FINAL ENVIRONMENTAL ASSESSMENT

Proposed Jellystone Camp Resort™ and Commercial Marina
Salt Creek Cove North Recreation Area – Keystone Lake
Mannford, Oklahoma

May 11, 2015

Prepared for:

U. S. Army Corps of Engineers
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FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, including guidelines in 33 Code of Federal Regulations, Part 230, the Tulsa District has assessed the environmental impacts of the construction of a themed recreational park facility and commercial marina at the existing Salt Creek North Recreation Area on Keystone Lake, Oklahoma. The City of Mannford, Oklahoma, through its proposed sublessee, Keystone Resort and Yacht Club, is proposing to fully fund, construct, maintain, and operate all facilities in order to improve overall recreational opportunities at Keystone Lake. The proposed Jellystone Camp Resort™ and Commercial Marina would be constructed within Salt Creek North park – an existing and currently-developed recreation area on Keystone Lake located along the north side of State Highway 51, approximately one mile east of Mannford, Oklahoma. Facilities could include, but not be limited to, expanded recreational vehicle (RV) camping sites, water park(s), rental cabins, boat storage, a ranger station, maintenance buildings, miniature golf, go kart track, kayak rental, courtesy boat slips, a 250-slip marina, floating restaurant, pavilions, ropes course, hiking trails, and swimming play area(s). Construction of recreational features is proposed to occur in phases, with work proposed to begin in 2015 and complete in 2019. The enclosed environmental assessment (EA) indicates the project would have no significant impact on the quality of the natural or human environment. Therefore, an environmental impact statement will not be prepared.

_____
Date

Richard A. Pratt
Colonel, U.S. Army
District Engineer

Enclosure:
Environmental Assessment

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LIST OF ABBREVIATIONS AND ACRONYMS

ABB	American Burying Beetle
BMPs	Best Management Practices
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Contamination and Liability Act
CEQ	Council on Environmental Quality
CO	Carbon monoxide
CFR	Code of Federal Regulations
CWA	Clean Water Act
dB	decibel
dBA	"A"-weighted decibel
EA	Environmental Assessment
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act of 1973 as amended
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
HSS	U.S. Department of Health and Human Services
IPaC	Information, Planning, and Conservation (USFWS system)
Ldn	Weighted 24-hour noise level
mg/l	Milligrams per liter
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO_2	Nitrogen dioxide
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
O_3	Ozone
OAS	Oklahoma Archeological Survey
ODEQ	Oklahoma Department of Environmental Quality
ODOT	Oklahoma Department of Transportation
ONHI	Oklahoma Natural Heritage Inventory
OSHA	Occupational Safety and Health Administration
OWRB	Oklahoma Water Resources Board
Project area	Area within the boundary of the Proposed Action improvements
PM2.5	Particulate matter less than 2.5 microns in aerodynamic diameter
PM10	Particulate matter less than 10 microns in aerodynamic diameter
ROW	Right(s)-of-Way
SH	State Highway
SHPO	State Historic Preservation Office
SO_2	Sulfur dioxide
Study Area	Project area and surrounding buffer area identified for a specific resource analysis
SWPPP	Storm Water Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 AUTHORITY, PURPOSE, AND SCOPE

Introduction

The City of Mannford, Oklahoma, through its proposed sublessee, Keystone Resort & Yacht Club (Keystone Resort), is proposing to fully fund, construct, maintain, and operate a themed recreational park facility and commercial marina to serve the region as a recreational destination and increase tourism in the area, thus improving the overall recreational opportunities at Keystone Lake. The proposed Jellystone Camp Resort™ and Commercial Marina (Project) would be located at the existing Salt Creek Cove North Recreation Area on Keystone Lake, one mile east of the City of Mannford on the north side of State Highway 51 (SH 51), in Creek County, Oklahoma.

The Project area is located in portions of Sections 11, 12, 13 & 14, Township 19 North, Range 9 East of the Indian Meridian. The proposed Project area encompasses the approximate 246 acres of the existing Salt Creek Cove North public use recreation area, which is under U.S. Army Corps of Engineers (USACE) jurisdiction as part of Keystone Lake, Oklahoma. Keystone Resort & Yacht Club (Keystone Resort) would sublease the property from the City of Mannford, which currently leases the property from the USACE. Keystone Resort would finance, construct, operate and maintain the Project. Figure 1 and Figure 2 depict the Project Location and Project Area Boundary, respectively.

Authority

The Keystone Dam project was completed in 1964 by the USACE for authorized purposes of flood control, water supply, hydroelectric power, navigation, and fish and wildlife. The project was authorized by the Flood Control Act approved by Congress on May 17, 1950. Keystone Lake impounds the Arkansas and Cimarron Rivers, and is also fed by other tributaries such as the Salt Fork. Keystone Lake's shoreline is 330 miles long and is managed for a mix of public and private uses, and contains designated areas of limited development, public recreation, protected shoreline and prohibited access.

The USACE's approval of construction of the project constitutes a federal action requiring preparation of an Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA), as amended. The USACE is the lead agency as the proposed Project area is under USACE jurisdiction, and must meet the requirements of NEPA and other applicable federal laws.

Purpose and Scope

The purpose of the proposed Project is to serve the region as a recreational destination and increase tourism and recreational use of Keystone Lake by providing an improved, diversified and enhanced recreational experience. The Project would serve the region as a recreational destination and increase tourism in the area, thus improving the overall recreational opportunities at Keystone Lake. Existing camping and marina facilities at Keystone Lake are generally full or are near capacity (Eaton, et. al. 2014). The purpose of this EA is to assess the environmental impacts from the proposed project. The scope of the Project is to construct and operate a themed recreational park facility and commercial marina and is described in more detail in the following sections.

2.0 PROJECT ALTERNATIVES

2.1 No Action Alternative

The No Action alternative is required under NEPA. The No Action alternative provides a baseline against which impacts of other analyzed alternatives can be compared, and also demonstrates the consequences of not meeting the need for the action.

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed and environmental conditions would remain as they do at present; however, the No Action alternative would not meet the purpose and need for the Project.

2.2 Alternatives Considered but Eliminated from Further Evaluation

Alternatives considered to the Proposed Action alternative include renovation and construction of the proposed project at other existing recreational area locations on Keystone Lake, including Keyport Marina (Salt Creek Cove South), New Mannford Campground, and Green Valley Park. The Keyport Marina location currently contains a marina and retail store, which are in poor condition and the site is considerably smaller in size to accommodate the desired development features for the Project. Existing infrastructure at this site, such as water, sewage system and camping/RV amenities, are not adequately developed or do not exist. Additionally, this alternative would require acquisition of private property, which is not available for purchase.

New Mannford Campground was also considered but is also too small in size and has relatively few existing camping/RV spots. This site does not contain adequate infrastructure, such as water and sewage systems, to support the size of the proposed Project.

Green Valley Park (a City of Mannford park) was also considered, but is too small in size. This location also lacks infrastructure such as roads, camping/RV sites. Additionally, this site is not located on the lake shore.

For the reasons listed above, and the fact that other areas of Keystone Lake allow only limited development, these three alternatives were dismissed from further consideration and are therefore not evaluated in this EA.

3.0 PROPOSED ACTION

The Proposed Action alternative would include the construction and operation of a themed recreational park facility and commercial marina to serve the region as a recreational destination area. The Proposed Action would be located at the existing Salt Creek Cove North Recreation Area on Keystone Lake, one mile east of Mannford, Oklahoma on the north side of State Highway 51. The Salt Creek Cove North location is an existing campground, already contains infrastructure for sewer, water, and electric, and has the acreage required for a large, enhanced, destination-oriented recreational development.

The Project scope involves the renovation of existing campsites and related existing facilities; the expansion of the wastewater lagoon system; and the construction of a water park, roads, cabins, parking

lots, boat storage, ranger station, maintenance buildings, septic system, miniature golf, go kart track, kayak rental and launch, courtesy boat slips, boat ramp, 250-slip marina, floating restaurant, pavilions, a ropes course, hiking trails, and swimming/play area. Temporary and permanent ground disturbance would occur solely within the approximate 246-acre footprint of the existing Salt Creek Cove North public use area.

Construction may include excavation, grading, trenching, boring, very limited clearing of vegetation, and construction of the features listed above. The Proposed Action location has been used as an improved campground for decades and is zoned for intensive recreational use. Construction of the Proposed Action will occur primarily within or adjacent to previously disturbed areas within the current recreation area boundary. The Proposed Action would include best management practices and would follow the Mitigation Plan discussed in Section 7.0 of this EA.

A conceptual map of the proposed Project at this stage of project planning is attached as Figures 3A-3F. The final design is not anticipated to differ greatly from this conceptual map. Construction of the Project is proposed to occur in phases, with work proposed to begin in spring 2015 and complete in 2019. The estimated areas of disturbance are shown in Table 3-1 below.

TABLE 3-1 PROPOSED ACTION AREAS OF DISTURBANCE			
Area/Component	**Quantity**	**Area of Disturbance (Acres)**	**Notes**
Ground Surface			
New Cabin Sites	112	3.50	New cabins and driveways in Loop D (Figure 3F) area will disturb existing wooded areas; 1,360 S.F. disturbed area per cabin/driveway unit.
New RV Sites	100	2.87	New RV sites in Loop D area will disturb existing wooded areas; 1,250 S.F. disturbed area per site.
New Roadway	9,328 LF	5.35	New 25' wide roads are proposed in Loop D.
Renovated camp/RV areas for new cabin placement	-	0	Some existing camping/RV pads will be converted to cabins, with minimal additional disturbance; however with the 100 new RV sites, no net loss of RV sites would occur.
Improved road	-	0	Existing loop roads may be improved, with minimal additional disturbance.
New Waterpark and Loop B Features	1	8.2	Waterpark will be located on interior of Loop B (Figure 3D); includes ropes course and miniature golf.
New Go Kart track/Arcade	1	0.67	Located in Loop A (Figure 3C).
New Bus Parking	1	0.25	Bus/RV parking is located between Loops A & B.
New Car Parking	3 areas	3.79	Automobile parking is located in Loops A & B.
New Boat Trailer Parking	1	0.73	Located in Loop A.
New Building Structures	5 areas	1.76	Includes ranger station, maintenance buildings, boat storage, check in building, activity area in Loop D.
Total Ground Area Disturbance		**27.12**	
Lake Surface			
New Marina & Ship Store	1	0.71	West side of Loop A (Figure 3C).
New Restaurant	1	0.35	West side of Loop A.
Kayak Rental and Wibit - within barrier area	1	16.0	Located on west side of Loop B; boat access to the cove containing these features will be restricted with a barrier Figure 3A/3B.
New Courtesy Slips	3	0.75	Located off of Loops A and B.
Total Water Surface Disturbance		**17.81**	

Notes: Disturbance areas area approximate; based on design concept dated 3/10/2015.

