Cherokee Landing State Park
Resource Management Plan
Cherokee County, Oklahoma

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Acknowledgements

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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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<table>
<thead>
<tr>
<th>Abbreviation</th>
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<tr>
<td>ADAAG</td>
<td>Americans with Disabilities Act Accessibility Guidelines</td>
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<td>CCC</td>
<td>Civilian Conservation Corps</td>
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<td>CDC</td>
<td>Centers for Disease Control</td>
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<td>CFR</td>
<td>Code of Federal Regulations</td>
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<tr>
<td>CLEET</td>
<td>Council on Law Enforcement Education and Training</td>
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<td>CPSC</td>
<td>Consumer Product Safety Commission</td>
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<tr>
<td>DOI</td>
<td>Department of Interior</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<td>ESA</td>
<td>Endangered Species Act</td>
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<tr>
<td>GIS</td>
<td>geographic information systems</td>
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<tr>
<td>GPS</td>
<td>global positioning system</td>
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<tr>
<td>mcf</td>
<td>million cubic feet</td>
</tr>
<tr>
<td>MCL</td>
<td>Maximum Contaminate Level</td>
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<tr>
<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
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<td>NAWQA</td>
<td>National Water Quality Assessment Program</td>
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<td>NEPA</td>
<td>National Environmental Policy Act</td>
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<td>NHPA</td>
<td>National Historic Preservation Act</td>
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<tr>
<td>NPRM</td>
<td>Notice of Proposed Rule Making</td>
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<td>OSU</td>
<td>Oklahoma State University – Stillwater</td>
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<tr>
<td>OTRD</td>
<td>Oklahoma Tourism and Recreation Department</td>
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<tr>
<td>OWRB</td>
<td>Oklahoma Water Resources Board</td>
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<tr>
<td>PBCR</td>
<td>Primary body contact recreation</td>
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<td>pH</td>
<td>potential for hydrogen ions</td>
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<td>ppm</td>
<td>parts per million</td>
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<td>R</td>
<td>Range</td>
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<tr>
<td>RMP</td>
<td>Resource Management Plan</td>
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<tr>
<td>ROS</td>
<td>Recreation Opportunity Spectrum</td>
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<tr>
<td>SCORP</td>
<td>Statewide Comprehensive Outdoor Recreation Plan</td>
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<tr>
<td>SHPO</td>
<td>State Historic Preservation Officer</td>
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<tr>
<td>T</td>
<td>Township</td>
</tr>
</tbody>
</table>
USACE .......................................................... United States Army Corps of Engineers
USFWS .......................................................... United States Fish and Wildlife Service
USGS ............................................................... United States Geological Survey
WBDO ................................................................ Waterborne Disease Outbreak
WROS ............................................................. Water Recreation Opportunity Spectrum
Table of Contents

Acknowledgements ........................................................................................................ i
Abbreviations and Acronyms ...................................................................................... ii
Table of Contents ........................................................................................................ iv
List of Tables ................................................................................................................ vii
List of Figures ............................................................................................................... viii
Mission Statement of the Oklahoma Tourism and Recreation Department ................ ix
Vision Statement ......................................................................................................... ix
OTRD Values ................................................................................................................ ix
Chapter 1 – Introduction ............................................................................................... 1
    Resource Management Plan: Purpose and Process .................................................. 1
    Planning Process ....................................................................................................... 1
    Authorization and Agencies Involved ..................................................................... 2
Chapter 2 – Project Description ................................................................................... 4
    About Cherokee Landing State Park ...................................................................... 4
    Purpose and Significance of Cherokee Landing State Park .................................... 4
    Geographic Location of Cherokee Landing State Park .......................................... 6
    Community and Regional Context ......................................................................... 7
    Brief History of Cherokee County .......................................................................... 7
    Demographic and Socioeconomic Conditions and Impact ..................................... 9
    Competing and Complementary Recreational Opportunities ................................ 13
    Regional and Park History ..................................................................................... 14
Natural Resources in the Park ...................................................................................... 15
    Climate and Air Quality ......................................................................................... 15
    Archeology .............................................................................................................. 15
    Topography ............................................................................................................ 17
    Geology .................................................................................................................. 17
    Soil .......................................................................................................................... 19
    Soil Suitability for Recreational Development ...................................................... 21
    Hydrology .............................................................................................................. 22
    Vegetative Cover .................................................................................................... 26
Issue Statement 4: Green practices related to energy and conservation .................. 65
Issue Statement 5: Pricing for instate and out-of-state guests ................................ 66
Issue Statement 6: Campground improvement ....................................................... 66
Recommendations beyond the issues ....................................................................... 68
  Recommendation 1: Playgroups and safety .......................................................... 68
  Recommendation 2: Updated map and information .............................................. 68
  Recommendation 3: Relocation of maintenance area ......................................... 69
  Recommendation 4: Park boundary and fencing .................................................. 69
Reference .................................................................................................................. 70
Appendix A: Documents related to the Property ...................................................... 72
List of Tables

Table 2.1 – Population of Cherokee County ........................................................................................................ 9
Table 2.2 – Demographic Characteristics of the Population .............................................................................. 10
Table 2.3 – Household Characteristics in Cherokee County .............................................................................. 11
Table 2.4 – Financial Characteristics in Cherokee County .................................................................................... 11
Table 2.5 – Education Characteristics in Cherokee County .................................................................................. 12
Table 2.6 – Employment Characteristics in Cherokee County ............................................................................. 13
Table 3.1 – Wildcat Point ...................................................................................................................................... 35
Table 3.2 – Campground Detail for Cherokee Area .............................................................................................. 42
Table 3.3 – Campground Detail for Choctaw Area ............................................................................................... 44
Table 3.4 – Campground Detail for Chickasaw Area ............................................................................................. 45
Table 3.5 – Campground Detail for Creek area .................................................................................................... 47
Table 3.6 – Camping and Total Visitation .............................................................................................................. 50
Table 3.7 – Camping at Cherokee Landing State Park .......................................................................................... 51
Table 3.8 – Staffing at Cherokee Landing State Park ........................................................................................... 54
Table 3.9 – Expense and Revenue at Cherokee Landing State Park ................................................................. 54
Table 3.10 – Ranger Staff at Cherokee Landing State Park ............................................................................... 58
Table 3.11 – Citation and Incident Reports at Cherokee Landing State Park ................................................. 58
List of Figures

Figure 1.1 – Signs in Cherokee Landing State Park .........................................................3
Figure 2.1 – Utilization of purpose and significance statements ...................................5
Figure 2.2 – Cherokee Landing State Park in Cherokee County, Oklahoma ...............6
Figure 2.3 – Harlan site (Robert, 1972) .......................................................................16
Figure 2.4 – Major Land Resource Areas (MLRA) map of Cherokee County, OK ......17
Figure 2.5 – Geological regions in Oklahoma .................................................................18
Figure 2.6 – Soil map of Cherokee Landing State Park ...............................................20
Figure 2.7 – Watersheds of Cherokee County .................................................................22
Figure 2.8 – Tenkiller Ferry Lake and Dam .....................................................................23
Figure 2.9 – Lake Tenkiller ............................................................................................24
Figure 2.10 – BUMP report on Lake Tenkiller - Illinois River Arm ................................25
Figure 2.11 – Vegetation in Cherokee County, Oklahoma ............................................26
Figure 2.12 – Piping Plover ............................................................................................27
Figure 2.13 – American Burying Beetle ........................................................................27
Figure 2.14 – Accessible Trail Signage ........................................................................29
Figure 2.15 – Examples of accessible facilities in Cherokee Landing State Park .......30
Figure 3.1 – ODOT entry sign on Highway 82 .................................................................31
Figure 3.2a – Map of Cherokee Landing State Park (Google) ......................................32
Figure 3.2b – Map of Cherokee Landing State Park .....................................................33
Figure 3.3 – Welcome Sign of the Park .........................................................................34
Figure 3.4 – Entrance of Cherokee Landing State Park ...............................................34
Figure 3.5 – Wildcat Point Area ....................................................................................35
Figure 3.6 – Day use area along with the entry drive ....................................................36
Figure 3.7 – Sewage lagoon system and interpretive signs ............................................37
Figure 3.8 – Park office and park residence at RV site ..................................................37
Figure 3.9 – Maintenance area and residential area .......................................................38
Figure 3.10 – Dump station between Cherokee and Choctaw Area ..............................39
Figure 3.11 – Group pavilion A and B in Cherokee Area .............................................39
Figure 3.12 – Boat ramp, boat dock and parking area of Cherokee Area in use ..........40
Figure 3.13 – Safety sign and activities at the beach area .............................................41
Figure 3.14 – Amenities in Cherokee Area ..................................................................42
Figure 3.15 – Choctaw RV camping Area .....................................................................43
Figure 3.16 – Water’s Edge unimproved campsites and lake view ..............................43
Figure 3.17 – Chickasaw Area: Campsite and amenities ..............................................44
Figure 3.18 – Unimproved campsites near Choctaw area .............................................45
Figure 3.19 – Creek campground-RV campsites & facilities around .........................46
Figure 3.20 – Comfort Station .....................................................................................47
Figure 3.21 – Amenities in and near Seminole Group Camping Area .........................48
Figure 3.22 – Poison Ivy at Wildcat Point .................................................................56
Figure 3.23 – Campfire remains ....................................................................................60
Figure 4.1 – Erosion of picnic tables and campsite bases .............................................67
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
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, Cherokee Landing State Park. As a guiding plan, the RMP seeks to propose long-term policies that limit 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.

Within the Oklahoma Tourism and Recreation Department, the purpose and scope of the RMP is to provide background information, identify the policies and goals governing the management of Cherokee Landing State Park and its incorporated resources, summarize the plan’s components, and provide descriptive and historical information related to the project. Since Cherokee Landing State Park is on property leased from the U.S. Army Corps of Engineers (USACE), it is appropriate to cite their purpose for an RMP. For USACE, an RMP is intended to chart the desired future condition for the area related to biological, physical, and social conditions.

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 Cherokee Landing State Park. With regard to Cherokee Landing 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 Cherokee Landing 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 Cherokee Landing 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 Cherokee Landing 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 positioning 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.

**Authorization and 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 Cherokee Landing State Park during 2013 – 2014, 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, 2013 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 Cherokee Landing State Park in June 2014 (updated in 2017).

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 – Signs in Cherokee Landing State Park

Left: directional sign; right: curfew sign
Chapter 2 – Project Description

About Cherokee Landing 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 Cherokee Landing 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 Cherokee Landing State Park did not exist. As a result, it was necessary that one be developed. Research staff from OSU worked with OTRD staff, representing Cherokee Landing State Park and the broader agency, to develop a draft purpose statement. During that process staff created the following statement.

Cherokee Landing State Park is a tourism and recreation destination, an essential component of the Lake Tenkiller and Tahlequah regional attractions. Cherokee Landing State Park provides opportunities for access to Lake Tenkiller and its water-based recreation opportunities, while also serving as a destination for day visitors and campers. Cherokee Landing State Park offers the potential to be a financially self-sufficient model in operations.
Similarly, in response to requests from the research staff, OTRD personnel, in cooperation with the research staff, developed a statement of significance for Cherokee Landing State Park. That statement follows:

Cherokee Landing State Park is significant as a state property providing access to the north end of Lake Tenkiller for day visitors and campers in a setting offering a level of service and security consistent with Oklahoma State Park standards. Cherokee Landing State Park provides and protects the natural, environmental, and recreational resources present on the property for current and future generations.

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 Cherokee Landing State Park

Cherokee Landing State Park is located in the northeast quadrant of Oklahoma, in an area known as the Cookson Hills. The park is located in the southeast portion of Cherokee County and south of Tahlequah on Lake Tenkiller, and (Figure 2.2).

![Figure 2.2 - Cherokee Landing State Park in Cherokee County, Oklahoma](image)

The main entrance of Cherokee Landing State Park is on State Highway 82. It is located near Park Hill, Oklahoma on Lake Tenkiller. Tahlequah, 13 miles north of the state park, is the eastern intersection of U.S. Highway 62 and State Highway 82. It is also the population center near the Cherokee Landing State Park. Its population is approximately 15,700 in the 2010 Census. In addition, the City of Tulsa metropolitan area is 80 miles northwest of the park via a variety of routes. The most commonly traveled route from Tahlequah would likely be Highway 62 south for three miles to State Highway 82 and then south on 82 for 11 miles. Driving from I-40 and taking Highway 82 north around 20 miles to the park is another route for park visitors.
Community and Regional Context

Brief History of Cherokee County

The following history of Cherokee County was written by Amanda Burnett for the Oklahoma Historical Society and retrieved from the website for the Oklahoma Historical Society (http://digital.library.okstate.edu/encyclopedia/entries/C/CH017.html).

Located in northeastern Oklahoma, Cherokee County has a total land and water area of 776.40 square miles. Bordering counties include Mayes and Delaware on the north, Adair on the east, Sequoyah on the south, and Muskogee and Wagoner on the west. Important rivers and streams include the Illinois River, Baron Fork, Town Branch (also known as Ross Branch and Tahlequah Creek), and Park Hill creeks. The area is located in the foothills of the Ozark Mountains and includes the Cookson Hills, which was a favorite hideout for turn-of-the-twentieth-century outlaws. Cherokee County was created from the Cherokee Nation’s Tahlequah District at the 1906 Constitutional Convention and named for the Cherokee Nation. The county seat is located at Tahlequah, which was also the capital of the Cherokee Nation.

According to the Oklahoma Archaeological Survey in 2004, archaeologists have tested two Paleo-Indian, sixty-nine Archaic, nineteen Woodland, and twenty-three Plains Village-era sites. The Harlan Site revealed critical information on the mound builder society prevalent in the area around A.D. 700 until approximately A.D. 1250.

The “Trail of Tears” brought a large population of American Indians to Cherokee County. Prominent Cherokees settled at Park Hill, an established mission community, and at Tahlequah, the new capital, which was incorporated under Cherokee law in 1844. Many of the Cherokees’ government buildings and residences, especially at Park Hill, were destroyed during the Civil War by one side or the other, as the conflict divided the tribe. In the mid-1870s non-Indians began illegally moving into present Cherokee County. In 1878 seventeen of these intruders were reported, and that number quadrupled within five years. By the 1890s whites outnumbered Indians. Land was surveyed in that decade, and beginning in 1902 individual Cherokees received allotments from the federal government. In 1906 the Cherokee Nation’s tribal government was dissolved in preparation for statehood.

Many historic sites exist in the county. The Cherokee Heritage Center is located on the grounds of the original Cherokee Female Seminary, which is listed in the National Register of Historic Places (NR 74001658), at Park Hill. Also at Park Hill are the 1845 Murrell Home (NR 70000530), built by George M. Murrell, a white planter married to a niece of Cherokee Chief John Ross, and the Ross Cemetery (NR 02000170). The Murrell Home is listed as a National Historic Landmark. Tahlequah is home to the historic Cherokee Capitol Building (NR 66000627), Cherokee Supreme Court Building (NR 74001657), Cherokee National Jail (NR 74001656), and seven other National Register properties.

The county is well known for its lakes and recreational areas. In 1953 the U.S. Army Corps of Engineers completed Tenkiller Ferry Dam on the Illinois River for flood control and recreation purposes. Most of Tenkiller Lake is in Cherokee County. Lake Fort Gibson and the Grand River border Cherokee County on the west. The county has two state parks, Cherokee Landing and Sequoyah. Sparrowhawk Wildlife Management Area is located entirely in the county, and parts
of the Cookson, Fort Gibson, and Tenkiller Wildlife Management areas are within its borders. The county has four watersheds, the Lower Neosho, Dirty-Greenleaf, Robert S. Kerr Reservoir, and Illinois. The scenic Illinois River is a major tourist attraction.

The basis of the county’s economy historically has been agriculture. Major crops include corn, vegetables, and wheat. In 1940 nearly 62 percent of the labor force was engaged in agriculture. By 1970 the number of farmers had decreased to 29 percent of the population. By 1990 the farm population was only 4.4 percent. However, specialized agricultural commodities emerged. In 2002 Cherokee County was ranked first in the state for the value of nursery and greenhouse crops and seventh in the state for sales of poultry and eggs. The decrease in agriculture was largely due to urbanization around the Tahlequah area and economic development after World War II. In 2000 the county’s major employers included Northeastern State University, the Cherokee Nation, the nursery industry, and public education.

