................................................................................. million cubic feet
MCL ..................................................................................... Maximum Contaminant Level
NAAQS ........................................................ National Ambient Air Quality Standards
NAWQA ........................................................ National Water Quality Assessment Program
NEPA .............................................................. National Environmental Policy Act
NPRM ............................................................ Notice of Proposed Rule Making
OSU ............................................................................. Oklahoma State University – Stillwater
OTRD ............................................................. Oklahoma Tourism and Recreation Department
OWRB ................................................................. Oklahoma Water Resources Board
PBCR ............................................................................... Primary body contact recreation
pH .................................................................................... potential for hydrogen ions
ppm .................................................................................. parts per million
R ........................................................................................ Range
RMP .............................................................................. Resource Management Plan
SCORP .......................................................... Statewide Comprehensive Outdoor Recreation Plan
T ........................................................................................ Township
USACE .......................................................... United States Army Corps of Engineers
USFWS .......................................................... United States Fish and Wildlife Service
USGS ................................................................. United States Geological Survey
WBDO ............................................................... Waterborne Disease Outbreak
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Mission Statement of the Oklahoma Tourism and Recreation Department

The mission of the Oklahoma Tourism and Recreation Department is to advance Oklahoma’s exceptional quality of life by preserving, managing, and promoting our natural assets and cultural amenities.

Vision Statement

The vision of the Oklahoma Tourism and Recreation Department is to promote and enhance tourism throughout the state; protect and preserve the environment and natural resources; educate the public about Oklahoma’s people and places; provide exceptional customer service to all citizens and visitors; create a team environment in which all employees are successful, productive, and valued; embrace and seek diversity in our workforce and those we serve.

OTRD Values

- Responsibility and leadership
- Respect
- Quality
- Exemplary customer service
- Balance and self-fulfillment
- Teamwork and communication
- Flexibility
- Creativity and innovation
- Coordination
- Commitment
- Integrity
Figure 0.1 – CCC remnant at Osage Hills State Park
Chapter 1 – Introduction

Resource Management Plan: Purpose and Process

The Resource Management Plan (RMP) program and policy is to document management responsibilities to balance the use of water and land resources as they relate to recreation; in this instance, Osage Hills State Park. As a guiding plan, the RMP seeks to propose long-term policy that limits adverse impacts to critical resources while providing protection and management of fish, wildlife, and other natural and cultural resources. In addition, the RMP will provide guidelines for public health and safety, public access, and a wide variety of outdoor recreational opportunities.

The purpose and scope of the RMP are to provide background information, identify the policies and goals governing the management of Osage Hills State Park and its incorporated resources, summarize the plan’s components, and provide descriptive and historical information related to the project.

The ultimate purpose of the RMP is to establish a management framework for the conservation, protection, enhancement, development, and use of the physical and biological resources at Osage Hills State Park. With regard to Osage Hills State Park, the RMP is to:

- Provide managers and decision-makers with long-term direction and guidance for the successful management of the resources at Osage Hills State Park;
- Ensure that management of the resources is compatible with authorized purposes;
- Ensure that recreation experiences and facilities are compatible with other environmental resources;
- Ensure that planned developments are based on public need and the ability of the environmental resources to accommodate such facilities and use; and
- Resolve issues and concerns related to management of the environmental resources.

Planning Process

The planning process for preparation of this Resource Management Plan included discussion between research staff at Oklahoma State University (OSU) and management personnel from Oklahoma State Parks. In addition, the process incorporated (1) the acquisition of archival information from libraries, state parks, books, research reports, and other sources; (2) interviews of state park personnel; (3) records provided by state park management; (4) input from members of the public through surveys, comments cards, and focus groups; and (5) searches of the Internet for information that expanded on other archives.

The purposes of public involvement are to inform the public and solicit public response regarding their needs, values, and evaluations of proposed solutions. Public involvement programs are designed not only to meet state and federal regulations, but also to include interested individuals, organizations, agencies, and governmental entities in the decision-making process. Techniques used for public involvement include interviews, workshops, advisory committees, informational brochures, surveys, and public hearings. The process of public
involvement is important to help strengthen the relationship between public and government agencies involved in the proposed plan. The relative success of public involvement techniques and the participation of supporting government agencies regarding the program as a whole is indicated by how well informed the public is and by how much the public has contributed to making environmentally sound, feasible decisions that are supported by a significant segment of the public. The public involvement process for the Osage Hills State Park RMP is incorporated into the text of this document.

The original concept in preparation of an RMP is a federal action that requires compliance with the National Environmental Policy Act (NEPA); therefore, the public involvement process must fulfill the RMP and NEPA requirements as well as those of other entities. Oklahoma State Parks has committed the agency to follow a similar model at the state level for all state parks.

Using several public involvement methods to gain insight into the concerns of the public and governmental agencies potentially affected by provisions of the Osage Hills State Park RMP, representatives from OSU compiled and analyzed the data. The public involvement process offered citizens and various interest groups information about the project and its potential impacts. This course of action was used to gather information, ideas, and concerns regarding the different issues to be compiled and addressed to determine issues of public concern. The issues were then evaluated resulting in alternative solutions and recommendations for the park.

Finally, the RMP process included integration of global positional system (GPS) technology into Geographic Information System (GIS) software to document features and attributes within the park. This component of the process permits an on-going record of facilities with their respective attributes, locations, and conditions. As a result, the GPS and GIS components of the RMP process are integral to on-going implementation and application of the planning effort.

**Agencies Involved**

In 2006, Oklahoma State Parks, through the Oklahoma Tourism and Recreation Department (OTRD), contracted with Oklahoma State University to prepare Resource Management Plans for each park. This agreement has been renewed annually since 2006. The current agreement specified Osage Hills State Park during 2011 – 2012, and the intent of the agreement is to continue the RMP process across all state parks in Oklahoma.

The RMP agreement became effective July 1, 2011 between Oklahoma Tourism and Recreation Department and Oklahoma State University. Following a meeting between OTRD and OSU staff, information, reports, and comment cards were provided to OSU for review. In accordance with the RMP contract, OSU performed research services and delivered reports to OTRD concluding with a written plan for Osage Hills State Park in June 2012.

The authority for the agreement between OTRD and OSU is based upon Title 74 § 2213 as authorized by Engrossed Senate Bill 823 of the 2005 session: “The Commission may contract for the study, analysis, and planning as reasonably necessary to aid in determining the feasibility of leasing, selling or privately managing or developing the property or facilities under the control of the Commission. The Commission shall be exempt from the competitive bidding requirements of the Competitive Bidding Act for the purpose of soliciting, negotiating, and effectuating such a contract or contracts.”
Further, this authority is specified in Title 74 § 2215 which states: the Division of State Parks, subject to the policies and rules of the Commission shall formulate, establish, maintain, and periodically review, with public participation, a resource management plan for each state park. The resource management plan, upon approval by the Commission, shall be considered a guide for the development, utilization, protection, and management of the state park and its natural, cultural, historic, and recreational resources.

Figure 1.1 – North entry sign for Osage Hills State Park
Figure 1.2 – Civilian Conservation Corps company 895
Digitized images provided by Kyle Thoreson
Chapter 2 – Project Description

About Osage Hills State Park

The Division of State Parks, a part of the Oklahoma Tourism and Recreation Department, is governed by the laws of the state of Oklahoma. These laws define the authority for the Division and the context in which individual state parks are managed. Title 74 § 2214 of the Oklahoma Statutes states that the Division of State Parks shall, subject to the policies and rules of the Commission:

1. Conserve, preserve, plan, supervise, construct, enlarge, reduce, improve, maintain, equip and operate parkland, public recreation facilities, lodges, cabins, camping sites, scenic trails, picnic sites, golf courses, boating, and swimming facilities, and other similar facilities in state parks reasonably necessary and useful in promoting the public use of state parks under the jurisdiction and control of the Commission;

2. Supervise the management and use of state properties and facilities under the jurisdiction of the Commission. The Commission may adopt rules to lease concessions in any state-owned facility if the Commission deems it feasible;

3. Authorize those employees in the Park Manager job family classification series, as established by the Oklahoma Office of Personnel Management, to maintain administrative control over all facilities, programs, operations, services, and employees in the park to which they are assigned; and

4. Enforce the rules and policies governing the use of and conduct of patrons in all recreational facilities and properties of the Commission.

Purpose and Significance of Osage Hills State Park

An initial requirement of the RMP process is the development of a purpose statement for the property under consideration. The process selected for the development of resource management plans for state parks requires purpose statements and statements of significance for each park. These statements drive the decisions as to planning for the respective parks, since individual parks in the state park system do not have identical purposes or intents.

At the initiation of this project, a purpose statement for Osage Hills State Park did not exist. As a result, it was necessary that one be developed. Research staff from OSU worked with OTRD staff, representing Osage Hills State Park and the broader agency, to develop a draft purpose statement. During that process staff created the following statement:

The purpose of Osage Hills State Park is to provide for the protection, public enjoyment, and conservation of the natural, cultural, scenic, historic, and ecological values and resources that exist within the park property and make them forever available for the education and enjoyment of all people. As one of the original Oklahoma State Parks, Osage Hills encompasses a cross-timbers and stream ecosystem in a surrounding prairie environment. Osage Hills provides
visitor amenities compatible with that environment and includes historic structures built by the Civilian Conservation Corps. Oklahoma State Parks will protect, manage, restore and conserve the resources and associated values of Osage Hills State Park, and provide appropriate programs, facilities, and opportunities for public use consistent with the preservation of the above mentioned resources and values.

Similarly, in response to requests from the research staff, OTRD personnel, in cooperation with the research staff, developed a statement of significance for Osage Hills State Park. That statement follows:

Osage Hills State Park is significant because it encompasses a unique and historic forested ecosystem in a surrounding prairie environment, enhanced by structures, buildings, and impoundments from the Civilian Conservation Corps and more recent efforts in an environment that has formed valuable memories for visitors and influenced the lives of generations of guests. Osage Hills State Park provides and protects the natural, cultural, and historic resources, including New Deal-era structures, present in that ecosystem for a population in an under-served portion of Oklahoma.

Figure 2.1 demonstrates the inter-relationship of purpose and significance statements with the mission of the management agency in decisions related to a given park or property. This model has been developed by the National Park Service to assure consistency between the mission of the National Park Service and the operation of their respective properties. In a similar manner, park purpose statements and park significance must be consistent with the mission of the Oklahoma Tourism and Recreation Department.
Geographic Location of Osage Hills State Park

Osage Hills State Park is located in northern Oklahoma bordering Kansas to the north. Osage County is the largest county in Oklahoma. The park is located in the east central portion of Osage County, midway between Pawhuska and Bartlesville.

Figure 2.2 – Osage County, Oklahoma
Source: Google Maps

Figure 2.3 – Osage Hills State Park
Osage Hills State Park is located south of federal highway 60, approximately 14 miles west of Bartlesville, Oklahoma, and 16 miles northeast of Pawhuska, Oklahoma. A map with various insets (Figure 2.3) of Osage Hills State Park shows its location in the rural environment of Osage County along the northern border of the state.

Osage County extends from the Kansas/Oklahoma border on the north to the Arkansas River on the south. Kay County, Noble County, and Pawnee County border Osage County on the west and along the Arkansas River. To the east Osage County adjoins Washington County. In the southeast, Osage County borders Tulsa County and has some influence from the Tulsa metropolitan area as it extends northwesterly into Osage County. There are several impounded lakes in Osage County, including Kaw Lake and Keystone Lake on the Arkansas River, Lake Skiatook in the southeastern portion of the county, Birch Lake and Bluestem Lake in the heart of the county, and Lake Hulah in the far northeastern portion of Osage County.

Pawhuska is the county seat, with a population of 3,629. There are numerous other small communities distributed throughout Osage County. Tulsa, to the southeast, is approximately 55 miles from Osage Hills State Park, while Oklahoma City is 120 miles from the park. Wichita, Kansas, is 130 miles to the northwest.

Travel to and from Osage Hills State Park requires access along federal Highway 60 extending east and west across the county. Highway 60 connects to federal Highway 75 in Bartlesville allowing for good highway access from the Tulsa metropolitan area. To the west of Osage Hills State Park, Highway 60 links with state highway 99 and continues to federal Highway 177 in Ponca City and on to Interstate Highway 35.

Community and Regional Context

Brief History of Osage County

The following history of Osage County was written by Jon D. May for the Oklahoma Historical Society and retrieved from the website for the Oklahoma Historical Society (http://digital.library.okstate.edu/encyclopedia/entries/O/OS004.html).

“Oklahoma’s largest county by area, Osage County is located in the north-central part of the state and contains a total land and water area of 2,303.8 square miles. Created at 1907 statehood the county was named for and is home to the Osage tribe and is contiguous with the Osage Nation Reservation. It is surrounded by Washington County on the east, Tulsa County on the east and south, Pawnee County on the south, Noble and Kay counties on the west, and the state of Kansas on the north. Pawhuska is the county seat, and Avant, Barnsdall, Burbank, Fairfax, Foraker, Grainola, Hominy, Osage, Prue, Shidler, Webb City, and Wynona are other incorporated towns. U.S. Highway 60 runs east-west through the county, and state highways include 10, 11, 18, 20, 35, 97, 99, and 123.

Most of Osage County lies in the Osage Plains physiographic region and is characterized by open and rolling prairie. The extreme east-northeastern area of the county is in the Eastern Lowlands region. Eastern Osage County has the Osage Hills, an extension of the Flint Hills of Kansas. Gray Horse, Salt, and Drum creeks drain the county’s western and southern sections. These streams flow south into the Arkansas River, which serves as part of the county’s southern
and western boundaries. Eastern Osage County is drained by the Caney River and Bird, Hominy, and Delaware creeks, which flow east to the Verdigris River. County reservoirs include Lakes Keystone and Kaw, which were impounded on the Arkansas River as well as Hulah, Birch, Bluestem, and Skiatook lakes.

Archaeologists have identified two Paleo-Indian (prior to 6000 B.C.), sixty-three Archaic (6000 B.C. to A.D. 1), fifty-three Woodland (A.D. 1 to 1000), and sixty-two Plains Village (A.D. 1000 to 1500) sites within the county. The first recorded exploration of the region was conducted by Lt. James B. Wilkinson in 1806. He was followed by Capt. John R. Bell of the Maj. Stephen H. Long Expedition in 1820, the Glenn-Fowler Expedition in 1821, and Capt. Nathan Boone in 1843. A branch of the Shawnee Trail crossed southern and western Osage County during the mid-1800s.

By 1760 the Osage of Missouri had increased their range to include present Osage County. They surrendered their claim to the region in 1825 and 1839 and removed to a Kansas reservation. In 1835 the area was included in the “perpetual outlet west” guaranteed to the Cherokee Nation under the Treaty of New Echota.

During the Civil War, on December 26, 1861, just northwest of present Skiatook, pro-Union Creek and Seminole led by Opothleyahola engaged Confederate soldiers in the Battle of Chustenahlah. In 1870, under the Cherokee Reconstruction Treaty of 1866, the Osage began the process of purchasing approximately 1,570,059 acres in the Cherokee Outlet from the Cherokee Nation. Osage Agent Isaac T. Gibson established the Osage Agency at Deep Ford (present Pawhuska) on Bird Creek in 1872. The Osage Reservation boundary was finalized in 1875, when the Kaw, or Kansa, acquired approximately 100,000 acres in the reservation’s northwest corner. The Kaw lands were included in Kay County at statehood.

The Osage Reservation was part of Oklahoma Territory under the Organic Act of 1890 and was made a semiautonomous district by the Enabling Act of 1906. Represented by delegates T. J. Leahy and James J. Quarles at the 1906 Constitutional Convention, it became Osage County, Oklahoma, at 1907 statehood. Pawhuska was designated the county seat and construction of the present courthouse started in 1912.

The Osage Allotment Act was approved in June 1906. Between 1906 and 1909 each enrolled Osage received an average allotment of 659.51 acres, with no surplus land remaining. Five townsites – Pawhuska, Fairfax, Hominy, Foraker, and Bigheart (present Barnsdall) – were withheld from allotment. After being surveyed, platted, and appraised, the first lot auction was held at Pawhuska on January 1, 1906.

Cattlemen were attracted to the Osage Reservation long before statehood. They first negotiated grass leases with an Osage leasing committee in 1883. Cattle were transported by rail to depots nearest the lease, then were herded overland. Elgin, Kansas, situated along the Osage County-Kansas state line, was the region’s major shipping point until 1907. The Osage leased 431,640 acres in 1898 and 727,260 acres in 1901.

Extensive grass leasing stopped when the Osage Reservation was allotted. Each Osage received the surface rights to their allotments and could rent or, if deemed “competent,” sell their lands. This led to the formation of large ranches, including the Chapman-Barnard Ranch, which was established in 1915. Part of the Chapman-Barnard Ranch was sold to the Nature Conservancy in 1983 and became the Tallgrass Prairie Preserve. The county had approximately 107,761 head of
cattle in 1935 and an estimated 146,000 in 1964. In 2000 it ranked third in Oklahoma in cattle and calf production with 135,000 head.

Osage County lies within the Mid-Continent Region. In 1896 Henry Foster received a ten-year oil lease on the entire Osage Reservation. His brother, Edwin B. Foster, formed the Phoenix Oil Company to operate the lease. In October 1897 the Phoenix Oil Company drilled the first successful oil well in the Osage Nation (and Oklahoma Territory). The site was located along Butler Creek, about two miles northwest of Bartlesville’s Nellie Johnstone Number One, Oklahoma’s first commercial oil well.

In 1901 the Phoenix Oil and Osage Oil companies combined assets to form the Indian Territory Illuminating Oil Company (ITIO). Under Henry V. Foster, Henry Foster’s son, ITIO subleased the eastern part of the Osage Reservation. After ITIO’s lease terminated in 1916, 160-acre tracts were leased at public auctions. These sales, attended by William G. Skelly, Frank Phillips, and other oilmen, were often conducted beneath Pawhuska’s Million Dollar Elm by Colonel Ellsworth Walters.

The Osage mineral estate, consisting of all subsurface minerals, is owned by the tribe and is held in trust by the federal government. Each mineral lease was negotiated by the Osage National Council and approved by the secretary of the interior. All lease royalties were paid to the tribe as a whole, with each allottee receiving a headright, or an equal payment share. Around 1925 during the height of the prosperity the annual headright income of an Osage family of five was more than $65,000.

For many Osage the oil boom unleashed a “Reign of Terror.” Some were cheated by their court appointed financial managers or “guardians.” Others died for their wealth. A series of Osage murders, many unsolved, received national attention during the 1920s. Between 1906 and 1928 thirty oil boomtowns, including Wolco, Carter Nine, and Denoya (Whizbang) were founded. The settlements not only attracted workers, but bootleggers, prostitutes, and other undesirables. Violent crime was rampant.

By the mid-1980s approximately 250 oil fields had been discovered inside Osage County, including the Burbank Field opened by Ernest W. Marland in 1920. In 2000 one oil refinery and one petrochemical plant were operational. Other local mineral resources included asphalt deposits, limestone, dolomite, clay, shale, sand, and gravel.

An 1890 government report estimated that only 250,000 acres of the Osage Reservation were suitable for farming. (The Osage had purposely sought rocky land that white intruders could not cultivate.) In 1907 Osage County farmers tilled 62,438 total acres, with 55,961 devoted to corn. Only 5,700 acres of corn were planted in 1934. Farmers threshed 80,776 acres of winter wheat in 1934 and 435,000 acres in 2000. Hay, a more consistent harvest, totaled 60,943 tons in 1934, 56,400 tons in 1963, and 65,000 tons in 2000.