4.0 AFFECTED ENVIRONMENT

In accordance with NEPA and related statutes, the purpose of the affected environment section is to describe the human and natural environment that could be affected by the Proposed Action. The information provided in this section is intended to be of appropriate detail to provide an understanding of the general area, respond to the issues that were raised during scoping, and support and clarify the impact analysis provided in Section 5. Data were collected for the following resources and resource uses in the following sections.

For the purposes of this EA, the term "Project area" includes the area within the boundary of the Proposed Action improvements, and is depicted on Figure 2. "Project vicinity" refers in general to the local area surrounding the Project area. The term "study area" refers to the Project area and the surrounding buffer area identified for that specific resource analysis.

4.1 Land Use

Existing land use data were collected through analysis of aerial photography, field verification, review of existing studies and plans, and coordination with the USACE Tulsa District office. Plans obtained include Keystone Lake Shoreline Management Plan, Lake Keystone Operational Management Plan, and the Keystone Lake Master Plan (Revised) parts of which were provided by USACE.

The land within the Project area is publicly owned federal land managed by the USACE Tulsa District, and is designated as a *Recreation -Intensive Use*, per the Keystone Lake, Arkansas River, Oklahoma, Master Plan (Revised). The land use within the Project area is solely for recreational purposes and is zoned as Public Recreation per the Shoreline Management Plan. The existing Salt Creek Cove North campground currently contains 112 campsites with electric hookups, 13 non-electric campsites, a large handicap-accessible group shelter, a non-electric group shelter, restrooms, three playgrounds, three boat ramps, three docks, and a swimming beach. Facility amenities include drinking water, showers, vault toilets and two dump stations. A fee is currently charged for use of boat launch and camping/RV activities, and there is no fee charged for fishing, swimming, and picnicking.

Except for Loop D, the existing recreation area is continually mowed and vegetation is maintained consistent with its public use for camping activities. Loop D is relatively undeveloped and contains more dense trees and vegetation; however, it is not mowed or maintained as the rest of the existing recreation area is.

Land located adjacent to the Project area boundary includes public land administered by the USACE Tulsa District, and privately owned land. Adjacent to the Project area are Keystone Lake on the north, east and west, and a railroad track and State Highway 51 to the south.

4.2 Biological Resources

The Project area is located in the Cross Timbers Ecoregion of Oklahoma, according to the Oklahoma Forestry Services. Transitional cross-timbers is dominated by blackjack oak and post oak with an understory of little bluestem grassland.

A large variety of fish, reptiles, birds, amphibians and rodents are plentiful throughout the region and within the Project area. Keystone Lake has an excellent reputation as a prime fishing area. The Oklahoma Department of Wildlife Conservation (ODWC) manages the fishery with primary sport fish

including largemouth bass, striped bass, white crappie, white bass, channel catfish, blue catfish, and flathead catfish.

Species of amphibians and reptiles are typical of the Cross Timbers area and include many species of terrestrial and aquatic snakes, turtles, lizards, skinks, frogs, toads and salamanders. Avian species are typical of the Cross Timbers area and include varying species of eagles, harriers, hawks, doves, kingfisher, warblers, woodpeckers, chickadees, titmouse, mocking birds, eastern bluebird, loggerhead shrike, starling, blue jay, crow, sparrows, eastern meadowlark, grackle, cowbird, cardinal, junco and scissor-tailed flycatcher. Mammals found in the Project area include white-tailed deer, rabbits, squirrels, coyote, raccoon, bobcat, possum, wood chuck, ground hog, foxes, muskrat, skunk, mink, bats and beaver.

The U.S. Fish and Wildlife Service (USFWS) official threatened and endangered species list for the study area was requested through the Service's Information, Planning and Conservation (IPaC) system. Consequently, the USFWS on-line project review was submitted for consultation for the study area. Comment from the Oklahoma Department of Wildlife Conservation (ODWC) and the Oklahoma Natural Heritage Inventory/Department of Geography and Environmental Sustainability was also requested.

The USFWS official species list for the Project area included the threatened and endangered species listed in Table 4-1 below.

TABLE 4-1
USFWS THREATENED AND ENDANGERED SPECIES

Species	**Federal Status**
Birds	
least tern (*Sterna antillarum*)	E
piping plover (*Charadrius melodus*)	T
red knot (*Calidris canntus*)	T
Insects	
American burying beetle (*Nicrophorus americanus*)	E

Source: USFWS; T = Threatened, E = Endangered

The On-Line Project Review was completed on the USFWS' website. The results from the on-line project review found the Section 7 Endangered Species Act (ESA) determination for the least tern, piping plover and red knot species and critical habitat was "no effect". However, based upon the USFWS fact sheet, the Section 7 ESA determination for the American burying beetle (ABB) was "recommend coordination with this office (USFWS)". Loop D of the study area (Figure 3F) is largely undeveloped and is representative of a habitat that could host the ABB. However, as noted in the on-line project review submission, Loops A, B and C are not favorable for the ABB due to vegetation structure. As a result of the determination, the online project review concurrence letter was submitted to the USFWS.

A response was received from Rich Fuller with the Oklahoma Department of Wildlife Conservation. Mr. Fuller's comment is as follows: "Because of your project's close proximity to Keystone Lake, we

recommend that any surface damaged areas be restored to as close to pre-development condition as possible. This will prevent erosion and the introduction of sediments into the lake. This would include such practices as re-contouring damaged or exposed soils and re-seeding exposed soils with native grasses to curtail erosion. Damaged/exposed areas should be replanted to native warm-season grasses and forbs as soon as possible. The establishment of native vegetation is most successful when seed is planted in the fall or early winter months. When revegetation is not immediately practical (e.g. summer and winter months), erosion control measures such as mulch or erosion control fabric should be applied to stabilize the soil until the next planting season. The use of native plant species is strongly recommended because this prevents the establishment of less desirable exotic plant species that may spread and invade adjacent undeveloped areas. Additionally, native plants tend to have greater value to native wildlife as sources of food and cover." The rapid establishment of native vegetation would also help alleviate issues with noxious and invasive species. Noxious and invasive species are those non-native species that out-compete native vegetation, reducing the quantity and diversity of native plants. In Oklahoma, a noxious weed is, or is likely to be, detrimental or destructive and difficult to control or eradicate. While an invasive species may be designated as noxious, not all noxious species are invasive.

A response was received from Todd Fagin with the Oklahoma Natural Heritage Inventory (ONHI). The ONHI database noted one (1) occurrence of the least tern in Section 14, Township 19 North, Range 9 East. The USFWS on-line project review submittal can be found in Appendix A and the correspondence with USFWS, ONHI and ODWC can be found in Appendix B.

4.3 Cultural Resources

Cultural resources data for the study area, excluding the approximately 40-acre triangular shaped area east of the fire break in the Loop D area, was collected through information provided by research performed by the Oklahoma Archaeological Society (OAS), the Oklahoma Historical Society, State Historical Preservation Office (SHPO) and an Archaeological Survey of the study area that was performed by the U.S. Army Corps of Engineers, Tulsa District, February 2014. Consultation for the study area was additionally sought from the Caddo Indian Tribe of Oklahoma, the Cherokee Nation, Kialegee Tribal Town, Muscogee (Creek) Nation, Oklahoma, Osage Nation, Seminole Nation of Oklahoma, Thlopthlocco Tribal Town, Oklahoma, United Keetoowah Bank of Cherokee Indians in Oklahoma and the Wichita and Affiliated Tribes of Oklahoma. With the exception of the Osage Nation, no responses from the aforementioned tribes were received.

In February 2014, the U.S. Army Corps of Engineers, Tulsa District performed an extensive archaeological survey of Project area, excluding the approximately 40-acre triangular area east of the fire break in the Loop D area. This 40-acre area was not identified initially as part of the lease to the City of Mannford, and so was not included in the archaeological survey. Final execution of the lease included this tract of land, for which Section 106 compliance will be tied to specific development features in the future. For the majority of the Project area, including all existing recreation areas, the group conducted pedestrian survey with subsurface sampling, which occurred over a period of six days. The group specifically researched two documented cultural resources sites. The first was Site 34CR125, located at the northern tip of Loop B. After a re-examination of the site, it was deemed not eligible for a listing on the National Register of Historic Places (NRHP). The second site was Site 34CR200, located at the northern tip of Loop A. It was also deemed not eligible for a listing on the NRHP. The archaeological survey was submitted to the OAS and SHPO for comment of the determination of "not eligible" for sites 34CR125 and 34CR200 and the determination of "no historic properties identified" for the study area. OAS deferred its opinion on potential eligibility of the historic component of site 34CR200 to the Historic

Archaeologist with SHPO. SHPO responded that they find no historic properties affected by the referenced project. However, in the event that archaeological objects are uncovered during construction, OAS would be contacted immediately. The correspondence letters from SHPO and OAS can be found in Appendix C and the Archeological Survey (by USACE) can be found in Appendix D.

4.4 Air Quality

The federal Clean Air Act (CAA), enacted in 1970 and amended twice thereafter (including 1990 amendments), establishes the framework for modern air pollution control. The CAA directs the Environmental Protection Agency (EPA) to establish ambient air standards for six criteria pollutants considered harmful to public health and the environment. The USEPA Office of Air Quality Planning and Standards has established National Ambient Air Quality Standards (NAAQS) for the six pollutants which include ozone (O_3), carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), particulate matter ($PM_{2.5}$ and PM_{10}), and sulfur dioxide (SO_2). The standards are divided into primary and secondary standards; primary standards are set to protect human health and secondary standards to protect environmental values, such as plant and animal life. The Oklahoma and NAAQS for the pollutants listed above are shown in Table 4-2 below.