Major transportation routes include U.S. Highway 62, which crosses the county from east to west. Other routes include State Highway 51, an east-west road, State Highway 10, which extends from the western border and curves to the north, and State Highway 82, which crosses the county from north to south. In 1901-1903 the Ozark and Cherokee Central Railway (acquired by the St. Louis and San Francisco Railway) became the first to build tracks though Cherokee County, accessing markets and contributing to an increase in agricultural production. The railroad declined by 1940, largely due to an increase in automobiles and a decrease in profits during the Great Depression of the late 1920s and 1930s. Rail service in Cherokee County ended in 1942.

Education in the county is deeply rooted in its Cherokee heritage. The Cherokee Male and Female seminaries opened in 1851 at Tahlequah and Park Hill, respectively. Many seminary graduates attended eastern colleges, and the Female Seminary became a social center for the Cherokee Nation. The seminary building burned in 1887 and was rebuilt in Tahlequah. After 1907 statehood Oklahoma purchased the Female Seminary (also in the National Register of Historic Places, NR 73001558). This institution became Northeastern State Normal School, which is now Northeastern State University. In 1910 fire destroyed the Male Seminary.

Notable citizens have included many principal chiefs of the Cherokee Nation. John Ross, who served as chief from 1828 until his death in 1866 and presided over the “Trail of Tears,” the Civil War era, and much internal division and conflict, made his home at Park Hill. Wilma Mankiller, the first woman to serve as Cherokee principal chief, led her nation through a period of renewed growth from 1985 to 1995. Principal Chiefs William P. Ross, Dennis Bushyhead, and Ross Swimmer, among others, also lived in the county. Other noteworthy residents included world-champion archer Joe Thornton, movie and television actor Clu Gulager, and politician and former Speaker of the Oklahoma House of Representatives W. P. “Bill” Willis. Accomplished Cherokee author and historian Robert J. Conley and Cherokee actor Wes Studi also have lived in the county.

In 1907 the Cherokee County’s population was 14,274. It grew to 21,030 by 1940 but declined to 17,762 by 1960. In the next decade the population began a steady growth, spurred by enrollments at Northeastern State University and a reestablishment of Cherokee tribal government. Attracted by the area’s pleasant climate, timbered hills, and various lakes and rivers, an influx of retirees also began moving to Cherokee County. By 1970 the population had reached 23,174, and growth continued steadily. The number of residents reached 42,521 in 2000, with 56.2 percent white,
31.8 percent American Indian, 4.1 percent Hispanic, 0.9 percent African American, and 0.2 percent Asian. Tahlequah and Hulbert are the county’s only incorporated towns.

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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 Cherokee County. The 2010 Census provided the statistical basis for the detail related to the population of Cherokee County in 2013.

The following tables provide this summary based upon data retrieved during September 2013 from [http://factfinder2.census.gov](http://factfinder2.census.gov).

<table>
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<th>Table 2.1 – Population of Cherokee County</th>
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<td><strong>Year</strong></td>
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<td>Cherokee County</td>
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Based upon the population figures in Table 2.1 and comparing that to data from the 2000 census, it is apparent that the population of Cherokee County has increased by about 13% in the past decade. Whereas the 2010 census placed the population at 46,987, the estimate for 2013 had shown an increase to 48,150 persons.

Cherokee County shows a population diverse by race, demonstrated by 51.0% of the population being White and 33.2% American Indian. This percentage is much higher than that demonstrated within the state of Oklahoma. By contrast, the population of African American (1.7%) and Asian are relatively lower than the state average. In addition, Cherokee County presents a population related to ethnicity with a lower percentage of Hispanic residents (6.1%) than is true across Oklahoma (8.2%). This composition of the population is rooted in historic settlement of the area and in recent employment activity.

Table 2.2 on the following page provides detail on the population characteristics of Cherokee County. Of particular note is the median age in Cherokee County at 34.3 years, whereas the state of Oklahoma shows a median age of 36.3 years. Cherokee County residents are slightly younger in age when compared to the general population of the state of Oklahoma. This composition of population affects the local workforce and recreation activity, as well as educational opportunities throughout the county. The residents of Cherokee County reflect the American Indian heritage of this area to a much greater extent than is true in the general Oklahoma population.
### Table 2.2 – Demographic Characteristics of the Population

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<th>Cherokee County</th>
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<tr>
<td></td>
<td>Number (Percent)</td>
<td>Number (Percent)</td>
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<td>Sex and Age</td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>23,797 (49.4%)</td>
<td>1,816,749 (49.4%)</td>
</tr>
<tr>
<td>Female</td>
<td>24,353 (50.6%)</td>
<td>1,858,590 (50.6%)</td>
</tr>
<tr>
<td>Median age (years)</td>
<td>34.3</td>
<td>36.3</td>
</tr>
<tr>
<td>Under 18 years of age</td>
<td>11,392 (23.7%)</td>
<td>911,484 (24.8%)</td>
</tr>
<tr>
<td>18 years of age and over</td>
<td>36,758 (76.3%)</td>
<td>2,762,318 (75.2%)</td>
</tr>
<tr>
<td>65 years of age and over</td>
<td>6,912 (14.3%)</td>
<td>491,422 (13.5%)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>24,567 (51.0%)</td>
<td>2,720,135 (72.2%)</td>
</tr>
<tr>
<td>Black or African American</td>
<td>598 (1.8%)</td>
<td>267,179 (7.4%)</td>
</tr>
<tr>
<td>American Indian/Alaskan Native</td>
<td>15,987 (33.2%)</td>
<td>259,809 (8.6%)</td>
</tr>
<tr>
<td>Asian</td>
<td>272 (0.6%)</td>
<td>61,581 (1.7%)</td>
</tr>
<tr>
<td>Native Hawaiian/Pacific Islander</td>
<td>16 (0.0%)</td>
<td>3,967 (0.1%)</td>
</tr>
<tr>
<td>Two or more races</td>
<td>4,299 (9.0%)</td>
<td>263,896 (7.2%)</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>Of any race</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,952 (6.1%)</td>
<td>302,167 (8.2%)</td>
</tr>
</tbody>
</table>

Table 2.3 on the following page reports the household characteristics of the population in Cherokee County. The aging nature of the population is again revealed with a much higher percentage of households in Cherokee County (25.5%) having one or more members of the household over the age of 65 than is true in the general population of Oklahoma (9.9%). Census data showed that Cherokee County had a higher percentage of vacant housing units (16.9%) than that shown across the state. However, during preparation of the RMP, research staff found that quality housing in Cherokee County was limited.
Table 2.3 – Household Characteristics in Cherokee County

<table>
<thead>
<tr>
<th>Household Related Factor</th>
<th>Cherokee County (Number (Percent))</th>
<th>Oklahoma (Number (Percent))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of households</td>
<td>17,836</td>
<td>1,421,705</td>
</tr>
<tr>
<td>Population in households</td>
<td>44,947 (93.3%)</td>
<td>3,563,497 (96.9%)</td>
</tr>
<tr>
<td>Households with a child or children under 18</td>
<td>5,838 (32.7%)</td>
<td>425,149 (29.9%)</td>
</tr>
<tr>
<td>Households with person 65 years and over</td>
<td>4,542 (25.5%)</td>
<td>140,851 (9.9%)</td>
</tr>
<tr>
<td>Occupied housing units</td>
<td>17,836 (83.1%)</td>
<td>1,421,705 (86.5%)</td>
</tr>
<tr>
<td>Vacant housing units</td>
<td>3,619 (16.9%)</td>
<td>222,523 (13.5%)</td>
</tr>
<tr>
<td>Owner occupied housing units</td>
<td>11,780 (66.0%)</td>
<td>969,959 (68.2%)</td>
</tr>
<tr>
<td>Renter occupied housing units</td>
<td>6,056 (34.0%)</td>
<td>451,746 (31.8%)</td>
</tr>
</tbody>
</table>

Another characteristic on which the population of Cherokee County differs from that across Oklahoma is household income. The median household income in Cherokee County is significantly lower than the statewide average (Table 2.4). 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. The mean household income in Cherokee County is $46,421, an indication that a small number of households are doing quite well, while a large number of households may be at the lower end of the income base. One hundred six households in Cherokee County (0.6%) reported incomes exceeding $200,000, whereas 10,370 (60.1%) reported household incomes below $50,000.

It is important to recognize that 26.8% of the population of Cherokee County is identified as being below federal poverty guidelines. The percentage of households below poverty levels and the percentage of individuals in those households are higher than the comparable statistics for the state of Oklahoma. It can be concluded that the residents of Cherokee County are well below the comparable financial characteristics for Oklahoma.

Table 2.4 – Financial Characteristics in Cherokee County

<table>
<thead>
<tr>
<th>Characteristic or Factor</th>
<th>Cherokee County</th>
<th>Oklahoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median household income</td>
<td>$35,584</td>
<td>$42,979</td>
</tr>
<tr>
<td>Households below poverty level</td>
<td>18.5%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Individuals below poverty level</td>
<td>26.8%</td>
<td>16.2%</td>
</tr>
</tbody>
</table>
Residents of Cherokee County also present education characteristics that are associated with the financial status of the county. The general education pattern of Cherokee County is similar to the statewide educational pattern shown with slight variation in each category. For example, Cherokee County residents exceed state percentages in educational attainment in the graduate or professional degree category (Table 2.5). However, residents of Cherokee County lag behind state educational achievement levels on high school degree or equivalency and associate degree. Education levels have been shown to be highly correlated with other economic measures. As a result, the economic status of residents of Cherokee County reflects the lower educational attainment of these residents.

Table 2.5 – Education Characteristics in Cherokee County

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Cherokee County Number (Percent)</th>
<th>Oklahoma Number (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>29,511 persons 25 years of age and above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 9th grade</td>
<td>1,516 (5.2%)</td>
<td>115,248 (4.8%)</td>
</tr>
<tr>
<td>9th to 12th grade, no diploma</td>
<td>2,916 (10.0%)</td>
<td>232,987 (9.8%)</td>
</tr>
<tr>
<td>High school diploma or equivalency</td>
<td>8,777 (30.1%)</td>
<td>775,478 (32.6%)</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>7,290 (25.0%)</td>
<td>559,367 (23.5%)</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>1,516 (5.2%)</td>
<td>159,557 (6.7%)</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>4,374 (15.0%)</td>
<td>362,043 (15.2%)</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td>2,799 (9.6%)</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 Cherokee County are reported in Table 2.6 on the following page. As of 2012, Cherokee County reported unemployment to be approximately 8.2% as compared with a statewide 7.7%, both of which were in better conditions than was true across the nation at this time. About 25% of Cherokee County residents self-reported as government workers which pattern is higher than the general population of Oklahoma.
### Table 2.6 – Employment Characteristics in Cherokee County

<table>
<thead>
<tr>
<th>Characteristic or Factor</th>
<th>Cherokee 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>20,335 (53.9%)</td>
<td>1,806,858 (63.0%)</td>
</tr>
<tr>
<td>Employed</td>
<td>18,668 (91.8%)</td>
<td>1,674,765 (92.3%)</td>
</tr>
<tr>
<td>Private wage and salary workers</td>
<td>12,041 (64.5%)</td>
<td>1,260,965 (75.3%)</td>
</tr>
<tr>
<td>Government workers</td>
<td>4,760 (25.5%)</td>
<td>285,562 (17.1%)</td>
</tr>
<tr>
<td>Self-employed (non-incorporated business)</td>
<td>1,867 (10.0%)</td>
<td>124,013 (7.4%)</td>
</tr>
<tr>
<td>Unpaid family workers</td>
<td>0 (0.0%)</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 Cherokee County between the age of five and seventeen, there are 733 individuals (9.0%) of the population with a disability. This percentage increases in the population from ages 18 to 64 years to 18.1% or 5,306 individuals. Among those persons aged 65 years or more, 42.0% or 2,665 individuals have one or more disabilities. These percentages are similar to those found statewide in Oklahoma. In addition, disabilities increase with age and certain disabilities and rates of disabilities are more prevalent among certain racial or ethnic groups. For example, 16.4% of American Indians have at least one disability, whereas 20.0% of whites have a disabling condition.

In summary, Cherokee County is a relatively higher populated rural area with approximately 60.5 persons per square mile as compared to an average of 50.3 for Oklahoma. That population shows an average household income significantly below the statewide average; a higher percentage of Cherokee County residents are below the poverty level than is true statewide; the county shows greater diversity than is true in the statewide population, particularly among American Indians.

### Competing and Complementary Recreational Opportunities

Eastern Oklahoma offers several lake and forest parks that may be competing or complementary recreation opportunities for Cherokee Landing State Park. Tenkiller State Park, a second state managed park on Lake Tenkiller, offers water access to the public on the southwest portion of the lake and other recreational opportunities such as tent and RV camping, boating and swimming. In addition, Sequoyah State Park is also located in Cherokee County on Fort Gibson Lake which also provides water-based recreation access as that as Cherokee Landing State Park.

On Lake Tenkiller the United States Army Corps Engineers (USACE) also manages several large recreation facilities, primarily offering camping, that would compete with Cherokee Landing State Park. These include Barnacle Bill’s, Burnt Cabin, Carter’s Landing, Chicken Creek, Cookson Bend, and Elk Creek Marina. However, these USACE facilities offer lesser maintenance and security than is true at Oklahoma State Parks. Other recreation facilities, such
as trails, swimming beaches, marinas, fishing docks and piers are also available at some of the USACE’s recreation areas along Lake Tenkiller.

Similarly, there are lodging facilities in Sequoyah State Park that should be viewed as complementary rather than competing operations. Sequoyah State Park does include cabins similar to those at Tenkiller State Park, but the two parks are about 45 miles distant from each other. Both of these state parks are more developed than is true of Cherokee Landing State Park.

Regional and Park History

The early settlement of Cherokee County was by the Cherokee, Delaware, and Seneca Indians. When Oklahoma became a state, the county was named for the Cherokee Indian nation. Two large reservoirs were built on streams in the survey area for municipal and industrial purposes. Some industry was established. Tahlequah, the old Cherokee Capital, is the county seat of Cherokee County. Hulbert, which is smaller, is the only other sizable town in the county (NRCS, 1970).

Lake Tenkiller is an important aspect of Cherokee Landing State Park and some of its history is presented in the following sections. It is fair to say that, without the development of Tenkiller Lake, Cherokee Landing State Park would not exist – definitely not in its present form. The material noted below is taken directly from U.S. Army Corps of Engineers Tulsa District: http://www.swt.usace.army.mil/locations/TulsaDistrictLakes/Oklahoma/TenkillerLake/History.aspx

More than 130 years ago, the Cherokee Indians came to this area to build a nation after their westward trek from Georgia over the Trail of Tears. Tenkiller crossing – where the dam is located – is named for a famous Cherokee family and was a main traveled route across the Illinois River in frontier times. Here in the western foothills of the Arkansas Ozarks, the Cherokees invented a syllabary and developed an intricate government, including a system of courts of law. At Tahlequah, the Cherokees produced Oklahoma’s first newspaper in both Cherokee and English, and built a tribal government and schools. Here may be seen the historic Cherokee capital, the old tribal prison, the Cherokee Supreme Court Building, Cherokee Female Seminary built in 1889, and near the junction of US Highway 62 and State Highway 10/State Highway 82, south of Tahlequah, is Tsa-La-Gi, an authentic replica of a Cherokee Village from the 1700s. There are many more points of interest within easy driving distance, including the Sequoyah Memorial, the historic Murrell Mansion, Dwight Mission, Fort Gibson National Cemetery, and Fort Gibson Stockade. The notable cliffs, forests and meadows along the shoreline of Lake Tenkiller are still much as they were years ago when outlaw gangs fled to the Cookson Hills for protection from the law.

The Tenkiller Ferry project was authorized by Congress under the Flood Control Act of 1938. Installation of power features was authorized in the River and Harbor Act of 1946. It was designed and built by the Tulsa District, Corps of Engineers, at a cost of $23,687,000.

The primary purpose of Tenkiller Lake is for flood control and hydroelectric power. The major construction started in June 1947. The spillway, outlet works, and tunnels were completed in 1951, and embankment closure occurred in May 1952. Impoundment of the power pool began in July 1952. The project was completed for full flood control operation in July 1953. Installation of the two hydropower units was completed in December 1953, and power generation was initiated. Work on the repair and extension of the spillway apron was initiated in July 1960 and
completed in August 1961. In fiscal year 2003, Phase 1 of a dam safety project was begun at the lake. Phase 2 began in fiscal year 2004 and was completed in fiscal year 2006. The dam safety project consists of an auxiliary spillway with five 50-foot wide by 35-foot high tainter gates constructed near the right abutment of the embankment. The spillway structure is similar to the existing spillway. In addition, a new Highway 100 bridge was built to carry traffic across the upstream approach channel for the new spillway. On November 29, 2006, a ribbon cutting ceremony was held marking the completion of the spillway project.