County rail service began in 1902 with the completion of two lines by the Missouri, Kansas and Texas Railroad. The main line ran from Osage City northeastward to Bartlesville, and the second track extended westward from Tulsa County to Osage City. The lone Midland Valley Railroad line reached northwestward from Tulsa into Kay County via Pawhuska in 1905-06. Between 1900 and 1904 the Atchison, Topeka and Santa Fe Railway (AT&SF) built a line from Newkirk to Pauls Valley through western Osage County. A second AT&SF line was constructed in the Burbank Field in 1922, and a third track completed between 1923 and 1927 entered the county.
near Hulah and ran southwestward to Osage Junction. The shortline Osage Railway was built between 1922 and 1924 and connected Foraker, Shidler, and Lyman. All of these railroads were abandoned by 2000.

At 1907 statehood Osage County had 15,332 residents. That number reached 36,536 in 1920 and peaked at 47,334 during the oil-boom era of 1930. The population then declined from 41,502 in 1940 to 29,750 in 1970, before rebounding to 39,327 in 1980 and 41,645 in 1990. In 2000 the population was 44,437, with 67.01 percent white, 14.42 percent American Indian, 10.84 percent African American, 2.12 percent Hispanic, and 0.23 percent Asian.

As of 2006 twenty-two county properties were listed in the National Register of Historic Places. Pawhuska and vicinity had eight sites, followed by Hominy with six, Fairfax with four, Barnsdall with two, and Burbank and the Avant area with one each. Osage Hills State Park was a Civilian Conservation Corps (CCC) project completed in 1935 during the Great Depression, and Walnut Creek and Wah Sha She state parks opened in 1966 and 1973, respectively. The Osage Tribal Museum, the first tribal museum in the United States, is located in Pawhuska.

Osage County has produced noted personalities, including Maj. Gen. Clarence L. Tinker, for whom Oklahoma City's Tinker Air Force Base was named; author and historian John Joseph Mathews; Academy Award winning actor Ben Johnson, Jr.; ballerinas Maria and Marjorie Tallchief; entertainer Anita Bryant; and sculptor John D. Free.”

As an update to the history provided by Jon May, the property once managed as Wah Sha She State Park was transferred back to management by the U.S. Army Corps of Engineers in 2011. In addition, Osage County is reported to be 2,246.36 square miles, slightly smaller than the 2303.8 square miles reported in the foregoing article.

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**Demographic and Socioeconomic Conditions and Impact**

The U.S. Bureau of Census provides summary data related to the demographic profile of the residents of Osage County. The 2010 Census provided the statistical basis for the detail related to the population of Osage County in 2012.

The following tables provide this summary based upon data retrieved during May 2012 from [http://factfinder.census.gov](http://factfinder.census.gov).

<table>
<thead>
<tr>
<th>Table 2.1 – Population of Osage County</th>
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</thead>
<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>Osage County</td>
</tr>
</tbody>
</table>

The population of Osage County has increased at a rate of 6.8% over the past ten years, slightly lower than the rate at which the population of Oklahoma has increased during that same period. Most of the population increase for Osage County has occurred in the southeastern portion of the county.
Table 2.2 – Demographic Characteristics of the Population

<table>
<thead>
<tr>
<th>Factor</th>
<th>Detail on factor</th>
<th>Osage County Number (Percent)</th>
<th>Oklahoma Number (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex and Age</td>
<td>Male</td>
<td>23,889 (50.3%)</td>
<td>1,816,749 (49.4%)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>23,583 (49.7%)</td>
<td>1,858,590 (50.6%)</td>
</tr>
<tr>
<td>Median age (years)</td>
<td></td>
<td>36.8</td>
<td>36.3</td>
</tr>
<tr>
<td>Under 18 years of age</td>
<td></td>
<td>11,553 (24.3%)</td>
<td>911,484 (24.8%)</td>
</tr>
<tr>
<td>18 years of age and over</td>
<td></td>
<td>35,919 (75.7%)</td>
<td>2,762,318 (75.2%)</td>
</tr>
<tr>
<td>65 years of age and over</td>
<td></td>
<td>7,278 (15.3%)</td>
<td>491,422 (13.5%)</td>
</tr>
<tr>
<td>Race</td>
<td>White</td>
<td>31,327 (66.0%)</td>
<td>2,720,135 (72.2%)</td>
</tr>
<tr>
<td></td>
<td>Black or African American</td>
<td>5,401 (11.4%)</td>
<td>267,179 (7.4%)</td>
</tr>
<tr>
<td></td>
<td>American Indian/Alaskan Native</td>
<td>6,858 (14.4%)</td>
<td>259,809 (8.6%)</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>133 (0.8%)</td>
<td>61,581 (1.7%)</td>
</tr>
<tr>
<td></td>
<td>Native Hawaiian/Pacific Islander</td>
<td>11 (0.0%)</td>
<td>3,967 (0.1%)</td>
</tr>
<tr>
<td></td>
<td>Two or more races</td>
<td>3,379 (7.1%)</td>
<td>263,896 (7.2%)</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>Of any race</td>
<td>1,366 (2.9%)</td>
<td>302,167 (8.2%)</td>
</tr>
</tbody>
</table>

Interestingly, Osage County reports a population in which males outnumber females – a possible reflection of the rural employment opportunities present in the county. In addition, Osage County shows a population with a higher percentage of Black or African American members and American Indian members than is true in the state of Oklahoma. By contrast, Osage County presents a population with a considerably smaller percentage of Hispanic residents than is true across Oklahoma.

Table 2.3 on the following page provides detail on the household characteristics of the population of Osage County. Of particular note is the much higher percentage of households in Osage County with one or more members over the age of 65 than is true in the state of Oklahoma. On all other measures related to household characteristics, Osage County is similar to the household characteristics represented across Oklahoma.
Table 2.3 – Household Characteristics in Osage County

<table>
<thead>
<tr>
<th>Household Related Factor</th>
<th>Osage County Number (Percent)</th>
<th>Oklahoma Number (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of households</td>
<td>21,143</td>
<td>1,421,705</td>
</tr>
<tr>
<td>Population in households</td>
<td>45,968 (96.8%)</td>
<td>3,563,497 (96.9%)</td>
</tr>
<tr>
<td>Households with a child or children under 18</td>
<td>5,927 (30.6%)</td>
<td>425,149 (29.9%)</td>
</tr>
<tr>
<td>Households with person 65 years and over</td>
<td>4,917 (26.5%)</td>
<td>140,851 (9.9%)</td>
</tr>
<tr>
<td>Occupied housing units</td>
<td>18,579 (85.5%)</td>
<td>1,421,705 (86.5%)</td>
</tr>
<tr>
<td>Vacant housing units</td>
<td>3,143 (14.5%)</td>
<td>222,523 (13.5%)</td>
</tr>
<tr>
<td>Owner occupied housing units</td>
<td>12,906 (69.5%)</td>
<td>969,959 (68.2%)</td>
</tr>
<tr>
<td>Renter occupied housing units</td>
<td>5,673 (30.5%)</td>
<td>451,746 (31.8%)</td>
</tr>
</tbody>
</table>

One characteristic on which the population of Osage County differs from that across Oklahoma is household income. The median household income in Osage County is lower than the statewide average. Median household income as reported by the U.S. Bureau of Census may be somewhat misleading: by definition 50% of the population in the county is above the median income level and 50% is below that number. Osage County has benefited from the rural economy and the natural resources within the county, but that may be concentrated in a smaller number of households.

It is equally important to recognize that about 10% of the population of Osage County is identified as being below federal poverty guidelines. However, the percentage of households below poverty levels and the percentage of individuals in those households are below the comparable statistics for the state of Oklahoma. It can be concluded that the residents of Osage County are similar to the comparable financial characteristics for Oklahoma.

Table 2.4 – Financial Characteristics in Osage County

<table>
<thead>
<tr>
<th>Characteristic or Factor</th>
<th>Osage County</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median household income</td>
<td>$41,125</td>
<td>$42,979</td>
</tr>
<tr>
<td>Households below poverty level</td>
<td>10.6%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Individuals below poverty level</td>
<td>12.6%</td>
<td>16.2%</td>
</tr>
</tbody>
</table>

Residents of Osage County also present education characteristics that are associated with the financial status of the county. In Osage County, the greatest variation from the statewide
educational pattern is in the percentage of individuals with high school diplomas or equivalent educational achievement. It is also evident that a higher percentage of Osage County residents have earned an Associate degree than is true of the greater population in Oklahoma. Education levels have been shown to be highly correlated with other economic measures.

Table 2.5 – Education Characteristics in Osage County

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Osage County Number (Percent)</th>
<th>Oklahoma Number (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 9th grade</td>
<td>1,025 (3.2%)</td>
<td>115,248 (4.8%)</td>
</tr>
<tr>
<td>9th to 12th grade, no diploma</td>
<td>3,038 (9.5%)</td>
<td>232,987 (9.8%)</td>
</tr>
<tr>
<td>High school diploma or equivalency</td>
<td>12,473 (39.0%)</td>
<td>775,478 (32.6%)</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>7,029 (22.0%)</td>
<td>559,367 (23.5%)</td>
</tr>
<tr>
<td>Associate degree</td>
<td>2,696 (8.4%)</td>
<td>159,557 (6.7%)</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>3,918 (12.3%)</td>
<td>362,043 (15.2%)</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td>1,784 (5.6%)</td>
<td>176,139 (7.4%)</td>
</tr>
</tbody>
</table>

Another demographic factor that is highly correlated with financial characteristics and educational characteristics is employment. The employment figures for Osage County are reported in Table 2.6. As of 2010, Osage County reported unemployment to be approximately 5.6% as compared with a statewide 7.7%. Both of these numbers place Oklahoma and Osage County in better employment condition than was true of the United States at this same time.

Table 2.6 – Employment Characteristics in Osage County

<table>
<thead>
<tr>
<th>Characteristic or Factor</th>
<th>Osage County Number (Percent)</th>
<th>Oklahoma Number (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population in the labor force (16 years and over)</td>
<td>21,859 (58.9%)</td>
<td>1,806,858 (63.0%)</td>
</tr>
<tr>
<td>Employed</td>
<td>20,635 (94.4%)</td>
<td>1,674,765 (92.3%)</td>
</tr>
<tr>
<td>Private wage and salary workers</td>
<td>14,756 (71.5%)</td>
<td>1,260,965 (75.3%)</td>
</tr>
<tr>
<td>Government workers</td>
<td>4,132 (20.0%)</td>
<td>285,562 (17.1%)</td>
</tr>
<tr>
<td>Self-employed (non-incorporated business)</td>
<td>1,684 (8.2%)</td>
<td>124,013 (7.4%)</td>
</tr>
<tr>
<td>Unpaid family workers</td>
<td>63 (0.3%)</td>
<td>4,225 (0.3%)</td>
</tr>
</tbody>
</table>
Another demographic factor that assists in understanding the local population is related to persons with disabilities. The 2010 census reported that among those persons in Osage County between the age of five and seventeen, there are 662 individuals (7.7%) of the population with a disability. This percentage increases in the population from ages 21 to 64 years to 13.4% or 3,558 individuals. Among those persons aged 65 years or more, 46.7% or 7,514 individuals have one or more disabilities.

In summary, Osage County comprises a rural area with approximately 21.3 persons per square mile as compared to an average of 50.3 for Oklahoma. The northern portion of Osage County is less populated than the southern portion of the county. That population shows an average household income slightly lower than the statewide average; however, a smaller percentage of Osage County residents are below the poverty level than is true statewide. The residents of the county have achieved educational levels with high school diplomas and Associate’s degrees at higher percentages than is true statewide.

Competing and Complementary Recreational Opportunities

North central Oklahoma and the adjoining areas in Kansas are dominated by a prairie ecosystem interspersed with hardwood forest along creeks and rivers. The Arkansas River valley is the major watershed throughout this area as all creeks and rivers in Osage County ultimately flow into the Arkansas River.

Osage Hills State Park is complemented with several other public recreation sites in Osage County. Walnut Creek State Park is about 50 miles south of Osage Hills and is located on Keystone Lake, formed by impoundment of the Arkansas River. Walnut Creek offers camping, boating, fishing, and other recreation activities, but does not have the historic aspects present at Osage Hills State Park.

Several U.S. Army Corps of Engineers properties are available for outdoor recreation in Osage County. These include developed areas on Lake Hulah, including property that has been managed as Wah-Sha-She State Park. That property has reverted to the USACE and includes campgrounds, picnic areas, and boat ramps. Birch Lake and Lake Skiatook also include public recreation locations offering camping, hiking and lake access.

On the western edge of Osage County, Kaw Lake is another impoundment on the Arkansas River. Kaw Lake is managed by the USACE and includes developed campgrounds, picnic areas, day use areas, and lake access. Most of the developed areas on Kaw Lake are in Kay County.

There are no state or federal recreation locations in the adjoining areas of Kansas. However, several cities do offer public access to small lakes in southern Kansas and may include camping and picnic facilities.

Regional and Park History

As indicated in the prior discussion of regional history and context for this area in Osage County, the property that is now Osage Hills State Park included Native American encampments and activity prior to the Louisiana Purchase. With various treaties, differing tribes were granted rights to the area, finally settling on assignment to the Osage nation. Early accounts indicate that the Osage Hills were a favorite resort for outlaws, including a location along Sand Creek that was a preferred camping location. This route became known as “Thieves’ Path”, a route utilized
by white horse thieves traveling from Texas to Kansas. The location of that early camp is probably within the boundaries of Osage Hills State Park today.

The property that would become Osage Hills State Park served citizens from the local area for camping and recreation, leading to a decision by residents of Pawhuska and Bartlesville to acquire the property in the early 1930s. The citizens of these cities then gave 550 acres to the State of Oklahoma in 1935 for use as a summer camp for Boy Scouts.

The first director of Oklahoma State Parks, A.R. Reeves, asserted that “this is an ideal Park site, being a rough, rugged terrain, and readily lends itself to park development” (Reeves, 1938). He reported that 830 acres had been donated to the state by Pawhuska and Bartlesville, with an additional 280 acres purchased using state funds, and 380 acres in the process of acquisition in 1938.

As a result of these donations, Osage Hills became one of Oklahoma’s first seven state parks. In 1935, Civilian Conservation Corps Company 895 for “white juniors” (camp SP-24-0) was authorized by the federal government and began work at Osage Hills State Park. The work of this CCC group was transferred to Oklahoma in 1937. Reeves documented the work accomplished by the CCC camp under the direction of the National Park Service. He recorded property improvements valued at $176,000 including:

- Three footbridges, one mile of foot trails
- 42 camp stoves and fireplaces, 34 table and bench combinations
- Seven miles of truck trails, 3.6 miles of park road, 1.8 miles of road surfacing
- 30 check dams
- And many more detailed items.

Figure 2.4 – Typical CCC camp
Source: Oklahoma Historical Society
Figure 2.5 – 1930s Map of Osage Hills State Park
North is to the bottom of the page
From the initiation of the state park system, the purpose was to have parks “so distributed that 60% of the population of the state is within 75 miles of a State Park where can be found vacation areas and scenic beauty not surpassed in any state in the Nation” (Reeves, 1936).

The Civilian Conservation Corps Company 895 became a central feature of Osage Hills State Park, as did CCC camps at other original Oklahoma State Parks. Historic structures on property remain from the efforts of the CCC. The design commonly utilized by members of these camps was “National Park Service rustic” architecture. As stated by Dr. Bob Blackburn (2004), “In the parks, the organic

**Figure 2.6 – 1938 Map of Osage Hills State Park showing acquisition plans**
North is to the left of the page

**Figure 2.7 – National Park Service rustic style**
Right: in design
style could be seen everywhere. Roads nestled into natural contours of the land, offering a variety of vistas around every turn. Cabins were built with locally cut stone, hand-hewn timbers, and rough-cut plans, giving the impression that the structures grew out of the land. Signs with directions to campgrounds were artistically carved into stone and wood. The CCC boys also helped Mother Nature by planting millions of trees and shrubs, seamlessly connecting the built environment with the natural setting.” Appendix B identifies many of the CCC properties at Osage Hills State Park.

The original CCC camp is only partially visible on the grounds of present-day Osage Hills State Park, but the extent of the camp is revealed in 1930s’-era photographs and layout of the operation.

**Figure 2.8 – Layout of CCC Camp 895**
Inset: aerial photographs credited to Glen Woods
Figure 2.9 – CCC Company 895 at Osage Hills State Park
Top: graphic layout of the camp
Middle: enrollees near the officers’ barracks; Middle right: the garage compound
Lower left: company flag presently displayed in the park office
Camp SP-24-0 was occupied from 1933 to 1940 with more than 200 enrolled members. Weisiger et al. (1993) identified Osage Hills State Park as a “significant example of a landscape designed by the National Park Service and built by the CCC.” High levels of historical integrity have been retained in various nodes throughout the park. Among these structures that provide historical value to the park are:

- Portals of layered sandstone at the entry to Osage Hills State Park
- Numerous road structures including culverts and a stone arched bridge
- The superintendent’s residence, maintenance buildings, an incinerator, water storage tank, pump house
- Cabins, rustic fireplaces, rock water hydrants, sandstone lookout tower
- Picnic shelter, community building, and related amenities.

Osage Hills State Park has been expanded to approximately 870 acres including Lake Lookout, an 18-acre lake included within the park boundaries. The 870 acres designated as state park are owned by the State of Oklahoma. The present Osage Hills State Park reflects and protects the history and culture that are integral to its existence.
Natural Resources in the Park

Climate and Air Quality

Osage County is part of the Cross Timbers and Tallgrass Prairie ecoregions and is a transition from forested areas to the east and prairies to the north and west. Average annual precipitation is 39.78 inches, although the wettest year occurred in 1985 with over 66 inches of precipitation and the driest year occurred in 1956 with less than 17 inches. May and October are the wettest months on average, but much of the spring through fall receives sufficient rainfall for successful vegetative growth. Average snowfall is about 8.7 inches annually, providing snow cover on the ground for about seven days each year.

Temperatures average near 60 degrees, with a slight increase from north to south. Temperatures range from an average daytime high of 95 degrees in July and August to an average low of 31 degrees in January. The county’s average growing season is 202 days, and plants that can withstand short periods of colder temperatures may have an additional two to five weeks.

Winds from the south to southeast are quite dominant, averaging just over seven miles-per-hour. Relative humidity, on average, is 69% during the day. During the year, humidity is highest in May and June and lowest in August. Winter months tend to be cloudier than summer months. The percentage of possible sunshine ranges from an average of about 55% in winter to nearly 80% in summer.

Thunderstorms occur on about 50 days each year, predominantly in the spring and summer. During the period 1950 – 2003, Osage County recorded 66 tornadoes. The most recent significant tornado (F2 intensity or greater) in Osage County occurred on May 8, 2003. The deadliest tornado, an F4, in Osage County hit near Skiatook on June 8, 1974 killing 14 and injuring 150 others. Osage County typically has about six events each year of hail exceeding one inch in diameter. As information collection has improved, both the number of reported tornadoes and the number of severe hail events have increased (OK Climatological Survey).

The Pollution Information Site (Scorecard) reports that 83% of all days in Osage County show good air quality, with the primary pollutants being particulate matter (PM-2.5 and PM-10). Having said that, according to the Clean Air Task Force website, Osage County is at the 80th percentile for PM-2.5 and 90th percentile for PM-10 emissions among the “dirtiest counties in the United States” (Clean Air Task Force).

Archeology of Osage Hills State Park

While archaeological evidence was reported in the history of Osage County, an archeological survey of Osage Hills State Park has not been completed. Given the potential for designation on the National Register of Historic Places, particularly focused on the Civilian Conservation Corps, and the presence of Native American sites in Osage County, a full archaeological survey may be valuable. In the meantime, all development and planning for Osage Hills State Park will require great care in review of and consideration of these sites.
Topography

Osage Hills State Park is situated in the northwestern edge of the Cross Timbers ecoregion, a transition area from prairie to the west and low, forested mountains to the east. This ecoregion extends from Oklahoma's northern border to southern border covering most of central Oklahoma.