TABLE 4-2
OKLAHOMA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Primary/Secondary	Averaging Time	Level
Carbon Monoxide (CO)	Primary	8-Hour 1-Hour	9 ppm 35 ppm
Lead (Pb)	Primary and Secondary	Rolling 3-month avg.	0.15 $\mu g/m^3$ (1)
Nitrogen Dioxide (NO_2)	Primary Primary and Secondary	1-Hour Annual	100 ppb 53 ppb (2)
Ozone (O_3)	Primary and Secondary	8-Hour	0.075 ppm (3)
Particulate Matter ($PM_{2.5}$)	Primary Secondary Primary and Secondary	Annual Annual 24-Hour	12 $\mu g/m^3$ 15 $\mu g/m^3$ 35 $\mu g/m^3$
Particulate Matter (PM_{10})	Primary and Secondary	24-Hour	150 $\mu g/m^3$
Sulfur Dioxide (SO_2)	Primary Secondary	1-Hour 3-Hour	75 ppb (4) 0.5 ppm

Source: USEPA NAAQS Website

(1) Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
(2) The official level of the annual NO2 standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.
(3) Final rule signed March 12, 2008. The 1997 ozone standard (0.08 ppm, annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years) and related implementation rules remain in place. In 1997, EPA revoked the 1-hour ozone standard (0.12 ppm, not to be exceeded more than once per year) in all areas, although some areas have continued obligations under that standard ("anti-backsliding"). The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is less than or equal to 1.
(4) Final rule signed June 2, 2010. The 1971 annual and 24-hour SO2 standards were revoked in that same rulemaking. However, these standards remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

NAAQS places limits on acceptable ambient concentration of these pollutants and is authorized to designate areas exceeding the NAAQS limits as "non-attainment areas" and classify them according to their degree of severity. A non-attainment area is an area that does not meet one or more of the NAAQS for the criteria pollutants.

A conformity determination based on air emission analysis is required for each proposed Federal action within a non-attainment area. The Project area is located in the Northeastern Oklahoma Intrastate Air Quality Control Region (AQCR), is in attainment, and meets the NAAQS for the criteria pollutants designated in the CAA. Consequently, a conformity determination is not required.

4.5 Climate Change

Keystone Lake lies in a region characterized by moderate winters and long summers with relatively high temperatures. Mean temperature for the Keystone Lake area is approximately 60°F, with the average ranging from 50°F in January/December to 94°F in August. The Keystone Lake watershed is in an area of prevailing southerly winds, with most wind occurring during the spring months. Summer rains usually occur as intense thunderstorms of short duration and limited extent. Winter rains are generally low in intensity but occur over large areas and can last for several days. Annual precipitation is approximately 41 inches. May is normally the wettest month and December is the driest; however, major storms can occur at any time during the year. Most precipitation occurs from April through September, during the growing season. Annual snowfall averages around 10 inches per year.

In 2010, the Council on Environmental Quality (CEQ) released draft guidance on how federal agencies should consider climate change in their action decision-making. The suggested threshold whereby quantitative analysis should be done in NEPA documents is for actions releasing over 25,000 metric tons of greenhouse gases (GHG) per year. GHGs trap infrared radiation emitted from the earth's surface. GHGs contributing to the process include water vapor, Carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), O_3, and fluorinated gases. The "greenhouse effect" keeps the earth's atmosphere near the surface warmer than it would be otherwise. Increases in these gases lead to more absorption of radiation and further warming of the lower atmosphere. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect.

Some GHGs occur naturally, such as CO_2 released by living organisms through respiration. Other GHGs are emitted by human activities, examples of which include CO_2 emission by burning fossil fuels, CH_4 emission through decomposition of waste in landfills, production of natural gas and petroleum, and N_2O gases generated as a result of agricultural practices. Typical existing sources of GHG emissions at the Project site include vehicle emissions, generators (for campers/RVs), and water vapor from the lake.

4.6 Water Resources

4.6.1 Surface Water Conditions

The overall topography of the Project area slopes to the west northwest toward Keystone Lake, which is located adjacent to the north, west, and east of the Project area. Typically, groundwater flow is assumed to be consistent with the surface topography of the area, and as such, groundwater flow on the Project area is assumed to flow into Keystone Lake.

The Keystone Lake Management Plan (2008) indicates that Keystone Lake water is classified as hypereutrophic. As per the Management Plan, the OWRB found that nine out of 24 turbidity samples exceeded criteria levels; however, the dissolved oxygen, pH, and toxicant samples met criteria levels. Keystone Lake is listed in Appendix C of the 2012 Oklahoma 303(d) List of Impaired Waters - Integrated Report (ODEQ 2012) as being impaired for turbidity. There are no Wild and Scenic Rivers located within the Project area (NWSRS 2015).

4.6.2 Groundwater Conditions

The OWRB website was researched for water wells installed on and around the Project area. According to the OWRB, there are eight groundwater wells located within approximately 0.75 mile to the east and south of the Project area. These wells indicate that groundwater in the area ranges from approximately 47 to 85 feet below ground surface. There are several monitoring wells located approximately 1.0 mile west of the Project area, on the opposite side of Keystone Lake. Depth to groundwater was not provided in the OWRB reports for any of the identified wells. The Environmental Data Resources report, generated for the Phase I Environmental Site Assessment, also identified three geotechnical borings located between approximately 0.25 mile and 1.0 mile from the Project area. Depth to groundwater for these wells was in conformance with the wells identified by the OWRB with groundwater ranging from approximately 68 to 90 feet below ground surface.

According to the Oklahoma Geological Survey, *Hydrologic Atlas Map, No. HA-7*, the Project area is located on a Bedrock aquifer from Pennsylvanian rocks. Bedrock aquifers contain variable amounts of dissolved solids. Dissolved-solids concentrations range from 60 to 4610 milligrams per liter (mg/l); however, concentrations of 500 to 2000 mg/l are more common. The Project area is identified as having concentrations of 500 mg/l or less of dissolved solids.

4.6.3 Floodplain Conditions

Keystone Lake is located adjacent to the east, west and north of the Project area and is a result of the Keystone Lake Project constructed by the USACE in 1964 as part of a hydroelectric project. The conservation pool for Keystone Lake is at an elevation of 723 feet National Geodetic Vertical Datum (NGVD).

For Keystone Lake, critical elevations for flood control operations are 754 feet National Geodetic Vertical Datum (NGVD), which is the top of Keystone Lake flood control pool, and 757 feet NGVD which is the top of Keystone Lake "surcharge pool". The flood control pool includes the volume of storage in which the USACE may store water in order to alleviate downstream flooding. Additionally, the surcharge pool may temporarily hold water during an extreme flood event. Habitable structures and similar development features are not allowed to be constructed within the surcharge pool. Accordingly, much of this area has the potential for inundation at varying frequencies during Keystone Lake flood control operations. Both flood and surcharge pool elevation contour lines are shown for the Salt Creek North recreation area in Figure 3B.

Should any development be proposed below 757 feet, the USACE has the following requirements: 1) habitable structures of any kind are prohibited; and, 2) no "net loss" of storage is allowed below 757 feet.

According to the FEMA Flood Map FIRMette, approximately half of the Project area is located within a Special Flood Hazard Area with a 1% annual chance of flooding (Zone A). Figure 4 depicts the floodplain areas within the Project area.

4.6.4 Wetland Conditions

Executive Order 11988, Floodplain Management (May 24, 1977), directs federal agencies to ensure that the potential effects of any action it may take in a floodplain and wetlands are evaluated. Federal agencies are therefore required to avoid direct or indirect support of development in a floodplain or new construction in a wetland whenever there is a practicable alternative. Wetlands are defined as those areas inundated or saturated by surface water or groundwater often enough to support hydrophytic plants, create hydric soils, and maintain wetland hydrology.

According to the National Wetland Inventory (NWI) maps of the project area (Figure 5), there are four (4) identified Wetland types located within the Project area. Keystone Lake is identified as L1UBHh – Lacustrine, Limnetic, Unconsolidated Bottom, Permanently Flooded, Diked/Impounded. The shoreline between Loops A and B and the cove area between Loops B and C are identified as L2USCh – Lacustrine, Littoral, Unconsolidated Bottom, Seasonally flooded, Diked/Impounded. South of the shoreline between Loops A and B is identified as PEM1Ah – Palustrine, Emergent, Persistent, Temporarily Flooded, Diked/Impounded. The sewage lagoon is identified as PAB4Fh – Palustrine, Aquatic Bed, Floating Vascular, Semi-permanently Flooded, Diked/Impounded.

4.7 Land Resources

4.7.1 Topography

The Project area is located in the Eastern Sandstone Cuesta Plains subdivision of the Interior Central Lowland physiographic province (OGS). A USGS 7.5 Minute Series Topographic Map showing the Project area was reviewed. Based on the topographic map provided in Figure 6, the highest point on the Proposed Project area is approximately 820 feet above sea level located near the southeast corner of the Project area. The majority of the proposed Project area has an average elevation of 750 feet above sea level. The topography along the western half of the Project area is slightly rolling. Moving eastward, the slopes and general topographic variation increase and would be described as hilly.

The majority of the shoreline can be described as sharply sloping toward Keystone Lake, with short rocky bluffs making up some of the shoreline along the eastern half of the Project area. The exception to this is the bay between Loop A and Loop B, which is very gently sloping down towards Keystone Lake.

4.7.2 Soil Conditions

According to soil data provided by the *Web Soil Survey,* prepared by the U.S. Department of Agriculture for the National Resource Conservation Service (NRCS), the Project area is comprised of the soil types listed in Table 4-3 below.

TABLE 4-3 SOIL TYPES WITHIN PROJECT AREA			
Soil Type	**Percent Coverage**	**Approximate Acres**	**Prime Farmland**
Bigheart-Niotaze-Rock outcrop complex	25%	62	No
Collinsville and Talihina soils	25%	61	No
Niotaze-Bigheart-Rock outcrop complex, extremely stony	24%	59	No
Dennis and Okemah soils	14%	34	Yes
Niotaze-Bigheart-Rock outcrop complex, very stony	9%	22	No
Water (shoreline)	3%	8	No

Source: NRCS Web Soil Survey, http://websoilsurvey.nrcs.usda.gov/app/, 2013

Niotaze-Bigheart-Rock outcrop complex can be described as very stony to extremely stony, with 3 to 25 percent slopes with the higher slopes in the extremely stoney complex. It is a loamy colluvium derived from sandstone over clayey residuum weathered from shale and is poorly drained. Collinsville and Tahina soils are loamy residuum weathered from sandstone. That can have a slope of 5 to 12 percent, have a high runoff rate and are somewhat excessively drained. Bedrock is typically found 4 to 20 inches below this soil. Bigheart-Niotaze-Rock is residuum weathered from sandstone. It has 1 to 8 percent slopes and is well drained. Dennis and Okemah soils are clayey residuum weathered from shale, have 1 to 3 percent slopes and are somewhat poorly drained.

Prime farmland is designated by the United States Department of Agriculture (USDA). Prime farmland is that which is comprised of the best combinations of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is available for these uses. Dennis and Okemah soils are considered prime farmland by the NRCS and therefore, approximately 14% or approximately 34 acres of the Project area is considered to be prime farmland. Figure 7 delineates soil classification and areas of prime farmland within the Project area.