The structure is a rolled, impervious and semi-pervious earth-filled dam about 3,000 feet long with a maximum height of 197 feet above the streambed. Oklahoma State Highway 100 extends across the top of the dam. An earth-filled dike about 1,350 feet long is located between the right end of the dam and the spillway.

**Natural Resources in the Park**

**Climate and Air Quality**

Cherokee County is part of the Ozark Forest, also known as the Boston Mountains to the south and the Ozark Highlands to the north. Average annual precipitation ranges from about 48 inches in western Cherokee County to 51 inches in the east. May and June are the wettest months, on average, but much of the spring through fall receives sufficient rainfall. Nearly every winter has at least one inch of snow, with one year in five having ten or more inches.

Temperatures average near 60 degrees, with a slight increase from north to south. Temperatures range from an average daytime high of 92 degrees in July and August to an average low of 27 degrees in January. Cherokee County averages a growing season of 195 days, but plants that can withstand short periods of colder temperatures may have an additional three to seven weeks.

Winds from the southeast are quite dominant, averaging nearly seven miles-per-hour. Relative humidity, on average, ranges from 43% to 94% during the day. During the year, humidity is highest in May and June and lowest in March and April. Winter months tend to be cloudier than summer months. The percentage of possible sunshine ranges from an average of about 50% in winter to nearly 75% in summer.

Thunderstorms occur on about 50 days each year, predominantly in the spring and summer. During the period 1950 – 2003, Cherokee County recorded 20 tornadoes. The most recent significant tornado (F2 intensity or greater) occurred on June 1, 1999. Two people were killed and five injured when this tornado passed near the town of Hulbert. On May 2, 1920 the people of Cherokee County suffered a deadly F4 tornado that took the lives of 71 people and injured 100. Typically, there are about 2 events each year of hail exceeding one inch in diameter. As information collection improves, both the number of reported tornadoes and the number of severe hail events have increased.

**Archeology**

The area around Cherokee Landing State Park has provided evidence of human habitation for thousands of years. The rivers and highly productive soils in the area have proved to be strong bases for supporting a wide variety of life.
According to the Oklahoma Archeological Survey, archeologists have discovered one site: Harlan site in Cherokee County, Oklahoma. The following archeological information of Harlan site is derived from Oklahoma Archeological Survey website: http://www.ou.edu/cas/archsur/counties/cherokee.htm

The Harlan Site is the Oklahoma center and western edge of a development beginning at the end of the first millennium, the formation of an elite ruling class of priest/leaders who held sway over farming villagers occupying fertile river valleys in much of eastern North America. These leaders lived at mound centers where religious ceremonies were performed. The communities of farming people, growing corn, squash and beans, brought tribute to their leaders and provided the labor for the building of earthen mounds where temples and mortuary houses were built and in which elaborate burials of the honored dead were placed.

The first mound at Harlan was built around AD 700. However, the main mound-building began around AD 900 and continued for around 300 years. During that period, four more mounds were built up of dirt carried in from the local area. The largest mound is 130 by 160 feet in outline. Four different mound-building events over the period of Harlan’s occupation brought the mound to its eventual height of 14 feet. The earliest mound covered a burned structure; the following building periods did not appear to cover structures but rather to provide a heightened stage where rituals were performed by the Harlan chiefs or priests.

The other mounds were devoted to the care and treatment of the Harlan dead. Mortuary structures served as temporary houses for the dead. At four different periods of time, the mortuaries were completely cleaned out and the skeletal remains of the Harlan ancestors were reburied in a burial mound. Over time, the ceremonial offerings placed with these burials increased in number. They indicate the growing status of the leaders and increasing trade with other areas on the continent. Copper from the Great Lakes, conch shell from the Gulf Coast and galena, a mineral used to form grey pigment, from eastern Missouri show a vibrant community with extensive contacts with other chiefdoms throughout North America.

The people who actually lived at the site were few in number. Perhaps only the principal chief and a few retainers or perhaps only a caretaker lived at the site. Most of the structures excavated at Harlan were devoted to housing the dead.

Over the 300 years of its political power, the Harlan site chiefs extended their influence throughout the Arkansas River valley and perhaps even to the Ozark drainages in southwest Missouri and northwest Arkansas. However, by AD 1250 the Harlan site had been abandoned. The Norman site in Wagoner county became ascendant for a short-lived period and then the Spiro site on the Arkansas River about 50 miles away became the most powerful and prestigious community in the area.
Topography

Cherokee County consists of two different Major Land Resource Areas. The northeast parts are in the Ozark Highland and the rest of the county is in the Boston Mountain Plains Resource Area (NRCS, 2006) (See Figure 2.4). The following topographical information of Cherokee County, Oklahoma was reported in Supplement to the Soil Survey of Cherokee County, Oklahoma prepared by United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) and other Oklahoma governmental agencies.

Cherokee County is mostly hilly, but there are small, more gently sloping areas. The general slope is from the northeast to the southwest. The Neosho (Grand) and Illinois Rivers drain most of the county. Fourteen Mile, Clear, Double Spring, and Pecan Creeks are the main streams draining into the Neosho (Grand) River. Elk, Barren Fork, and Caney Creeks drain into the Illinois River. These rivers and creeks have entrenched about 200 to 400 feet and have imparted a hilly relief to most of the survey area. Landforms in the county include prairies and areas of cherty limestone and sandstone. The prairies are mostly nearly level to sloping. The areas of cherty limestone and sandstone are hilly. The divides between drainage-ways are nearly level to sloping and range from 1/4 to 4 miles in width, but the slopes that extend into the drains are strongly sloping to very steep. The larger areas that are drained consist of nearly level to very gently sloping flood plains and nearly level to sloping benches. The drainage-ways range from 200 feet wide along the smallest streams to about 2 miles wide along some of the rivers.

Geology

Cherokee Landing State Park is situated in the Ozark Uplift or Ozark Highlands (Figure 2.5). According to Charpentier (2010), the Ozark Highlands is a level to highly dissected plateau.
composed of flat-lying, cherty limestone. It is lithologically distinct from surrounding ecoregions and is less rugged than the Ouachita Mountains and Boston Mountains. Karst features and clear, cool streams are common. Bank erosion has choked many channel reaches with cherty gravel, causing the reaches to become braided and dominated by unstable run habitat; in the process, many natural pools have been lost. In the Ozark Highlands, both habitat diversity and species richness are high and sensitive fish species are common. Minnows, sunfishes, and darters are plentiful. The banded sculpin and slender madtom occur in small streams, especially where aquatic macrophytes are present, and the southern red belly dace inhabits headwaters. The shadow bass is nearly limited to the Ozark Highlands. Other common fishes include the orange throat darter, stippled darter, greenside darter, fantail darter, northern hog sucker, white sucker, Ozark minnow, cardinal shiner, and big eye shiner. The most important game species is the smallmouth bass (Oklahoma Secretary of Environment, 2010).

The maximum elevation of the Ozark Highlands in Oklahoma is about 1,500 feet and the maximum relief between hillcrests and valley bottoms is about 400 feet. The Ozark Highlands region contains the oldest surface rocks in the state, limestones that formed about 345 million years ago during the latter part of the Mississippian Period. These rocks show that during the Late Mississippian, the land was alternately above and below sea level. When the sea advanced, limestones (and occasionally shales) were deposited. When the sea retreated, erosion set in. The Mississippian limestones contain chert (or flint). Because chert is much harder and more resistant to weathering than limestone, erosion of the softer limestone has left a thick blanket of chert gravel on hilltops and ridges.

Figure 2.5 – Geological regions in Oklahoma
Source: Charpentier (2010)
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 2.6 – Soil map of Cherokee Landing State Park**

Source: Natural Resource Conservation Service
Soil Suitability for Recreational Development

The Soil Survey of Cherokee County, Oklahoma (USDA & NRCS, 2013) also provided suggestions for sustainable recreation use in the area. The ratings are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. There were several recreational developments featured in the report:

*Camp areas* are tracts of land used intensively as sites for tents, trailers, and campers and for outdoor activities that accompany such sites. These 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 soils are rated on the basis of soil properties that influence the ease of developing camp areas and performance of the areas after development. Also considered are the soil properties that influence trafficability and promote the growth of vegetation after heavy use.

*Picnic areas* are natural or landscaped tracts of land that are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The soils are rated on the basis of soil properties that influence the cost of shaping the site, trafficability, and the growth of vegetation after development. The surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry.

*Playgrounds* are areas used intensively for baseball, football, or similar activities. These areas require a nearly level soil that is free of stones and that can withstand heavy foot traffic and maintain an adequate cover of vegetation. The soils are rated on the basis of soil properties that influence the cost of shaping the site, trafficability, and the growth of vegetation. Slope and stoniness are the main concerns in developing playgrounds. The surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry.

Figure 2.6 on the previous page details the soil at Cherokee Landing State Park. There are three dominant soils within the park boundaries. More than half of Cherokee Landing State Park is Britwater gravelly silt loam with 3 to 8 percent slopes (57.7%). This is primarily situated through the center of the park and in the camping area.

The second large soil complex is slightly above a quarter of the park property (38.8%) and composed of Enders-Hector-Linker association with 8 to 30 percent slopes. This soil is located in the eastern side of the peninsula along with the lake shore and northeastern corner of the park. This soil complex is now utilized for unimproved campground. In addition, the third large soil dominant complex is Hector fine sandy loam (9.9%) with 3 to 5 percent slope. This soil is located northwest of the Britwater gravelly silt loam.

For recreational development, major portions of the soil properties within Cherokee Landing State Park show somewhat limited to very limited performance for camp areas. The soil of the current unimproved campsites along with the eastern lake shore are considered as unfavorable soils for camp areas and the limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

The soil of the rest of the campgrounds located in the center of the park have features that are moderately favorable for camping and the limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected (NRCS, 2013).
In addition, playground and picnic area development is somewhat or very limited in the park due to characteristics of the soil properties in the park, while paths and trail development are favorable across the park property.

The northeastern extent of the leased property extends north of Highway 82. This area is inaccessible by vehicles from within the main portion of the park. This area is also subject to flooding and is not appropriate for development.

**Hydrology**

The U.S. EPA website provides information related to watersheds within the United States. According to the EPA, Cherokee County crosses the following watersheds: Lower Neosho (11070209), Dirty-Greenleaf (11110102), Illinois (11110103), and Robert S. Kerr Reservoir (11110104). These watersheds are shown in Figure 2.7.

- 11070209 Lower Neosho; state(s): AR, OK
- 11110102 Dirty-Greenleaf; state(s): OK
- 11110103 Illinois; state(s): AR, OK
- 11110104 Robert S. Kerr Reservoir; state(s): AR, OK

The area around Cherokee Landing State Park is confined to the Illinois watershed. According to USEPA (2013), the Illinois River is a multi-jurisdictional tributary of the Arkansas River, approximately 100 miles long, between the States of Arkansas and Oklahoma. The Illinois River begins in the Ozark Mountains in the northwest corner of Arkansas (Washington County) and flows west into northeast Oklahoma. Once the Illinois River enters Oklahoma, it then flows southwest and south through the mountains of eastern Oklahoma into Tenkiller Ferry Lake.

The maps and figures on the following pages provide detail related to Lake Tenkiller. This detail is provided by the Oklahoma Water Resources Board. Tenkiller has a shoreline development ratio of 8.2 and normal pool elevation is 632 feet above sea level (OWRB, 2008).
Tenkiller Ferry Dam was built by the U.S. Army Corps of Engineers (USACE) on the Illinois River approximately 12 miles above its confluence with the Arkansas River in eastern Oklahoma. The dam is about 7 miles northeast of Gore and about 22 miles southeast of Muskogee. Construction was authorized by Congress under the Flood Control Act of 1938 and completed in 1952. Authorized purposes are flood control and hydropower.

Figure 2.8 – Tenkiller Ferry Lake and Dam
Source: USACE
Figure 2.9 - Lake Tenkiller
Source: Oklahoma Water Resources Board
### Tenkiller, Illinois River Arm (3-6)

<table>
<thead>
<tr>
<th>Sample Period</th>
<th>Times Visited</th>
<th>Sampling Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2009 – July 2010</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

#### General
- **Location**: Sequoyah County
- **Impoundment**: 1953
- **Area**: 12,900 acres
- **Capacity**: 554,100 acre-feet
- **Purposes**: Flood Control, Hydropower

#### Parameters
- **Salinity**: 0.06 – 0.13 ppt
- **Specific Conductivity**: 148 – 263.7 μS/cm
- **pH**: 6.78 – 8.6 pH units
- **Oxidation-Reduction Potential**: 324-534 mV
- **Dissolved Oxygen**: Up to 25% of water column < 2 mg/L in July

#### Nutrients
- **Surface Total Nitrogen**: 0.41 mg/L to 1.99 mg/L
- **Surface Total Phosphorus**: 0.018 mg/L to 0.055 mg/L
- **Nitrogen to Phosphorus Ratio**: 34:1

### Beneficial Uses
- **Fish & Wildlife Propagation**: S*  S  S  S
- **Aesthetics**: NS  S
- **Agriculture**: S*  S  S
- **Primary Body Contact Recreation**: NEI
- **Public & Private Water Supply**: NS

*Notes*
- NTU = nephelometric turbidity units
- μS/cm = microsiemens per centimeter
- mV = millivolts
- mg/L = milligrams per liter
- μS/cm = microsiemens per cm
- ppt = parts per thousand
- EN = Enterococci

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**Figure 2.10 – BUMP report on Lake Tenkiller - Illinois River Arm**

Source: Oklahoma Water Resources Board
Vegetative Cover

Cherokee Landing State Park is in the Ozark Highlands and Ozark Forest using the Kuchler Vegetation Classification. The Highlands are characterized by extreme biological diversity and high endemism (uniqueness of species). Vegetation communities are dominated by open oak-hickory and shortleaf pine woodlands and forests. Included in this vegetation matrix is an assemblage of various types of fens, forests, wetlands, fluvial features, and carbonate and siliceous glades (USDA, 2009).

The Ozark Forest (aka Boston Mountains) features an abundance of red oak, white oak and hickory trees in its heavily forested terrain. The Boston Mountains form the southern border of the Ozark National Forest and intrude from northwestern Arkansas into the east-central Oklahoma counties of Cherokee, Adair, Sequoyah, and Muskogee (Kenneth, 1998). This area supports hardwood forests. The primary overstory species are red oak, white oak, and hickory. Shortleaf pine and eastern redcedar are important on disturbed sites, on shallow soils, and on south or west slopes. Big bluestem, switchgrass, indiangrass, and little bluestem are important understory species under medium to open forest canopy. Broadleaf uniola, longleaf uniola, wildryes, and low panicums are important species under heavy canopy (USDA, 1981).

Wildlife

As is true with all Oklahoma state parks, Cherokee Landing State Park is a wildlife sanctuary. Due to the relatively small size of Cherokee Landing State Park, small mammals and birds are present and resident. Larger species may be found in the surrounding areas. Several migratory bird species may pass through the park on annual migrations.

Endangered or Threatened Species

At present only one species, Neosho Mucket (Lampsilis rafinesqueana), is listed as an endangered species in Cherokee County. However, federally listed threatened and endangered species that may be present in Cherokee County include: Piping Plover (Charadrius melodus), Gray Bat (Myotis grisescens), Indiana Bat (Myotis sodalist), Ozark Big-eared Bat (Corynorhinus Plecotus, townsendii ingens), and American Burying Beetle (Nicrophorus americanus).
Endangered species are animals and plants that are in danger of becoming extinct. Threatened species are animals and plants that are likely to become endangered in the foreseeable future.

The Piping Plover is listed as threatened species, while Gray Bat, Indiana Bat, Ozark Big-eared Bat, and American Burying Beetle are listed as endangered species. In addition, the Lesser Arkansas Darter (Etheostoma cragini) is recognized as a candidate species under evaluation. Endangered species are animals and plants that are in danger of becoming extinct. Threatened species are animals and plants that are likely to become endangered in the foreseeable future. Official county lists of federally threatened and endangered species are maintained by the U.S. Fish and Wildlife Service, the federal agency that administers the Endangered Species Act in Oklahoma.