Geology

Osage County and Osage Hills State Park are situated in the Cherokee Platform Province. According to Charpentier (2010) the Cherokee Platform Province extends from southeastern Kansas and part of southwestern Missouri to northeastern Oklahoma. The province is 235 miles long (north-south) by 210 miles wide (east-west) and encompasses an area of 26,500 square miles. Oil and gas exploration has occurred in this area for the past 100 years. The thickest coal seams in the Cherokee Platform are part of the Middle Pennsylvanian (Desmoinesian) Cherokee Group, which varies in thickness from 300 to 500 feet. The Cherokee Group consists mostly of black shales, with lesser amounts of limestone, sandstone, and coal. The main coalbeds in the basin, in ascending order, are Riverton, Rowe, Weir-Pittsburg, Mineral, Fleming, Croweburg, Bevier, and Mulky. The Riverton, Weir-Pittsburg, Bevier, and Mulky are the thickest, and the Weir-Pittsburg seam can be as much as 5 feet thick. Net thickness of the coals in the Cherokee Group is greater than 15 feet. The underlying bedrock aquifer is in the Vamoosa Formation and Ada Group (Johnson, 1998).

Figure 2.11 – Geological regions in Oklahoma

Source: Charpentier (2010)
According to Suneson (2000), escarpments that occur in this area are east-facing and all the rocks are Pennsylvanian (323-290 million years old) or Permian (290-245 million years old); they consist of sandstone, limestone, and shale. The escarpments are considered part of the Eastern Sandstone Cuesta Plains, which are rugged and typically covered with oak trees. A cuesta is a hill or ridge with a gentle slope on one side and a steep slope on the other side. Folds and pockets are found in the underlying structures, which makes a suitable ‘habitat’ for oil and gas. Fossils of ancient marine animals are found in the various geological strata.

**Soil**

The Natural Resources Conservation Service (NRCS) gathers data and prepares custom soil resource reports for specific areas. In each report they define various terms related to soils and the related capacities. Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series. Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, are an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example of a miscellaneous area (NRCS, 2010).

Material about soils in the study area provides background information about suitability for recreational development.
Figure 2.12 – Soil map of Osage Hills State Park
Source: Natural Resource Conservation Service
### Map Unit Legend (Osage Hills)

<table>
<thead>
<tr>
<th>Map Unit Symbol</th>
<th>Map Unit Name</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Barnsdall very fine sandy loam, 0 to 1 percent slopes, rarely flooded</td>
<td>93.4</td>
<td>10.5%</td>
</tr>
<tr>
<td>8</td>
<td>Pocasset fine sandy loam, 0 to 1 percent slopes, occasionally flooded</td>
<td>16.6</td>
<td>1.9%</td>
</tr>
<tr>
<td>23</td>
<td>Foraker-Shidler complex, 12 to 25 percent slopes</td>
<td>6.7</td>
<td>0.7%</td>
</tr>
<tr>
<td>31</td>
<td>Braman silt loam, 0 to 1 percent slopes, rarely flooded</td>
<td>4.5</td>
<td>0.5%</td>
</tr>
<tr>
<td>46</td>
<td>Osage silt loam, 0 to 1 percent slopes, occasionally flooded</td>
<td>2.5</td>
<td>0.3%</td>
</tr>
<tr>
<td>50</td>
<td>Pits</td>
<td>1.4</td>
<td>0.2%</td>
</tr>
<tr>
<td>57</td>
<td>Steedman-Lucien complex, 3 to 15 percent slopes</td>
<td>0.8</td>
<td>0.1%</td>
</tr>
<tr>
<td>66</td>
<td>Verdigris silt loam, 0 to 1 percent slopes, occasionally flooded</td>
<td>9.7</td>
<td>1.1%</td>
</tr>
<tr>
<td>67</td>
<td>Verdigris silt loam, 0 to 1 percent slopes, frequently flooded</td>
<td>79.3</td>
<td>8.9%</td>
</tr>
<tr>
<td>BBgC</td>
<td>Bartlesville-Bigheart complex, 1 to 5 percent slopes, very rocky</td>
<td>36.9</td>
<td>4.1%</td>
</tr>
<tr>
<td>BNRD</td>
<td>Bigheart-Niotahe-Rock outcrop complex, 1 to 8 percent slopes</td>
<td>255.2</td>
<td>28.7%</td>
</tr>
<tr>
<td>NBRE</td>
<td>Niotahe-Bigheart-Rock outcrop complex, 3 to 15 percent slopes, very stony</td>
<td>241.8</td>
<td>27.2%</td>
</tr>
<tr>
<td>NBRF</td>
<td>Niotahe-Bigheart-Rock outcrop complex, 15 to 25 percent slopes, extremely stony</td>
<td>39.8</td>
<td>4.5%</td>
</tr>
<tr>
<td>NBRG</td>
<td>Niotahe-Bigheart-Rock outcrop complex, 25 to 45 percent slopes, rubbly</td>
<td>38.8</td>
<td>4.4%</td>
</tr>
<tr>
<td>W</td>
<td>Water</td>
<td>62.3</td>
<td>7.0%</td>
</tr>
<tr>
<td><strong>Totals for Area of Interest</strong></td>
<td></td>
<td><strong>889.6</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

**Figure 2.13 – Legend for soil map on previous page**
Source: Natural Resource Conservation Service

### Soil Suitability for Recreational Development

#### Camp Areas, Picnic Areas, and Playgrounds

_Camp areas_ are tracts of land used intensively as sites for tents, trailers, campers, and the accompanying activities of outdoor living. Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and
depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas.

The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, saturated hydraulic conductivity (Ksat), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (Ksat), and toxic substances in the soil.

Almost 90% of Osage Hills State Park is rated as “very limited” for camp areas. Picnic areas are natural or landscaped tracts used primarily for preparing meals and eating outdoors. These areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, saturated hydraulic conductivity (Ksat), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (Ksat), and toxic substances in the soil.

Approximately 14% (124 acres) within Osage Hills State Park was rated as “not limited” for use as picnic areas.

Playgrounds/play groups are areas used intensively for sports and games, such as baseball, football, and similar activities. Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The NRCS ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, saturated hydraulic conductivity (Ksat), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (Ksat), and toxic substances in the soil.

Almost three-quarters of Osage Hills State Park (74.7% or 665 acres) were rated as “very limited” for playgrounds and play groups. In contrast, there are almost 100 acres of the park that are “not limited” for playgrounds and play groups.

Paths and Trails

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.
**Off-road motorcycle and mountain bicycle trails** are intended primarily for recreational use. They require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

Approximately 45% of Osage Hills State Park was rated as “not limited” for trails and paths.

**Hydrology**

Osage County straddles portions of five watersheds, two of which cross the state border between Oklahoma and Kansas. The watersheds closest to Osage Hills State Park are the Bird Creek watershed (11070107 in Figure 2.14) and the Caney watershed (11070106 in Figure 2.14). Sand Creek and the waters in Osage Hills State Park are part of the Caney watershed which crosses the border between the two states. Waters in this watershed flow into Caney Creek and then into the Verdigris River.

![Figure 2.14 – Watersheds of Osage County](image)

Source: Environmental Protection Agency

Little information is available regarding the water quality in Sand Creek or in Lookout Lake. Lookout Lake is an 18-acre lake at the north end of the park formed by an impoundment on an unnamed creek. Detail regarding Lookout Lake is provided in Chapter 3.
Sand Creek presents an opportunity for additional impounding and formation of a much larger lake. Such plans are shown in maps from the U.S. Army Corps of Engineers from the late 20th century (Figure 2.15). While such impounding is not presently planned, increased demands for water and flood control in Caney Creek could re-energize discussions for Sand Lake. If Sand Creek were impounded, much of Osage Hills State Park and its historic and cultural resources would be jeopardized.

**Vegetative Cover**

Osage Hills State Park has been modified greatly from its original prairie and Cross Timbers environment. In a pristine Cross Timbers forest, researchers (Stahle et al., 2000) were able to identify eleven vegetation associations. The associations include: post oak-blackjack oak-hickory forests, post oak and red cedar forests on rocky soils, red cedar dominated blufflines, red cedar and black oak rocky ravines, black oak slopes, Shumard oak stands, sycamore lined ravines, post oak savannas, blackjack oak barrens, numerous grassy glade openings, and an tallgrass prairie communities on ridge tops.

In general, the Cross Timbers represent the largest single ecosystem type in the state of Oklahoma. Ecologically distinct lines do not exist between the Cross Timbers region and the adjacent Mixed-grass Prairie and Tallgrass Prairie regions. Therefore, areas of overlap occur where patches of mixed-grass prairie habitat are embedded within oak woodlands and patches of oak woodland or shrubland are embedded within mixed-grass and tallgrass prairie habitats. Tallgrass prairies occur throughout the region and comprise most of the region’s historic grassland acres (ODWC, 2005).

The dominant tree species in this habitat are the Post Oak (*Quercus stellata*) and Blackjack Oak (*Quercus marilandica*) and these two oaks may comprise as much as 90 percent of the canopy cover. Other common trees include Black Hickory (*Carya texana*), Black Oak (*Quercus velutina*) and Eastern Red cedar (*Juniperus virginiana*). Black Hickory and Black Oak are more common in the more mesic sites in the eastern part of the Region.
Eastern Redcedar is common throughout the region and has increased in abundance during the past century as a result of the reduction of periodic fires. Prominent understory plants include Chinkapin Oak (*Quercus muehlenbergii*), Chittamwood (*Bumelia lanuginosa*), Eastern Redbud (*Cercis canadensis*), Roughleaf Dogwood (*Cornus drummondii*), Mexican Plum (*Prunus mexicana*), and Winged Sumac (*Rhus copallina*). In the eastern portion of the region, Winged Elm (*Ulmus alata*) is a common understory tree. In sites that are drier and/or have a higher frequency of fire, the CrossTimbers has a more woodland or savannah-like structure. These areas typically have a grassy understory dominated by Little Bluestem (*Schizachyrium scoparium*), but also with Indian Grass (*Sorghastrum nutans*), Big Bluestem (*Andropogon gerardii*), and Small Panicgrass (*Panicum oligosanthes*). On rocky limestone soils in the Arbuckle Mountains, Texas Oak (*Quercus shumardii texana*), Chinkapin Oak (*Quercus muehlenbergii*), Ashe Juniper (*Juniperus ashei*), and Texas Ash (*Fraxinus texensis*) are common associates with Post Oak and Blackjack Oak (ODWC, 2005).

**Wildlife**

As is true with all Oklahoma state parks, Osage Hills State Park is a wildlife sanctuary. Due to its substantial size and location, Osage Hills State Park serves a variety of roles for many forms of wildlife. For some, Osage Hills is a temporary or seasonal habitat as part of the migratory movement of birds and animals through the area. For others, Osage Hills may be the permanent habitat, providing an appropriate setting for the entire lifecycle.
The forest and glade vegetation of the Cross Timbers provides excellent wildlife habitat, particularly due to its diversity, isolation, and proximity to the impounded Arkansas and Cimarron Rivers. In the mid-1800s the native fauna of the Cross Timbers area included buffalo, elk, deer, black bear, gray wolf, coyote, fox, cougar, bobcat or ocelot, prairie dogs, jack rabbit, skunk, raccoon, opossum, turkey, greater prairie chicken, wood duck, white pelican, Bonaparts gull, Carolina rail, and many other birds, small mammals, and reptiles. In addition, large flocks of passenger pigeons, numerous flocks of Carolina parakeets along the Arkansas River, and ivory-billed woodpeckers were found in the area (Stahle et al., 2000).

The Cross Timbers forests also offer excellent wildlife habitat and are especially important to many species of birds, including the bald eagle and other birds of prey and threatened species, such as the Peregrine falcon, barn owl and grasshopper sparrow. Many areas of the forests, or adjacent to the forests, are stopovers for waterfowl migrating along the Central Flyway of North America. Over 75 species of birds have been identified in Osage Hills State Park including kestrals, woodpeckers, blue birds, a variety of song birds, and kingfishers. Fly catchers, hummingbirds, meadowlark, ospreys, bald eagles, gold finches, tanagers, cooper’s hawks, various gulls, great blue herons, great egrets, northern bobwhite, great horned owls, yellow-billed cuckoos, and orioles have also been spotted. Finally, various duck species, migrating white pelicans and avocets, and double crested cormorants have be seen in the area.

**Nuisance Species**

Among the nuisance species at Osage Hills State Park is lespedeza, an invasive plant that will replace bluestem. There are multiple types of lespedeza which is commonly spread in agricultural settings with movement of hay from one area to another. Sericea lespedeza is the primary variety present in and around Osage Hills State Park. It was an introduced perennial legume originally from eastern Asia. Management to control sericea lespedeza includes controlled burns and grazing.

Feral hogs are also present in Osage County and have been observed within Osage Hills State Park. The estimated feral hog density for Osage County was less than 13 hogs per square mile. However, higher densities were reported for that portion of Osage County adjoining the Arkansas River (Stevens, 2007).

**Endangered or Threatened Species**

At present there are no state-listed threatened or endangered species listed for Osage County. However, federally listed endangered and threatened species that may be present in Osage County include: Whooping Crane (*Grus americana*), Interior Least Tern (*Sterna antillarum*), and Piping Plover (*Charadrius melodus*). The Whooping Crane and Interior Least Tern are listed as endangered, whereas the Piping Plover is listed as threatened. All three of these birds are adapted for river or stream environments and are more likely to occur in those portions of Osage County that border the Arkansas River.

In addition to these species of concern, starting in 2003 the U.S. Fish and Wildlife Service (USFWS) noted the occurrence of the American burying beetle (ABB), a federally-listed endangered species, in Osage County with likely colonies in adjoining portions of Tulsa County. The ABB is a member of the beetle family, *Silphidae*, and is known to bury vertebrate carcasses for reproductive purposes as well as exhibit parental care of young. The ABB is fully nocturnal and active when nighttime temperatures consistently exceed 60 F. For the remainder of its life
cycle (generally mid-May to late-September) the ABB remains in an inactive state buried at soil depths ranging from 6- to 36-inches (Anderson 1982, Kozol et al., 1988 as cited in Alexander Consulting, 2003). Researchers have determined that the ABB may be present during summer months. During the inactive season, it is possible that the ABB exists buried in project area soils of suitable characteristics.

*Platanthera praeclara*, the Western prairie fringed orchid, is listed as a federally threatened prairie wildflower. The Western prairie fringed orchid occurs in remnant native prairies and meadows, but has also been observed in some disturbed sites. Osage Hills State Park is in the southern extent of the range for the prairie orchid. In this location, the prairie orchid is more likely to be found in mesic upland prairies.

*Figure 2.17 – Western prairie fringed orchid*

**Accessibility**

The Oklahoma State Parks Division strives for accessibility for those with disabilities in all its park locations and facilities and has an access plan for the Division. Many parks and facilities were designed and constructed before the passage of the 1990 Americans with Disabilities Act (ADA), and well before the Americans with Disabilities Act Accessibility Guidelines (ADAAG) were developed. Further, by its very nature, the natural environment may not lend itself to easy access for those with mobility impairments.

The technical provisions of the ADA permit deviation from the stated guidelines. These provisions allow deviation from full compliance if accessibility cannot be provided because (1) compliance would cause substantial harm to cultural, historic, religious or significant natural features or characteristics; (2) substantially alter the nature of the setting or purpose of the facility; (3) require construction methods or materials that are prohibited by federal, state or local regulations or statutes; or (4) would not be feasible due to terrain or the prevailing construction practices.

In 2007, the United States Access Board issued a Notice of Proposed Rule Making (NPRM) for outdoor developed areas. These rules and their associated interpretations have direct bearing on the consideration of access in Osage Hills State Park. The minimum requirements found in the NPRM for outdoor developed areas are based on several principles developed through the regulatory negotiating process. They include (U.S. Access Board, 2009):

1. Protect the resource and environment
2. Preserve the experience
3. Provide for equality of opportunity
4. Maximize accessibility
5. Be reasonable
6. Address safety
7. Be clear, simple, and understandable
8. Provide guidance
9. Be enforceable and measurable
10. Be consistent with Americans with Disabilities Act Accessibility Guidelines (as much as possible)
11. Be based on independent use by persons with disabilities

Trails that currently exist in the recommended properties are all natural surfaces, although several of the properties have hard surface sidewalks in the developed areas. Any one designated trail may make use of all or several surface types. If major trail redesign or construction were to occur, it would be important to ensure compliance with the ADA standards where appropriate. The NPRM addresses ten provisions that must be considered related to trail accessibility. These provisions are:

1. Surface – must be firm and stable
2. Clear tread width – minimum of 36 inches
3. Openings in surface – may not permit passage of sphere one-half inch in diameter
4. Protruding object – minimum of 80” of clear headroom above the trail
5. Tread obstacles – cannot exceed a maximum of two inches
6. Passing space – minimum of 60” by 60” at intervals of 1000’ or less
7. Slope – addresses cross slope and running slope
8. Resting intervals – at least 60” in width
9. Edge protection – not necessarily required, but may be provided
10. Signage – information on distance and departure from technical provisions

An example of possible signage for trails as suggested by the National Center on Accessibility is shown in Figure 2.18. As of 2010, no specific signs have been designated for universal communication related to accessible trails. However, these signs communicate the concept of accessibility in outdoor developed recreation spaces that include trails.

Other considerations related to access for persons with disabilities include “Braille trail” concepts that allow persons with visual limitations to enjoy the features of a trail. This is particularly true if the trail is interpretive in nature, with signs communicating information related to natural, cultural, historic, or other significant topics related to the park environment.

In an effort to fully disclose the extent of accessibility within state parks, the Oklahoma State Park Division developed terms to describe two levels of access; these terms are used in State Parks publications: accessible and usable.
Accessible indicates that the park “substantially complies with the Americans with Disabilities Act Accessibility Guidelines (ADAAG). The facility is connected with a barrier-free-route-of-travel from an accessible parking area.”

Usable indicates that the “facility allows significant access. Some individuals with disabilities may have difficulty and need assistance. Due to topography and the primitive nature of some sites, parking and connecting routes may not be accessible to all with disabilities” (OTRD, 2007).

OTRD began development of the properties at Osage Hills State Park before the passage of the ADA; thus, many of the established structures do not meet the explicit requirements of the law. In several locations, OTRD has added accessible restrooms, developed hard surface campsites, installed walkways, and made other efforts to improve accessibility. However, the number of designated accessible campsites and parking spaces in several locations are inadequate. In other settings, the restrooms are not accessible. The existing trails in these properties are not currently accessible trails, and such modification may not be desirable. The natural terrain varies considerably and is quite rocky; in addition, the environment includes vulnerable animal species. Thus, ADAAG-defined accessibility to every area of the park is not practical, nor necessarily desirable.

Throughout Osage Hills State Park, it will be necessary to complete a thorough review of accessibility. In addition and in light of continuous updating, new rule-making, and interpretation of rules on-going vigilance related to accessibility is required.

An example of this rule-making and interpretation took effect March 15, 2011 under the Department of Justice ruling that specified “other power-driven mobility devices” (OPDMD) that could be used on trails by individuals with mobility limitations. At present, the expectation is that the operating entity (OTRD) shall “make reasonable modifications in policies, practices, or procedures to permit the use of other power-driven mobility devices by individuals with mobility disabilities, unless the public entity can demonstrate that the class of OPDMD cannot be operated in accordance with legitimate safety requirements that the public entity has adopted based on actual risks” (American Trails, 2011).
Chapter 3 – Current Status of the Resource

Recreational Development

As one of the original state parks in Oklahoma, Osage Hills State Park is a historic, cultural, economic, natural, and recreational resource. The physical development of Osage Hills State Park began in the early 1930s as a cooperative venture between the United States federal government and the State of Oklahoma. The federal involvement was significantly reduced by the 1940s, although federal input and support has continued through various grant programs and been influenced by a range of other legislation. As of 2012, Osage Hills State Park had not been nominated for inclusion on the National Register of Historic Sites, although a memorandum of agreement with the State Historic Preservation Office had been negotiated in the 1990s.