Surface soils within the west portion of the Project area (Loop A, B and C areas) have been highly disturbed from years of historical recreational activity, and due to the long-term disturbance in these areas, high quality surface soils and abundant vegetation are limited. Surface soils within the east portion of the Project area (Loop D area) appear less disturbed, and the area is more densely vegetated.

4.7.3 Geologic Settings and Resources

According to the Oklahoma Geological Survey, *Hydrologic Atlas Map, No. HA-7*, the proposed Project area is underlain with the Wann Formations and Iola Limestone. The Wann Formation consists of shale and fine- to medium-grained sandstone with many thin layers of fossiliferous limestone. Thickness ranges from 50 to 400 feet. Iola Limestone is mainly limestone, calcareous sandstone, and shale, and underlies the Wann. The thickness ranges from 4 to 100 feet.

Prior to 1964, the Project vicinity and the Project area were used as an oil field. Aerial photographs and historical topographic maps reviewed for the Phase I Environmental Site Assessment show that the majority of the area was undeveloped with the exception of oil and gas wells and the network of undeveloped roads that connected the well sites. Historical topographic maps indicate there were approximately five oil and/or gas wells located on the Project area. A review of the Oklahoma Corporation Commission (OCC) oil and gas records indicate there may have been as many as 12 oil and/or gas well located within the Project area. The Project area and the surrounding area are no longer used as an oil and gas field and most wells were plugged or abandoned prior to 1964 in preparation of the flooding of Keystone Lake.

4.8 Noise

Noise is defined as unwanted sound. Sound travels in waves from a specific source and exerts a sound pressure level (referred to as sound level), which is measured in decibels (dB). Zero dB corresponds roughly to the threshold of average human hearing and 120 to 140 dB corresponds to the threshold of pain. Human response to noise is subjective and can vary greatly from person to person. Factors that can influence individual response include intensity, frequency, and time pattern of the noise; the amount of background noise present prior to the intruding noise; and the nature of work or human activity that is exposed to the noise. The effects of noise include interference with concentration, communication, and sleep. At high levels, noise can cause hearing damage.

Environmental noise is usually measured in A-weighted decibels (dBA). Environmental noise typically varies over time, and different types of noise descriptors are used to account for this variability. The noise descriptor most commonly used to establish noise exposure guidelines for specific land uses is based on a weighted 24-hour noise level (commonly referred to as DNL or Ldn). The noise level experienced at a particular site or area depends on the distance between the source and a specific receptor (humans, wildlife, or sensitive places), presence or absence of noise barriers and other shielding features, and the amount of noise reduction provided by the intervening terrain. Some land uses are considered more sensitive to noise levels than others due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved.

Baseline ambient noise levels were estimated using the relationship between population density and noise levels. Typical noise levels for various population densities are provided in Table 4-4. These relationships are presented because ambient noise monitoring was not conducted as part of this analysis.

TABLE 4-4 TYPICAL AVERAGE DAY-NIGHT SOUND LEVELS FOR VARIOUS POPULATION DENSITIES*		
Description	**Population Density (people/square mile)**	**Ldn (dBA)**
Rural (undeveloped)	20	35
Rural (partially developed)	60	40
Quiet Suburban	200	45
Normal Suburban	600	50
Urban	2,000	55
Noisy Urban	6,000	60
Very Noisy Urban	20,000	65

*For areas where there is no well-defined noise sources other than transportation noise.
Source: National Academy of Sciences 1977

For comparison, the population density of the City of Mannford is estimated to be 570 people per square mile, based on population and land area, which would result in typical ambient noise levels approaching 50 dBA (normal suburban). The use and population of the Project area varies seasonally, but estimated ambient noise levels would be expected to range between 35 dBA (rural-undeveloped) and 50 dBA. Noise levels would be affected by the number of recreational users.

The Project area is currently used for recreational purposes, including RV and tent camping, swimming, boating, fishing and other related purposes. The Project area contains recreational users, but does not include residential receptors, except for the few caretakers of the property who inhabit the Project area seasonally. The nearest residential areas are located across the lake south of SH 51, and are approximately one-half mile from the Project area boundary. The Project area is not considered to be a pristine or natural area and would not require maintaining the natural quiet that would be experienced in a wilderness area or national park.

4.9 Transportation

State Highway 51 (SH 51) is the primary transportation corridor currently serving the Project vicinity. This stretch of SH 51 extends from SR 48, located west of Mannford, eastward to SR 151 and further west into Sand Springs. SH 51 runs in an east-west direction, approximately 200 feet south of southern boundary of the Project area (see Figures 1 and 2).

According to the Oklahoma Traffic Count Information System website, traffic counts have been recorded near the Project on SH 51, from 2005 to 2011. At a location approximately two miles east of the Project area, the Annual Average Daily Traffic (AADT) was recorded as 10,500 in 2011. At a location approximately three miles west of the Project area (and east of Highway 48), the AADT was recorded as 8,200 in 2011 (ODOT).

The BNFS Railroad is located adjacent and parallel to the southern boundary of the Project area, and runs in an east-west direction between the Project area and SH 51. The entrance road to the Project area (and current campground) crosses this railroad track, which is equipped with a lighted signal but no crossing gates.

There are three airports within approximately ten miles of the Project area. The nearest airports include the Flying G Ranch Airport (private) located 4.5 miles east southeast; Keystone Air Park Airport (private) located 6.0 miles north, near Westport, OK; and, William R. Pogue Municipal Airport (public) located 9.5 miles east northeast of the Project near Sand Springs, OK. The nearest major airport is the Tulsa International Airport, located approximately 24 miles east of the Project. Additional private airports may be located in the Project vicinity.

4.10 Socio Economic and Environmental Justice

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," issued by the White House in 1994, requires that federal agencies examine the potential for their actions to adversely affect low-income or minority communities. This Executive Order directs that federal programs, policies, and activities do not deny or exclude populations from benefits, and that no discrimination occurs under such programs, policies, or activities because of a population's race or income status.

The Council on Environmental Quality (CEQ) has oversight of the federal government's compliance with Executive Order 12898. In consultation with EPA and other affected agencies, CEQ developed Environmental Justice: Guidance under the National Environmental Policy Act, dated December 10, 1997. The Executive Order on Environmental Justice 12898 states that, to the extent practicable and permitted by law, neither minority nor low income populations may receive disproportionately high or adverse impacts as a result of a Project. The demographic baseline conditions discussed below were developed using existing sources of information available from the U.S. Bureau of the Census. This demographic baseline condition shows the racial and cultural affiliation and income and poverty levels.

The Study Area is located wholly within a federal designated recreational area managed by the USACE. The closest municipality is the City of Mannford, approximately one mile west of the Project area. The 2010 population of Creek County was 69,967 persons and the population of Mannford was 3,076 persons.

Table 4-5 below presents the population and racial demographics for Mannford and Creek County.

TABLE 4-5 CENSUS OF POPULATION -2010		
	Mannford	**Creek County**
Total Population	3,076	69,967
White	2,598	55,764
Black	3	1,544
American Indian and Alaskan Native	259	7,001
Asian	13	230
Native Hawaiian and Other Pacific Islanders	1	45
Some Other Race	11	734
Two or More Races	191	4,649
Hispanic or Latino (of any Race)	54	2,152
% Minority (non-white)	17.2%	23.4%

Source: U. S. Census Bureau, Census 2010

Income and poverty levels for Mannford and Creek County were reviewed and are presented in Table 4-6 below. It should be noted that the percentage of persons living below poverty level in Mannford is roughly half the percentage in Creek County. The percentage of persons living below the poverty level in Creek County is 14.7 percent according to the U.S. Census 2013 Survey. In 2013, the percentage of persons living below the poverty level in Creek County was slightly increased from 2000 at 13.5 percent.

The 2014 U.S. Department of Health and Human Services (HHS) poverty guideline for a family of four (4) is $23,850. The median household income for Creek County is $43,026. Mannford has a median household income of $49,754 and the percentage of persons below the poverty level is 7.6 percent according to the U.S. Census of 2010.

TABLE 4-6 CENSUS 2010 POPULATION, INCOME AND POVERTY		
	Mannford	**Creek County**
Total Population	3,076	69,967
Median Household Income	49,754	43,026
Per Capita Income	28,679	22,327
Number of Persons Below Poverty Level	235	10,208
% of Persons Below Poverty Level	7.6	14.7
% of Persons Below Poverty Level in Oklahoma	-	17.0

Source: U. S. Census Bureau, Census 2010 and 2013 American Community Survey

4.11 Health and Safety

The Project area is currently within the jurisdiction of the City of Mannford, which currently provides public health and safety services. Safety issues considered include the health and safety of the campground users and the general public, and the protection of personnel involved in construction activities related to the proposed Project. Construction activities could present short-term safety risks to those performing the activities. To mitigate risks to safety and human health, all construction activities would be performed using qualified personnel trained in the proper use of the appropriate equipment, including appropriate safety precautions. Activities would be conducted in a safe manner in general accordance with the standards in the Occupational Safety and Health Administration (OSHA) regulations. The appropriate signage and barriers should be in place prior to construction activities to alert pedestrians and motorists of project activities.

A Phase I Environmental Site Assessment was completed for the site in October 2014 for the Project area with the only recognized environmental conditions being the former oil and gas wells that were part of an active oil field, and were plugged and abandoned approximately 40 years ago (Cardinal 2014). The existence of the wells should not inhibit future development or continued use of the campground.

4.12 Hazardous Materials and Solid Waste

Hazardous substances are defined as any solid, liquid, contained gaseous or semisolid waste, or any combination of wastes that pose a substantial present or potential hazard to human health and the environment. Improper management and disposal of hazardous substances can lead to pollution of groundwater or other drinking supplies, and contamination of surface water and soil.

Hazardous materials and waste are regulated in Oklahoma by a combination of federal and state laws. The primary federal regulations for the management and disposal of hazardous substances are the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the Resource Conservation and Recovery Act (RCRA), the Solid Waste Act (SWA), and the Toxic Substances Control Act (TSCA).

On October 3, 2014, Ms. Jennifer Booth of Cardinal conducted a pedestrian field survey of the entire Study Area as part of a Phase I Environmental Site Assessment report. The survey did not reveal obvious existing or potential hazardous materials, substances. Historical records review indicate that the Project area and surrounding area was once used as an oil field; however, there was no evidence of pits, storage facilities, or oil separator units within the Project area. No drums or other sources of potential hazardous materials were observed in the Project area. Based on the survey, no hazardous substances were identified in the Project area.