According to the Oklahoma Department of Wildlife Conservation (2013), normally the Piping Plover is a migrant through Oklahoma in the spring and fall, although there are records of nesting areas in Oklahoma. Recent records include sightings of the Piping Plover in Cherokee County. Piping Plover populations have declined in their nesting range as a result of habitat destruction and alteration due to dam construction and channelization projects along rivers and streams, as well as the draining and filling of shallow wetlands.

The American Burying Beetles occupy a wide range of habitat types including tallgrass prairie, woodlands and forests. They reproduce in the spring and summer (early May through August). The reasons for the decline in American Burying Beetles are uncertain. Pesticide use has been speculated as a leading cause. Another potential factor may be a reduction in the abundance of carcasses that are of suitable size for successful reproduction (ODWC, 2013).

**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 Cherokee Landing 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, 2014):

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

The United States Access Board has since issued requirements that are now part of the Architectural Barriers Act (ABA) Accessibility Standards and apply to national parks and other outdoor areas developed by the federal government. The final rule became effective on November 25, 2013. This does not apply to outdoor areas developed with federal grants or loans or to other entities. However, the Board has indicated it intends to develop guidelines for non-federal outdoor sites covered by the Americans with Disabilities Act (ADA) and areas developed with federal grants and loans covered by the ABA in subsequent rulemaking. Over the years it has been the practice of OTRD to apply available standards once they are established.

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 2.1. 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 Cherokee Landing 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 made significant efforts through the addition of 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. Two older (non-accessible) comfort stations were removed in the spring of 2016, a result of flooding and the practice of OTRD to update facilities. The only remaining comfort station is accessible. In addition, between the time of the initial preparation of the RMP and its revision, a new playgroup was installed at the Cherokee Area in full compliance with CPSC and ADA standards.

Throughout Cherokee Landing State Park, it will be necessary to complete a thorough review of accessibility as standards change. 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).

Golf carts are in frequent use on roadways in Cherokee Landing State Park, particularly by park personnel and campground hosts. As a result, it is likely that park guests may seek to utilize OPDMD as a means of transport during their park visits. Cherokee Landing State Park is one of the state parks where visitors are allowed to use golf carts and the park now has two available for rental by park visitors. Visitors can bring their own golf carts and buy a permit to use them in the park. An informative sign (Figure 3.4) has been posted at the park entrance. In addition, use of OPDMDs by the disabled is approved throughout the state park system.

*Figure 2.15 – Examples of accessible facilities in Cherokee Landing State Park*
Left: Boat ramp in Cherokee Area; right: RV campsite in Creek Area
Chapter 3 – Current Status of the Resource

Recreational Development

As indicated in previous discussion, Cherokee Landing State Park is one of two Oklahoma State Parks on Lake Tenkiller in east central Oklahoma associated with the United States Army Corps of Engineers impounded reservoir, Tenkiller Ferry Reservoir. Lake Tenkiller has been considered as the clearest lake in the state Oklahoma. Cherokee Landing State Park, nestled in the beautiful Cookson Hills and thirteen miles south from the city of Tahlequah, lies in the heart of Cherokee Territory with profound history and beauty.

Cherokee Landing shares its history with Tenkiller State Park. In 1953, Cherokee Landing State Park was originally managed as part of the Tenkiller State Park, leased from the U.S. Army Corps of Engineers. Cherokee Landing was officially developed as a new designated recreation area and become a separately managed property in 1979. At present, Cherokee Landing State Park and Tenkiller State Park have returned to management under a unified structure.

The map on the following page, Figure 3.2, provides an overview of the features of Cherokee Landing State Park. The park boundaries include about 146 acres of land providing access to the 13,000 surface acres of Lake Tenkiller. Cherokee Landing State Park encompasses tent and RV campgrounds, day use areas with picnic shelters and restrooms with hot showers. These facilities are detailed in the following discussion. For ease of presentation, the discussion and presentation begins at the north entrance to the western unimproved campground and continues to the major developed areas on the eastern portions of the park property in a counter-clockwise manner.

Figure 3.1 – ODOT entry sign on Highway 82
Figure 3.2a – Map of Cherokee Landing State Park (Google)
For all visitors entering Cherokee Landing State Park by automobile, the only highway access route is along State Highway 82 north out of Vian or south out of Tahlequah. All traffic along the state highway will pass the location of ODOT’s entry sign for Cherokee Landing State Park (Figure 3.1); however, that sign is immediately at the park entrance with little advance warning. Park visitors familiar with the area will recognize the location of the park, but those unfamiliar with the route or the park may come upon it unaware of the entry road to the south of Highway 82.
Entry Drive and Environs

The entrance on State Highway 82 is the only entrance that park visitors can use for access to the park. State Highway 82 is two-lanes with a 55 mile per hour speed limit at the park entrance, increasing to 65 mph, heading northwest to Tahlequah. In towns along the route, the speed limit is lower, while vehicles coming from the northwest may be at higher speeds with a 65 mile per hour limit. A visitor entering Cherokee Landing is in a rural, small-town environment.

Since Highway 82 is two-lane at the intersection with the park access road, there is limited turning space. For larger recreational vehicles or cars turning left into the park, there may be some delay caused by on-coming traffic. Sight-lines at this location are adequate due to the open terrain. Along Highway 82, visitors will pass a business area adjoining the state park property providing tourists with food, beverage, fuel, bait, and recreational equipment.

The entry road is paved and well-maintained with a gate (Figure 3.4). This entry is subject to flooding during high water conditions. It is a transition from the rural environment outside the park into the atmosphere and experience available within Cherokee Landing State Park. A short road to the right (west) permits vehicles to access a small parking area serving a fishing dock in Wildcat Point. Staying on the main road, visitors are directed to follow the main road to the central portion of the state park with the majority of the park facilities, such as park office, RV and tent camping areas, boat ramp, and softball facilities or turn right to the western portion of the park with primarily access to fishing and tent camping.
**Wildcat Point**

Upon entry into Cherokee Landing State Park, instead of driving south to the park office, park visitors can drive around 200 yards and turn right (west) to Wildcat Point. This area is gated and may be closed as needed; Wildcat Point once offered unimproved camping area augmented with one comfort station, one fishing dock, and tent campsites. As of spring 2016, the comfort station was demolished and most of the facilities were removed (Figure 3.5). Camping is no longer permitted in this area.

The road of this campground is a loop design. A natural surface hiking trail loops to the west and back to the parking area serving the fishing dock.

**Table 3.1 – Wildcat Point**

<table>
<thead>
<tr>
<th>Campground amenity</th>
<th>Wildcat Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trail</td>
<td>1</td>
</tr>
<tr>
<td>Fishing dock</td>
<td>1</td>
</tr>
</tbody>
</table>

**Figure 3.5 – Wildcat Point Area**

Above left: former sign for Wildcat Point
Above right: comfort station removed in spring 2016
Bottom left: open space, bottom right: fishing dock
Park Office and Day Use Area
Returning to the main road of Cherokee Landing State Park, the road takes park visitors south to the park office. A linear space along the west of the main road adjoining the lake shore is the day use area. There are ten defined picnic tables either with structured shades or without structured shades as can be seen in Figure 3.6. However, during peak season, this area is also used as an overflow camping area for tent camping. It is common that this area is mixed use occupancy by day use visitors and overnight campers as can be seen in Figure 3.6.

![Day use area along with the entry drive](image)

Figure 3.6 – Day use area along with the entry drive
Top left: typical campsites with shelter; top right: typical campsites without shelter
Bottom two: Unimproved campsites in mixed day-use and overnight use

On the main drive to the park office, a new sewage lagoon system is located north of an open space and the park office (Figure 3.7). The lagoon system is located in a fenced area with warning signs at the main entrance to remind park visitors that this facility is not open for public use, but for park staff and maintenance purpose only. An open space is located in the area north of the park office which park visitors can use for multiple recreational purposes, such as having family activities, picnicking, group activity, or enjoying sunshine. Although the open space is marked as an unimproved campground on the park map, there are no camping activities allowed in this open space. Proceeding southerly along the main road through the property, a few interpretive signs with a bench are displayed adjacent to the open space. This area is designed for
delivering interpretive information about the wildlife to park visitor and providing a place for relaxation.

On the main road into the park there is a new park office (Figure 3.8) that can also serve as an entry fee collection station. A few parking spots are available near the office, including an accessible spot large enough to accommodate an RV. In addition, a temporary parking lane allows incoming campers and drivers to park while stopping by the office. A designated modern campsite is located near the office and the maintenance area as a supplemental facility for park staff’s residential use (Figure 3.8).
Just south of the park office, a maintenance yard and storage area is located and a park residence is also located to the rear of the maintenance area. The maintenance area is visible from the main road, while the park residence area is a fenced area with less visibility from the road. Three fuel tanks, maintenance equipment, and other ready-to-install or just-removed signs are stored in the storage area. Throughout the preparation of the RMP, this area was organized. However, the gate was typically left open during the day. A portion of the maintenance building was once used as the park office, now relocated to the entry structure in Figure 3.8.

![Maintenance area and residential area](image)

*Figure 3.9 – Maintenance area and residential area*

Top two: Maintenance area with fuel tanks  
Bottom left: park staff residential building; bottom right: maintenance building

**Cherokee Area**

About an eighth of a mile further south along the entry road heading south from the park office, park visitors will see a sign for a sanitary dump station for recreational vehicles. As shown in Figures 3.10 and 3.11 on the following page and Figure 3.12 on page 49, the dump station is located between Cherokee camping area and Choctaw camping area and serves campers in these two camping areas as well as those from throughout the park.
The Cherokee area in the park is composed of RV campsites, picnic shelters, playgroups, a boat dock, and a boat ramp. There are 24 semi-modern campsites. Group pavilion B is located in the northern portion of the camping area, while group pavilion A is in the south and close to the beach area as shown in Figure 3.11. With the tables in place, the shelters can accommodate up to 100 people and the shelters can be reserved.

The boat dock and boat ramp at the southwest corner of the peninsula are the most popular facilities in the area. Primarily, the boat ramp and boat dock serve boaters to launch their watercraft and enjoy the water of Lake Tenkiller. The road to the boat ramp is a gated area so the park staff could control the water access based on water levels and weather condition (Figure 3.12 on the following page). The present condition of the boat ramp and associated amenities provides boaters with excellent access to the water.
However, the designated parking lot is subject to flooding during higher water conditions. This park area is marked as a solid black area on the park map on Figure 3.2. Due to fluctuation of the water level, limited parking and overflow parking on the grass would become an issue. In addition, during the summer time especially visitors preferred to park their car under shade close to the boat ramp and fish dock in this area which results in an issue of parking on the grass with intense use as well.

The beach area is one of the significant attractions within Cherokee Landing State Park. During the time of the preparation of the RMP, day users and campers did utilize this area accessing the water for swimming, boating, and other water-oriented sports. It was a heavily used area especially during holidays or weekends. A warning sign reminds park visitors and beach users to wear a life jacket for safety. It also reminds visitors of laws related to alcohol consumption on the beach area and in Oklahoma state parks (Figure 3.13).
The campground of Cherokee Area is designed like tree branches extending from the center to the park main road. Two of the three branches extend south toward the beach area, the most southern point of the peninsula of the park land. There are 24 semi-modern campsites in Cherokee Area, including 13 sites with 50 amp electric hookups and 11 sites with 30-amp service. All campsites in this area are easy to identify by the clearly marked numbers and clearly developed camping pads.

During the preparation of the report, there was a camp host in the campground to assist with management of the area. For regular camp use, frequently the campers have multiple vehicles, a recreational travel trailer, and a boat. As a result, the area shows evidence of vehicular parking on the grass and intense use.

Some of the amenities in Cherokee Area are depicted in Figure 3.14 on the following page. As shown, the comfort station was removed in 2016 and replaced with chemical toilets as a temporary solution.

As can be seen in Figure 3.14, two playgrounds are located in this area: one is an older wooden installation with limited safety surface, set close to the northeast of Pavilion A, and another one is a newer playgroup, placed north of the older playgroup and close to the comfort station. These playgroups give campers and day visitors additional amenities to enhance their recreational visits. Table 3.2 shows all the amenities within the Cherokee Area.
Table 3.2 – Campground Detail for Cherokee Area

<table>
<thead>
<tr>
<th>Campground amenity</th>
<th>Cherokee Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-modern sites (water and electricity)</td>
<td>24 sites (13 sites have 50 amp)</td>
</tr>
<tr>
<td>Comfort station (restrooms)</td>
<td>Removed – chemical toilets</td>
</tr>
<tr>
<td>Sanitary dump station</td>
<td>1</td>
</tr>
<tr>
<td>Pavilion (electricity and water)</td>
<td>2</td>
</tr>
<tr>
<td>Playgroup</td>
<td>2</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>1</td>
</tr>
<tr>
<td>Boat dock</td>
<td>1</td>
</tr>
</tbody>
</table>

Choctaw Area

The Choctaw Area is just north of the Cherokee Area. The campsites are located along a circular shaped loop. There are 20 semi-modern campsites with 50 amp hookups electric and water in Choctaw Area. Frequently the campers have multiple vehicles, a recreational travel trailer, and a boat (Figure 3.15). There are five unimproved sites in the area to the east side of the road along the lakeshore.
Moving north on the main road, there are an additional 18 picnic tables located on the east side of the road along the eastern shore of the main peninsula of the park. During the peak season or special holidays, a similar intense mixed use with day visitors and camper also appeared in this area as that shown for the western day use area in the park. A summary of amenities in this area shows on Table 3.3 on the following page.
TABLE 3.3 – CAMPGROUND DETAIL FOR CHOCTAW AREA

<table>
<thead>
<tr>
<th>Campground amenity</th>
<th>Choctaw Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-modern sites (water and electricity)</td>
<td>20 sites</td>
</tr>
<tr>
<td>Unimproved campsites</td>
<td>5 sites (near the RV camping area)</td>
</tr>
<tr>
<td>Day use area</td>
<td>18 picnic tables</td>
</tr>
<tr>
<td>Comfort station (restrooms)</td>
<td>Removed – chemical toilets</td>
</tr>
</tbody>
</table>

**Chickasaw Area**

Continuing north from the Choctaw Area along the main park road, a Ball Field is located in the open area to the west and a basketball court is located on the east side of the road. Continuing north along the main road is the Chickasaw Area along the east side of the main road. The Seminole Group Camping Area and the Creek Area are on the west side of the road. Photos showing the development of Chickasaw Area are provided in Figure 3.17.

![Figure 3.17 - Chickasaw Area: Campsite and amenities](image)

*Figure 3.17 - Chickasaw Area: Campsite and amenities*

Top left: Sign for the campground  
Top middle: typical campsite  
Bottom left: RV Campsites in use  
Right from top to bottom: pavilion C and playgroup
The Chickasaw campground is located in the far northeastern portion of the developed state park property and along the lakeshore. There are nine semi-modern campsites with electric hook-ups and water and one unimproved campsite in this area. The campground layout of this area was designed as two connected semi-circles. As can be seen in Figure 3.17, a typical campsite is clearly defined by a paved RV parking area and a picnic table with marked number and surrounded by trees with shading of most campsites.

Other amenities related to recreational use include a group picnic pavilion and an older playgroup with swing and slide, located south of the camping area. The playground is somewhat dated and not in compliance with CPSC standards. The closest comfort station for the RV campers in this area is the one located in the northwestern portion of the Creek campground. This comfort station is the only one provided in Cherokee Landing State Park following removal of others in 2016. Table 3.4 shows the detailed information of the Chickasaw Campground in the Cherokee Landing State Park.

Table 3.4 – Campground Detail for Chickasaw Area

<table>
<thead>
<tr>
<th>Campground amenity</th>
<th>Chickasaw Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-modern sites (water and electricity)</td>
<td>9 sites</td>
</tr>
<tr>
<td>Unimproved sites (without water and electricity)</td>
<td>1 site</td>
</tr>
<tr>
<td>Pavilion (electricity and water)</td>
<td>1</td>
</tr>
<tr>
<td>Playgroup</td>
<td>1</td>
</tr>
<tr>
<td>Comfort station (restrooms)</td>
<td>1 (in Creek Area)</td>
</tr>
</tbody>
</table>

Figure 3.18 – Unimproved campsites near Choctaw area
Creek Area RV Campground

As indicated earlier, Creek Area, including RV campsites, is located along the western side of the main roadway. The designated RV campground includes six semi-modern campsites (electricity and water), including one ADA compliant site. These campsites are located along a curved drive extending from the main roadway leading visitors into the individual campsites. As can be seen in Figure 3.19, the campsites are defined by paved RV parking areas with a picnic table and a grill, surrounded by trees. Throughout the preparation of the report, the campsites in this area were clean and well maintained.