The map on the following page, Figure 3.2, provides an overview of the features of Osage Hills State Park. The park boundaries include 870 acres of land and water, and encompass campgrounds, a group camp, day use areas, cabins, and other facilities. These facilities are detailed in the following discussion. For ease of presentation, the discussion and presentation begins at the north entrance to Osage Hills State Park and proceeds southerly in along the main road through the property.

For all visitors entering Osage Hills State Park by automobile, the only highway access route is along U.S. Highway 60 to State Highway 35 leading into the park. An iconic Civilian Conservation Corps sign made of layered sandstone marks the entrance to Osage Hills State Park at the intersection of Highway 35 and Highway 60.

Figure 3.1 – North entrance to Osage Hills State Park
Figure 3.2 – Map of Osage Hills State Park
The intersection of Highway 35 and Highway 60 has been designed as a double entry. Two lanes in each direction – east and west – permit easy access into and exit from the park. Visibility for drivers entering and exiting the park is excellent, although Highway 60 is a two-lane road with a speed limit of 65 miles per hour. At the time of the preparation of this RMP, road work and improvements on Highway 60 were occurring to the west of Osage Hills State Park.

**Entry Drive and Environs**

The entry drive into Osage Hills State Park from Highway 60 to the main body of the park is approximately one mile distance on Highway 35. This entry drive is a wonderful transition from the rural environment outside the park into the atmosphere and experience available within Osage Hills State Park. Near the entrance, visitors pass an agricultural setting in which adjoining fields are managed for hay crops. Highway 35 is fenced along both sides, with occasional private access routes leading to private property on either side of the public entry.

At the immediate entrance into Osage Hills State Park, the entry road can be closed with a gate, while the exit route includes a “tire shredder.” The gate is usually open, but the presence of the controlled access provides a sense of security for the park visitor.

Shortly after entering the park, a visitor is reminded that Osage Hills State Park is designated as a refuge for wildlife. Additional evidence of history and culture of Osage Hills State Park is provided by CCC-era culverts, bridges, and stonework along the entry drive.

The entry drive, Highway 35, is two-lane with reduced speed limit as it passes through the Cross Timbers environment. There is a slight downhill incline as the visitor transitions from the prairies along Highway 60 into the Sand Creek valley that provides most of the park environment. Occasional vistas of the Osage Hills are also provided through openings in the Cross Timbers forest canopy.
**Lake Lookout**

Near the stonework bridge shown in Figure 3.3, a side road exits to the north leading to Lake Lookout. The roadway follows the creek bed to the impoundment that forms the lake. There is limited parking available at the lake, permitting a maximum of about five vehicles. In addition, it would be difficult to turn around in a large vehicle or when towing a trailer/recreational vehicle.

Vehicle access to Lake Lookout is provided near the southwest end of the impoundment. At this location Osage Hills State Park provides rowboats on a rental basis as shown in Figure 3.4. A pump house, once used to pump water to an abandoned treatment facility, is also located adjacent to the parking area (Figure 3.4). The earthen impoundment extends to the northeast and is mowed regularly. However, numerous woody plants are growing on the upstream and downstream faces of the impoundment. As shown in Figure 3.4, there is an overflow sluice at the northeastern end of the impoundment. This uncontrolled overflow permits water levels to reach a maximum height at which water flow is diverted into the stream channel below the dam.

A walking trail spur extends from the parking area and links to the Lake Trail. The Lake Trail follows the southern edge of Lake Lookout and loops through the wooded park land, winding through the location of CCC camp SP-24-0, and then continuing on south to the campground. The Lake Trail is approximately three miles in length and is rated as easy walking. The views from the trail northward across Lake Lookout are shown in Figure 3.5 on the following page.
Pump House and Riding Stables

Just south of the road leading to Lake Lookout, there is a driveway leading to the left (southeast) of the entry road. This driveway leads downhill to a parking lot associated with various activities. The area includes a CCC pump house shown in Figure 3.6, as well as a barn utilized occasionally as a riding stable. In addition, mountain bikers use this parking lot to gain access to the Lake Trail as shown in Figure 3.6.
Maintenance and Residential Area

Returning to the park entry road and continuing to the south, a visitor would then pass a road on the right with restricted access. This road leads to the maintenance and residential area in Osage Hills State Park. The entrance is marked for authorized access only.

Figure 3.7 – Residence and maintenance area

A service road leads from the maintenance area uphill to the grounds of the Civilian Conservation Corps camp. This road is not open to the public, but provides access for management in a more direct route than is possible from other areas in the park. Within the maintenance area there are several artifacts of the CCC years at Osage Hills State Park.

Along the drive southward, the entry road intersects with the Overlook Trail which also connects to the Lake Trail.

Park Office

The next developed area along the entry road is the park office. The office is located a road loop extending from the east side of the main park road. This allows for parking and ease of access to the office.

Figure 3.8 – Park office
The area surrounding the park office includes other services for park visitors. The major facility at this location is an accessible restroom with showers. This central location for the restroom includes several parking spots, permitting park visitors and campers to access the facilities. Adjacent to the restroom is an interpretive monument detailing the presence and history of the Civilian Conservation Corps at Osage Hills State Park.

Figure 3.9 – Restroom and CCC monument

The area surrounding the office and the public restrooms includes additional signage informing visitors of activities and services in the area. Landscaping and flowers beautify the area as well.

The park office is small, but serves as the main point of contact for visitors seeking information on camping, cabin rentals, and other services. In the park office, the flag of CCC Company 895 is displayed above a doorway. Additional interpretive material is provided in print racks. Most of the archival artifacts linked to the history and culture present at Osage Hills State Park are stored in the office – without adequate protection equivalent to their historic value or capability of preserving the artifacts for the future.

Although public access is limited to the east, there are trails that extend north and south along Sand Creek.
Immediately west of the park office is the entry to the Osage Hills State Park campground. A playgroup situated on an elevated mound and a pavilion are located at the intersection of the main entry road and the access road leading into the campground. The main portion of the campground is designed in loops, one of which provides 20 semi-modern campsites with electricity and water. A second exterior loop includes 10 unimproved campsites. A road extending north from the main campground leads to the Lookout Tower area which provides 15 unimproved campsites intended for tents.

Table 3.1 – Campground Detail for Osage Hills State Park

<table>
<thead>
<tr>
<th>Campground amenity</th>
<th>Osage Hills campground</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern campsite (Water, sewer, electricity)</td>
<td>0 site</td>
</tr>
<tr>
<td>Semi-modern campsite (Water, electricity)</td>
<td>20 sites (2 pull-thru)</td>
</tr>
<tr>
<td>Unimproved (no utilities)</td>
<td>10 sites in the RV area</td>
</tr>
<tr>
<td></td>
<td>15 sites in Lookout Tower area</td>
</tr>
<tr>
<td>Pavilion (capacity of 75)</td>
<td>1, electricity and grill</td>
</tr>
<tr>
<td>Trail</td>
<td>Overlook Trail</td>
</tr>
<tr>
<td>Boat Ramp</td>
<td>None</td>
</tr>
<tr>
<td>Sanitary dump station</td>
<td>1</td>
</tr>
<tr>
<td>Playgroup</td>
<td>1</td>
</tr>
<tr>
<td>Restrooms</td>
<td>3, including showers</td>
</tr>
</tbody>
</table>

Figure 3.10 – Campground features

Top left: entry sign
Top right: semi-modern campsite
Middle left: sanitary dump station
Middle right: playgroup on elevated area
Bottom left: picnic pavilion
The Lookout Tower area is gated and can be closed seasonally. It includes a non-accessible restroom with showers. The 15 campsites in the Lookout Tower area are unimproved and intended for tents.

The dominant feature of this portion of the campground is the CCC-era Lookout Tower on the east edge of the campground. For those park visitors who climb up onto the Lookout Tower there are excellent views of the surrounding Osage Hills, particularly looking eastward across the Sand Creek valley.

Several trails emanate from the campground, including the Overlook Trail, the Lake Trail, and the Creek Loop Trail (Bugle Trail). The Overlook Trail starts at the Lookout Tower and extends about 1.75 miles eastward to the Pump House location mentioned earlier, at which location the trail continues with connection to the Lake Trail. The Overlook Trail is designed for hiking, biking, and equestrian use.

As mentioned earlier, the Lake Trail is a 3-mile loop for hiking and enjoyment of nature. From the Lookout Tower, the Lake Trail extends north through the former CCC camp and continues on to the south shore of Lookout Lake.

Multiple points of access are available from the campground onto the Creek Loop Trail, formerly known as the Bugle Trail. This hiking and biking trail extends for approximately five miles toward the southwest from the campground and provides a variety of landscapes for the visitor. This trail has received volunteer assistance for development in recent years.
Cabin Area

Returning to the main entry road and heading south, the next development is the cabin area, located on a hill to the west of the entry drive. The cabins include seven one-bedroom units designed to accommodate up to four people and one two-bedroom unit designed to accommodate up to six people. The cabins are well spaced on the landscape, providing good separation between units. These cabins date from the CCC-era, although each has received significant upgrading. The cabins are usable by persons with disabilities, but do not comply with present ADA guidelines.

![Cabin Area](image1)

One cabin, as shown in Figure 3.13, has burned, leaving only a shell. This unit is typical of the CCC-era construction and indicative of the at-risk historical structures in the park. Renovation and restoration are dependent upon available funding. Other concrete pads are also present in the

Figure 3.13 – Cabin area
area as shown in Figure 3.13. The cabin area includes a swing located near the center of the
developed area. Cabin 1 is somewhat separated from the other units at the end of a roadway.
The Cabin Trail extends along the hillside on the west side of the cabins. This trail is relatively
short, but links to the Creek Loop Trail and on to the campground. Heading to the east, the Cabin
Trail connects to the Falls Trail and then circles back to the north past the park office.

**Day Use and Picnic Area**

To the east of the cabin area and across the entry drive, there is an area dedicated for day use and
picnicking. This area includes two group picnic pavilions and at least 80 tables distributed along
the roadway and parking lot. A major recreational attraction in this area is the swimming pool.

The picnic and day use area adjoins Sand Creek, accessible by trails leading from the CCC-era
picnic pavilion (shown in Figure 3.14). Additional CCC-era structures are located within the
picnic and day use area. Those shown in Figure 3.15 were restroom facilities.
More modern facilities have been constructed to support visitation at the day use and picnic area in Osage Hills State Park. A restroom and playgroup are located near the parking lot (Figure 3.16). The restroom is not fully compliant with ADA guidelines; however, the playgroup complies with ADA and CPSC guidelines.

As indicated, the premier attraction in this location is the swimming pool. Entry to the swimming pool is provided through a “change house” at the south end of the pool. Chemicals and equipment are housed in an adjacent building at the north end of the pool. The pool is designed for recreational swimming with a maximum depth of eight feet.

Continuing to the south of the day use and picnic area, park visitors can walk the Falls Trail to Sand Creek. This trail is flat and easy walking until the trail enters the actual creek bed. At that point the “trail” becomes a series of rocks in the creek. Falls Trail can be accessed from the
Group Camp, just west of the day use and picnic area. In that location the trail is very similar to the grade and condition from the day use/picnic area.

The Sand Creek Falls area served as a quarry during the CCC-era. As a result, there are large slabs of sandstone remaining in the creek bed and steep cliffs upstream from the falls area. As indicated in prior discussion, there is limited information available regarding the quality of the water in Sand Creek. However, the watershed is largely agricultural and the creek maintains fairly consistent flow. As a result, the water quality is likely to be acceptable for full body contact recreation.

**Group Camp**

The Osage Hills State Park group camp is immediately to the west of the day use and picnic area. The main entry road extending the length of the park from north to south terminates at the group camp. Upon entry to the group camp area, a visitor enters a large parking lot outlined by large sandstone blocks.
The parking lot is designed with traffic flow surrounding a central core of recreation space. This central recreation space includes a tennis court with lights, a basketball goal, and a volleyball court. In addition, the swimming pool is within a hundred yards of the group camp.

![Figure 3.20 – Recreation space at group camp](image)

The Osage Hills Group Camp accommodations include ten bunkhouses surrounding a large community building. The bunkhouses are designed for 12 occupants, allowing for 120 people as the capacity of the group camp. The community building also includes one small “apartment” for a cook.

**Table 3.2 – Amenities at Osage Hills State Park Group Camp**

<table>
<thead>
<tr>
<th>Amenity</th>
<th>Group Camp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>120</td>
</tr>
<tr>
<td>Bunkhouses</td>
<td>10, window unit heat/air conditioning</td>
</tr>
<tr>
<td>RV hookup</td>
<td>1</td>
</tr>
<tr>
<td>Community Center</td>
<td>Fireplace, evaporative cooling, bathhouse with showers</td>
</tr>
<tr>
<td>Kitchen</td>
<td>Large stove, two ovens, walk-in cooler</td>
</tr>
<tr>
<td>Recreation space</td>
<td>Tennis, volleyball, basketball</td>
</tr>
<tr>
<td>Accessible space</td>
<td>Several cabins, community center</td>
</tr>
</tbody>
</table>
A hard surface walkway leads to several of the bunkhouses, three of which have been modified to make them accessible. Other cabins are elevated and require stairways for access. All the cabins have window units for heat and air conditioning.

Figure 3.21 – Group Camp features
Top left: cabins with accessible walkway
Top right: cabins without ADA access
Bottom left: community building with picnic area
Bottom right: RV site in group camp area
To the south of the community building, an outdoor picnic area overlooks Sand Creek. This area is well above the elevation of the creek bordered by steep, rocky cliffs. The cliff area is cabled for safety with signs warning of the steep cliff. The view from the bluffs is quite dramatic as shown in Figure 3.22. Based on the evidence of paths and walkways beyond the cabled barriers, it is quite common for visitors to explore the edge of the bluff.

At the time of the preparation of the RMP, plans were underway for renovation and modification of the group camp. These plans included removal of one of the cabins to be replaced with a new restroom and shower facility. This modification would reduce the capacity of the camp, but increase accessibility for guests.

**Hiking/Walking/Riding Trails**

The trails in Osage Hills State Park were presented based upon geographic location. In summary, there are several trails of dispersed throughout the park serving a variety of trail uses.

Lake Trail, also marked on older maps and signs as Osage Hills Trail, is approximately three miles in length serving hiking and mountain biking visitors. This trail originates at the Pump House and circles northwest past Lake Lookout, then continues through the former CCC camp location, before terminating at the Lookout Tower in the campground.
Overlook Trail continues the loop of the Lake Trail from the Lookout Tower back to the Pump House. Overlook Trail is identified for use by hikers, mountain bikers, and equestrian visitors. This trail is approximately 1.75 miles in length and rated as easy to moderate.

Creek Loop Trail, marked on some older maps and signs as Bugle Trail, is about five miles long and intended for hiking and mountain biking. Creek Loop Trail extends southwesterly from the campground and can also be accessed from the cabin area.

The Falls Area Trail on Sand Creek is relatively short at a distance of about a quarter mile. The Falls Trail links the picnic area and the group camp to Sand Creek.

Numerous other trails serve as linkages between these longer trails and specific development within Osage Hills State Park. For example, the Cabin Trail serves guests in the cabin area and provides linkages to the Creek Loop Trail and the Falls Trail.

There is increasing interest in rock climbing at Osage Hills State Park, especially in the bluffs to the south and west of the campground, cabins, and group camp. Many of these climbers utilize the Creek Loop Trail for primary access to their preferred climbing locations. However, climbing routes function in much the same way as do trails with specific layouts on the face of rocks.

Public Access and Entry Aesthetics

Public access to Osage Hills State Park was discussed earlier. All vehicular access is from federal Highway 60 on the northern border of the park. Highway 60 is two-lane for most of the distance from Bartlesville on the east to Pawhuska on the west. A portion of Highway 60 was under construction near the intersection of Highway 60 and state Highway 99 west of Osage Hills State Park.

The area near the entrance to Osage Hills State Park is agricultural, fitting for the prairie environment. Open prairie and mixed hardwood stands border Highway 60 for most of the distance between Bartlesville and Pawhuska. One commercial development is located about two miles west of the park entrance; however, this location provides limited and sporadic service to the public – occasionally as a convenience store; occasionally as automotive service; occasionally as some other business venture.

Signs for Osage Hills State Park are in place west of Bartlesville and at the intersection of Highway 60 and Highway 99 near Pawhuska. Most visitors to Osage Hills State Park are likely to have some knowledge of the park’s location prior to a visit. Incidental visitation for travelers along Highway 60 is somewhat unlikely.

Park Visitation

Attendance records have been kept since the opening days of the park. It should be noted that counting park visitors is an inaccurate process. Technically, every person entering the park is a park visitor – but not all of those visitors are recreational visitors. At Osage Hills State Park a certain percentage of the visitors recorded in the park would include park staff, vendors, and members of the general public entering the park to utilize the restroom or for other purposes. Other aspects of park visitation can be calculated more accurately. This would include those situations in which there is an exchange of a fee for a specific service. As a result, the following discussion reports total visitation to Osage Hills State Park and specific usage of particular areas within the park.
For clarity in understanding of visitation patterns, total park visitation is presented in the following discussion. This would include campers and day visitors, as well as cabin guests.

**Recreational Use of Park Facilities**

Visitation for Osage Hills State Park has increased significantly from the first reported levels of use during the 1930s. Presently, an estimated 125,000 people or more visit Osage Hills State Park annually. The number includes day visitors and overnight visitors. The day visitors include pass-through sightseers, anglers, equestrian visitors, picnickers, trail hikers, and many other recreational visitors. Overnight visitors include campers, cabin guests, and group campers who spend one or more nights within Osage Hills State Park.

Determining the number of campers, cabin guests, group camp guests, and lodge guests is more accurate than is the calculation of total visitors to the park. Total visitors are calculated based on traffic counters and a proxy variable for number of occupants in vehicles passing entry points into the park. Total number of visitors should not be interpreted as “individuals” in that numerous individuals are repeat visitors to the park on a daily, weekly, monthly, or annual basis. In addition, with multiple entries into Osage Hills State Park, it is possible that a single individual may be counted on multiple occasions entering different portions of the park.

*Table 3.3 – Camping and Total Visitation*

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Day visitors</th>
<th>Overnight Guests</th>
<th>Total Visitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>47,883</td>
<td>38,394</td>
<td>86,277</td>
</tr>
<tr>
<td>2008</td>
<td>78,846</td>
<td>52,725</td>
<td>131,571</td>
</tr>
<tr>
<td>2009</td>
<td>66,178</td>
<td>43,958</td>
<td>110,136</td>
</tr>
<tr>
<td>2010</td>
<td>75,385</td>
<td>50,006</td>
<td>125,391</td>
</tr>
</tbody>
</table>

Based on the figures in Table 3.3, it is apparent that visitation during the recent four-year period peaked in 2008 for both day visitors and overnight guests. In all likelihood, the decline in visitation is a reflection of economic conditions during the past few years and the price of gasoline. This pattern has also been seen in several other parks across Oklahoma.

It is difficult to identify exactly how many campers or cabin guests are individually associated with a registration. In the campgrounds, records are maintained of the number of campsites rented. As demonstrated in the photographs presented it is fairly common for one campsite rental to include a recreational vehicle and one or more tents. In addition, it is common for multiple motorized vehicles to be associated with a single campsite rental. Logically, group size associated with a single campsite rental can vary greatly.

Table 3.4 on the following page presents the campsite rentals for the past four years. These sites are defined as improved or unimproved, for which the category of improved sites include modern and semi-modern site design. The number of campsites available varies slightly as new sites are developed, old sites are taken “off-line,” and new campground design changes the
configuration of a campground. The number of campsites available is an estimate, calculated based on number of sites of a given category multiplied by 365 and reduced by 5% for days on which individual sites may have been unavailable due to maintenance or construction.