The Project area is currently served by a sewage lagoon, which is located near the southeast corner of Loop C outer loop (Figure 3E), and an aerobic wastewater treatment system which services Loop A and Loop B. Waste from Loop A is pumped to the aerobic system in Loop B, located near the dump station on Loop B. The spray field from the aerobic system is located in a vegetated area, just west of the Loop B access road. According to the USACE, the water in the aerobic system is chlorinated. There are two dump stations located on the Project area, one near the restroom facilities on Loop A, and one near the main entrance to Loop B. Both dump stations are transferred to the aerobic system and treated accordingly.

4.13 Recreation at Keystone Lake

Keystone Lake is positioned on 54,320 acres of land along the Arkansas River. At normal elevation, the lake is approximately 23,600 acres in size. Traditional recreation uses at Keystone Lake include boating, camping, fishing, water skiing, swimming, and picnicking among others. There are 16 recreation areas on Keystone Lake, 11 boat ramps, and 4 marinas. There are approximately 14 campgrounds located at Keystone Lake, which are mainly traditional camping facilities that include primitive sites to full RV hook ups.

Currently, four marinas exist on Keystone Lake: Westport Marina, located toward the north end of the lake, has 45 wet slips; Pier 51 Marina, located at Keystone Lake Park, has 275 wet slips and 30 dry storage units, and is currently full; Cross Timbers Marina has 150 wet slips and is currently full; and, Keyport Marina has 44 wet slips and remains relatively full (Eaton et. al). Occupancy rates at the marinas are reported to be near or at capacity (Beard 2015). Two of these marinas (Cross Timbers and Keyport) are within close proximity to the Proposed Action.

Annually, there are thousands visitors to Keystone Lake. An Oklahoma Tourism and Recreation Department study in 2010 indicated that, in general, people are migrating toward counties with recreational lake opportunities, and these counties are among the fastest growing in Oklahoma (Eaton et. al.).

The existing Salt Creek Cove North campground has been used as a campground for decades, and is open year-round. This existing campground provides a variety of recreational activities including camping, picnicking, boating, fishing, swimming and other recreation. The campground currently contains 112 campsites with electric hookups, 13 non-electric campsites, a large handicap-accessible group shelter, a non-electric group shelter, restrooms, three playgrounds, three boat ramps, three docks, and a swimming beach. Facility amenities include drinking water, showers, vault toilets and two dump stations. Fees are currently charged for use of the boat launch and for camping/RV activities, and there is no fee charged for fishing, swimming, and picnicking.

5.0 ENVIRONMENTAL IMPACTS

This section identifies the potential environmental and socioeconomic impacts to the natural, human, and cultural environment within the Project area as a result of the Proposed Action. Impacts to resources can be characterized as direct impacts, indirect impacts, short-term impacts, long-term impacts, and permanent impacts. Direct impacts as defined by 40 CFR §1508.8 are caused by the action and occur at the same time and place as project construction activities. Indirect impacts are associated with a project and occur later in time or farther removed in distance, but they are still reasonably foreseeable. Short-term impacts are temporary and episodic; the duration is limited to construction and ancillary activities. Long-term impacts to resources occur beyond the duration of short-term impacts. Permanent impacts occur when a resource cannot be recovered.

5.1 Land Use

5.1.1 Proposed Action Alternative

The land within the Project area is publicly owned federal land managed by the USACE Tulsa District, and is designated as a *Recreation -Intensive Use*, per the Keystone Lake, Arkansas River, Oklahoma, Master Plan (Revised). Ground surface disturbance is estimated to be 27.12 acres and surface water disturbance/use is estimated to be 17.81 acres (Table 3-1). The Proposed Action would be constructed, operated, and maintained in conformance with existing land use and other management plans.

In general, the overall land use would remain the same. However, the Proposed Action expands recreational opportunities/facilities beyond that of traditional USACE camping areas to include such diversified features as the waterpark, cabins, go-karts, zip line, Wibit (floating waterplay structure), and other unique features. As part of safety measures for the Wibit area and kayak rental activities, boat access to the cove where these features would be located (between Loop A and Loop B; approximately 17.81 acres of water area) will be restricted with a barrier, as shown on the Proposed Project Concept (Figure 3A).

Additionally, there will be the introduction of a new marina and ship store where none existed before. This feature will increase the use of the area by boaters, fishermen and tourists. The existing boat ramps within the Project area would remain accessible to the public for a fee. Fishing would be allowed in designated areas and would also remain accessible to the public for a fee. According to the City of Mannford, the City is migrating toward implementation of use fees for such facilities. Implementation of the project would not require a change in land use or ownership and would not be expected to affect land use on adjacent properties. Therefore, some direct long-term impacts to land use would be expected.

5.1.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed and environmental conditions would remain as they do at present. Therefore, no impacts to land use would be expected.

5.2 Biological Resources

5.2.1 Proposed Action Alternative

The USFWS notes four (4) Federally-listed species for Creek County, Oklahoma which could occur in the vicinity of the project area. Included are the endangered least tern (*Sterna antillarum*), the threatened piping plover (*Charadrius melodus*), the threatened red knot (*Calidris canntus*) and the endangered American burying beetle (ABB) (*Nicrophorus americanus*). The Proposed Action would have no effect on the least tern, piping plover, and red knot (see correspondence in Appendix A). As no critical habitat has been established for these species, none would be affected by the Proposed Action. The Loop D area is considered an area of suitable habitat for the ABB, and a small amount of ground and vegetation disturbance would be expected in this area due to construction of roads and cabins. However, construction of roadways and cabin/RV pads will focus on minimal disturbance of trees, vegetation and soils. An important part of the design for privacy between cabins/RVs is to maintain the maximum amount of trees possible, and select hand-clearing methods will be utilized and construction activities

will not include clearcutting or dozing of these areas. Ground surface disturbance in the Loop D area is estimated to be approximately 12.8 acres. It is expected that the USFWS would require additional work (e.g., ABB survey) to address potential ABB concerns prior to the construction of features with the potential to take ABBs or impact suitable ABB habitat.

Current U.S. Fish and Wildlife Service (Service) guidance for addressing impacts to the ABB can be found at http://www.fws.gov/southwest/es/Oklahoma/ABB_Add_Info.htm. Prior to approval of construction of any feature in the project area, the USACE will work with the City of Mannford, Keystone Resort and Yacht Club or other sublessees, and the Service to ensure compliance with Section 7 of the Endangered Species Act of 1973 (ESA) with respect to the ABB. The USACE will coordinate with the USFWS using protocol found at the above website or the most current guidance at the time of the request for construction approval. This may include, but may not be limited to, an annual presence/absence survey for the ABB by a Section 10 permitted biologist using established survey procedures (current procedures can be found at website listed above). If surveys are not feasible or practical, project proponents may assume ABB presence, implement minimization measures, and provide appropriate mitigation using the most current Service requirements. If a survey is positive for the ABB, or presence is assumed, the USACE will coordinate with the Service to ensure compliance under the ESA using most current guidance. Given the long-term and phased nature of the proposed action, the USACE will review all construction requests using most current USFWS species lists and guidance to ensure continued compliance with Section 7 of the ESA.

The Proposed Action will benefit some fish and wildlife species and temporarily displace others. As with any construction project, some species would be displaced or otherwise impacted simply by the construction activity involved. However, due to the majority of the project construction occurring on Loops A, B and C, which are currently in use as a recreation area, the impacts to these land species would be short-term and minor.

Dock construction and proposed water features (e.g. Wibit, kayak rentals, courtesy slips) have the potential to displace some fish and other aquatic species while benefitting others. The docks and associated structures could provide shelter and shade at certain times of the year for species such as sunfishes, catfish and crappie. Under the docks, fishermen who rent a slip would also be able to place their own habitats and cover (e.g. suspended brush) to provide additional habitat and fishing opportunities. Minimal impact to shallow water habitat, shoreline features, and terrestrial vegetation above normal conservation pool at Keystone Lake should ensure that adequate habitat supporting successful fish spawning and recruitment are maintained in the area. The proposed design of recreational features seeks to maintain, as much as possible, existing shoreline slope, substrate and vegetative cover.

The zebra mussel, an invasive aquatic species, has been observed in Keystone Lake. Construction of docks and other in-water structure would provide additional attachment substrate for zebra mussels, with resulting potential local increases in zebra mussel numbers. Relative to attachment substrate available lake-wide, this would not be expected to be a significant impact to overall zebra mussel populations in Keystone Lake.

The potential impacts of the Proposed Action on migratory birds would be minimal as the majority of the Project area is currently utilized as a recreational area. While construction activities would likely displace some avian species, the bird species would be expected to relocate to nearby habitat areas.

During construction, every effort would be made to avoid nesting birds and their habitat. Therefore, direct short-term impacts to some bird species would be expected.

5.2.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed and environmental conditions would remain as they do at present. Therefore, no impacts to biological resources would be expected.

5.3 Cultural Resources

5.3.1 Proposed Action Alternative

The State Historical Preservation Society (SHPO) and the Oklahoma Archaeological Survey have been contacted and an Archaeological Survey of the Project area, excluding the approximately 40-acre triangular shaped area east of the fire break in the Loop D area, was completed in February 2014. The SHPO has sent correspondence concurring with the conclusions of the Archaeological Survey that "no historic properties were identified" for the area of the 2014 study.

The approximate 40-acre area east of the fire break would require an archaeological survey prior to its development, and correspondence and coordination with the SHPO and Oklahoma Archaeological Survey would be expected. Ground surface disturbance in the approximate 40-acre area is estimated to be approximately 2.46 acres due to the new road and RV sites. Based on previous surveys and historical use of the Project area, no impacts to cultural resources would be expected.

5.3.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed and environmental conditions would remain as they do at present. Therefore, no impacts to cultural resources would be expected.

5.4 Air Quality

5.4.1 Proposed Action Alternative

The construction phase of the Proposed Action would disturb approximately 27.12 acres of land (Table 3-1). Construction would include clearing and grading along roads and at locations of some of the park features (e.g., waterpark, parking areas, go kart track, and new cabin areas in Loop D). Project activities that could affect air quality include use of construction vehicles and equipment, transportation to and from the site, construction/installation activities, and development or improvement of unpaved roads, dirt parking areas and related construction areas.

The primary sources of air pollution during project construction would include construction vehicles and equipment, which would produce short-term exhaust emissions including PM10, PM2.5, CO, NO_2, and

volatile organic compounds, and construction activities which would produce fugitive dust from disturbed soils including PM10 and PM2.5.