Figure 3.19 – Creek campground-RV campsites & facilities around

Top left: typical RV campsite; top right: RV campsites in use
Middle left: Sign for the Nature Trail; Middle: Sign for Creek Campground
Middle right: Nature Trail; Bottom: Pavilion D
Nearby the RV camping area in Creek Campground, a large picnic shelter, Pavilion D, is also situated in the woods and its style is very similar to that of the other larger shelters in the park. The capacity of this shelter is approximately 100 people and the shelter can be reserved in advance. Another recreational facility in this area is the Nature Trail, an otherwise unnamed trail of approximately 0.25 mile for walking/hiking/biking on a natural, unpaved surface.

As can be seen in Figure 3.20, a restroom with shower facility is located in the northern loop of the RV campground in the Creek Area. This comfort station is considered as an ADA compliant facility and is the only comfort station in Cherokee Landing State Park. As a result, it serves all park guests.

A nature trail leads west from Creek Campground to the park office.

**Table 3.5 – Campground Detail for Creek area**

<table>
<thead>
<tr>
<th>Campground amenity</th>
<th>Creek Campground</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-modern sites (water and electricity)</td>
<td>6 sites (Creek campground)</td>
</tr>
<tr>
<td>Semi-modern sites (water and electricity)</td>
<td>16 site (group campground)</td>
</tr>
<tr>
<td>ADA compliant site</td>
<td>1 site</td>
</tr>
<tr>
<td>Pavilion (electricity and water)</td>
<td>1</td>
</tr>
<tr>
<td>Playgroup</td>
<td>1</td>
</tr>
<tr>
<td>Comfort station (restrooms)</td>
<td>1 (ADA accessible)</td>
</tr>
</tbody>
</table>
Seminole Group Camping Area

In addition, a group camping area (Figure 3.21) is designated in an open space adjacent to the Creek RV camping area. There are 16 identifiable semi-modern campsites with water and electric hookups shared between units. There are no individual campsites, picnic tables, fire rings or grills to define this area. The capacity of this group camp might accept more tent units for a larger group. It is also common that one RV unit might have one or more tents and vehicles.

Several Oklahoma State Parks have group camping areas, which contrast with true group camps. Group camps have cabins, bunkhouses, dining and kitchen facilities, and other amenities. The group camping area is also utilized as overflow camping on holidays and other busy periods.

Other amenities in or near this area were designed for enhancing park visitors’ recreational experiences and providing various recreation opportunities for groups, including an open space that could be used as a play field, a basketball court, a volleyball court, a playground, and a large picnic shelter (Pavilion D). The play field and volleyball court are located in the southern portion of the group camping area, offering additional space for group campers, especially for Boy Scouts, Girl Scouts, or church groups to host group activities nearby their campsites.
Hiking/Walking/Riding Trails
The trails in Cherokee Landing State Park were presented based upon geographic location. In summary, there is two trails in the park although other roadways and areas may be used for walking and bicycling.

The Nature Trail is approximately a quarter mile in length serving hiking and mountain biking visitors. This trail serves as a linkage between the open spaces close to the park main road and Creek Campground, at which locations signs are placed to mark the east and west trail heads, supplemented by interpretive signs for visitors. A second trail, possibly named Wildcat Point Trail, extends along the lakeshore from the fishing dock in Wildcat Point.

Public Access and Entry Aesthetics
Public access to Cherokee Landing State Park was discussed earlier. All vehicles access from the State Highway 82 on the northwest border of the park. That highway crosses the northern border of Cherokee Landing State Park and provides the only land-based access into the park. Along both sides of Highway 82 there are several small businesses including a service station and convenience store, boat storage facility, cabinet business, and a large nursery.

Park Visitation
Attendance records have typically been kept since the opening days of the park, although Cherokee Landing shows limited data in recent years. 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 Cherokee Landing 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 Cherokee Landing 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.

Recreational Use of Park Facilities
In recent years, visitation for Cherokee Landing State Park was not recorded until 2012. In 2012, an estimated 140,000 people visited Cherokee Landing State Park. The number includes day visitors and overnight visitors. The day visitors include pass-through sightseers, anglers, picnickers, walkers, and many other recreational visitors. Overnight visitors include campers who spend one or more nights within Cherokee Landing State Park.

Determining the number of campers 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 the entry point 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. For example, it is possible that a visitor may enter Cherokee Landing State Park, exit the park later in a single day, and return. As a result, a single individual may be counted on multiple occasions entering and re-entering the park.
Table 3.6 – 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>2009</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>2010</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>2011</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>2012</td>
<td>No data available</td>
<td>4,671</td>
<td>140,668</td>
</tr>
<tr>
<td>2013</td>
<td>No data available</td>
<td>3,453</td>
<td>85,930 (by Nov. 2013)</td>
</tr>
</tbody>
</table>

Since no data were available before 2012, there is no record to truly understand the visitation pattern between 2009 and 2011. However, the general visitation from other Oklahoma State Parks’ RMP indicated the year of 2008 was the peak year 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 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 3.7 on the following page presents the campsite rentals for the past five 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 3.7 – Camping at Cherokee Landing 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>2009</td>
<td>Unimproved campsites</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td></td>
<td>Improved campsites</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>2010</td>
<td>Unimproved campsites</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td></td>
<td>Improved campsites</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>2011</td>
<td>Unimproved campsites</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td></td>
<td>Improved campsites</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>2012</td>
<td>Unimproved campsites</td>
<td>690</td>
<td>6,196</td>
<td>11.1%</td>
</tr>
<tr>
<td></td>
<td>Improved campsites</td>
<td>3,981</td>
<td>26,006</td>
<td>13.5%</td>
</tr>
<tr>
<td>2013</td>
<td>Unimproved campsites</td>
<td>460</td>
<td>6,196</td>
<td>7.4%</td>
</tr>
<tr>
<td></td>
<td>Improved campsites</td>
<td>3,453</td>
<td>26,006</td>
<td>13.3%</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 some of these sites do not have electricity. In addition, a portion of the campground is closed during the winter. Additionally, high water levels in Lake Tenkiller may lead to closure of portions of Cherokee Landing State Park to avoid flooding hazards.

Public Perception of Cherokee Landing State Park

At the time of preparation of this resource management plan, the authors reviewed numerous websites and marketing sources related to Cherokee Landing State Park, which were provided by private sources. Further, private citizens and visitors to Cherokee Landing 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 camping, hiking the trail, fishing, or boating, but addressed Cherokee Landing State Park in some manner.

Direct quotes from some of these online sources include the following statements. Spelling, grammar, and other errors are included in these citations, but were deliberately maintained in the original language of the respective authors.

- We were on a camping vacation. We planned on going to Greenleaf State Park but once we arrived it was not at all what we wanted, we then moved on to Tenkiller State Park, that was also not what we were looking for. I can’t tell you how hopeful we were when we arrived at Cherokee Landing and it did not let us down. We wanted a campsite with a concrete pad and a view of the water. We got both along with huge spacious sites easy access to the water and great bike riding on the flat park. It is very small but offered what we were looking for. The only negative we have is that the shower house is in sad need of updates. Otherwise, this is a lovely quiet place to camp (Tripadvisor).

- The park was GREAT, the only disappointment was that they advertise full hookups and if you don’t read the fine print, you will THINK that means sewer and it does not. This was a real bummer for us, but a nice neighbor let us use his potty caddy and it all worked out. We have decided to invest in one of these little things (I may be calling it by the wrong name, but you get the picture). Anyway, other than that, the park was great and the spaces were not cramped. It is very nice! Our spot was water view and we could get both sunrise and sunset shots! If it had septic hook ups, I would have given it a 10. We camped here in a Fifth Wheel (RV park reviews).

- It is a state park. It was clean and the people were friendly. The site was level. It is very rocky to get to the water from some areas. We camped here in a Motorhome (RV park reviews).

User Evaluations of Cherokee Landing State Park

The most formal and scientific evaluations of visitors to Cherokee Landing 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 or the activities in which they were involved.

Day visitors to Cherokee Landing State Park were familiar with the park, ranging from 4 to 75 visits in a single year. All of the day visitors interviewed in this study were repeat visitors to the park. The most frequent recreational activities reported by these day visitors were picnicking, boating, fishing, and swimming. Day visitors tended to be satisfied with their experiences at the park, showing the least satisfaction with public restrooms in the park. The park was the primary destination for all 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 four individuals, but the most common grouping of day visitors was three members. The day visitors contacted during the survey tended
to be white or American Indian, non-Hispanic with a high school education. They ranged in age from 28 to 68 years of age, with a mode of 35 years of age; they included more male respondents than and females. Since these individuals were day visitors, they had traveled a limited distance to get to Cherokee Landing State Park, reporting a mean of 11 miles in travel. It is likely that a substantial number of these day visitors were from local communities.

Campers at Cherokee Landing 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 seven 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 or boated for pleasure, or just relaxed in the park. Campers expressed great satisfaction with the facilities provided in the park.

 Cherokee Landing State Park was the primary destination for 85% of 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 “the park is close to my home.” All of the campers conducted in this study were white and non-Hispanic. In addition, the campers were similar to other visitors in that they presented a high school education plus some college as the highest level achieved.

Campers reported having traveled an average of 71 miles on their visit to Cherokee Landing State Park. The median distance traveled by campers was 51 miles, indicating that at least one half of the overnight visitors had traveled a substantial distance to visit Cherokee Landing State Park.

**Park Management**

Over the years of operation, the management structure for Cherokee Landing State Park has changed at the direction of leadership within OTRD from Oklahoma City. However, Cherokee Landing State Park has been quite stable in organization and operation throughout the years. At present, Cherokee Landing State Park is managed in connection with personnel and budgeting for Tenkiller State Park. As a result, it is difficult to separate every aspect of park management specific to the individual property.

Cherokee Landing State Park is currently included in the Northeast Region 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 Cherokee Landing State Park has been fairly stable by number of employees over the past five years, with significant changes in the individuals represented by those numbers. The biggest change in staffing occurred during 2011-2012 with reduction of one full-time and one seasonal staff. Other variance was shown in employment patterns: an example is that in 2012, twelve different individuals accounted for the seven staff members. Table 3.8 documents the staffing pattern for Cherokee Landing State Park in recent years.
Table 3.8 – Staffing at Cherokee Landing 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>2009</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>2010</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>2011</td>
<td>4</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>2012</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>2013</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Most state parks in Oklahoma experienced similar staffing adjustments in response to budgetary appropriations. Cherokee Landing State Park has sustained a dedicated, loyal staff over the years and has a relatively new park manager appointed as of May 2011.

Revenue and Expenses

Data related to revenue and expense at Cherokee Landing State Park was provided by local staff and augmented with material from the central OTRD office. Table 3.8 reports this revenue and expense data for the past four years.

Table 3.9 – Expense and Revenue at Cherokee Landing State Park

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Expense</th>
<th>Revenue</th>
<th>Difference Revenue - expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 Total</td>
<td>$404,490</td>
<td>$100,383</td>
<td>($304,107)</td>
</tr>
<tr>
<td>Personnel Expense</td>
<td>$306,686</td>
<td>$97,804</td>
<td></td>
</tr>
<tr>
<td>Operating Expense</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010 Total</td>
<td>$339,868</td>
<td>$107,738</td>
<td>($232,130)</td>
</tr>
<tr>
<td>Personnel Expense</td>
<td>$258,052</td>
<td>$82,816</td>
<td></td>
</tr>
<tr>
<td>Operating Expense</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011 Total</td>
<td>$240,702</td>
<td>$81,756</td>
<td>($158,946)</td>
</tr>
<tr>
<td>Personnel Expense</td>
<td>$177,177</td>
<td>$63,525</td>
<td></td>
</tr>
<tr>
<td>Operating Expense</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012 Total</td>
<td>$204,748</td>
<td>$91,480</td>
<td>($113,268)</td>
</tr>
<tr>
<td>Personnel Expense</td>
<td>$131,953</td>
<td>$72,795</td>
<td></td>
</tr>
<tr>
<td>Operating Expense</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013 Total</td>
<td>$176,474</td>
<td>$81,120</td>
<td>($95,354)</td>
</tr>
<tr>
<td>Personnel Expense</td>
<td>$91,220</td>
<td>$85,254</td>
<td></td>
</tr>
<tr>
<td>Operating Expense</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The principal revenue source for Cherokee Landing State Park is campsite and shelter 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 Cherokee Landing State Park has been declining from $300,000 to $100,000 over a five year period. As mentioned earlier, the biggest change in staffing occurred during 2011-2012 with reduction of one full-time and one seasonal staff, which resulted in a decrease in the total expense of the park. This net investment of state appropriations averages about $115 per acre in management expense each year or about $1.00 net expense per park visitor.

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, Cherokee Landing 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 Cherokee Landing State Park include the lake shore 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.

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. However, park personnel do activate sirens on the north and south sides of the lake in the event of severe weather. As a result, park occupants and local residents benefit from the presence of park management personnel.

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 Cherokee Landing State Park. The park and forest encompass an environment suitable for venomous snakes including the copperhead, diamondback rattlesnake, and massassagua. 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, squirrels, and bats. Additional animals include armadillos and the possibility of beavers, muskrats, and nutria – although these are less likely.

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 in many parks, no information was posted or provided for equestrians at Cherokee Landing State Park – and horses are not encouraged within the park. The possibility of environmental hosts for West Nile virus within the surrounding environment 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 Cherokee Landing State Park (Figure 3.22).

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

Cherokee Landing State Park receives its potable water from approved public water supplies, a rural water district. 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 Tenkiller, in streams, and in ponds have a greater chance of being a source of a waterborne-disease. That has been most noticeable with blooms of blue-green algae during the past several summers. Although not a disease, blue-green algae can have adverse effects upon humans and other mammals.

**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 Keys Volunteer Fire Department. Additional assistance would be provided from Sallisaw and Tahlequah. Emergency response time is estimated to be twenty minutes. Emergency medical service is available in Tahlequah City Hospital.

As part of the data collection for the development of this RMP, the researchers conducted several on-site visits to Cherokee Landing State Park. Common issues that could be dangerous for visitors include play structures which utilize a variety of surfacing materials and are outdated under current ADA-compliance standards and CPSC guidelines. 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.

Further, weather-related events (e.g., ice storms, strong winds, and drought) 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, Cherokee Landing 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 Cherokee Landing State Park, there have been two CLEET certified rangers available for Cherokee Landing State Park, but that was reduced to one individual in 2013. 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 Cherokee Landing State Park relies on the support and cooperation of the Cherokee County sheriff in the appropriate jurisdiction.
Table 3.10 – Ranger Staff at Cherokee Landing 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>2009</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2010</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2011</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2012</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2013</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Citation records were available specifically for Cherokee Landing State Park and are shown in Table 3.11. 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, Cherokee Landing State Park is a safe, secure environment for the recreational visitor.

Table 3.11 – Citation and Incident Reports at Cherokee Landing 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>2009</td>
<td>9</td>
<td>No data</td>
<td>No data</td>
<td>9</td>
</tr>
<tr>
<td>2010</td>
<td>11</td>
<td>40</td>
<td>0</td>
<td>51</td>
</tr>
<tr>
<td>2011</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>2012</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>2013</td>
<td>11</td>
<td>0</td>
<td>1</td>
<td>12</td>
</tr>
</tbody>
</table>

The numbers of incident reports, citations issued, and arrests have varied at Cherokee Landing State Park, with the largest increase shown between 2009 and 2010; however, the number of citation and incident reports in the past three years has declined from the number of citations issued in 2010. In discussions with park personnel, no single factor was identified as being the cause of this pattern. However, likely components that affect these numbers reflect three factors: (1) diligence on the part of park personnel, (2) change in composition of those personnel, and (3) changes in the behavior patterns of local residents related to activities at Cherokee Landing State Park.
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 Cherokee Landing State Park although reports indicated such service was dependent upon the wireless carrier. Thus, in case of injury, illness, fire, or other emergency, most 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 concentrated area of development at Cherokee Landing State Park and the flood prone terrain present issues related to 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 OPC, a state use vendor. 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 lagoons at the north end of the park with pump station and distribution lines for all other locations. Recently, the lagoon system in the park was expanded and is adequate for present development and use. The system would need to be reviewed with further campground development.