**Table 3.4 – Camping at Osage Hills State Park**

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Type of campsite</th>
<th>Campsites rented</th>
<th>Campsites available*</th>
<th>Occupancy rate on campsites</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Unimproved campsites</td>
<td>599</td>
<td>8,669</td>
<td>6.9%</td>
</tr>
<tr>
<td></td>
<td>Improved campsites</td>
<td>1,577</td>
<td>6,935</td>
<td>22.7%</td>
</tr>
<tr>
<td>2008</td>
<td>Unimproved campsites</td>
<td>678</td>
<td>8,669</td>
<td>7.8%</td>
</tr>
<tr>
<td></td>
<td>Improved campsites</td>
<td>1,827</td>
<td>6,935</td>
<td>26.3%</td>
</tr>
<tr>
<td>2009</td>
<td>Unimproved campsites</td>
<td>789</td>
<td>8,669</td>
<td>9.1%</td>
</tr>
<tr>
<td></td>
<td>Improved campsites</td>
<td>1,695</td>
<td>6,935</td>
<td>24.4%</td>
</tr>
<tr>
<td>2010</td>
<td>Unimproved campsites</td>
<td>375</td>
<td>8,669</td>
<td>4.3%</td>
</tr>
<tr>
<td></td>
<td>Improved campsites</td>
<td>1,683</td>
<td>6,935</td>
<td>24.3%</td>
</tr>
</tbody>
</table>

*Based on number of total sites, either improved or unimproved, less 5% for maintenance

The occupancy rate on unimproved campsites is hindered by extremes of weather since these sites do not have electricity. In addition, a portion of the campground is closed during the winter.

In the same manner as campsite rentals, cabin rentals require a registration of occupancy and use. As a result, the number of rentals and guests is an actual count. In the same manner, the availability of a cabin for occupancy is a firm count. Table 3.5 on the following page presents the number of cabin guests, whether in-state or out-of-state, and the occupancy rates for the cabins at Osage Hills State Park. Typically eight cabins would be available for rental at any time.
Table 3.5 – Cabin Guests at Osage Hills State Park

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Total cabin guests</th>
<th>In-state cabin guests</th>
<th>Out-of-state cabin guests</th>
<th>Percent occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>4,279</td>
<td>2,945</td>
<td>1,337</td>
<td>62%</td>
</tr>
<tr>
<td>2010</td>
<td>5,259</td>
<td>3,499</td>
<td>1,727</td>
<td>63%</td>
</tr>
</tbody>
</table>

Public Perception of Osage Hills State Park

At the time of preparation of this resource management plan, the authors reviewed numerous websites and marketing sources related to Osage Hills State Park, which were provided by private sources. Further, private citizens and visitors to Osage Hills State Park maintain personal “blogs” and social networking sites that address their experiences and visits to the park. These blogs often were associated with activities such as hiking the various trails, visiting the CCC artifacts, staying at the group camp, or staying in one of the cabins, but addressed Osage Hills State Park in some manner.

Youth who had participated in various group camp experiences were particularly satisfied with their experiences at Osage Hills. Most of these comments were associated with group activities and programs, but included references to the quiet, peaceful setting and the camp environs.

Several bloggers commented on the “treasure trove” of depression-era history that is present at Osage Hills State Park. Among these bloggers were visitors from Texas and Kansas, some of whom had ancestors who were among the CCC enrollees at Camp SP-24-0.

A growing online communication group associated with Osage Hills State Park is among rock climbers who have discovered the bluffs. This discussion focused on new routes, remote climbs, and relative freedom for the participants.

User Evaluations of Osage Hills State Park

The most formal and scientific evaluations for Osage Hills State Park were generated during the 2003 park visitor survey (Caneday & Jordan, 2003). These evaluations were the result of on-site interviews with park visitors contacted at various locations throughout the park. The analysis of the data from these interviews was reported by category of type of visitor: day visitor, cabin visitor, or camper. Although dated, this visitor survey is the most recent thorough analysis of attitudes and opinions represented by visitors to Oklahoma state parks. Since contacts were made at public locations throughout the park, the determining factor for classification of the visitors was their respective place of lodging during the visit on which they were contacted.

Day visitors to Osage Hills State Park were familiar with the park, averaging three or more visits per year. Almost 90% of all day visitors interviewed were repeat visitors to the park. The most frequent recreational activities reported by these day visitors were observing wildlife, hiking, walking, and swimming. Day visitors tended to be satisfied with their experiences at the park, showing the least satisfaction with public toilets in the park. The park was the primary destination for most of the day visitors, who were motivated to visit the park to be with friends or family.
Day visitors tended to be in groups, ranging up to six individuals, but the most common grouping of day visitors was three members. The day visitors contacted during the survey tended to be white, non-Hispanic with a high school education or above. They ranged in age from 18 to 68 years of age, with a mode of 24 years of age; they included similar numbers of males and females. Since these individuals were day visitors, they had traveled a limited distance to get to Osage Hills State Park, reporting a mode of 15 miles in travel. It is likely that a substantial number of these day visitors were from Bartlesville or Pawhuska.

Campers at Osage Hills State Park were also quite familiar with the park in that they were repeat visitors. Approximately 80% of responding campers were repeat visitors; they had visited the park an average of two times in a year. These campers participated in a wide range of recreation activities, but most frequently they walked or hiked, drove for pleasure (sightseeing), observed wildlife, swam in the pool, or just relaxed in the park. Campers expressed great satisfaction with the facilities provided in the park.

Osage Hills State Park was the primary destination for all the campers contacted in the survey. They chose to visit the park to relax or rest and to be with friends or family, with the single highest factor in motivation being “enjoy nature.” The vast majority of the campers were white and non-Hispanic. In addition, the campers were similar to other visitors in that they presented a high school education as the highest level achieved.

Campers reported having traveled an average of 80 miles on their visit to Osage Hills State Park. This would indicate that the majority of campers at the park were from north central Oklahoma or southern Kansas.

A third group of visitors to Osage Hills State Park included in the survey were cabin guests. The cabin guests contacted during the on-site interviews were 75% repeat visitors to the park, but typically made only one visit to the park each year. The principal recreation activities for cabin guests were hiking or walking, and observing wildlife. As a result, it can be concluded that cabin guests at the park are similar to campers in this park. Cabin guests were satisfied with the facilities and amenities provided at Osage Hills State Park.

All of the cabin guests in the survey reported that Osage Hills was their destination location. They were slightly older than campers, with a mode of 43 as the most common age. Cabin guests were white, non-Hispanic and with high school educations. Cabin guests traveled an average of 50 miles to get to Osage Hills State Park, indicating they were slightly more local than were campers at the park.

**Park Management**

Over the years of operation, the management structure for Osage Hills State Park has changed at the direction of leadership within OTRD from Oklahoma City. However, Osage Hills State Park has been quite stable in organization and operation throughout the years.

Osage Hills State Park is currently included in the Northeast Regional Office of Oklahoma State Parks. This intermediate management structure allows park management to work with regional oversight as an intermediary or in direct contact with the Oklahoma City office. As with all state parks in Oklahoma, personnel, purchasing, contracting, and all other aspects of operation are governed by Oklahoma state statutes, policies, and procedures.
Staffing

Staffing for Osage Hills State Park has been fairly stable over the past four years, with minor adjustments between numbers of permanent staff and seasonal staff during that time. The biggest change in staffing occurred during 2011-2012 with the appointment of the former manager of Osage Hills State Park to be the Chief Ranger for the Oklahoma State Park system. One of the park’s rangers was serving as manager at the completion of the RMP. Table 3.6 documents the staffing pattern for Osage Hills State Park in recent years.

Table 3.6 – Staffing at Osage Hills State Park

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Permanent salaried staff</th>
<th>Seasonal staff Park</th>
<th>Total park staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>6</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>2008</td>
<td>7</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>2009</td>
<td>7</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>2010</td>
<td>7</td>
<td>7</td>
<td>14</td>
</tr>
</tbody>
</table>

Most state parks in Oklahoma experienced similar staffing adjustments in response to budgetary appropriations. Osage Hills State Park has sustained a dedicated, loyal staff over the years.

Revenue and Expenses

Data related to revenue and expense at Osage Hills State Park was provided by local staff and augmented with material from the central OTRD office. Table 3.7 reports this revenue and expense data for the past four years.

Table 3.7 – Expense and Revenue at Osage Hills State Park

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Osage Hills State Park</th>
<th>Osage Hills State Park</th>
<th>Difference Revenue - expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 Total</td>
<td>Personnel Expense</td>
<td>$422,525</td>
<td>$186,412.46</td>
</tr>
<tr>
<td></td>
<td>Operating Expense</td>
<td>$589,495</td>
<td></td>
</tr>
<tr>
<td>2009 Total</td>
<td>Personnel Expense</td>
<td>$396,310</td>
<td>$211,241.53</td>
</tr>
<tr>
<td></td>
<td>Operating Expense</td>
<td>$618,318</td>
<td></td>
</tr>
<tr>
<td>2010 Total</td>
<td>Personnel Expense</td>
<td>$408,191</td>
<td>$225,364.39</td>
</tr>
<tr>
<td></td>
<td>Operating Expense</td>
<td>$580,796</td>
<td></td>
</tr>
</tbody>
</table>

The principal revenue sources for Osage Hills State Park are cabin rentals, campsite rentals, and group camp rentals. Most other services within the park are supported through state appropriations and allocation of state budgeted funds. As a result, the difference between
revenue and expense for operation of Osage Hills State Park has been in the range of $800,000 annually. Such expense is reflected in operation of the swimming pool, general maintenance and operations of buildings, mowing and other grounds maintenance, and related park operations.

**Hazards Analysis – Natural and Operational**

Any recreational activity includes the exposure to hazards, and the probability of specific risks may increase in many outdoor settings. In most current discussions related to hazard and risk, hazards are defined as conditions or events. Risk is the likelihood of injury resulting from a given hazard and is typically defined as a probability of adverse effects from those conditions or events. Everything people do exposes them to hazards. It is how people conduct themselves that determines the risk. An agency or site risk management plan addresses potential loss from anticipated hazards.

**Natural Hazards**

As with all natural areas, Osage Hills State Park includes a number of hazards. Some of those hazards are natural and related to such things as topography, flora, and fauna. Some of the hazards are structural or related to design; other hazards are operational in nature.

Natural hazards in Osage Hills State Park include the steep terrain, flora and fauna, as well as a number of other natural conditions or events. In addition, the development of facilities encourages visitors to interact with the natural environment, encouraging people to participate in recreation in an outdoor setting. For example, trails invite visitors to engage the varied terrain and, while signage exists, distressed and lost hikers are not uncommon. Quite commonly, the visitor is not informed of the various hazards and is not prepared for the risks involved in their interactions. Due to the topography of Osage Hills State Park, it is possible for an individual to become “lost” on property, but that is an unlikely occurrence. Boating, swimming, and other aquatic activity present greater risks for most visitors.

Among the natural hazards present in the park are those associated with weather events. The National Climatic Data Center reports a variety of such hazards by county over several years. These hazards include hail, floods, thunderstorms with accompanying wind and lightning, tornadoes, heavy snow, ice, excessive heat, and drought. Staff members are prepared to notify park visitors in the event of severe weather, but appropriate shelter is limited. At the present time, neither signage nor printed visitor materials provide severe weather information to park visitors.

Other natural hazards are related to life forms in the natural environment. Any time people are hiking and recreating in an outdoor environment, a chance exists that they will inadvertently encounter such wildlife; this is the case in Osage Hills State Park. The park and forest encompass an environment suitable for venomous snakes including the copperhead, rattlesnake, and water moccasin. Park staff reported occasional sightings of venomous snakes, but there are no recent records of any adverse encounters between people and snakes within the park.

A number of mammals common to the park are subject to rabies. They include raccoons, opossums, skunks, badgers, and bats. Additional animals include armadillos and the possibility of bears, bobcats, and mountain lions – although these are less likely.
The forest and grassland environment in and around Osage Hills State Park is home to mosquitoes, ticks, and spiders—all of which may be hazards or present hazards to recreational visitors. The Brown Recluse spider and the Black Widow are native to Osage County. Both spiders have produced adverse effects for humans in recreational settings (and other environments). Both types of spiders were observed in cabins in the group camp and in other structures in other locations in the park. In addition, ticks are known carriers of a number of serious diseases in humans.

The 2002 Statewide Comprehensive Outdoor Recreation Plan (Caneday, 2002) stated:

An “environmental problem” of increasing occurrence in Oklahoma in recent years is related to ticks and tick-transmitted diseases. Although there are a number of tick-transmitted diseases, the most frequent occurrence is shown by Rocky Mountain spotted fever, Lyme disease, and Tularemia. A number of factors are related to this increased occurrence of disease including demographics, living preferences, and recreational behavior. Oklahoma has experienced significant increases in tick-transmitted diseases over the past decade. While most of these diseases can be treated, the diseases can also be life threatening. Participants in outdoor recreation are among those who encounter the ticks and who contract the tick-transmitted diseases. A concerted, unified effort is necessary to educate the recreational visitor regarding the results of recreational behaviors.

At the time of the writing of the 2002 SCORP, the author contacted the Centers for Disease Control (CDC) in Atlanta regarding rumors (at that time) of a mosquito borne virus – West Nile virus. The CDC assured Caneday that Oklahoma would not experience West Nile virus within the five-year period covered by the 2002 SCORP (2002-2007). However, by summer 2003, Oklahoma was experiencing cases of West Nile virus among horses and humans. Often these resulted from outdoor recreation activity, and that pattern is continuing. While current Coggins papers are required on horses at the field trial area, the possibility of environmental hosts for West Nile virus within the park is a reality.

Some plants are also hazardous to some individuals and the risk varies by degree of exposure and response to that exposure. Poison ivy is among those potentially hazardous plants at Osage Hills State Park.

Another potential natural hazard in a recreation environment is waterborne disease. As stated in the 2002 Statewide Outdoor Recreation Plan (SCORP) for Oklahoma (Caneday, 2002):

Since 1971, Federal agencies (CDC and EPA) have maintained a collaborative surveillance system for collecting and reporting data related to occurrences and causes of waterborne-disease outbreaks (WBDOs). As an environmental hazard, waterborne diseases have always been present in the United States; however, outbreaks linked to drinking water have steadily declined since 1989. By contrast, the number of outbreaks linked to recreation activity has increased (Center for Disease Control). It is not clear whether this is due to increased outdoor recreation activity, larger numbers of people involved in outdoor recreation, or greater hazard present in the water environment. CDC reports for 1995 – 1996 have shown that the exposure to the disease occurred in lakes in 59% of waterborne-disease outbreaks of gastroenteritis associated with recreational water. Equal
percentages (27%) of Cryptosporidium parvum and Escherichia coli as the etiologic agent were reported during that period.

Osage Hills State Park receives its potable water from approved public water supplies, Strike Axe Rural Water Corporation. As with all water supplies, there is the potential to be a host for waterborne disease through the drinking water provided on-site. Such a risk is no greater for a park visitor than would be true in a private residence. By contrast, surface waters in Lake Lookout or in Sand Creek, in streams, and in ponds have a greater chance of being a source of a waterborne-disease.

**Operational Hazards**

Operational hazards include those vulnerabilities to park staff, the park system, or the state of Oklahoma that exist as a result of management or operation of the resource and application of policy. Management and operational decisions are made on a daily basis and are affected by budgets, prioritization within the state park system, staffing patterns, local and state politics, and other external influences.

At present, emergency fire service and other emergency services are provided by the Osage Hills Rural Fire and other local volunteer fire departments. Emergency response time is estimated to be twenty minutes. A memorandum of understanding is in place between Osage Hills State Park and the volunteer fire department. Additional assistance is provided by the Oklahoma Division of Forestry, especially in those cases of wildfire in the forest or grasslands. Emergency medical service is available in Bartlesville.

As part of the data collection for the development of this RMP, the researchers conducted several on-site visits to Osage Hills State Park. Common issues that could be dangerous for visitors include play structures which utilize a variety of surfacing materials. A thorough examination of the play structures and the applicable surface materials for compliance with Consumer Product Safety Commission guidelines for public playgrounds is warranted at this time. Sections of some of the trails throughout Osage Hills State Park show erosion and tripping hazards.

Further, weather-related events (e.g., ice storms, strong winds) in Oklahoma often result in tree and limb damage throughout the park. The locations in which downed trees and limbs have immediate impact on visitors include the camping areas, trails, and day use areas. Currently, Osage Hills State Park does not have a formal limb management or tree replacement program; this is common throughout the state park system. Park staff members attend to downed trees and limbs as they discover them and/or are notified of the hazard.

**Law Enforcement**

The CLEET certified rangers and reserve-CLEET certified rangers are responsible for primary activity related to law enforcement within the boundaries of the park. At present under the staffing and management provided through Osage Hills State Park, there are two CLEET certified rangers available for Osage Hills State Park, although there were three as shown in Table 3.8. With the promotion of the former manager to Chief Ranger, one position is presently vacant. It is common for law enforcement units to have mutual aid agreements with other law enforcement agencies. As a result, enforcement of applicable laws at Osage Hills State Park relies on the support and cooperation of the Osage County sheriff in the appropriate jurisdiction.
### Table 3.8 – Ranger Staff at Osage Hills State Park

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>CLEET Certified</th>
<th>Reserve CLEET</th>
<th>Total ranger staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>2008</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>2009</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>2010</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Citation records were available specifically for Osage Hills State Park and are shown in Table 3.9. The incidents and citations range from drug and alcohol related situations, to vehicular accidents and traffic incidents, to domestic difficulties, and conflict between park visitors. It can be assumed that patterns of behavior among visitors are similar to those in other parks. In spite of these experiences, Osage Hills State Park is a safe, secure environment for the recreational visitor.

### Table 3.9 – Citation and Incident Reports at Osage Hills State Park

<table>
<thead>
<tr>
<th>Calendar year</th>
<th>Incident Reports</th>
<th>Citations Issued</th>
<th>Arrests</th>
<th>Combined Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>16</td>
<td>15</td>
<td>11</td>
<td>42</td>
</tr>
<tr>
<td>2008</td>
<td>25</td>
<td>18</td>
<td>12</td>
<td>55</td>
</tr>
<tr>
<td>2009</td>
<td>34</td>
<td>12</td>
<td>17</td>
<td>63</td>
</tr>
<tr>
<td>2010</td>
<td>43</td>
<td>8</td>
<td>9</td>
<td>60</td>
</tr>
</tbody>
</table>

### Policy-Related Exposures

Some aspects of management of hazard risk are incorporated into law enforcement. Park rangers are the law enforcement personnel for the Oklahoma Tourism and Recreation Department, although they frequently have cooperative (mutual aid) agreements with county sheriffs and the Oklahoma Highway Patrol. Law enforcement authority for Oklahoma State Park Rangers is authorized by state statute as follows (Title 74 § 2216, 2005):

Park rangers, when commissioned, shall have all the powers of peace officers except the serving or execution of civil process, and shall have in all parts of the state the same powers with respect to criminal matters and enforcement of the laws relating thereto as sheriffs, highway patrolmen [sic] and police officers in their respective jurisdictions and shall possess all immunities and matters of defense now available or hereafter made available to sheriffs, highway patrolmen,
and police officers in any suit brought against them in consequence of acts done in the course of their employment, provided, however, they shall comply with the provisions of Section 3311 of Title 70 of the Oklahoma Statutes.

In parks with CLEET certified or reserve certified personnel, written logs are maintained by park staff to document incidents. In addition to the regular log, staff members complete incident reports when notified of property damage or personal injury to visitors or staff. While the incident reporting form requires information regarding personal injury or property damage, the process does not appear to require follow-up with the reporting party.

In terms of wildlife, while a formal management plan does not exist, staff operates under an agreed-upon plan approved by the Oklahoma Division of Wildlife Conservation (ODWC). As an important natural resource in the park, the vulnerable and endangered species in the area lack a management plan other than classification by ODWC.

Perhaps one of the most essential operational hazards related to the public is the concern that cell phones and radios have limited to sporadic service in rural areas, and possibly within the park. During the preparation of the RMP, research staff members were able to acquire and maintain cell phone signals throughout Osage Hills State Park. Thus, in case of injury, illness, fire, or other emergency, park visitors with personal cell phones should be able to contact necessary emergency services. Those without personal cell phones or with inadequate signals must use a landline based telephone to call emergency personnel.