Because these emissions would be temporary and localized, with construction being spread over an approximate four-year time span (2015 to 2019), and the Proposed Action includes a mitigation plan (Section 7.0) to abate dust emissions during construction, potential air quality impacts would not be expected to exceed federal and state air quality standards and would be minimal. No Clean Air Act permit is required for this construction activity.

The primary sources of air pollution during Project operation would include emissions from increased vehicle traffic by users of the park, including an increased number of RVs (including generators) and boats. Constructing, operating, and maintaining the Project would not alter the existing EPA designation of the region, and would not expose sensitive receptors to detrimental air pollution. As a result, direct and indirect short-term impacts to air quality would be expected from implementation of the Proposed Action.

5.4.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed and environmental conditions would remain as they do at present. Therefore, no impacts to air quality resources would be expected.

5.5 Climate Change

5.5.1 Proposed Action Alternative

The Proposed Project is expected to increase vehicle traffic due to temporary construction of the facility and increased long-term use of the facility after construction. Temporary greenhouse gas emissions from construction traffic will result primarily from fuel used in construction equipment. Emissions from traffic due to the increased use of the facility after construction would result in a small increase in operational greenhouse gas emissions.

Construction activities associated with the Proposed Action would result in minimal short-term emissions of vehicle exhaust from construction equipment, and would be less than 10% of the 25,000 metric ton/year threshold (for CO_2), based on calculations obtained from the Project Emission Estimator website (http://www.construction.mtu.edu/cass_reports/webpage/equip_estimator.php). To minimize the impact to climate change, the developer will ensure the use of well-maintained and properly tuned construction equipment and vehicles, and minimize idling time of construction vehicles.

Long-term traffic emissions would also be less than 10% of the 25,000 metric ton/year threshold (for CO_2), based on typical conversion calculations for gasoline and diesel use (40 CFR 98 Subpart C Table C-1), and based on based on full occupancy of the Proposed Project facility (60% RVs and 40% automobiles).

5.5.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed and environmental conditions would remain as they do at present. Therefore, no impacts to climate change would be expected.

5.6 Water Resources

5.6.1 Proposed Action

The Proposed Action would be constructed and operated to minimize impacts to lake water quality. Available "Clean Marina" standards and plans contain procedures and instruction for safeguarding lake water quality, and will be implemented for the Proposed Action. As per the ODEQ, a detailed storm water pollution prevention plan (SWPPP) permit for construction operations would be required as will a storm water construction permit by submitting a Notice of Intent to the ODEQ. Keystone Lake is listed in the 303(d)/305(b) integrated Report as impaired for turbidity and therefore, permit limits and storm water permits may be more restrictive than they would be for operations occurring on or near a non-impaired water body. Potential contamination and sedimentation of Keystone Lake would be prevented through implementation of the Mitigation Plan (Section 7.0); therefore, significant impacts to surface water would not be expected.

Based on the proposed use of the Project area, no impacts to groundwater resources in the area would be expected. Potable water for the Proposed Action will be supplied by the City of Mannford water supply. According to the City of Mannford (Nunneley 2015), the water supply system is sufficient to meet the additional demand of the Proposed Action.

According to the FEMA floodplain Map (Figure 4) significant portions of Loop A, and smaller areas of Loop B and C are located within the 100 year floodplain. Correspondence with Creek County, the local floodplain administrator, regarding floodplain management or permitting may be necessary. No impacts to floodplain management would be expected.

Habitable structures will not be constructed within the surcharge pool. However, it may be necessary to elevate approximately eight cabins above the surcharge/flood pool elevation of 757', which will equate to approximately 200 cubic yards of soil fill (25 cubic yards per cabin) placed into the flood pool. Non-habitable structures that will be located within the flood pool include concrete parking lots and similar structures, waterpark support structures, waterpark slides and play equipment, go-kart track, pool areas and other Project features; however, volume of displacement will not be known until final design is completed. The volume of these structures, or any other surcharge/flood pool volume that becomes displaced by construction of the Project, would be compensated for by excavation of an equal volume below the 757' elevation from near the beach area on the east side of Loop A, or from a similar approved location to ensure no net loss of flood storage capacity. Figure 3B presents the Proposed Project Concept overlain with contours. No net loss of storage volume within the flood pool would be expected.

If the waterpark or other Project structures located within the flood pool are inundated, cleanup would begin as soon as the water recedes. Cleanup would mainly consist of manual and mechanical means.

Tree limbs or trash that may be deposited on the structures would be cleaned up by manually removing the larger debris, shoveling or sweeping up medium debris, and using brooms or shop vacuums to remove smaller debris. A water hose or pressure washer (no soap or chemicals) would be used to remove mud, fine soils, or staining. If affected, swimming pool structures would be emptied or flushed if necessary, then refilled and chemically treated as would normally be required to obtain safe chlorine and pH levels. No significant impacts to the waterpark or other operations would be expected from inundation issues.

Components of the Proposed Action will be constructed outside of the existing wetland areas and no impacts to wetland areas or jurisdictional waters are expected to occur. Therefore, consultation with the USACE jurisdiction pursuant to Section 404 of the Clean Water Act is not expected to be required. In addition, Keystone Lake is not subject to regulation under requirements of Section 10 of the Rivers and Harbors Act of 1899. Coordination with USACE under this act is therefore not required.

5.6.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed and environmental conditions would remain as they do at present. Therefore, no impacts to water resources would be expected.

5.7 Land Resources

5.7.1 Proposed Action

The Project area has been developed as the Salt Creek Cove Recreational Area since approximately 1964. As part of the historic development, paved roads, gravel parking areas and pull-in camp sites, mowed lawn, picnic pavilions, and restroom facilities have been maintained on the Project area for approximately 48 years. Surface soils on the Project area soils have already been subject to transformation under extended periods of traffic from recreational use and lawn maintenance.

The Project area is mostly comprised of rocky to very rocky soils. According to the NRCS review, approximately 23% of the Project area has bedrock located approximately 4 to 20 inches below the surface. Because of the Project area's close proximity to Keystone Lake, OWDC recommends that any surface damaged areas be restored to as close to pre-development condition as possible. This will prevent erosion and the introduction of sediments into the lake. This would include such practices as re-contouring damaged or exposed soils and re-seeding exposed soils with native grasses to curtail erosion. With the recommendations above combined with the Mitigation Plan, this should minimize impacts to land resources. No significant impacts to topography, soils or geology would be expected.

Of the approximate 246 acres within the Project area, approximately 34 acres (or 14%) are considered prime farmland; see Figure 7. Based on the design of the Project area, a Farmland Conversion Impact Rating (Form AD-1006) was prepared and sent to the NRCS to notify them of the Project area development. Correspondence with NRCS is included in Appendix E.

5.7.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed and environmental conditions would remain as they do at present. Therefore, no impacts to land resources would be expected.

5.8 Noise

5.8.1 Proposed Action Alternative

During construction, noise would be generated by equipment and vehicles including cranes, trucks, and tractor graders. Table 5-1 presents typical construction equipment noise levels.

TABLE 5-1
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment Type	Noise Level at 50 Feet
Backhoe	85 dB
Front-end Loader	85 dB
Concrete Truck/Mixer	85 dB
Crane (mobile or stationary)	85 dB
Water Truck	81 dB
Tractor Grader	80 dB
Flat-bed Truck	84 dB

Source: EPA 1971; http://www.nonoise.org/resource/construc/bigdig.htm

Noise generated from construction activities would be temporary, and audible at a specific location for no more than a few weeks or months at a time. Construction activities would take place during regular daytime work hours, when receptors typically expect similar activities to occur. To further minimize potential noise impacts to nearby receptors, the construction contractor would comply with the Mitigation Plan (Section 7.0) which addresses vehicle mufflers and engine idling procedures. Furthermore, the Proposed Action is not expected to conflict with the local noise standards or ordinances. The existing campground would be kept open during construction, and only those areas under construction would be closed. Short-term impacts to campground users from noise generated during construction activities would be expected. While noise from construction activities could displace some animal species, they would be expected to relocate to nearby habitat areas.

Noise generated during operation of the Proposed Action will vary during the year, with highest use expected to occur during summer months and weekends. Noise generated during operation would include sources such as the human voice, RV/bus and automobile noise, RV generators, go-karts, boat engines, waterpark equipment, and other park amenity equipment. In determining noise impact, the important factor is how close the activity is to other people and wildlife detecting the sound. Because operational noise levels at the Project area boundary are not expected to exceed 55 dBA (urban; Table 4-4), impacts to surrounding properties and residences are not expected. The nearest residence is approximately one-half mile away from the Project boundary. Noise impacts to nearby lake users, such

as boaters or persons fishing, would be short-term as the user passes by the area. Impacts to facility users within the Project area during facility operation are not expected, as users of the facility would not consider noise effects as an intrusion of their experience. As a result, minimal short-term noise impacts would be expected during operation of the Proposed Action.

5.8.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed and environmental conditions would remain as they do at present. Therefore, no impacts regarding noise would be expected.

5.9 Transportation and Utilities

5.9.1 Proposed Action Alternative

Short-term traffic and transportation impacts would occur during construction phases of the Proposed Action, typically from construction traffic and material deliveries to the Project area. Construction vehicles and equipment would be stored on-site during project construction and appropriate signage will be posted on affected roadways. No closures or restrictions to SH 51 are expected to occur due to construction. Impacts to surrounding airports and associated flight paths would not be expected from construction of the Project.

Operation of the Proposed Action would have direct short-term impacts on traffic due to the increased use of the proposed recreational facility, especially during holiday weekends when traffic at the entrance has been known to back up on SH 51. However, any negative impacts due to traffic would not likely cause long-term traffic congestion issues, as use of the facility will be seasonal (approximately 5 months of the year), and highest use would mostly occur during summer and on weekends. The City of Mannford is aware that lengthening of the left-turn lane into the facility from SH 51, and creation of a right-turn lane would alleviate traffic backup issues. According to contact with ODOT Field Division 8 engineer, Ms. Kristine Spence, a Traffic Impact Analysis may be required by ODOT (Spence, 2014). Such a study may create a long-term solution to traffic impacts.

The existing BNSF railroad crossing is equipped with a lighted signal but no crossing gates are present. Additional consultation may be required with the railroad to establish whether there is a need for an upgrade to the existing signal crossing. According to a phone conversation with a BNSF representative, upgrades to an existing railroad crossing are determined and coordinated with the local road/transportation authority, which would bear the cost of such an upgrade; however, grant funding is available for such projects (Sloan 2015). The U. S. DOT Crossing Inventory Information for the railroad crossing was obtained from the BNSF website and is included in Appendix F.