Park management did not express any concerns or problems with waste management at Cherokee Landing 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 – Campfire remains
Chapter 4 – Alternatives and Preferred Plans

Overview and Summary

In this Resource Management Plan, background is provided related to Cherokee Landing 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 be more apparent for Cherokee Landing State Park than for some other properties due to the obvious comparisons between this property and some USACE properties and the contrast with several of the larger, more diverse state park properties. As a result, 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 & Jordan, 2003). 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 the following criteria must be demonstrated: (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 Cherokee Landing State Park, it could be concluded that:

1. Cherokee Landing State Park provides a specialized recreation destination, providing access to the northern reaches of Lake Tenkiller. Cherokee Landing State Park provides direct linkage between the recreational opportunities of Lake Tenkiller and the adjoining land.
2. Cherokee Landing State Park is feasible to manage within the agency and fits within the mission of Oklahoma State Parks. As a companion property to Tenkiller State Park, Cherokee Landing State Park supplements public recreation access to a significant reservoir.
3. Cherokee Landing State Park property fits within the mission of OTRD and the park’s stated purpose as a prominent 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 Cherokee Landing State Park as a state park.

Alternatives

A. Seek to terminate the lease of Cherokee Landing State Park and return the property to the U.S. Army Corps of Engineers;
B. Retain Cherokee Landing State Park as an integral property in the Oklahoma State Park system.

Preferred alternative:

Alternative B: No change – continue management as it is. Retain Cherokee Landing State Park as an integral property in the Oklahoma State Park system.

**Issue Statement 2: Staffing and personnel for the future**

Efficiencies in operation are necessitated by budgetary conditions and demanded by good management practices. Cherokee Landing State Park has operated over the past several years with a declining number of staff members – currently limited to two staff. With the reduction in
staff, the operational cost has been limited which leads to a self-sufficiency rate around 75%. However, it is also possible that the limited staff places additional work load upon current staff in order to maintain a desired level of service. This situation is not unique to Cherokee Landing State Park since similar patterns are present at all of the parks.

Increasing staff numbers is unlikely given the present economic and political environment. As a result, creative strategies will be necessary to attract and prepare the next generation of state park professionals. Properly qualified staff members could be achieved through utilization of collegiate interns. Properly qualified interns could be employed for relatively low wage levels in roles such as: (1) basic park maintenance, (2) natural, cultural, and historic interpretation, (3) office management, (4) out-reach, and (5) other necessary duties. Interns would require supervision and oversight – to be provided by an appropriate staff member. Interns would require housing – that could be available on property at Cherokee Landing State Park.

Cooperative education agreements and internships could be arranged for persons in a variety of disciplines, including (1) recreation, park, and leisure studies, (2) forestry, (3) botany, zoology, or other natural science, (4) environmental science or environmental education, and (5) other disciplines as appropriate. OTRD and Oklahoma State Parks would benefit greatly from such agreements, as would participants in the internship experience. Such an educational role is essential and appropriate for OTRD.

Alternatives

A. Develop and sustain agreements for qualified internships;

B. No change – continue management as it is.

Preferred alternative:

Alternative A: Develop and sustain agreements for qualified internships

**Issue Statement 3: Future funding sources for operating the park**

As mentioned in relationship to the prior issue, the limited budget for operating state parks is an essential issue for several park managers. Many park systems across the nation are seeking alternative sources for operating parks, relying less upon taxes, but collecting user fees or dedicated funding instead. Cherokee Landing State Park presents an opportunity to implement a fee structure to cover operating costs; such a fee structure might include boat ramp use fees, entrance fees, and other additional service fees to be associated with specific amenities.

As has been shown across the state parks in the state of Oklahoma, 80% of park visitors are day visitors, while only 20% of park visitors are overnight users. The 20% comprising the overnight guests provide the majority of the park generated revenue to support the state park’s operation through lodging, cabin rentals, and camping fees; however, most of the day users, including boaters, fisherman, hikers/walkers/runners, and other day use recreational visitors provide a relatively limited financial contribution to the state parks. In other words, the direct financial contribution from day visitors is slim related to park-generated revenues when compared to that from overnight visitors (Chien, Caneday, Liu, Palacios & Soltani, 2013). It is acknowledged that Oklahoma residents, whether day visitors, overnight visitors, or non-visitors to Oklahoma State Parks, provide tax support as appropriated through the state budget.
During preparation of the RMP, park staff requested authorization for an entrance fee. The funding for an entrance fee booth at the front entrance was requested and an entry station incorporated into the new park office. Departmental and USACE approval has been granted for this construction. All that remains is Commission approval for a park entry fee. Staff project that implementation of an entrance fee in Cherokee Landing would generate $50,000 or more annually and raise the self-sufficiency rate from current 48% to approximately 70%. It also will require an additional collector position which could be split by two camp-host/collectors. Chien, et al., (2013) explained the definition of self-sufficiency as

“The definition of operational self-sufficiency varies among different agencies. For a state park system, the concept of operating self-sufficiency is a percentage (%), which indicates whether or not sufficient park-generated revenues have been earned to cover the operating expenditures. Therefore, self-sufficiency relies on two financial elements in state park operation: park generated revenues and operating expenditures (p. 2).”

Implementing an entrance fee might be an option for increasing the self-sufficiency rate of operating a park, although other strategies of being self-sufficient are worthy of consideration as well (Chien, et al., 2013):

(1) Private and corporate donors are becoming a popular revenue stream at many state parks.
(2) Parks contract with the private sector for commercial services.
(3) Differential pricing may help to raise revenues and to reduce congestion for popular park activities.
(4) Retain the revenues earned by the parks and use them in the parks.

Of some concern related to reliance upon fees is the fact that certain park visitors will be disadvantaged due to economics and others will be adversely affected because of perception of governmental units requiring fees for access to public parks or associated services. Currently, the USACE locations at Lake Tenkiller have fees for use of boat ramps, but do not charge a fee for entrance. Several of these locations do have entry control gates that give the impression of restricted access. If Cherokee Landing State Park were to implement an entry fee, there would be some current park visitors who would be constrained in continued visitation. However, there would also be some visitors who would perceive an entry fee as enhancing the experience at Cherokee Landing State Park.

In principle, the research team believes that entry fees aid in establishing the value of a park visit and are an appropriate instrument to distribute operating expenses across the spectrum of park visitors. However, the research team believes that Oklahoma State Parks is a statewide system and should consider entrance fees that provide access to the broader system.

Alternatives

A. Establish an entrance fee and other fees for service as appropriate (i.e. entrance and boat ramp) at Cherokee Landing State Park;
B. Develop a statewide state park permit system;
C. No change – continue management as it is.
Preferred alternative:

Alternatives A and B: Establish an entrance fee and other fees for service as appropriate (i.e. entrance and boat ramp) at Cherokee Landing State Park; and consider the development of a statewide state park permit system.

Issue Statement 4: 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 Cherokee Landing 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.

Cherokee Landing 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. Cherokee Landing 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 Cherokee Landing 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 Cherokee Landing State Park” to create, implement, and evaluate a comprehensive recycling program throughout the park.
Issue Statement 5: 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 state parks that are in close proximity to Oklahoma’s borders, Cherokee Landing State Park enjoys visitation by a significant number of guests from Arkansas 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 pricing for access and services at Cherokee Landing State Park with consideration of differential pricing based on place of residence for park visitors;
B. No change – continue management as it is.

Preferred alternative:

Alternative A: Review pricing for access and services at Cherokee Landing State Park with consideration of differential pricing based on place of residence for park visitors – but only in connection with similar policy consideration across the Oklahoma State Park system.

Issue Statement 6: Campground improvement

Campground design, atmosphere, and the resulting experience for visitors vary greatly from location to location within Cherokee Landing State Park. Although it is common for most of the campsites in the park to be occupied during summer weekends, there are no RV sites with sewer hookups at any of the campsites in the park. Park staff and comments from visitors indicated latent demand for this amenity among RV campers. At this particular state park, the various camping facilities in the park are the most important features representing the Cherokee Landing State Park. Improvement of camping facilities will be required to sustain satisfaction among park visitors.
The unimproved campsites along with the main drive in the Cherokee Landing State Park provide a great lake view and easy access to the water for campers; however, many of these designated campsites, which include concrete picnic tables and campsite bases, are eroded by water, wind and wave action, and other possible human impacts. These facilities need replacement or repair.

Within the main body of Cherokee Landing State Park, the existing RV campgrounds and other developed areas are at or near capacity. In addition, much of the southern end of Cherokee Landing State Park is prone to flooding. Wildcat Point located in the northwest side of the park property is the only reasonable location for further development of a new RV campground. Wildcat Point campground once served as an unimproved tent camping area with a restroom and fishing dock. Most importantly, this area is above most flooding events. Campsites in Wildcat Point and the former comfort station were removed in 2016. However, developing a new RV campground could be very costly in capital investment, but appears to be an opportunity for a significant increase in revenue.

In general, there are adequate campsites around Lake Tenkiller to meet current demands. Cherokee Landing State Park is at capacity on a few occasions during the year, but has open campsites for much of the year.

Alternatives

A. Renovate the existing and selected RV campsites with the addition of sewer hookups;
B. Develop a new modern RV campground at Wildcat Point
C. No change – continue management as it is.

Preferred alternative:

A. Alternative C: No change – continue management as it is.

Figure 4.1 – Erosion of picnic tables and campsite bases
**Issue Statement 7: Signage and marketing**

For persons unfamiliar with Cherokee Landing State Park, the current signage along Highway 82 is of little assistance. As indicated in the RMP, the sign indicating the turn into Cherokee Landing State Park is located about 100 feet north and south of the entrance. No other signage is provided.

Although State Highway 82 is a primary highway artery north and south across northeastern Oklahoma, there is no other signage directing visitors to Cherokee Landing State Park. Examples of more local signage were included in the RMP, but these signs are located along Highways 82 and 10. These signs simply indicate direction and distance to the park. Placards explaining services and recreational opportunities available at Cherokee Landing State Park are needed on signs outside of the park boundaries.

Improvement of signs within the park is an on-going project. Cherokee Landing State Park is scheduled for updating of its signs to match those being installed in other Oklahoma state parks. These new signs are based on cedar logs and have a rustic appearance.

Beyond the boundaries of the park, signage must be planned in cooperation with the Oklahoma Department of Transportation. For Cherokee Landing State Park, a decision is needed as to the access corridor for a north-south traveler. Highway 82 is logical, but there is no signage along that route.

**Alternatives**

A. Evaluate the exterior signage for Cherokee Landing State Park and continue efforts to properly market this significant property

B. No change – continue management as it is

Preferred alternative:

Alternative A: Evaluate the exterior signage for Cherokee Landing State Park and continue efforts to properly market this significant property.

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**Recommendations beyond the issues**

**Recommendation 1: Playgroups and safety**

As mentioned throughout the RMP, several of the playgroups in Cherokee Landing Park are of the older wooden design typical of the 1980s. These playgroups do not comply with current safety and accessibility standards. All these older playgroups throughout Cherokee Landing Park need to be reviewed for basic safety, particularly related to fall zones and surfaces. However, a review of these playgroups should also include examination of protrusions and potential for other injuries. A Certified Playground Safety Inspector (CPSI) could review the existing playgroups and make recommendations. However, a better alternative is to plan for replacement of these older playgroups and replace them with accessible, safe, and modern playgroups.

**Recommendation 2: Updated map and information**

During initial preparation of the RMP, some outdated maps were available and in use both online and on-site. These materials included some third-party printed materials. Oklahoma State Parks
has updated its map as shown in the RMP and online; however, all the third party maps need to be discarded as being out-of-date.

One of the most economical and efficient ways of updating the newest information related to the park is to use social media. Social media, such as Facebook, Twitter or many others, would provide an interaction platform for park staff, park visitors who have visited the park, people who never been to the park to share their experience though video, words, and photos. Most importantly, the majority of these online sites are free for users, creating a great marketing opportunity for the public to see the fun, beauty, and nature possible within the park at little or no cost other than a park staff member managing the account to upload related information, program, and events.

**Recommendation 3: Relocation of maintenance area**

As indicated in the RMP, the dominant visual impression for visitors driving on the main road in Cherokee Landing State Park is the maintenance area, including storage and fuel area. Development in 2016 for Cherokee Landing State Park included relocation of the park office and gift shop to a new building that can also serve as a fee collection station. The maintenance building and surrounding area remain visible for park visitors. The only options would be relocation further north on the property or some natural visual shielding. This would place the outdoor storage area out-of-sight of most visitors to Cherokee Landing State Park. It would also separate the maintenance area from the primary public locations within the park.

It is essential that the plans for relocating the maintenance complex proceed with all appropriate haste.

Once the maintenance area has been relocated, the current space occupied by the storage building should be reclaimed and re-established as a more natural area. The area should not be developed. This portion of Cherokee Landing State Park should provide visual and sound barriers that help to define specific locations within the park.

**Recommendation 4: Park boundary and fencing**

Wildcat Point is located in a relatively less developed area isolated from the rest of the park activities. A safety concern related to the location of Wildcat Point is that there is no clear park boundary or fence in the area. Since the park boundary has been defined in recent communication with the USACE, it is possible that park users might not be aware of the boundary. In addition, local residents from the surrounding private residential areas lead to conflicts and safety concerns for campers. Therefore, a clear park boundary with fence would more clearly define the park area and provide an additional sense of security.

An initial step has been the closing of the camping facilities in Wildcat Point, thus reducing the amount of park visitors in this area.
Reference


Appendix A: Documents related to the Property
LEASE NO. DACW56-1-04-050

DEPARTMENT OF THE ARMY
LEASE TO STATES
FOR PUBLIC PARK AND RECREATIONAL PURPOSES
OKLAHOMA TOURISM AND RECREATION COMMISSION

TENKILLER STATE PARK
TENKILLER FERRY LAKE
SEQUOYAH COUNTY, OKLAHOMA

THIS LEASE is made on behalf of the United States, between the SECRETARY OF THE ARMY, hereinafter referred to as the Secretary, and the OKLAHOMA TOURISM AND RECREATION COMMISSION, hereinafter referred to as the Lessee,

WITNESSETH:

That the Secretary, by authority of Title 16, United States Code, Section 460d, and for the consideration hereinafter set forth, hereby leases to the Lessee, the property identified in Exhibits A and A-1, attached hereto and made a part hereof, hereinafter referred to as the premises, for public park and recreational purposes.

THIS LEASE is granted subject to the following conditions:

1. TERM

Said premises are hereby leased for a term of twenty-five (25) years, beginning January 1, 2003, and ending December 31, 2027. The lessee shall have the right to extend the original term of the lease for twenty-five (25) years, provided that, as to the option, Lessee shall give notice to the Government of its election to extend such term at lease eighteen (18) months prior to the time when the term then in force would otherwise expire; that, at the time when such notice is given, there shall not be any unsecured event of default on the part of the Lessee; and that the term of this lease shall have been extended for the prior extension term, if any.

2. CONSIDERATION

The consideration for this lease is the operation and maintenance of the premises by the Lessee for the benefit of the United States and the general public in accordance with the conditions herein set forth.
3. NOTICES

All correspondence and notices to be given pursuant to this lease shall be addressed, if to the Lessee, to OKLAHOMA TOURISM AND RECREATION COMMISSION, 15 N Robinson Avenue, Suite 100, Oklahoma City, OK 73152-2002; and, if to the United States, to the District Engineer, ATTN: Chief, Real Estate Division, Tulsa District, Corps of Engineers, 1645 South 101st East Avenue, Tulsa, OK 74128-4609, or as may from time to time otherwise be directed by the parties. Notice shall be deemed to have been duly given if and when enclosed in a properly sealed envelope, or wrapper, addressed as aforesaid, and deposited, postage prepaid, in a post office regularly maintained by the United States Postal Service.

4. AUTHORIZED REPRESENTATIVES

Except as otherwise specifically provided, any reference herein to "Secretary of the Army," "District Engineer," "said officer" or "Lessor" shall include their duly authorized representatives. Any reference to "Lessee" shall include sublessees, assignees, transferees, concessionaires, and its duly authorized representatives.

5. DEVELOPMENT PLANS

a. The Lessee shall be guided by an implementing Plan of Recreation Development and Management (Development Plan) attached as Exhibit C which shows the facilities and services necessary to meet the current and potential public demand and the management and development activities to be undertaken by the Lessee and any sublessees. The Lessee shall provide a copy of any amendment to the Development Plan before proceeding to implement any changes in the development or management of the leased premises. The use and occupation of the premises shall be subject to the general supervision and approval of the District Engineer.

b. During the term of the lease, the District Engineer will notify the Lessee of any updates to the existing project Master Plan affecting the premises and the Lessee may provide comments.