**Waste Management**

The relatively large and distributed area of development at Osage Hills State Park requires multiple programs in waste management. There are two primary concerns related to waste management within the park: solid waste and liquid waste.

Solid waste is transported off-site under a multi-year contract with Waste Connections of Oklahoma. Dumpsters have been located at strategic points within the park. Visitors are expected to dispose of waste properly in these dumpsters.

Liquid waste is managed on-site through two septic systems for the group camp and pool, as well as three lagoons for other developed areas in Osage Hills State Park. While the septic systems tend to be concentrated on a single structure, the lagoons serve multiple buildings. These lagoons also require lift stations to transport liquid wastes to the respective lagoons.

Park management did not express any concerns or problems with waste management at Osage Hills State Park. As with any area that is utilized by the public, some trash and litter is present within the park. This solid waste presents a visual detraction, but presents limited problems other than clean-up of the area.
Figure 3.23 – Views within Osage Hills State Park
Top: CCC bridgework along entry road
Middle: CCC amphitheater
Bottom: memorial bench near playgroup at campground
Chapter 4 – Alternatives and Preferred Plans

Overview and Summary

In this Resource Management Plan, background is provided related to Osage Hills State Park. When analyzed, this information raises several issues for consideration. These issues are presented in the following discussion with alternatives for management to consider. In each case, based on the available information a preferred alternative is identified.

Issues and Alternatives

Issue Statement 1: Qualification and branding as a state park

One of the central issues for consideration related to each of the properties being reviewed during the Resource Management Plan project is qualification and branding as a state park. That question may not be as apparent for Osage Hills State Park as for other properties, but several aspects of management as a complex, developed park require resolution of this issue for this property.

What is a state park? Jordan and Caneday addressed this question in an earlier report for OTRD as a part of the state park visitor study in 2003 (Caneday and Jordan). As stated in that report –

The research team believes that the term “state park” should mean something specific. The term, “state park,” should identify a property distinctively through management practices, quality of experience and appearance to the public. The research team believes that visitors to Oklahoma “state parks” should know immediately that they are in a State Park because of the distinctive “branding” apparent to the visitor and deliberately intended by management. The research team believes that the Oklahoma Tourism and Recreation Department must jealously guard the use of the term “state park” in much the same manner as companies protect symbols of intellectual property.

An example of resource qualifications for specific classifications can best be demonstrated through the National Park Service. For a property to be classified as a National Park there must be (1) evidence of national significance for a natural, cultural, or recreational resource, (2) management of the property must be feasible, and (3) the property must be suitable within the mission, purpose, and system of the National Park Service.

By contrast, other classifications of National Park Service properties include National Monuments, National Recreation Areas, and National Preserves. National monuments must be significant natural, cultural, or recreational resources, but may be managed by entities other than the National Park Service. National preserves are limited to significant environmental resources and may vary in ownership and management of the resource. National recreation areas, including Chickasaw National Recreation Area in south-central Oklahoma, are managed for more intensive recreation in outdoor settings.
OTRD policy related to acquisition of property uses some of this language, thereby establishing a general pattern of resource qualification. These criteria include (1) state-wide significance for natural beauty, uniqueness, or other recreational and resource preservation purposes, and (2) sites which will improve the overall availability of public recreation facilities to the recreating public while possessing resource significance (Oklahoma Tourism and Recreation Commission, 1988).

In addition, branding and classification of properties within the Department has varied over the years. Minutes of the Oklahoma Planning and Resource Board (a precursor to the Oklahoma Tourism and Recreation Commission) from September 18, 1953 record the passing of a motion defining state parks, state recreation areas, state memorials, and state monuments. That variation in descriptive classification was changed by legislation during the 1980s.

Applying the national concepts to state parks in Oklahoma and utilizing the earlier definitions in Oklahoma, it could be concluded that a state park must (1) have a significant statewide natural, cultural, or recreation resource, (2) be feasible to manage by the agency, and (3) be suitable within the mission, purpose, and statewide system of state parks. If this set of qualifications is applied to Osage Hills State Park, it could be concluded that:

1. Osage Hills State Park offers historical, cultural, and environmental resources of statewide significance. Osage Hills State Park was developed under a historic agreement between the federal government and state government, with strong local support aiding in acquisition of the original property. Osage Hills State Park is large enough to include significant statewide natural resources at the junction between Cross Timbers and Tallgrass Prairie ecosystems. Osage Hills State Park encompasses historic and cultural resources including features worthy of nomination and designation as a National Historic Site.

2. Osage Hills State Park is feasible to manage within the agency and fits within the mission of Oklahoma State Parks. In many ways, Osage Hills State Park has not been spoiled by over-management and certainly not by over-development. Osage Hills State Park is truly a valuable property as a classic state park.

3. Osage Hills State Park property fits within the mission of OTRD and the park’s state purpose as a pre-eminent property with natural, cultural, historic, and recreational resources deserving of protection and management for the present and future generations.

As a result, the research team recognizes the value of Osage Hills State Park as a state park.

Alternatives

A. Seek to sell the property at Osage Hills State Park;
B. Seek to transfer Osage Hills State Park to some other management agency;
C. Retain Osage Hills State Park as an integral property in the Oklahoma State Park system.

Preferred alternative:

Alternative C: No change – continue management as it is. Retain Osage Hills State Park as an integral property in the Oklahoma State Park system.
Issue Statement 2: Maintenance of Lookout Lake impoundment

Lookout Lake is an 18-acre reservoir impounded by an earthen dam. At present there are a number of woody plants growing on both sides of the embankment of that impoundment. The Federal Emergency Management Administration (FEMA, 2005) asserts “trees and woody vegetation growth have no place on the embankment of an earthen dam.”

The risk associated with plants on the embankment varies by zones. FEMA identifies five zones for inspection and evaluation on earthen dams. FEMA also addresses proper procedures for management of those situations in which woody plants are present and should be removed.

Failure of the Lookout Lake impoundment is unacceptable, but must be recognized as a possibility. Therefore, appropriate inspection and remedial measures are essential.

Alternatives

A. Employ qualified inspectors to evaluate the condition of the impoundment and make recommendations regarding existing woody plants;
B. No change – continue management as it is.

Preferred alternative:

Alternative A: Employ qualified inspectors to evaluate the condition of the impoundment and make recommendations regarding existing woody plants.

Figure 4.1 – Mid-life crisis of a dam
Source: FEMA, 2005.
Issue Statement 3: Potential impoundment of Sand Creek

Impounding of Sand Creek to form a new lake would have devastating effects on Osage Hills State Park. Depending upon the location and elevation of such impoundment, much of Osage Hills State Park could be inundated with the formation of a new lake. Is such impounding of Sand Creek in the future? Not at this time. However, as discussed in the RMP, maps from the second half of the 20th century indicated a proposed Sand Lake.

Dams have impounded creeks and rivers across Oklahoma and beyond the state’s borders and these impoundments have become significant recreation resources. However, formation of a lake on Sand Creek would significantly affect Osage Hills State Park. The park could be inundated or could become a water oriented property.

The cultural and historic values associated with Osage Hills State Park would be lost if the park were within the lakebed of a new lake. Planning for such an occurrence would require time and wisdom in determining appropriate actions.

Alternatives

A. Begin planning for the impounding of Sand Creek;
B. No change – continue management as it is, but remain vigilant for future developments.

Preferred alternative:

Alternative B: No change – continue management as it is, but remain vigilant for future developments.

Issue Statement 4: Restoration, preservation, and interpretation of historic structures

Osage Hills State Park has a wonderful story to tell, but only part of that story is presently being told. Much of the story is focused on the Depression Era structures and events that shaped the park and much of Oklahoma. That era is approaching its 100th anniversary and should not be overlooked for its significance in Oklahoma State Parks. Within the park are specific nodes and contributing resources that are in danger of being lost forever. That would be tragic for the people of Oklahoma, the national heritage, and the purpose and significance of Osage Hills State Park. These resources are in desperate need of restoration and preservation. This attention is essential for safety of park visitors, in addition to preservation of the resources. As documented in the RMP, attractive hazards are present in areas frequented by park visitors.

Further, the history and significance of New Deal-era structures and events have been lost on the present generation. Since education is a part of the purpose for Osage Hills State Park – and more broadly for the Oklahoma State Park system – it is crucial that the individual state park and the entire system more aggressively interpret this history and significance. While the individual parks (i.e. Roman Nose State Park, Beavers Bend State Park, Lake Murray State Park, Robbers Cave State Park, Okmulgee State Park, and Quartz Mountain) should interpret their local resources, the state and region would benefit from an organized system-wide interpretive and restorative effort. Osage Hills State Park is a key in the effort.
Alternatives

A. Restore, preserve, and interpret the historic resources within Osage Hills State Park and within the state park system;
B. Remove deteriorated historic structure as part of a risk management plan;
C. No change – continue management as it is.

Preferred alternative:

Alternative A: Restore, preserve, and interpret the historic resources within Osage Hills State Park and within the state park system.

**Issue Statement 5: Interpretive heritage and nature center**

Part of the attraction at Osage Hills State Park is the fact that the park has not been over-developed. Visitors to Osage Hills State Park emphasized their primary motivations for visiting the park, including “watching wildlife,” “relaxing,” and “enjoying nature.” Future development of the park must consider the personality and characteristics that make Osage Hills State Park an important component of the state park system. Nature is one significant aspect of that purpose; the other is the heritage of human activity in that natural setting.

Osage Hills State Park and visitors could benefit from the development of an interpretive heritage and nature center. As indicated in Issue Statement 4, Osage Hills State Park has a story to tell – and simply needs a facility from which that story can be told. An interpretive center combining the heritage of human activity and the natural history of the Osage Hills would significantly enhance the recreation experience at Osage Hills State Park. An interpretive center would require additional staffing, programming, research, and other activities.

A possible location for this interpretive heritage and nature center would be near the existing pump house and riding stables, although other locations should also be considered. An advantage for this location is proximity to an extant CCC structure and ease of access without disturbing other developed areas within the park.

Alternatives

A. Evaluate the feasibility of developing and operating an interpretive heritage and nature center in Osage Hills State Park;
B. No change – continue management as it is.

Preferred alternative:

Alternative A: Evaluate the feasibility of developing and operating an interpretive heritage and nature center in Osage Hills State Park.

**Issue Statement 6: Interpretive services at Osage Hills State Park**

Osage Hills State Park has a story to tell in many locations. That story cannot simply be told from an interpretive heritage and nature center. It should be told at Lookout Lake and along Lake Trail; it should be told at the Lookout Tower; it should be told in the group camp and at the CCC restrooms in the picnic area; it should be told in the park and in public schools. The interpretive
message of Osage Hills State Park should be told on property and off, to any interested audience, and to audiences yet uninformed.

Interpretive services are variously defined depending upon the source or the agency involved. The classic definition of interpretation was given by Freeman Tilden (1977) as “An educational activity that attempts to reveal meaning and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than to simply communicate factual information.”

William E. Brown (1971), in *Islands of Hope*, presented the role of parks in the interpretive process. His definition of interpretation encompassed technology as well as process, as he stated that interpretation is “That body of communications, devices and facilities that conveys environmental knowledge, stimulates discourse on environmental problems and results in environmental reform.” Brown also indicated that interpretation has a distinct purpose, especially in a sensitive natural environment. Brown argued that “Environmental interpretation not only informs, it motivates to action – sometimes it is action. Even at the informing level, it ceases to be innocent nature study or whitewashed history. It questions value systems, folk heroes, and conventional wisdom.”

The National Association for Interpretation (2008) has developed a professional, contemporary definition of interpretation that incorporates the theory from Tilden, the purpose from Brown, and the mission of the agency delivering the service. “Interpretation is a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and the meanings inherent in the resource.”

Osage Hills State Park offers several resources with inherent meaning and interest for the audience, allowing for forging of emotional and intellectual connections. The story includes the people, the place, the organizations, the events, the habitat, the wildlife, and much more.

Properly developed and delivered programming could be presented on a fee-for-service basis. These programs could and should be delivered on-site and off-site. These programs become the educational foundation and outreach for Osage Hills State Park and the state park system more broadly. This would require staff at a time when finances are limited for employing personnel.

Osage Hills State Park could host one or two collegiate interns continually to create and deliver interpretive messages. This would accomplish several goals for Osage Hills State Park: (1) it would bring creative and energetic personnel into the park system; (2) it would achieve an educational goal for the park and the park system; (3) it would provide a link between the park system and the formal college and university education system; and (4) it would provide a message that Oklahoma’s state parks serve an educational role as well as a recreational role.

Alternatives

A. When finances permit, expand the interpretive programming within and beyond the park, especially if an interpretive heritage and nature center is possible;
B. Encourage the development of internship agreements focused on interpretive services;
C. No change – continue management as it is.
Preferred alternatives:

Alternative A and B: When finances permit, expand the interpretive programming within and beyond the park, especially if an interpretive heritage and nature center is possible; encourage the development of internship agreements focused on interpretive services.

**Issue Statement 7: Green practices related to energy and conservation**

Within the past few years Americans have begun to take conservation practices seriously. On behalf of citizens and as a representative of the park and recreation profession – a field with a strong connection to the environment – Oklahoma State Parks has initiated several practices that are intended to conserve energy and other resources. This has been initiated with energy efficient lighting in the lodge and office structures, and needs to be expanded to other management practices.

Among the many possible areas that would benefit from conservation practices are: (1) park policies related to mowing, maintenance, debris removal, and waste disposal; and (2) recycling opportunities for the entire operation and its guests.

At present, state laws do not encourage a state agency to recycle waste or trash products, especially when private citizens generate (and thereby ‘own’) those materials. Inventory management and accounting procedures prevent the sale of, or revenue production from, recycled materials. However, volunteer groups such as a possible “Friends of Osage Hills State Park” are permitted to serve as an agent for the collection and sale of recyclable materials. Another challenge to the establishment of a recycling program is the difficulty in finding a consistent market for the various products that might easily be recycled: glass, aluminum, and paper. These challenges do not lessen the desirability of establishing a recycling program in the state park system.

Osage Hills State Park can have a significant role in modeling and educating other managers and guests regarding best management practices. One state park in Oklahoma – Keystone State Park – has been eco-certified. Osage Hills State Park should be a leader in this effort as well.

Alternatives

A. Seek to change state accounting regulations to permit operation of the recycling program by park staff;
B. Encourage the development of a “Friends of Osage Hills State Park” to create, implement, and evaluate a comprehensive recycling program throughout the park;
C. No change – continue management as it is.

Preferred alternative:

Alternative B: Encourage the development of a “Friends of Osage Hills State Park” to create, implement, and evaluate a comprehensive recycling program throughout the park.
**Issue Statement 8: Growth and popularity of rock climbing**

Rock climbing in Osage Hills State Park is growing in popularity. The rock climbing community in Oklahoma has discovered the topography of the park and their communication network is spreading the word of new routes, challenges, and experiences. Part of what is attractive about Osage Hills State Park for rock climbers is the relative privacy and freedom offered by areas out of public view.

With the increase in rock climbing activity, there will be potential for increased accidents and injuries. Since much of the climbing is intentionally occurring in areas that are not commonly under surveillance, there is the potential for difficult “search and rescue.”

Several options are possible. One option that would be somewhat intrusive is the implementation of a climbing permit, requiring climbers to register prior to a climb. A second option is a voluntary registration system at trail heads utilized by climbers. Either of these options would provide information on numbers and locations of climbers.

Some assessment of the impact of climbing may also be necessary. Rock climbers vary in their preferred activity; some utilize equipment, while others are free-climbers. Discarded equipment can become unsightly. Holds that have been utilized by one climber may be unsafe for another. Trash may accumulate in fairly remote areas. As a result, policies may be needed to permit safety and properly manage the experience.

**Alternatives**

A. Work with the climbing community to provide the best climbing experience possible;
B. Ignore the growth and popularity of rock climbing at Osage Hills State Park;
C. Consider regulating and possibly eliminating rock climbing at Osage Hills State Park;
D. No change – continue management as it is.

**Preferred alternative:**

Alternative A: Work with the climbing community to provide the best climbing experience possible.

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**Issue Statement 9: Pricing for instate and out-of-state guests**

Presently OTRD operates under a policy of pricing a given good or service similarly for all guests. There is no distinction in pricing of goods and services between in-state residents who visit an Oklahoma State Park and out-of-state residents who visit and enjoy the same facilities and events. There is a distinction in that the in-state residents pay a significant tax burden which then subsidizes OTRD and the state parks. As a result, the in-state residents subsidize the recreation experience of out-of-state guests. It is readily acknowledged that the out-of-state guests benefit the local economy with their expenditures. However, if a guest at a local park resides outside the extent of the local economy, the dollars spent by a resident or an out-of-state guest have equal economic impact in direct measures, indirect measures, and induced measures.

Just as at Beavers Bend State Park and Lake Murray State Park on the southern border, Osage Hills State Park enjoys visitation by a significant number of guests from Kansas and other states, as well as those from within Oklahoma. This pattern of visitation is likely to occur at a number
of other state parks near the interstate borders and for parks that offer attractions differing from what is available outside of the state of origin for the guests.

Many states have instituted a pricing differential to benefit in-state residents. For example, Texas requires vehicle permits for all vehicles entering its parks. Texas residents pay a lower price for the vehicle permits than do out-of-state residents – including Oklahomans who visit Texas.

Tourism is a business that includes intriguing interactions between the host community and its guests. OTRD must sustain a positive relationship between its parks, the staff in those parks, the surrounding community, in-state taxpayers, and guests – some of whom come from out of state. Pricing of goods and services is a sensitive variable in that relationship.

Alternatives

A. Review the pricing of lodging and camping provided by Oklahoma State Parks with consideration for state of residence as a factor in establishment of those prices;
B. Consider implementing entry fees at premium locations within Osage Hills State Park for all guests utilizing those locations;
C. No change – continue management as it is.

Preferred alternatives:

Alternative A: Review the pricing of lodging and camping provided by Oklahoma State Parks with consideration for state of residence as a factor in establishment of those prices.

Recommendations beyond the Issues

Recommendation 1: OPDMD on park trails

Rule-making and interpretation of guidelines related to accessibility of trails in outdoor recreation settings took effect March 15, 2011 under the Department of Justice ruling that specified “other power-driven mobility devices” (OPDMD) could be used on trails by individuals with mobility limitations. At present, the expectation is that the operating entity shall “make reasonable modifications in policies, practices, or procedures to permit the use of other power-driven mobility devices by individuals with mobility disabilities, unless the public entity can demonstrate that the class of OPDMD cannot be operated in accordance with legitimate safety requirements that the public entity has adopted based on actual risks” (American Trails, 2011).

Policies related to operation of power-driven mobility devices in Osage Hills State Park will have to be developed and published. Motorized maintenance vehicles have been utilized within the park and are utilized on the trails. It is likely that these policies will have to address such OPDMD as golf carts (both electric and gas), Segways, and other personal motorized mobility devices.

These policies should have uniformity throughout the Oklahoma State Park system unless specific local conditions provide a basis for variation from the standard policy. At Osage Hills State Park, the trails and public access to those trails are highly desirable features of the park. As technology changes and rule-making progresses, the trails at Osage Hills State Park will receive an increased variety of users.
Recommendation 2: Consideration of historic and cultural resources

As indicated in the RMP, Osage Hills State Park includes numerous identified historic and cultural sites. Several of those sites and features were deemed worth of nomination for the National Register of Historic Places. Such a nomination should be pursued within the next few years as the CCC-era properties will be approaching a 100th anniversary. Nomination processes could be encouraged through a college or university professor as a class project, permitting multiple values to students as well as to the state park.