5.9.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed and no increase in traffic

volume would be expected to occur. Therefore, no impacts to transportation or utilities would be expected.

5.10 Socio Economic and Environmental Justice

5.10.1 Proposed Action Alternative

Implementation of the Proposed Action alternative could beneficially affect the Project area's socioeconomic conditions. Some beneficial socioeconomic impacts would result from construction worker spending. Because construction workers would not likely live permanently in or near the Project area, most of the construction workforce would be temporarily housed in the Mannford area and a portion of their income and expenses would be spent locally, generating income for local businesses.

Impacts from new workers in the area can depend on the adequacy of existing facilities, such as housing or public services. The demand for short-term temporary housing to accommodate employees working on the Project would contribute to the respective local economies, but would not result in long-term growth inducement. Because the construction workforce would be small, (approximately a maximum of 30 to 40 workers), with no permanent migration to the area, negative effects are not expected for such public services as law enforcement or fire protection. It is estimated that there would be 10-12 full-time staff positions available (Beard) as well as the potential for 40-50 part-time staff utilized by the Project. Some of these employees would come from the existing local work force; however some may commute or move to Mannford, and therefore add to the local economy.

Implementation of the Proposed Action is expected to result in long-term growth-inducing impacts related to tourism and attracting visitors from nearby smaller towns as well as from locations as far away as 200 miles (Beard 2015). Increased tax revenue for the City of Mannford and surrounding areas would be expected. All populations would benefit by the Proposed Action due to the opportunities for economic growth. The Proposed Action would not remove existing obstacles to growth, nor would it inhibit growth. Direct short-term and long-term positive impacts to socioeconomic resources would result from construction and operation of the Project.

The Environmental Justice evaluation shows that the Proposed Action would not result in disproportionately high or adverse impacts for low income populations. Furthermore, neither alternative would impact any residences in Mannford through displacement or relocation. No particular minority will be disproportionately isolated, displaced or otherwise adversely impacted by the Proposed Action. No disproportionate impact on low-income or minority populations would occur and no impacts to Environmental Justice concerns would be expected.

5.10.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed. No disproportionate impact on low-income or minority populations would occur and no impacts to Environmental Justice concerns would be expected. However, the local businesses and economy would be affected by the loss of economic opportunities provided by the Proposed Action; therefore, some impacts to socioeconomic concerns would be expected.

5.11 Health and Safety

5.11.1 Proposed Action Alternative

Under the Proposed Action, indirect long-term impacts to public health and safety would be expected due to the expected increased use of park facilities in the Project area. The park would attract more visitors to the Project area and an increase in emergency calls for both land- and water-based patrols would likely occur, and additional burden on local jurisdictions would be expected. The need for increased boat patrol by the Oklahoma Highway Patrol (Lake Patrol Section) would be expected to help ensure safety in the area. Existing mutual aid agreements would remain in place between USACE and City of Mannford.

As part of Project operation, lifeguards would be present at the swimming pools and the waterpark, and beach attendants would be present at the kayak and Wibit areas. The park operator will advise that all persons using the kayaks and Wibit area should wear personal flotation devices, but this cannot be enforced; however, all children aged 12 years and under will be required to wear a personal flotation device. The City of Mannford Fire Department would provide emergency service to the Project area. The City of Mannford Police Department would provide law enforcement to the Project area. The existence of the Project would not increase emergency response times or restrict access.

5.11.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed. Emergency services would continue as they do today under existing agreements. Therefore, no impacts to health and safety would be expected.

5.12 Hazardous Materials and Solid Waste

5.12.1 Proposed Action

Hazardous materials anticipated to be used during Project construction would include small volumes of petroleum hydrocarbons and their derivatives required to facilitate Project installation and operate construction equipment. These materials are those routinely associated with the operation and maintenance of construction equipment or other support vehicles, including fuels, oils, lubricants, solvents and hydraulic fluids. Construction of the Project would not require use of hazardous materials beyond typical fluids and fuels used to operate equipment and vehicles.

It is anticipated that Project construction activities would not generate any hazardous emissions. Project construction would not require long-term storage, treatment, disposal, or transport of hazardous materials. The construction contractor would remove solid waste generated by Project construction on a regular basis or at the end of construction activities.

During operation, storage and use of chemicals such as chlorine or other water disinfecting additives would be necessary for operation and maintenance of the waterpark and pools. Chemicals such as paints, cleaning agents, fuels, lubricants, etc. would be expected to be used for typical operation and maintenance purposes. These chemicals would be stored and used in accordance with applicable regulations and/or guidelines.

Prior to 1964, the Project area was designated as an oil field. Oklahoma Corporation Commission (OCC) Oil Records did not specifically identify the location of the oil wells identified on the property. Should a well be encountered during the construction process of the proposed Project, the OCC may need to be contacted to ensure that the well is plugged to current standards and regulations. Any hazardous materials discovered, generated or used during construction would be disposed of and handled in accordance with applicable local, state and federal regulations. Therefore, implementation and operation of the Proposed Action would have no hazardous material impact.

As part of the Proposed Action, the existing wastewater lagoon system will be expanded to accommodate the increased use by visitors to the Project. The addition of a second cell (lagoon) adjacent to the existing lagoon located east of Loop C has been proposed and would expand the capacity in Loop C and allow for expansion of such facilities in the Loop D area. Additionally, the addition of additional septic tank(s) capacity in the Loop B area has been proposed to improve the existing septic system currently in place. These expansions would require approvals by ODEQ and others. If the area east of Salt Creek Cove North undergoes residential development in the future, a city sewer system may become a better option for the Project area and surrounding area at that time. Therefore, a long-term improvement to solid waste systems would be expected.

5.12.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed. The No Action Alternative would have no impact on hazardous material, as there is currently no hazardous material used or stored on-site. The sanitary sewer system currently meets/exceeds the needs of the campground/recreational park currently operating on the site. Therefore, no impacts to hazardous materials and solid waste would be expected.

5.13 Recreation at Keystone Lake

5.13.1 Proposed Action

Implementation of the Proposed Action would have positive long-term impacts to local and regional recreational resources. The proposed Jellystone Camp Resort™ is a unique concept, and there are no similar facilities existing on Keystone Lake or within the region, and it is estimated that the Project would attract users from as far away as Kansas, Missouri, Arkansas and Texas. The facility and site improvements and increase in quantity of cabin/RV sites would provide visitors with additional recreational opportunities in the area. The Proposed Action would serve the region as a recreational destination and increase tourism and recreational use of Keystone Lake by providing an improved, diversified and enhanced recreational experience, and thus improve the overall recreational opportunities at Keystone Lake.

It is estimated that approximately 225,000 people within 200 miles of the location of the Proposed Action own some type of recreational vehicle (Beard 2015). The Proposed Action would be an attractive destination due to its combination of camping, waterplay, and marina/boating features.

The proposed marina would enhance and supplement the Jellystone Camp Resort™ and the combination of facilities would offer a synergistic effect. The proposed marina would allow boaters

more opportunity to keep their boats on the lake. The Proposed Action would greatly increase the diversity of recreation at Keystone Lake, benefitting tourism and the local economy, the recreating public, and would address the purpose and need of the Project.

5.13.2 No Action Alternative

The No Action alternative would call for no new construction or renovation of Salt Creek Cove North. The City of Mannford or its sublessee(s) would continue to maintain and operate the existing campground and facilities, under lease from USACE, as they currently exist. None of the facilities contemplated under the Proposed Action alternative would be constructed. However, the loss of this recreational opportunity would impact recreation in the area, as well as local businesses by the loss of economic opportunities provided by the Proposed Action; therefore, impacts to recreational resources would be expected.

6.0 CUMULATIVE IMPACTS

Cumulative effects are the direct and indirect effects of a proposed project's incremental impacts when they are added to other past, present, and reasonably foreseeable actions, regardless of who carries out the action (40 CFR Part 1508.7). Cumulative environmental impacts are defined as those environmental changes resulting from the accumulation or interaction of effects of one action with the effects of one or more other actions. Cumulative impacts can result from individual minor impacts as collectively significant actions take place over a period of time. They can occur in succession or synergistically, by piecemeal or slow degradation, and can be on-site or off-site.

Foreseeable future actions identified to occur within the city limits of Mannford include a new 32,000 square foot grocery store, a McDonald's restaurant, three national chains beginning construction in spring/summer 2015, and a 40-unit senior independent living apartment complex (Nunneley 2015).

In terms of cumulative impacts to resources within the vicinity, the Proposed Action would not cause significant cumulative impacts to biological, cultural, air quality, water and land, noise, or hazardous material resources. Approximately 27.12 acres of land surface and 17.81 acres of water surface would be disturbed by the Proposed Action; however, only approximately 12.8 acres of land disturbance would occur in currently undisturbed areas (Loop D).

The Proposed Action would have more apparent cumulative impacts to growth-related resources such as land use, transportation, health and safety, solid waste (wastewater system), socio-economic and recreational resources. The land use would remain the same in general, but with the themed campground and addition of a marina, would expand the types of use currently at the site. The Proposed Action would be expected to have a cumulative effect on transportation, increasing traffic in the Project area; but, it is likely that with increase traffic, additional positive changes would follow such as the addition of turning lanes or other traffic safety controls. Cumulative impacts to health and safety issues would be expected due to the addition of the marina and increased boat traffic on the lake, and also an increased burden on land- and water-based patrols and security for the Project. As the region grows and development increases, if the Project is eventually added to the municipal wastewater system, this would add to the volumes associated with the system.

Positive cumulative impacts would be expected for socio-economic conditions and recreational resources, by promoting additional tourism and revenue for Keystone Lake, the City of Mannford, and surrounding areas, which would in turn create local jobs and help fund necessary public services and infrastructure that would benefit the community, surrounding jurisdictions, local residents, local businesses, and visitors. The Proposed Action would serve the region as a recreational destination and increase tourism and recreational use of Keystone Lake by providing an improved, diversified and enhanced recreational experience, and thus improve the overall recreational opportunities at Keystone Lake.

A mitigation plan (Section 7.0) has been designed for the proposed Project so as to reduce the potential for negative cumulative effects to on-site resources.

7.0 MITIGATION PLAN

Keystone Resort & Yacht Club and its contractor(s) will incorporate the following mitigation measures into project construction specifications to protect natural, human, and cultural resources in and around the Project area. These mitigation measures have been approved by USACE and Keystone Resort, and are designed to minimize, reduce, or eliminate impacts of the Proposed Action.