6. STRUCTURES AND EQUIPMENT

The Lessee shall have the right, during the term of the lease, to erect such structures and to provide such equipment upon the premises as may be necessary to furnish the facilities and services authorized. Those structures and equipment shall be and remain the property of the Lessee, except as otherwise provided in the Condition on, RESTORATION. However, no structures may be erected or altered upon the premises unless and until the type of use, design, and proposed location or alteration thereof shall have been approved in writing by the District Engineer. The District Engineer may require the Lessee, upon the completion of each of the proposed developments to furnish complete "as built" construction plans for all facilities.
7. APPLICABLE LAWS AND REGULATIONS

a. The Lessee shall comply with all applicable Federal laws and regulations and with all applicable laws, ordinances, and regulations of the state, county, and municipality wherein the premises are located, including, but not limited to, those regarding construction, health, safety, food service, water supply, sanitation, use of pesticides, and licenses or permits to do business. The Lessee shall make and enforce such regulations as are necessary and within its legal authority in exercising the privileges granted in this lease, provided that such regulations are not inconsistent with those issued by the Secretary of the Army or with the provisions of 16 U.S.C. § 460d.

b. The Lessee will provide an annual certification that all water and sanitary systems on the premises have been inspected and comply with Federal, state and local standards. The Lessee will also provide a statement of compliance with the Rehabilitations Act and the Americans with Disability Act, as required in the Condition on, NON-DISCRIMINATION, noting any deficiencies and providing a schedule for correction.

8. CONDITION OF PREMISES

The Lessee acknowledges that it has inspected the premises, knows its condition, and understands that the same is leased without any representations or warranties whatsoever and without obligation on the part of the United States to make any alterations, repairs, or additions thereto.

9. FACILITIES AND SERVICES

The Lessee shall provide the facilities and services as agreed upon in the Development Plan referred to in the Condition on DEVELOPMENT PLANS either directly or through subleases or concession agreements that have been reviewed and accepted by the District Engineer. These subleases or agreements shall state: (1) that they are granted subject to the provisions of this lease; and (2) that the agreement will not be effective until the third party activities have been approved by the District Engineer. The Lessee will not allow any third party activities with a rental to the Lessee or prices to the public which would give the third party an undue economic advantage or circumvent the intent of the Development Plan. The rates and prices charged by the Lessee or its sublessees or concessionaires shall be reasonable and comparable to rates charged for similar goods and services by others in the area. The use of sub-lessees and concessionaires will not relieve the Lessee from the primary responsibility for ensuring compliance with all of the terms and conditions of this lease.
10. **TRANSFERS, ASSIGNMENTS, SUBLEASES**

   a. Without prior written approval of the District Engineer, the Lessee shall neither transfer nor assign this lease nor sublet the premises or any part thereof, nor grant any interest, privilege, or license whatsoever in connection with this lease.

   b. The Lessee will not sponsor or participate in timeshare ownership of any structures, facilities, accommodations, or personal property on the premises. The Lessee will not subdivide nor develop the premises into private residential development.

11. **FEES**

   Fees may be charged by the Lessee for the entrance to or use of the premises or any facilities, however, no user fees may be charged by the Lessee or its sub-lessees for use of facilities developed in whole or part with federal funds if a user charge by the Corps of Engineers for the facility would be prohibited under law.

12. **ACCOUNTS, RECORDS AND RECEIPTS**

   All monies received by the Lessee from operations conducted on the premises, including, but not limited to, entrance, admission and user fees and rental or other consideration received from its concessionaires, may be utilized by the Lessee for the administration, maintenance, operation and development of the premises. Beginning 5 years from the date of this lease and continuing at 5-year intervals, any such monies not so utilized or programmed for utilization within a reasonable time shall be paid to the District Engineer. The Lessee shall provide an annual statement of receipts and expenditures to the District Engineer. Annual or weekly entrance fees not collected on the Project, which also are honored at other recreational areas operated by the Lessee, are excluded from this requirement. The District Engineer shall have the right to perform audits or to require the Lessee to audit the records and accounts of the Lessee, third party concessionaires and sub-lessees, in accordance with auditing standards and procedures promulgated by the American Institute of Certified Public Accountants or by the state, and furnish the District Engineer with the results of such an audit.
13. PROTECTION OF PROPERTY

The Lessee shall be responsible for any damage that may be caused to property of the United States by the activities of the Lessee under this lease and shall exercise due diligence in the protection of all property located on the premises against fire or damage from any and all other causes. Any property of the United States damaged or destroyed by the Lessee incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by the Lessee to the satisfaction of the District Engineer, or, at the election of the District Engineer, reimbursement may be made therefore by the Lessee in an amount necessary to restore or replace the property to a condition satisfactory to the District Engineer.

14. RIGHT TO ENTER AND FLOOD

The right is reserved to the United States, its officers, agents, and employees to enter upon the premises at any time and for any purpose necessary or convenient in connection with Government purposes; to make inspections; to remove timber or other material, except property of the Lessee; to flood the premises; to manipulate the level of the lake or pool in any manner whatsoever; and/or to make any other use of the land as may be necessary in connection with project purposes, and the Lessee shall have no claim for damages on account thereof against the United States or any officer, agent, or employee thereof.

15. LIGHTS, SIGNALS AND NAVIGATION

There shall be no unreasonable interference with navigation by the exercise of the privileges granted by this lease. If the display of lights and signals on any work hereby authorized is not otherwise provided for by law, such lights and signals as may be prescribed by the Coast Guard or by the District Engineer shall be installed and maintained by and at the expense of the Lessee.

16. INSURANCE

a. At the commencement of this lease, the Lessee, unless self-insured, and its sub-lessees and concessionaires at the commencement of operating under the terms of this lease as third parties, shall obtain from a reputable insurance company or companies contracts of liability insurance. The insurance shall provide an amount not less than that which is prudent, reasonable and consistent with sound business practices, for any number of persons or claims arising from any one incident with respect to bodily injuries or death resulting therefrom, property damage, or both, suffered or alleged to have been suffered by any person or persons, resulting from the operations of the sub-lessees and
concessionaires under the terms of this lease. The Lessee shall require its insurance company to furnish to the District Engineer a copy of the policy or policies, or, if acceptable to the District Engineer, certificates of insurance evidencing the purchase of such insurance.

b. The insurance policy or policies shall specifically provide protection appropriate for the types of facilities, services and products involved; and shall provide that the District Engineer be given thirty (30) days notice of any cancellation or change in such insurance.

c. The District Engineer may require closure of any or all of the premises during any period for which the sub-lessees and concessionaires do not have the required insurance coverage.

17. RESTORATION

On or before the expiration of this lease or its termination by the Lessee, the Lessee shall vacate the premises, remove the property of the Lessee, and restore the premises to a condition satisfactory to the District Engineer. If, however, this lease is revoked, the Lessee shall vacate the premises, remove said property therefrom, and restore the premises to the aforesaid condition within such time as the District Engineer may designate. In either event, if the Lessee shall fail or neglect to remove said property and restore the premises, then, at the option of the District Engineer, said property shall either become the property of the United States without compensation therefore, or the District Engineer may cause the property to be removed and no claim for damages against the United States or its officers or agents shall be created by or made on account of such removal and restoration work. The Lessee shall also pay the United States on demand any sum, which may be expended by the United States after the expiration, revocation, or termination of this lease in restoring the premises.

18. NON-DISCRIMINATION

a. The Lessee shall not discriminate against any person or persons or exclude them from participation in the Lessee's operations, programs or activities conducted on the leased premises, because of race, color, religion, sex, age, handicap, or national origin. The Lessee will comply with the Americans with Disabilities Act and attendant Americans with Disabilities Act Accessibility Guidelines (ADAAG) published by the Architectural And Transportation Barriers Compliance Board.

b. The Lessee, by acceptance of this lease, is receiving a type of Federal assistance and, therefore, hereby gives assurance that it will comply with the provisions of

19. SUBJECT TO EASEMENTS

This lease is subject to all existing easements, easements subsequently granted, and established access routes for roadways and utilities located, or to be located, on the premises, provided that the proposed grant of any new easement or route will be coordinated with the Lessee, and easements will not be granted which will, in the opinion of the District Engineer, interfere with developments, present or proposed, by the Lessee. The Lessee will not close any established access routes without written permission of the District Engineer.

20. SUBJECT TO MINERAL INTERESTS

This lease is subject to all outstanding mineral interests. As to federally owned mineral interests, it is understood that they may be included in present or future mineral leases issued by the Bureau of Land Management (BLM), which has responsibility for mineral development on Federal lands. The Secretary will provide lease stipulations to BLM for inclusion in such mineral leases that are designed to protect the premises from activities that would interfere with the Lessee's operations or would be contrary to local laws.

21. COMPLIANCE, CLOSURE, REVOCATION AND RELINQUISHMENT

a. The Lessee and/or any sub-lessees or licensees are charged at all times with full knowledge of all the limitations and requirements of this lease, and the necessity for correction of deficiencies, and with compliance with reasonable requests by the District Engineer. This lease may be revoked in the event the Lessee violates any of the terms and conditions and continues and persists in such non-compliance. The Lessee will be notified of any non-compliance, which notice shall be in writing or shall be confirmed in writing, giving a period of time in which to correct the non-compliance. Failure to satisfactorily correct any substantial or persistent non-compliance within the specified time is grounds for closure of all or part of the premises, temporary suspension of operation, or revocation of the lease, after notice in writing of such intent. Future requests by the Lessee to extend the lease, expand the premises, modify authorized activities, or assign the lease shall take into consideration the Lessee's past performance and compliance with the lease terms.
b. This lease may be relinquished by the Lessee by giving one (1) year prior written notice to the District Engineer in the manner prescribed in the Condition on, NOTICES.

22. HEALTH AND SAFETY

a. The Lessee shall keep the premises in good order and in a clean, sanitary, and safe condition and shall have the primary responsibility for ensuring that any sub-lessees and concessionaires operate and maintain the premises in such a manner.

b. In addition to the rights of revocation for non-compliance, the District Engineer, upon discovery of any hazardous conditions on the premises that presents an immediate threat to health and/or danger to life or property, will so notify the Lessee and will require that the affected part or all of the premises be closed to the public until such condition is corrected and the danger to the public eliminated. If the condition is not corrected, the District Engineer will have the option to: (1) correct the hazardous conditions and collect the cost of repairs from the Lessee; or, (2) revoke the lease. The Lessee and its assignees or sub-Lessees shall have no claim for damages against the United States, or any officer, agent, or employee thereof on account of action taken pursuant to this condition.

23. PUBLIC USE

No attempt shall be made by the Lessee, or any of its sub-lessees or concessionaires, to forbid the full use by the public of the premises and of the water areas of the project, subject, however, to the authority and responsibility of the Lessee to manage the premises and provide safety and security to the visiting public.

24. PROHIBITED USES

a. The Lessee shall not permit gambling on the premises or install or operate, or permit to be installed or operated thereon, any device which is illegal, or use the premises or permit them to be used for any illegal business or purpose. There shall not be conducted on or permitted upon the premises any activity which would constitute a nuisance.

b. As an exception, some games of chance, such as raffles, games and sporting events, may be conducted by nonprofit organizations under special use permits issued in conjunction with special events, if permissible by state and local law. Any request to conduct such activities must be submitted in writing to the District Engineer.

c. In accordance with state and local laws and regulations, the Lessee may sell, store, or dispense, or permit the sale, storage, or dispensing of beer, malt beverages, light wines or other intoxicating beverages on the premises in those facilities where such service is customarily found. Bar facilities will only be permitted if offered in connection with other
approved activities. Advertising of such beverages outside of buildings is not permitted. Carry out package sales of hard liquor is prohibited.

25. **NATURAL RESOURCES**

The Lessee shall cut no timber, conduct no mining operations, remove no sand, gravel, or kindred substances from the ground, commit no waste of any kind, nor in any manner substantially change the contour or condition of the premises, except as may be authorized under and pursuant to the Development Plan described in the Condition on DEVELOPMENT PLANS herein. The Lessee may salvage fallen or dead timber; however, no commercial use shall be made of such timber. Except for timber salvaged by the Lessee when in the way of construction of improvements or other facilities, all sales of forest products will be conducted by the United States and the proceeds therefrom shall not be available to the Lessee under the provisions of this lease.

26. **DISPUTES CLAUSE**

a. Except as provided in the Contract Disputes Act of 1978 (41 U.S.C. 601-613) (the Act), all disputes arising under or relating to this lease shall be resolved under this clause and the provisions of the Act.

b. "Claim," as used in this clause, means a written demand or written assertion by the Lessee seeking, as a matter of right, the payment of money in a sum certain, the adjustment of interpretation of lease terms, or other relief arising under or relating to this lease. A claim arising under this lease, unlike a claim relating to the lease, is a claim that can be resolved under a lease clause that provides for the relief sought by the Lessee. However a written demand or written assertion by the Lessee seeking the payment of money exceeding $100,000 is not a claim under the Act until certified as required by subparagraph c. (2) below.

c. (1) A claim by the Lessee shall be made in writing and submitted to the District Engineer for a written decision. A claim by the Government against the Lessee shall be subject to a written decision by the District Engineer.

(2) For Lessee claims exceeding $100,000, the Lessee shall submit with the claim a certification that:

(i) The claim is made in good faith;

(ii) Supporting data are accurate and complete to the best of the Lessee's knowledge and belief; and

(iii) The amount requested accurately reflects the lease
LEASE NO. DACW56-1-04-050

adjustment for which the Lessee believes the Government is liable.

(3) If the Lessee is an individual, the certificate shall be executed by that individual. If the Lessee is not an individual, the certification shall be executed by:

(i) A senior company official in charge at the Lessee's location involved; or

(ii) An officer or general partner of the Lessee having overall responsibility of the conduct of the Lessee's affairs.

d. For Lessee claims of $100,000 or less, the District Engineer must, if requested in writing by the Lessee, render a decision within 60 days of the request. For Lessee-certified claims over $100,000, the District Engineer must, within 60 days, decide the claim or notify the Lessee of the date by which the decision will be made.

e. The District Engineer's decision shall be final unless the Lessee appeals or files a suit as provided in the Act.

f. At the time a claim by the Lessee is submitted to the District Engineer or a claim by the Government is presented to the Lessee, the parties, by mutual consent, may agree to use alternative means of dispute resolution. When using alternate dispute resolution procedures, any claim, regardless of amount, shall be accompanied by the certificate described in paragraph c. (2) of this clause, and executed in accordance with paragraph c. (3) of this clause.

g. The Government shall pay interest on the amount found due and unpaid by the Government from (1) the date the District Engineer received the claim (properly certified if required), or (2) the date payment otherwise would be due, if that date is later, until the date of payment. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury, as provided in the Act, which is applicable to the period during which the District Engineer receives the claim, and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

h. The Lessee shall proceed diligently with the performance of the lease, pending final resolution of any request for relief, claim, appeal, or action arising under the lease, and comply with any decision of the District Engineer.
27. ENVIRONMENTAL PROTECTION

    a. Within the limits of their respective legal powers, the parties to this lease shall protect the project against pollution of its air, ground, and water. The Lessee shall comply promptly with any laws, regulations, conditions or instructions affecting the activity hereby authorized, if and when issued by the Environmental Protection Agency, or any Federal, state, interstate or local governmental agency having jurisdiction to abate or prevent pollution. The disposal of any toxic or hazardous materials within the leased area is specifically prohibited. Such regulations, conditions, or instructions in effect or prescribed by the Environmental Protection Agency, or any Federal, state, interstate or local governmental agency, are hereby made a condition of this lease. The Lessee shall require all sanitation facilities on boats moored at the Lessee’s facilities, including rental boats, to be sealed against any discharge into the lake. Services for waste disposal, including sewage pump-out of watercraft, shall be provided by the Lessee as appropriate. The Lessee shall not discharge waste or effluent from the premises in such a manner that the discharge will contaminate streams or other bodies of water or otherwise become a public nuisance.

    b. The Lessee will use all reasonable means available to protect the environment and natural resources, and where damage nonetheless occurs from the Lessee’s activities, the Lessee shall be liable to restore the damaged resources.

    c. The Lessee must obtain approval in writing from the District Engineer before any pesticides or herbicides are applied to the premises.