Recommendation 3: Consideration of archeological resources

As indicated in the RMP, Osage Hills State Park includes numerous identified archeological sites, documented in a survey by the Oklahoma Historical Society. For archeological resources, the Oklahoma Archeological Survey is the authorized center for data related to these resources. Due to the distribution, variety, and quantity of these sites, it is essential that the archeological survey be reviewed prior to any planning or development throughout Osage Hills State Park. This recommendation may apply to most of the state parks in Oklahoma, but it has particular application to Osage Hills State Park.
References


Appendix A – Documents related to Property

1. 1935 Izaak Walton League letter
2. 1935 letter regarding authority for local fund raising
3. 1935, November – warranty deed for properties from Erin and Alma Bowhan (320 acres)
4. 1935, November – warranty deed for properties from Sewell and Ruby Bowhan (170 acres)
5. 1935, November – warranty deed for properties from Ida and Mart Bowhan (20 acres)
6. 1935, August – warranty deed for properties from Lillian and Luther Carpenter (160 acres)
7. 1935, August – warranty deed for properties from J.R. and Vania Panell (160 acres)
8. 1936, November – transfer of school lands from the Commissioners of the Land Office (160 acres)
9. 1940, January – warranty deed for properties from Arthur and Kate Woodward (20 acres)
10. 1953, November – warranty deed for properties from Bryce and Froy Wilde (120 acres)
11. 1952, March – warranty deed for properties from Bryce and Froy Wilde (40 acres)
12. 1954 – Attorney General’s opinion on property ownership
   a. This letter includes an error related to 330 acres that had been condemned, but were dismissed after failure to reach an agreeable price.
Dear Mr. Reeves:

I have your letter of November 21. In reply will say that the special committee appointed by the three local civic bodies to raise the balance of funds for the State Park in Osage County have not functioned very effectively, largely because we ran into the Welfare Drive, the Y. W. C. A., the Red Cross and several other drives. I think there is no doubt but what this money will be raised when these local bodies can muster up enough energy to go after it, but I believe it would be a good plan for you to write directly to C. V. Sellers, President of the Chamber of Commerce, and to Frank Johnson, President of the Merchants' Association. Also have the Superintendent of the CCC Camp or whoever out there is especially interested in this extra land to call on these officers. I do not believe anyone from the Camp has gotten in touch with any of the authorities in Bartlesville, up to date. Would it be too late to let this canvass go over until after the first of the year? That would be a much better time to raise money I feel sure.

I will bring this matter to the attention of the officers of these local civic bodies and see what reaction I can get.

Was glad to know that Hill is still improving. I have received $28.52 on account of the last letter I sent out. I have no doubt other funds have been sent either to Gutrie or direct to Frank Hill. I am writing Malone to send out a circular letter following up the two that I sent. I trust we will get some real results for Frank.

Yours very truly,

A. O. HARRISON,
President.

A. O. HARRISON,
President.
Mr. A.R. Reeves,
Executive Secretary Oklahoma State Park Commission,
State Capitol Building, box 3087,
Oklahoma City, Oklahoma.

Dear A.R.:

I have received your letter of July 24th, in which you state that we can go ahead with all safety in acquiring the land for the Osage County State Park and that you would like to have this done as quickly as possible as you want to submit the necessary papers to the Department at Washington and get the approval back before the first of October so there will be no delay in starting the work.

When we solicited the funds from the people here, we told them that the money would not be paid out until we had positive assurance that the camp would be located here. I am very willing, personally, to accept your assurance that that will be done. At the time we solicited the funds, however, we told them that only one thing remained to be done and that was for the Army inspector to actually make the location of the camp site. I am wondering, therefore, if it would not be possible to get the Army to make the location of this camp site and I then believe there would be no hesitancy on the part of those concerned locally in paying out the money.

We have only two options. One covers 380 acres of land and the other 67 acres of land. This added to the school land makes 607 acres.

We are closing the deal on the 67 acres for the reason that that owner would not renew his option. It will require only a few days to get the deed to the 380 acres. Pawhuska has raised $1500.00 and I am informed that Bartlesville has about $2000.00 in actual cash and some pledges. The 380 tract is to cost $2500.00 and the 67 acre tract $800.00 which makes a total of $3300.00 and we and Bartlesville together have the cash to pay for this 447 acres of land.

Assuring you that we are desirous of co-operating with you in every way possible to expedite the closing of the options and the purchase of the land and location of the camp, I am.

Yours very truly,

[Signature]

C.C.F.

P.S. Do you want deeds to be made to The State of Oklahoma, or to Home & Flood Comm. of State of Okla. or to Ark. Comm.
P.S. newspaper reported CCC Inhabitants were shot, some that agt. lot that might effect our camp. ORL.
GENERAL WARRANTY DEED

THIS INDENTURE, made this FIRST day of November, 1915, between Bertha S. Robson, and Alma Robson, husband and wife, of Watts, county in the State of Oklahoma, of the first part, and The State of Oklahoma, for the State Park Commission of the second part,

WITNESSETH: That the said part of the first part, in consideration of the sum of One dollar ($1.00), and other good and valuable considerations, the receipt whereof is hereby acknowledged do by these presents grant, bargain, and sell and convey unto the said part of the second part, the following described real estate situated in _____ County, and State of Oklahoma, to wit:

South half of Southwest quarter, and Southwest quarter of Southeast quarter, and South half of Northeast quarter of Southeast quarter of Section Twelve (12), and North half of Northeast quarter, and Northeast quarter of Section Thirteen (13) Township Twenty-six (26), Range Ten (10); North of the Base Line, and West of the Indian Meridian,

TO HAVE AND TO HOLD the same, together with all and singular the tenements, hereditaments and appurtenances thereto belonging or in any wise appertaining, forever, subject to reservation of oil, gas, coal and other minerals to the Osage Tribe of Indians by Act of Congress of June 28, 1896, and Acts amendatory thereto and supplemental thereof.

And said Bertha S. Robson, and Alma Robson, for themselves and

for their heirs, executors or administrators, do hereby covenant, promise and agree to and with said party of the second part, that at the delivery of these presents, they are lawfully seized in their own right of an absolute and indefeasible estate of inheritance in fee simple, of, in and to all the real estate above granted and described premises, with the appurtenances; that the same are free, clear, discharged and unencumbered of and from all former grants, titles, charges, judgments, taxes, assessments, and encumbrances of what nature and kind ever,

and that they will warrant and forever defend the title to the same unto said part of the second part, their heirs and assigns, against said part of the first part, their heirs, and all and every person whomsoever, lawfully claiming or to claim the same.

IN WITNESS WHEREOF, the parties of the first part have hereunto set their hands, the day and year first above written.

[Signatures]

91
STATE OF OKLAHOMA,
OSAGE COUNTY.

Before me, the undersigned, a Notary Public,
in and for said County and State, on the First day of November, 1928, personally appeared
Erin S. Bowman and Alma Bowman, husband and wife,

and to me known to be the identical persons who executed the within and foregoing instrument, and acknowledged to me that they executed the same as their free and voluntary act and deed for the uses and purposes therein set forth.

Witness my hand and seal the day and date above written.

My Commission Expires January 15, 1929.

Rotary Public, Osage County, Oklahoma.

General Warranty Deed

BY

TO

STATE OF OKLAHOMA,
OSAGE COUNTY.

This instrument was filed for record on the 2nd day of December, 1928, and duly recorded in Book T, Page 359, in the Office of County Clerk, in accordance with law.

M. Donley, Clerk.
THIS INDENTURE, Made this First day of November, 1935, between Samuel J. Bowman, and Ruby E. Bowman, husband and wife, of Osage County, in the State of Oklahoma, of the first part, and the State of Oklahoma, for the State Park Commission, of the second part,

WITNESSETH. That the said part, 1/32 of the first part, in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration,

the receipt whereof is hereby acknowledged by, the said parties, do, by these presents, grant, bargain, and sell and convey unto the said part, 1/32 of the second part, heirs and assigns, all the following described real estate situated in Osage County, State of Oklahoma, to-wit:

Southwest quarter of Southwest quarter; and South half of North half of Northeast quarter of Northwest quarter of Southeast quarter, and South half of Northeast quarter of Northwest quarter of Southeast quarter, and Southeast quarter of Northeast quarter of Southeast quarter of Section Twelve (12), and Northeast quarter of Northeast quarter of Section Thirteen (13), Township Twenty-six (26), Range Ten (10); North of the Base Line and East of the Indian Meridian.

TO HAVE AND TO HOLD the same, together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in any wise appertaining, forever, subject to reservation of oil, gas, coal and other minerals as the Osage Tribe of Indians by Act of Congress of June 28, 1934, and Acts amendatory thereto and supplemental thereof.

And said Samuel J. Bowman, and Ruby E. Bowman, for themselves and...

for, 1/32 of the second part, that at the delivery of these presents, they, the said part, hereby covenant, promise and agree to and with said party, that at the delivery of these presents, they, the said party, have...

therein sealed in their own right of an absolute and indefeasible estate of inheritance in fee simple of, in and to all and singular, the above granted and described premises, with the appurtenances; that the same are free, clear, discharged and unencumbered of and from all former grants, titles, charges, judgments, taxes, assessments and encumbrances of what nature and kind soever.

and that they will warrant and forever defend the title to the same unto said part, 1/32 of the second part, heirs and assigns, against said part, heretofore, and all and every person whomsoever, lawfully claiming or to claim the same.

IN WITNESS WHEREOF, The part of the first part, heirs, hereunto set their hands, the day and year first above written.

Samuel J. Bowman
Ruby E. Bowman

10
STATE OF OKLAHOMA,

OSAGE COUNTY,

Before me, the undersigned, a Notary Public

in and for said County and State, on the first day of June, 1955, personally appeared

Sowel C. Bowman, and Ruby R. Bowman, husband and wife,

and

to me known to be the identical persons who executed the within and foregoing instrument, and acknowledged to me that Ruby executed the same as their free and voluntary act and deed for the uses and purposes therein set forth.

Witness my hand and official seal the day and date above written.

My Commission Expires

Notary Public, Osage County, Oklahoma.

[Signature]

[Date]

[Cut-off text]
THIS INDENTURE, Made this ... day of November, .................. A.D. 1865.

between ......... between..........Ida M. Bowman, and Mark T. Bowman, wife and husband,

of Osage County, in the State of Oklahoma, of the first part,

and The State of Oklahoma for the State Park Commission, of the second part.

WITNESSETH, That the said part... of the first part, in consideration of the sum of one dollar... and other good and valuable consideration... DOLLARS......

the receipt whereof is hereby acknowledged do... by these presents grant, bargain, and sell and convey unto the

said part... of the second part, .... heirs and assigns, all the following described real estate situated in

Osage County, and State of Oklahoma, to-wit:

The North half of Northeast quarter of Southeast quarter of

Section Twelve (12), Township Twenty-six (26), Range Ten (10),

North of the Base Line, and east of the Indian Meridian.

TO HAVE AND TO HOLD the same, together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in any wise appertaining, forever, subject to reservation of oil, gas, coal and other minerals, to the Osage Tribe of Indians by Act of Congress of June 23, 1890, and acts amendatory thereto

And said Ida M. Bowman, and Mark T. Bowman, for themselves and......

for.... heirs, executors or administrators, do.... hereby covenant, promise and agree to and with said party...... of the second part, that at the delivery of these presents.... They are......

duly and faithfully act in.... their..... own right of an absolute and indefeasible estate of inheritance in fee simple, of,... in all and to all and singular, the above granted and described premises, with the appurtenances; that the same are free, clear, discharged and unencumbered of and from all former grants, titles, charges, judgments, taxes, assessments and encumbrances of what nature and kind whatever......

and that...... they....... will warrant and forever defend the title to the same unto said part...... of the second part.... heirs and assigns, against said part... of the first part, ...... their....... heirs, and all and every person whatsoever, lawfully claiming or to claim the same.

IN WITNESS WHEREOF, The part, .... of the first part has..... hereunto set their hand, the day and year first above written.  

[Signature]

95
STATE OF OKLAHOMA,  
OSAGE COUNTY.  

Before me, the undersigned, a Notary Public, 
in and for said County and State, on this first day of November, 1925, personally appeared 
Ida M. Bowman and Bart T. Bowman, wife and husband, 

and 

to me known to be the identical persons who executed the within and foregoing instrument, and acknowledged 
to me that they executed the same as their free and voluntary act and deed for the uses and 
purposes therein set forth. 

Witness my hand and official seal the day and date above written. 

Wm. J. Delano  
My Commission Expires January 1st, 1926.  
OKLAHOMA.
GENERAL WARRANTY DEED

THIS INDENTURE, Made this 28th day of August, 1938

between

Lillian Carpenter, and Luther Carpenter, wife and husband...

of Rogers, County, in the State of Oklahoma, of the first part,

and

J.R. Panell

of..., of the second part,

WITNESSETH: That the said part... of the first part, in consideration of the sum of One Hundred Dollars... and other good and valuable consideration... Dollars of the receipt whereof is hereby acknowledged do... by these presents grant, bargain, and sell and convey unto the said part... of the second part... his... heirs and assigns, all the following described real estate situated in Grage County... and State of Oklahoma, to wit:

All of our undivided interest in and to the following described real estate, to wit:

All that part of the Southeast quarter of Northeast quarter of Section Thirteen, lying West of Sand Creek, and all that part of the Southwest quarter of Northeast quarter of Section Thirteen, lying North of Sand Creek, and all that part of the Northeast quarter of Southwest quarter of Section Thirteen, lying North of Sand Creek, and all that part of the Northeast quarter of Southwest quarter of Section Thirteen, lying East of Sand Creek, all located in Township Twenty-six (26), Range Ten (10), North of the Base Line and East of the Indian Meridian;

The grantors herein understand that the border line of the land herein conveyed runs to the center of the creek whenever the boundary is the creek.

TO HAVE AND TO HOLD the same, together with all and singular the tenements, hereditaments and appurtenances thereto belonging or in any wise appertaining, forever, subject to reservation of oil, gas, coal and other minerals to the Osage Tribe of Indians by Act of Congress of June 28, 1906, and acts amendatory thereto and supplemental thereto,

And said Lillian Carpenter and Luther Carpenter, for themselves and for their heirs, executors or administrators, do hereby covenant, promise and agree to and with said party... of the second part, that at the delivery of these presents... they lawfully seated in... their... own right of an absolute and indefeasible estate of inheritance in fee simple of, in and to all and singular the above granted and described premises, with the appurtenances thereto; that the same are free, clear, discharged and unencumbered of and from all former grants, titles, charges, judgments, taxes, assessments and encumbrances of what nature and kind soever...

and that... they... will warrant and forever defend the title to the same unto said part... of the second part... his... heirs and assigns, against said part... of the first part... their... heirs, and all and every person whomsoever, lawfully claiming or to claim the same.

IN WITNESS WHEREOF, the said... of the first part... we hereunto set their... hand... the day and year first above written.

Lillian Carpenter

Luther Carpenter
General Warranty Deed

BY

TO

STATE OF OKLAHOMA,
OSAGE COUNTY,

This instrument was filed for record as the
20th day of Aug., 1925,
at 9:45 A.M.
and is duly recorded in
Book 77, on Page 217.

Pursuant to the laws of the State of Oklahoma, we are of the opinion that the premises herein described are

WITNESS my hand and official seal.

[Signature]

M. Daniels
Deputy

COUNTY OF OSAGE,

before me, the undersigned

Magistrate

at

County, State of Oklahoma,

in and for said County and State, on the
20th day of Aug., 1925,

 Personally appeared

Charles H. Gay,


THIS INDENTURE, Made this 30th day of August, 1938, A.D. in the 150th year of our Lord Jesus Christ, between J.R. Panell and Vania Panell, husband and wife, of Osage County, State of Oklahoma, of the first part, and The State of Oklahoma, by the State Park Commission, of the second part, WITNESSETH, That the said part of the second part, is hereby acknowledges by the said persons, to be conveyed unto the said part of the second part, A.D. heirs and assigns, all the following described real estate situated in Osage County, State of Oklahoma, to wit:

All that part of the Southwest quarter of the Northeast quarter of Section Thirteen (13), lying West of Sand Creek, and all that part of the Southwest quarter of the Northeast quarter of Section Thirteen (13), lying North of the East Line, East of the Indian Meridian and in Osage County, Oklahoma,

The grantors herein understand that the border line of the land herein conveyed runs to the center of the creek whenever the boundary is the creek.

TO HAVE AND TO HOLD the same, together with all and singular the tenements, hereditaments and appurtenances thereto belonging or in any wise pertaining, forever, subject to reservation of oil, gas, coal and other minerals to the Osage Tribe of Indians by Act of Congress of June 25, 1906, and acts amendatory thereto and supplemental thereof.

And said J.R. Panell and Vania Panell, for themselves and their heirs, executors or administrators, do, hereby covenant, promise and agree to and with said party, A.D., of the second part, that at the delivery of these presents, they are herein and forever in their own right an absolute and indefeasible estate of inheritance in fee simple, of, in and to all said described lands, and the appurtenances; that the same are free, clear, discharged and unencumbered of and from all former grants, titles, charges, judgments, taxes, assessments and encumbrances of what nature and kind soever.

and that A.D. will warrant and forever defend the title to the same unto said part, A.D., and all the heirs and assigns, against said part of the first part, A.D., heirs, and all and every person whomsoever, lawfully claiming or to claim the same.

IN WITNESS WHEREOF, The parties of the first part, A.D., hereunto set their

hand, the day and year first above written.

[Signature]

[Signature]
STATE OF OKLAHOMA,
OSAGE COUNTY,

Before me .......................................................... a Notary Public

in and for said County and State, on this ....16th ....day of August, 1935, aforesaid, personally appeared

J. R. Panell and Vanda Panell, husband and wife, ..........................................................

and ..........................................................

to me known to be the identical persons who executed the within and foregoing instrument, and acknowledged
to me that they executed the same as their free and voluntary act and deed for the uses and
purposes therein set forth.

Witnes my hand and Seal the day and year above written.

My Commission Expires ....1/1/1935

Notory Public

General Warranty Deed

BE TO

STATE OF OKLAHOMA, OSAGE COUNTY, 1st. A. R. X

This instrument was filed for record on the
20 day of , 1935, and is on Record in the Office of the
County Clerk, this office in the State of Oklahoma, in a book
marked Real Estate Records, Book, 34, Page, 776.

A. R. X

J. R. Panell

Vanda Panell

100
CERTIFICATE OF PURCHASE

COMMISSIONERS OF THE LAND OFFICE OF THE STATE OF OKLAHOMA

KNOW ALL MEN BY THESE PRESENTS: That whereas, on the 29th day of November, A.D. 1936, State of Oklahoma, of Oklahoma City, in the State of Oklahoma, the said purchaser entered into a contract of purchase with and purchase from the Commissioners of the Land Office of the State of Oklahoma, acting for and on behalf of said State, all of the following School and State land, to wit: Northeast Quarter 36/4.

Quarter of Section: 24  In Township: 26 N. Range: 10 E., Meridian in:

County in said State upon the following terms and conditions:

FIRST: That as a consideration for said sale and purchase the said purchaser would pay to the State of Oklahoma the sum of Eighteen Hundred and 00/100 ($1800.00) Dollars at the following times and in the following manner, to wit:
Five per centum of the said purchase price to be paid on the execution and delivery of the Contract of Purchase, and the remainder to be paid in forty equal annual payments with interest thereon at the rate of six per centum per annum. The interest on the whole amount to be paid each year and at the time when each instalment of the principal is due and payable.

SECOND: That the said purchaser would at such a time as the said Commissioners of the Land Office would so direct, execute and transfer to said purchaser, a Certificate of Purchase note for the remainder of said purchase price and give and grant and convey to the State of Oklahoma a first lien upon said described land, together with all improvements and appurtenances thereto belonging and upon all improvements which may hereafter be placed thereon until all payments, both principal and interest, as specified in said note are fully made.

THIRD: That upon all payments as herein specified being fully made the said Commissioners of the Land Office would issue to said purchaser a "Patent in Fee Simple" for said described land.

FOURTH: That after the expiration of five years from date of purchase, the said purchaser may at the time of any interest payment pay any or all deferred payments, both principal and accrued interest.

FIFTH: That said purchaser shall not be permitted to sell said described land or improvements until the end of five years from date of purchase to any person or persons owning more than one section of land according to the United States survey.

SIXTH: That the said purchaser shall establish and maintain on said land, valuable, lasting and permanent improvements other than fencing, together with tillage; and if said land is grazing land as classified by law, he shall establish and maintain valuable, lasting and permanent improvements other than fencing thereon before he shall acquire title thereto, and a violation of this provision shall work a forfeiture of said land together with all appurtenances thereunto belonging and the same shall escheat to the State of Oklahoma.

SEVENTH: That said purchaser shall have the right to transfer or assign all his right, title and interest in and to said land and improvements, but no transfer or assignment thereof shall be valid or of any force or effect unless made in conformity with the Rules and Regulations of the Commissioners of the Land Office of said State and recorded in the office of said Commissioners in the Capital of said State.

EIGHTH: That said purchaser shall not commit any waste or remove, cut down or destroy any timber on said land until after he acquires title, without permission in writing being first obtained from the Commissioners of the Land Office of said State.

NINTH: That said purchaser will not do any act or thing or suffer any to be done on said land which will cause the same to depreciate in value, but shall be required to do all things necessary for the reasonable and safe preservation thereof.

TENTH: That said purchaser hereby gives and grants unto the State of Oklahoma, as by law required, a first lien on said described land and all improvements and appurtenances thereon belonging or which may hereafter be placed thereon as security for the payment of such remainder of the purchase price, both principal and interest.

ELEVENTH: That a violation of any of the conditions and provisions of this Certificate of Purchase of the Laws of Oklahoma under which said land was sold or any Rules and Regulations of the Commissioners of the Land Office by said purchaser, shall work a forfeiture of said land and improvements and the same shall escheat to the State upon proof thereof and this Certificate and all contracts be cancelled and held for naught.

TWELFTH: The delivery to and acceptance by the said purchaser of this Certificate of Purchase binds and obligates the said purchaser to all of the terms and conditions thereof.

THIRTEENTH: This Certificate is issued and accepted by said purchaser subject to all of the conditions of ARTICLE 2 of CHAPTER TWENTY-EIGHT OF THE LAWS OF THE STATE OF OKLAHOMA IN THE YEAR 1909, or any act amendatory thereof.

IN WITNESS WHEREOF the Commissioners of the Land Office of the State of Oklahoma have caused this Certificate of Purchase to be executed and attested by the Chairman and Secretary therefor.

Dated at Oklahoma City, in the State of Oklahoma, on this the 29th day of March, 1937.

Attest:

[Signature]

Chairman.

[Signature]

Vice-
TRANSFER OR ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS:

That _______________________________ and _______________________________, husband and wife of _______________________________, County, State of Oklahoma, for a valuable consideration receipt of which is hereby acknowledged, do hereby assign, transfer, sell, grant, bargain and convey, unto _______________________________ of _______________________________, in the State of Oklahoma, a qualified person, all of our right, title and interest in and to the land described in the within Certificate of Purchase and all improvements and appurtenances thereto belonging, said transfer and sale being made subject to the approval and acceptance of the Commissioners of the Land Office of the State of Oklahoma.

STATE OF OKLAHOMA

____________________ County, } SS.

Before me,____________________ a Notary Public in and for said County and State, on this __________________________ day of __________________________, 192________ personally appeared _______________________________, husband and wife who executed the within and foregoing instrument and acknowledged to me that they executed the same as free and voluntary act and deed for the use and purposes therein set forth.

WITNESS my hand and official seal the day and year above written.

My Commission expires _______________________________.

____________________

Notary Public.

Certificate of Purchase

From

COMMISSIONERS OF THE LAND OFFICE, STATE OF OKLAHOMA.

To

______________________________

State

______________________________

Certificate of Purchase No. _______________________________.

Date

______________________________

192________

No. _______________________________.

Certificate of Purchase from Commissioners of the Land Office of the State of Oklahoma on the __________________________ day of __________________________, 192________, was recorded in the Certificate of Purchase Book No. _______________________________.

State

________________________________

William J. Gatnin, Notary Public

Date

________________________________

September 24, 1924

WITNESS my hand and official seal, the day and year above written.

______________________________

Register of Deeds. County

Dwight.
THIS INDENTURE, made this 30th day of January, A.D. 1910,

Between:                        Arthur F. Woodward and Kate S. Woodward, his wife,

                                    of                          County, in the State of Oklahoma, of the first part; and
                                    The State of Oklahoma, for the State Park Commission, of the second part;

WITNESSETH, That said parties to the first part, in consideration of the sum of

One Hundred Thirty & No/100   (-       ($336.00)   -        ) DOLLARS,

the receipt whereof is hereby acknowledged, do hereby grant, bargain, sell and convey, unto the said
parties of the second part, all and every heirs and assigns, all the following described real estate, situate in the County of Osage and State of Oklahoma, to-wit:

East Half (E1/2) of the Southeast quarter (SE1/4) of the Northeast

C1/4) of Section Eleven (11), Township Twenty-six (26) North,

Range Ten (10) East (10) in Osage County, Oklahoma, containing

30 acres, more or less, according to the U.S. Government Survey

thereof.

TO HAVE AND TO HOLD the same, together with all and singular the tenements, hereditaments and appurtenances thereto belonging to or in any wise appertaining, forever, subject to reservation of all, past, now and any other minerals to the Osage Tribe of Indians, by the Act of Congress, approved June 30, 1906, and all acts auxiliary thereto and supplemental thereto.

And said Arthur F. Woodward and Kate S. Woodward, his wife,

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State of Oklahoma

Before me, a Notary Public in and for said County and State, on this day of January, 1978, personally appeared Arthur E. Woodard and Kate B. Woodard, his wife, to me known to be the identical persons who executed the within and foregoing instrument and acknowledged to me that they executed the same as their free and voluntary act and deed for the uses and purposes therein set forth.

Witness my hand and official seal on the day and year above set forth.

My commission expires: 8th day of January, 1980.

Notary Public

State of Oklahoma, County, ss:

Before me, the undersigned, a Notary Public in and for said County and State, on this day of January, 1980, personally appeared:

A. D., 1980, personally appeared:

to me known to be the identical persons who executed the within and foregoing instrument, and also to me known to be the identical persons who executed the within and foregoing instrument by mark in my presence and in the presence of

and

as witnesses and the said parties acknowledged to me that they executed the same as their free and voluntary act and deed for the uses and purposes therein set forth.

Witness my hand and official seal on the day and year above set forth.

My commission expires: 8th day of January, 1980.

Notary Public

STATE OF OKLAHOMA, ss.

Before me, a Notary Public in and for said County and State, on this day of January, 1980, personally appeared:

A. D., 1980, personally appeared:

to me known to be the identical persons who subscribed the name of the maker thereof to the foregoing instrument as the and acknowledged to me that they executed the same as their free and voluntary act and deed and as the free and voluntary act and deed of such corporation for the uses and purposes therein set forth.

Witness my hand and seal as such Notary Public this day of January, 1980.

My commission expires: 8th day of January, 1980.

Notary Public

State of Oklahoma

COUNTY OF OSAGE

THIS INSTRUMENT WAS FILED FOR RECORD

Osage County

COUNTY AT

of

2016

This Instrument was filed for record on the 1st day of March, 2016, in the office of the Clerk of Osage County, State of Oklahoma.

Notary Public

105

1329
WARRANTY DEED

Statutory Form—Individual

Know all Men by these Presents:

That Bryce B. Wilde and Frod D. Wilde,

Husband and Wife

of Oklahoma, County,

State of Oklahoma, parties of the first part, in consideration of the sum of Twenty Four Hundred ($2400) Dollars and other considerations in hand paid, the receipt of which is hereby acknowledged, does hereby Grant, Bargain, Sell and Convey unto Planning and Resources Board of the State of Oklahoma of Oklahoma County, State of Oklahoma, party of the second part, the following described real property and premises situate in Osage County, State of Oklahoma, to-wit:

The North Half (N1/2) of the South Half (S1/2) of the Northwest Quarter (NW1/4) and all the North Half (N1/2) of the Northwest Quarter (NW1/4) of Section 12, Township 26 North (T 26 N), Range 10 East (R 10 E), containing 120 acres, more or less.

together with all the improvements thereon and the appurtenances thereunto belonging, and warrant the title to the same.

TO HAVE AND TO HOLD said described premises unto the said party of the second part, heirs and assigns forever, free, clear and discharged of and from all former grants, charges, taxes, judgments, mortgages and other liens and incumbrances of whatsoever nature.

Signed and delivered this 30th day of November 1953

Bryce B. Wilde

Frod D. Wilde

STATES OF OKLAHOMA

COUNTY OF Oklahoma

INDIVIDUAL ACKNOWLEDGMENT

Before me, the undersigned, a Notary Public in and for said County and State on this 3rd day of November 1953, personally appeared Bryce B. Wilde and Frod D. Wilde, husband and wife, to me known to be the identical persons who executed the within and foregoing instrument and acknowledged to me that they executed the same as their free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and seal the day and year last above written.

My commission expires 10-18-60

Notary Public
WARRANTY DEED

Know All Men by These Presents:

That Bryce B. Wilde and Froy D.

Wilde, Husband and Wife

of Wagoner County, State of Oklahoma, parties of the first part, in consideration of the sum of Ten Dollars ($10.00) and other considerations in hand paid, the receipt of which is hereby acknowledged, do hereby Grant, Bargain, Sell and Convey unto The State of Oklahoma for the use and benefit of the Oklahoma Planning & Resources Board of Oklahoma County, State of Oklahoma, party of the second part, the following described real property and premises situate in Osage County, State of Oklahoma, to-wit:

The South Half (S1/2) of the South Half (S1/2) of the Northwest Quarter (NW1/4) of Section 12, Township 26 North, Range 10 East,

together with all the improvements thereon and the appurtenances thereunto belonging, and warrant the title to the same.

TO HAVE AND TO HOLD said described premises unto the said party of the second part, its heirs and assigns forever, free, clear and discharged of and from all former grants, charges, taxes, judgments, mortgages and other liens and incumbrances of whatsoever nature.

Signed and delivered this 9th day of June, 1952

Bryce B. Wilde
Froy D. Wilde

STATE OF OKLAHOMA
COUNTY OF Wagoner

IN INDIVIDUAL ACKNOWLEDGMENT

Before me, the undersigned, a Notary Public in and for said County and State on the 26th day of June 1952 personally appeared Bryce B. Wilde and Froy D. Wilde husband and wife

to me known to be the identical persons by whom the within and foregoing instrument and acknowledged to me that they executed the same as their free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and seal this day and year last above written.

My commission expires December 23, 1952.

Signature of Notary Public.
INDIVIDUAL ACKNOWLEDGEMENT

STATE OF ________________________ County of ____________ as:

Before me the undersigned, a Notary Public, in and for said County and State, on this __________ day of __________, 19___ personally appeared

to me known to be the identical person __________ who executed the within and foregoing instrument and acknowledged to me that __________ executed the same as free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and seal the day and year last above written.

My commission expires ____________________________ Notary Public

INDIVIDUAL ACKNOWLEDGEMENT

STATE OF ________________________ County of ____________ as:

Before me the undersigned, a Notary Public, in and for said County and State, on this __________ day of __________, 19___ personally appeared

to me known to be the identical person __________ who executed the within and foregoing instrument and acknowledged to me that __________ executed the same as free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and seal the day and year last above written.

My commission expires ____________________________ Notary Public

WARRANTY DEED

STATE OF ________________________ County of ____________ as:

Before me, __________, a Notary Public in and for said County and State on this __________ day of __________, 19___, personally appeared

to me known to be the identical person __________ who executed the within and foregoing instrument by mark in my presence

and in the presence of __________ as witnesses and acknowledged to me that __________ executed the same as free and voluntary act and deed for the uses and purposes therein set forth.

In Witness Whereof, I have hereunto set my hand and official seal the day and year last above written.

My commission expires ____________________________ Notary Public.

NOTE—The signature by mark of a lessee who does not write his name must be witnessed by two ____________, one of whom must write lessee’s name.
December 1, 1954

Oklahoma Planning & Resources Board
BUILDING

ATTENTION: Jack V. Boyd, Director

Dear Sirs:

Re: Osage Hills State Park

I report the examination of abstracts of title, warranty deeds, condemnation proceedings and other evidences of title contained in your files, and from such examination I advise you that fee title to the following described lands, to wit:

(1) South half of Southwest quarter, and Southeast quarter of Southeast quarter, and South half of Northeast quarter of Southeast quarter of Section Twelve (12), and North half of Northwest quarter, and Northeast quarter of Northeast quarter of Section Thirteen (13) Township Twenty-six (26), Range Ten (10); North of the Base Line, and East of the Indian Meridian, in Osage County, Oklahoma:

(2) All that part of the Southeast ¼ of the Northeast ¼ lying West of Sand Creek, and All of the Southwest ¼ of the Northeast ¼, and All that part of the Southeast ¼ of the Northwest ¼ lying East of Sand Creek, and All that part of the Northwest ¼ of the Southeast ¼ lying West and North of Sand Creek, and All that part of the Northeast ¼ of the Northwest ¼ lying East and South of Sand Creek, and All that part of the Southeast ¼ of the Southwest ¼ lying South and West of Sand Creek, and All that part of the Southwest ¼ of the Southeast ¼ lying South and West of Sand Creek, and All of the Southeast ¼ of the Southwest ¼ of Section 13, Township 26 North, Range 10 East, I. M., Osage County, State of Oklahoma:

(3) All that part of the South half (S½) of the Northeast Quarter (NE¼) lying East of Sand Creek, and All that part of the Southeast Quarter (SE¼) lying East of Sand Creek, in Section Thirteen (13), Township Twenty-six (26) North, Range Ten (10) East, I. M., Osage County, Oklahoma:
(4) East Half (E\(\frac{1}{2}\)) of the Southeast Quarter (SE\(\frac{1}{4}\)) of the Northeast (NE\(\frac{1}{4}\)) of Section Eleven (11), Township Twenty-six (26) North, Range Ten (10) East I.M. in Osage County, Oklahoma, containing 20 acres, more or less, according to the U.S. Government Survey thereof:

(5) North Half (N\(\frac{1}{2}\)) of the Southwest Quarter (SW\(\frac{1}{4}\)) and Southwest Quarter (SW\(\frac{1}{4}\)) of Northwest Quarter (NW\(\frac{1}{4}\)) of Northwest Quarter (NW\(\frac{1}{4}\)) of Southwest Quarter (SW\(\frac{1}{4}\)) of Northwest Quarter (NW\(\frac{1}{4}\)) of Northwest Quarter (NW\(\frac{1}{4}\)) of Southwest Quarter (SW\(\frac{1}{4}\)) of Northwest Quarter (NW\(\frac{1}{4}\)) of Section Twelve (12), Township Twenty-six (26) North, Range Ten (10) East I.M., all in Osage County, State of Oklahoma:

(6) All that part of the Southeast quarter of Northwest quarter of Section Thirteen (13), lying west of Sand Creek, and all that part of Southwest quarter of Northwest quarter of Section Thirteen (13), lying North and East of Sand Creek, and all that part of Northeast quarter of Southwest quarter of Section Thirteen (13), lying North and West of Sand Creek, and all that part of Northwest Quarter of Southwest quarter of Section Thirteen (13), lying East of Sand Creek, all in Township Twenty-six (26), Range Ten (10); North of the Base Line, East of the Indian Meridian and in Osage County, Oklahoma. The grantors herein understand that the border line of the land herein conveyed runs to the center of the creek whenever the boundary is the creek:

(7) The North Half (N\(\frac{1}{2}\)) of the South Half (S\(\frac{1}{2}\)) of the Southwest Quarter (NW\(\frac{1}{4}\)) and all the North Half (N\(\frac{1}{2}\)) of the Northwest Quarter (NW\(\frac{1}{4}\)) of Section Twelve (12), Township Twenty-six (26) North (T 26 N), Range Ten East (R 10 E), containing 120 acres, more or less, in Osage County, Oklahoma:

(8) The Northeast Quarter (NE/4) of Section Fourteen (14), Township Twenty Six (26) North of Range Ten (10) East of the Indian Meridian, Osage County, State of Oklahoma:

(9) The South Half (S\(\frac{1}{2}\)) of the South Half (S\(\frac{1}{2}\)) of the Northwest Quarter (NW\(\frac{1}{4}\)) of Section Twelve (12), Township Twenty-six (26) North, Range Ten East, in Osage County, Oklahoma:
(10) Southwest quarter of Southeast quarter; and South half of North half of Northeast quarter of Northwest quarter of Southeast quarter, and South half of Northeast quarter of Northwest quarter of Southeast quarter, and Southeast quarter of Northwest quarter of Southeast quarter of Section Twelve (12); and Northwest quarter of Northeast quarter of Section Thirteen (13), Township Twenty-six (26), Range Ten (10); North of the Base Line and East of the Indian Meridian, in Osage County, Oklahoma:

(11) The North half of Northeast quarter of Southeast quarter of Section Twelve (12), Township Twenty-six (26), Range Ten (10); North of the Base Line, and east of the Indian Meridian, in Osage County, Oklahoma;

is vested in the State of Oklahoma and is under the jurisdiction of the Planning and Resources Board of the State of Oklahoma.

Respectfully submitted,

FOR THE ATTORNEY GENERAL

Curtis P. Harris
Assistant Attorney General

CPH:lfco
Appendix B – Review of Historic Structures
OSAGE HILLS STATE PARK

RECOMMENDATIONS

Osage Hills State Park is a significant example of a landscape designed by the National Park Service and built by the CCC. Over time the design has changed very little, and the park retains its rustic feeling (see Map 19). The park in its entirety appears to be eligible for listing in the National Register at the state level of significance under Criteria A and C, as an outstanding example of a designed landscape created during the New Deal.

The landscape, planted in part by the CCC, varies from shrubs and bushes in the low lying areas around the drainage leading to Sand Creek to wooded areas along the creek itself. Trees include red cedar, redbud, American elm, and a wide variety of oak. Numerous deer within the park keep the brush to a minimum.

EVALUATION BY NODE

Node A

Node A (refer to Map 20) includes massive, rugged portals of layered sandstone, which mark the entrance to Osage Hills State Park off Highway 60. The foci of the node are the numerous road structures, including culverts and a stone arched bridge. This area maintains and promotes the natural setting characteristic of the National Park Service’s designed landscape.

Node B

Node B encompasses the administrative facilities, located on a rocky hillside above the park. Near the park drive are the well-maintained, historic superintendent’s residence, maintenance buildings, an incinerator, water storage tanks, and other utility buildings. A
service road through this area leads to the site of the original CCC camp. Several ruins are present at the CCC campsite, and the water tower is intact. Across the road and near the creek is an old pump house with a log-gable roof, and a new horse corral and barn. South along the drive in a steep draw is a stone, arched culvert. Stands of scrub oak and blackjack are broken by grassy meadows. This node retains a high degree of historical integrity.

**Node C**

Node C includes CCC-built rustic cabins and a picnic area within an old CCC-built auto camp, where a historic latrine, seven sandstone fireplaces, and numerous rock water hydrants are located. Stones marking the original camp sites are extant. The cabin area is on a wooded hillside, while the adjacent picnic and camping areas are downhill near the stream. West along Sand Creek are numerous trails linking to the trail that encircles the park. North of this area, a foot trail ascends to a rustic, sandstone lookout tower, which provides a panoramic view of the hilly countryside. Intrusions include the rafter’s office, new camping facilities, playground equipment, a large picnic shelter, and new cabins. Nonetheless, this area retains its overall design integrity.

**Node D**

Sand Creek defines the boundaries of this naturally wooded recreational area, which includes a swimming pool, tennis courts, a community building, and rental cabins. Numerous picnic tables along Sand Creek are sheltered by a canopy of trees. A walking trail provides a view of the swift, flowing creek. A massive picnic shelter and a latrine are excellent examples of CCC-Rustic architecture. Many small landscape features are present. Although there are a number of intrusions in the area, the node maintains the spirit of the original design intent.