28. ENVIRONMENTAL BASELINE SURVEY

    An Environmental Baseline Survey (EBS) documenting the known history of the property with regard to the storage, release or disposal of hazardous substances thereon, is attached hereto and made a part hereof as Exhibit B. Upon expiration, revocation or termination of this lease, another EBS shall be prepared which will document the environmental condition of the property at that time. A comparison of the two surveys will assist the District Engineer in determining any environmental restoration requirements. Any such requirements will be completed by the Lessee in accordance with the Condition on RESTORATION.

29. HISTORIC PRESERVATION

    The Lessee shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archaeological, architectural or other cultural artifacts, relics, remains, or objects of antiquity. In the event such items are discovered on the premises, the Lessee shall immediately notify the District Engineer and protect the site and the material from further disturbance until the District Engineer gives clearance to proceed.
30. **SOIL AND WATER CONSERVATION**

The Lessee shall maintain in a manner satisfactory to the District Engineer, all soil and water conservation structures that may be in existence upon said premises at the beginning of, or that may be constructed by the Lessee during the term of, this lease, and the Lessee shall take appropriate measures to prevent or control soil erosion within the premises. Any soil erosion occurring outside the premises resulting from the activities of the Lessee shall be corrected by the Lessee as directed by the District Engineer.

31. **TRANSIENT USE**

a. Camping, including transient trailers or recreational vehicles, at one or more campsites for a period longer than thirty (30) days during any sixty (60) consecutive day period is prohibited. The Lessee will maintain a ledger and reservation system for the use of any such campsites.

b. Occupying any lands, buildings, vessels or other facilities within the premises for the purpose of maintaining a full- or part-time residence is prohibited, except for employees residing on the premises for security purposes, if authorized by the District Engineer.

32. **COVENANT AGAINST CONTINGENT FEES**

The Lessee warrants that no person or selling agency has been employed or retained to solicit or secure this lease upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Lessee for the purpose of securing business. For breach or violation of this warranty, the United States shall have the right to annul this lease without liability or, in its discretion, to require the Lessee to pay, in addition to the lease rental or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

33. **OFFICIALS NOT TO BENEFIT**

No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this lease or to any benefits to arise therefrom. However, nothing herein contained shall be construed to extend to any incorporated company if the lease be for the general benefit of such corporation or company.
34. MODIFICATIONS

This lease contains the entire agreement between the parties hereto, and no modification of this agreement, or waiver, or consent hereunder shall be valid unless the same be in writing, signed by the parties to be bound or by a duly authorized representative; and this provision shall apply to this clause as well as all other conditions of this lease.

35. DISCLAIMER

This lease is effective only insofar as the rights of the United States in the premises are concerned; and the Lessee shall obtain such permission as may be required on account of any other existing rights. It is understood that the granting of this lease does not eliminate the necessity of obtaining any Department of the Army permit which may be required pursuant to the provisions of Section 10 of the Rivers and Harbors Act of 3 March 1899 (30 Stat. 1151; 33 U.S.C. § 403), or Section 404 of the Clean Water Act (33 U.S.C. § 1344).

IN WITNESS WHEREOF I have hereunto set my hand by authority/direction of the Secretary of the Army this 23rd day of March 2004.

[Signature]

Authorized Representative
Real Estate Division
Tulsa District Corps of Engineers

THIS LEASE is also executed by the Lessee this 23rd day of March 2004.

[Signature]

OKLAHMNA TOURISM AND RECREATION COMMISSION

By: [Signature] Ralph McCalmont
Title: Interim Director
CERTIFICATE OF AUTHORITY

I, Leann Overstake, certify that I am the Executive Assistant
(Name)

Of the OKLAHOMA TOURISM AND RECREATION COMMISSION, named as Lessee

herein, that Ralph McCalmont, who signed this Lease on behalf of said Lessee, was

then Interim Director of the OKLAHOMA TOURISM AND RECREATION

COMMISSION; and that said Lease was duly signed for and on behalf of the

OKLAHOMA TOURISM AND RECREATION COMMISSION, by authority of its
governing body and is within the scope of its statutory powers.

Signed, Leann Overstake
(Appropriate Officer)

(SEAL)
TULSA DISTRICT
CERCLA ENVIRONMENTAL BASELINE SURVEY (EBS)

Project: Tenkiller Lake

Title of Action: Renewal of easement No.DACW-1-94-0058 for Tenkiller State Park

Date of previous PAS/EBS, if any:
1. A comprehensive records search of the project office files, conducted by Bill Mobly on 6/6/03 indicated that storage, release, or disposal (as defined in 40 CFR Part 373) of hazardous material (as defined in 40 CFR Part 302.4):
   - has* X has not occurred on the property.

   * Documentation supporting any positive findings are provided in the attached EBS Statement of Findings.

TULSA DISTRICT SECTION

3. A comprehensive records search of the SWT-OD-TR, or other district files, conducted by the DEM, Jason Harris on 6/27/03 indicated that storage, release, or disposal (as defined in 40 CFR Part 373) of hazardous materials (as defined in 40 CFR Part 302.4):
   - has* X has not occurred on the property.

   * Documentation supporting all positive findings are provided in the attached EBS Statement of findings.

4. A comprehensive records search of the SWT-RE Indicates that storage, release, or disposal (as defined in 40 CFR Part 373) of hazardous materials (as defined in 40 CFR Part 302.4)

5. Recommendations ___ has* X has not occurred on the property .

   * Documentation supporting all positive findings are provided in the attached EBS Statement of Findings.

   Proceed with described transactions. Notification on a warranty covenant statements are not required in transaction documents.

   X Proceed with described transactions. Notification and warranty covenant statements are required in transaction documents as described in 42 USC 9620, 40 CFR 373.

Approved by: Ralph McCalmon Date: 3/12/04

Approved by: ___________________________ Chief, Real Estate Division ___________________________

EXHIBIT B

Proposant: CESWT-OD-TR

SWT Form 1054-e
27 July 97
TENKILLER STATE PARK
Northeast Oklahoma

SEQUOYAH COUNTY

Assistant Park Manager's Office on-site
Primary Park Managers Office located at Greenleaf State Park

Cabins:
- 10 courtyard cottages (single units)
- 19 duplexes (38 units)
- 1 three-bedroom
- 49 total units

Other Park Facilities:
- Cafe at the Marina
- Gift Shop at Marina
- Nature Center
- Visitor Center
- Gift Shop
- Community Center (for family reunions, retreats, etc.)
- Kids fishing pond
- Amphitheater

Picnic Sites:
- 172 tables, 4 group shelters

Campsites: P=Preferred; PT=Pull-thru; H-Handicap Access; PPT=Preferred Pull-thru

Water, Electric, Sewer (Modern):
- Fox Squirrel: 26 (P15,PT16,H1) (2 - 50amphookups)
- Shady Grove: 11 (PT8)

Electric & Water (Semi-Modern) (No 50 amp hookups):
- Flying Squirrel: 27
- Blue Jay Knob: 23 (P4,PT4,H1)

Without Utilities (Unimproved):
- Bluff View: 21
- Cedar Ridge: 5
- Fisherman's Point: 29
- Eagle Point: 16
- Goose Neck Bend: 42
- Hickory Flats: 39

Primitive Camping Area Available-Need Permit.

EXHIBIT C
Tenkiller State Park
Page 2

Sanitary Facilities:
8 comfort stations (with showers) (2 are handicap accessible)
2 comfort stations (without showers)
2 sanitary waste stations

Leisure Activities:
- fishing/boating/water skiing: 1 lighted & 1 unlighted boat ramps
- Marina (lessee-operation)
  - gas dock
  - covered & open slips rental
  - Marina Restaurant
  - ships store & snack bar
  - boat repair
  - retail sports wear
- swimming: 1 pool, 2 change houses (1 change house is handicap accessible)
  2 swim beaches
- playcourts: 1 volleyball court, 1 basketball court, 1 shuffleboard court, horseshoe pits
- playgrounds: 2 (12 pieces of equipment)
- trails: Nature trails
- naturalist/recreational activities:
  - nature walks, eagle tours, hayrides
  - educational and school programs
  - arts, crafts, exhibits
- other:
  - bike rentals
  - TV/VCR/movie rentals

Park Size:
LAND: 10 acres (state-owned)
565 acres leased from Corps of Engineers
Total Ac. 575
LAKE: Lake Tenkiller: 12,500 surface acres
130 miles of shoreline (Corps of Engineers)

Revised 11/2002

EXHIBIT C
March 19, 2007

Vicki E. Yoder, Realty Specialist
Department of the Army
Corps of Engineers, Eufaula Lake
102 E. BK 200 Road
Stigler, OK 74462-1693

RE: Tenkiller Ferry Lake, OK; Supplemental Agreement No. 1 to Lease No. DACW56-1-04-050

Dear Ms. Yoder:

Enclosed, please find two copies of the executed Supplemental Agreement for Tenkiller Ferry Lake. We appreciate your assistance in preparing these documents.

Please send an executed copy to our Department upon completion of the signatures. If you have any questions for our Department please give me a call at 405-230-8476.

Sincerely,

Kristina S. Marek, Director
Conservation and Planning
Division of State Parks

C: Connie Stockton, Cherokee Landing S. P. Manager
TULSA DISTRICT
CERCLA ENVIRONMENTAL BASELINE SURVEY (EBS)

Project: TENKILLER LAKE, OK
Title of Action: Tahlequah Public Works Authority, Removal of 10 ac from state park lease, Wildcat Point area
Date of previous PAS/EBS, if any: None

1. A comprehensive records search of the project office files, conducted by Cathy Hendrix on January 5, 2007 indicated that storage, release, or disposal (as defined in 40 CFR Part 373) of hazardous material (as defined in 40 CFR Part 302.4):
   ___ has*   ___ has not occurred on the property.
* Documentation supporting any positive findings are provided in the attached EBS Statement of Findings.

TULSA DISTRICT SECTION

2. A comprehensive records search of the SWT-OD-TR, or other district files, conducted by James Harris on 2/1/07 indicated that storage, release, or disposal (as defined in 40 CFR Part 373) of hazardous materials (as defined in 40 CFR Part 302.4):
   ___ has*   ___ has not occurred on the property.
* Documentation supporting all positive findings are provided in the attached EBS Statement of Findings.

3. A comprehensive records search of the SWT-RE indicates that storage, release, or disposal (as defined in 40 CFR Part 373) of hazardous materials (as defined in 40 CFR Part 302.4)
   ___ has   ___ has not occurred on the property.
* Documentation supporting all positive findings are provided in the attached EBS Statement of Findings.

4. Recommendations
   ___ Proceed with described transactions. Notification on a warranty covenant statements are not required in transaction documents.
   ___ Proceed with described transactions. Notification and warranty covenant statements are required in transaction documents as described in 42 USC 9620, 40 CFR 373.
   ___ Exclude property from consideration for described transactions.

Accepted by: Oklahoma Tourism & Recreation Commission
By: [Signature]
Title: Executive Director
Date: 3-20-07

Approved by: Chief, Real Estate Division
Date:

Proponent: CESWT-OD-TR

SWT Form 1054
22 Feb 2000
SUPPLEMENTAL AGREEMENT NO. 1
LEASE NO. DACW56-1-04-050
TENKILLER FERRY LAKE

SUPPLEMENTAL AGREEMENT
BETWEEN
THE UNITED STATES OF AMERICA
AND
OKLAHOMA TOURISM AND RECREATION COMMISSION

THIS SUPPLEMENTAL AGREEMENT, made and entered into by and between
THE UNITED STATES OF AMERICA, hereinafter called the Government, and the
OKLAHOMA TOURISM AND RECREATION COMISSION, whose mailing address is
120 N. ROBINSON AVENUE, 6th Floor, OKLAHOMA CITY, OK 73102, hereinafter
called the Lessee;

WITNESSETH THAT:

WHEREAS, Lease No. DACW56-1-04-050, hereinafter called the original lease,
for a term of twenty-five (25) years beginning January 1, 2003, was granted to the
Lessee by authority of the Secretary of the Army for public park and recreational
purposes at the Tenkiller Ferry Lake project area at the location described therein; and

WHEREAS, the Lessee has requested that the original lease be amended to
remove 10 acres of land from the Wildcat Point area of Cherokee Landing State Park;
and

WHEREAS, the Government is amending the original lease to identify the
acreage for the Tenkiller State Park area; and

NOW, THEREFORE, in consideration of the mutual benefits inuring to both
parties, the original lease is hereby amended in the following respects and none other:

1. The map, identified as Exhibit A and attached to the original lease, is
   hereby deleted, and the map, identified as Exhibit A-2 and attached
   hereto, is substituted therefore.

2. The map, identified as Exhibit A-1 and attached to the original lease, is
   hereby deleted, and the map, identified as Exhibit A-3 and attached
   hereto, is substituted therefore.
IT IS FURTHER AGREED that this Supplemental Agreement shall become effective on the date of execution in behalf of the Government, and THAT the original lease shall in all other respects remain in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand by authority of the Secretary of the Army this ____________________________.

(date)

STEPHEN R. ZELTZNER
CHIEF, REAL ESTATE DIVISION

THIS SUPPLEMENTAL AGREEMENT is also executed by the Lessee this ____________________________.

(date)

OKLAHOMA TOURISM AND RECREATION COMMISSION:

__________________________
SIGNATURE

HARDY WATKINS
PRINTED NAME

EXECUTIVE DIRECTOR
TITLE

405-230-8301
PHONE NUMBER
CERTIFICATE OF AUTHORITY

I, Terri Wilkerson, certify that I am the Secretary

(Name)

(Secretary or Attesting Officer)

of the OK Tourism & Rec. Comm./DEPT., named as grantee/lessee/licensee herein;

(Agency Name)

that Hardy Watkins,

(Officer Name)

who signed this Agreement on behalf

of said OK Tourism & Rec. DEPT., was then Executive Director

(Agency Name)

(Officer Title)

of the Agency; and that said Agreement was duly signed for and on behalf of the

OK Tourism & Rec. DEPT., by authority of its governing body and is within the scope of

(Agency Name)

its statutory powers.

Date March 19, 2007

Terri Wilkerson

Secretary or Attesting Officer

This form certifies that the person signing the attached instrument has the authority to do so. The signature of the Secretary/Attesting Officer and the Individual signing the attached instrument cannot be the same.
ROUTING OF DOCUMENTS FOR APPROVAL
BY LEGAL AND EXECUTIVE DIRECTOR

Date Submitted: 02/23/07  Date Needed: 02/28/07
Requesting Party: Jenni furry Division: Exec.

I. Nature of Document:
   - Purchase Order over $10,000
   - Commission Item — approved 2/19/07
   - Contract, Lease, Agreement
   - Personnel Action
   - Other

II. Summary of facts leading to your request:

III. List any applicable statutes or OTRD Rules or Procedures, if known:

IV. Description of pertinent documents attached (provide copies, not originals, unless for signature):

V. Approvals:
   Division Director: [Signature] Date: 3/11/07
   Purchasing: [Signature] Date:
   Legal: [Signature] Date:
   Chief of Staff: [Signature] Date:
   Executive Director: [Signature] Date: 3/20/07
Real Estate Division  
Recreation  

SUBJECT: Tenkiller Ferry Lake, OK; Supplemental Agreement No. 1 to Lease No. DACW56-1-04-050

Mr. Hardy Watkins, Executive Director  
Oklahoma Tourism and Recreation Commission  
120 N. Robinson Avenue, 6th Floor  
Oklahoma City, OK 73102

Dear Mr. Watkins:

Two copies of Supplemental Agreement No. 1 to Lease No. DACW56-1-04-050 are enclosed for your review and signature. This supplement reduces the lease area in Cherokee Landing State Park by 10 acres. Upon our receipt of the signed supplement, an easement for the 10 acres will be issued to the Tahlequah Public Works Authority for the purpose of constructing a water treatment plant. A Certificate of Authority is also enclosed. It cannot be signed by the same person who signs the Supplemental Agreement.

An Environmental Baseline Survey (EBS) has been conducted on the 10 acre site. The EBS is enclosed for your review and signature. It will become part of a permanent file.

Please sign and date all documents, where indicated, and return them to the Corps of Engineers, Eufaula Lake, Attention: Vicki Yoder, 102 E. BK 200 Road, Stigler, OK 74462-1693. Please note that the Supplemental Agreement is subject to review and approval by the Chief, Real Estate Division.

Once the signed instruments are returned we will send you an executed copy of the agreement for your records. If you have questions concerning this matter, please call me at 918-799-5843 or 484-5135, extension 3128.

Sincerely,

Vicki E. Yoder  
Realty Specialist

Enclosures