7.1 Land Use

- Where practical, previously disturbed areas will be used to store equipment and supplies during construction. Contractor will coordinate with USACE and others regarding staging area locations.
- Staging/storage of petroleum products and other chemicals will be at least 100 feet away from the edge of the lake.
- Access roads not required after construction will be gated, bermed, or “roughed up” to deter public use.

7.2 Biological Resources

- Where required, a preconstruction survey will be conducted by a qualified biologist for the American burying Beetle (ABB), and current guidelines for the ABB will be followed to ensure compliance with the ESA.
- Preserve the existing vegetation wherever possible and revegetate all construction areas as soon possible. Native vegetation will be used to the maximum extent possible.
- Construction of roadways and cabin pads will focus on minimal disturbance of trees, vegetation and soils. To maintain the maximum amount of trees possible, especially in the Loop D areas, select hand-clearing methods will be utilized and construction activities will not include clearcutting or dozing of areas.
- Restore surface damaged areas to as close to pre-development condition as possible. This will prevent erosion and the introduction of sediments into the lake. This would include such practices as re-contouring damaged or exposed soils and replanting or re-seeding exposed soils with native grasses to curtail erosion and noxious/invasive weeds.
- When revegetation is not immediately practical (e.g. summer and winter months), erosion control measures such as mulch or erosion control fabric will be applied to stabilize the soil until the next planting season.
- The use of native plant species will occur because this prevents the establishment of less desirable noxious/invasive weed species that may spread and invade adjacent undeveloped areas.

- Protect the water resources by adhering to the SWPPP and storm water management plans.
- "Clean Marina" standards will be followed. Those standards seek to achieve mitigation actions for minor impacts to local fisheries and fishing opportunities by providing alternate cover and habitat as well as structures capable of increasing and diversifying fishing opportunities for anglers.
- During construction, avoidance of nesting birds and their habitat will be maximized.

7.3 Cultural Resources

- Should any previously unidentified, incorrectly identified, or new impacts to cultural resources be discovered including, but not limited to, archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices, project-related activities located within 50 feet of the discovery will cease immediately and USACE's archaeologist will be notified within 24 hours. An evaluation of the discovery by a qualified individual will be made to determine appropriate actions to preserve cultural and scientific values.
- Consultation with OAS, SHPO, and Native American tribes will be conducted prior to construction in the area east of the fire break that was not previously surveyed for cultural resources.

7.4 Air Quality

- The contractor will use reasonably practicable methods and devices to control, prevent, and otherwise minimize atmospheric emissions, discharges, or air contaminants.
- Construction equipment engines will be properly maintained and fuel burning equipment running times will be kept to a minimum.
- Overland access will include dust-control measures, such as the application of water as needed.
- Stabilize heavily used unpaved construction roads with a non-toxic soil stabilizer or soil weighting agent that will not results in loss of vegetation, or increase other environmental impacts.
- During grading, use water, as necessary, on disturbed areas in construction sites to control visible plumes.
- Vehicle Speed
    - Limit speeds to 25 miles per hour on stabilized unpaved roads as long as speeds do not create visible dust emissions.
    - Limits speeds to 10 miles per hour or less on unpaved areas within construction sites on un-stabilized (and unpaved) roads.
    - Post visible speed limit signs at construction site entrances.
- Inspect and wash construction equipment vehicle tires, as necessary, so that they are free of dirt before entering paved roadways, if applicable.
- Provide gravel ramps of at least 20 feet in length at tire washing/cleaning stations, and ensure construction vehicles exit construction sites through treated entrance roadways, unless an alternative route has been approved by the appropriate lead agencies, if applicable.
- Use sandbags or equivalent effective measures to prevent run-off to roadways in construction areas adjacent to paved roadways. Ensure consistency with the project's Storm Water Pollution Prevention Plan, if such a plan is required for the project.
- Sweep the first 500 feet of paved roads exiting construction sites, other unpaved roads en route from the construction site, or construction staging areas whenever dirt or runoff from construction activity is visible on paved roads, or at least twice daily (less during periods of precipitation).
- Stabilize disturbed soils (after active construction activities are completed) with a non-toxic soil stabilizer, soil weighting agent, or other approved soil stabilizing method.

- Cover or treat storage piles with appropriate dust suppressant compounds and disturbed areas that remain inactive for longer than 10 days. Provide vehicles (used to transport solid bulk material on public roadways and have the potential to cause visible emissions) with covers. Alternatively, sufficiently wet and load materials onto the trucks in a manner to provide at least one foot of freeboard.
- Use wind erosion control techniques (such as windbreaks, water, chemical dust suppressant, and/or vegetation) where soils are disturbed in construction, access and maintenance routes, and material stock pile areas. Keep related windbreaks in place until the soil is stabilized or permanently covered with vegetation.
- Plan construction scheduling to minimize vehicle trips.
- Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections.

7.5 Water Resources

- Appropriate best management practices will be utilized to minimize surface water runoff by the installation of silt fences, hay bales, vegetation of disturbed soils and maintaining site soil stockpiles.
- Implement additional BMPs as necessary to ensure adequate erosion and sediment control.
- Excavated material or other construction materials will not be stockpiled or deposited within the flood pool (elevation of 723-754 feet AMSL) or other water course perimeters where they can be washed away by high water or storm runoff, or can encroach, in any way, upon the lake, wetlands or drainage channels.
- The future development or addition of any new structures or features below elevation 757' will be calculated for loss of volume from the flood/surcharge pool. An equal quantity of volume will be excavated elsewhere on the site in order to compensate for this lost volume caused from the addition of the new structures and features added, and will ensure that the flood/surcharge pool experiences no "net loss" of storage from any of these additions.
- Contractor will ensure all construction activities minimize disturbance to vegetation, drainage channels, and banks.
- Where necessary, as determined on a case by case basis, the banks will be scarified to allow the exiting seeds within the native soil to revegetate the bank.
- To the extent practical, new structures and overland access will be located out of the floodplains.
- Maintain all construction equipment to prevent oil or fluid leaks.
- Contractor will obtain necessary permits (SWPPP) and correspond/coordinate with local floodplain administrator regarding floodplain management.
- “Clean Marina” standards will be followed. Those standards seek to achieve mitigation actions for minor impacts to local fisheries and fishing opportunities by providing alternate cover and habitat as well as structures capable of increasing and diversifying fishing opportunities for anglers.
- Contractor will obtain any and all necessary federal and state permits require for storm water runoff/management.

7.6 Geology, Minerals, and Soils

- A Storm Water Pollution Prevention Plan (SWPPP) will be developed prior to construction and will be filed with the ODEQ.
- A NPDES permit will be obtained prior to construction.
- Best management practices will be developed to minimize soil disturbance during construction and help control erosion and sedimentation, and may include the use of silt fences, hay bales, vegetation of disturbed soils and maintaining site soil stockpiles.

- Graded and waste materials will be managed in accordance with applicable local, state, and federal regulations.
- No construction will occur where or when the soil is too wet to adequately support construction equipment.
- If contaminated materials are discovered during the construction activities, the work will cease until the appropriate procedures and permits can be implemented.
- Should a well be encountered during the construction process of the proposed Project, the OCC may need to be contacted.
- The area of disturbance to vegetation and soils will be limited to the minimum necessary for project completion.
- Construction activities will use access roads where feasible, and travel off of access roads will be limited to the minimum necessary to complete construction activities.

7.7 Noise

- Construction will take place during normal business hours (e.g. daytime hours) and equipment and machinery installed at the Project area will meet all local, state and federal noise regulations.
- Idling equipment will be shut off when possible.
- Where practical during construction, attempts will be made to reduce noise impacts during higher use periods, such as over the weekend.

7.8 Transportation and Utilities

- Any work that impacts ODOT or other transportation rights-of-way will be coordinated and conducted in accordance with appropriate departments.
- Construction vehicles and equipment will be stored on site during project construction and appropriate signage will be posted on affected roadways.
- If required by ODOT, a Traffic Impact Analysis will be performed. Additional measures to ensure traffic safety will be implemented at the discretion of ODOT.
- Construction contractor will coordinate with responsible utility providers to protect systems in place or arrange for the temporary or permanent relocation of existing utilities.

7.9 Health and Safety

- Contractor will conduct construction in a safe manner in general accordance with the standards in the OSHA regulations.
- Appropriate signage and barriers should be in place prior to construction activities to alert pedestrians and motorists of project activities.
- Contractor will contact local emergency service providers prior to the start of construction to ensure construction activities will not impede provision of emergency services within the Project area during the construction period.

7.10 Hazardous Materials and Solid Waste

- In the event of a spill, workers will immediately cease work and begin spill clean-up operations, and notify the Keystone Lake office and appropriate agencies.
- If excess concrete and wash water cannot be returned with each concrete truck for disposal at the concrete plant, contractor would install an on-site concrete washout area, and would inform all concrete equipment operators that they are required to use the designated area for washing and rinsing trucks and equipment.

- All construction waste, including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials, will be removed to a disposal facility authorized to accept such materials. Totally enclosed containment will be provided for all trash.
- All equipment will be properly maintained to avoid fluid leaks.
- Repairing, servicing and refueling of equipment are not permitted within 100 feet of the shoreline.
- Hazardous materials, fuels, and lubricants will not be drained onto the ground or into drainage areas.
- All fuel or hazardous waste leaks, spills, or releases will be immediately reported to USACE.
- Construction activities could expose or otherwise affect unknown subsurface hazardous wastes or materials.
- Many elements of a Phase I Environmental Site Assessment have been conducted for the site and no recognized environmental conditions were discovered indicating a minimal risk.
- Contain and properly dispose of paving and construction wastes or slurry (e.g., from saw cutting; concrete curing/finishing; or washouts for concrete, stucco, paint, caulking, sealants, or other), through measures such as use of portable (and impermeable) sumps, vacuuming, chemical application controls, and off-site waste disposal in an approved location.
- Minimize the amount of hazardous materials stored onsite, and restrict storage/use locations to areas at least 50 feet from storm drains and surface waters.
- Store hazardous materials off of the ground surface and in their original containers, with the legibility of labels protected.
- Any hazardous materials discovered, generated or used during construction will be disposed of and handled in accordance with applicable local, state and federal regulations.
- All trash will be disposed of in a proper trash container with a secure lid, and removed periodically.
- Properly maintain all construction equipment and vehicles.

8.0 FEDERAL, STATE, AND LOCAL AGENCY COORDINATION

Agency Solicitation

In support of this EA, letters soliciting comments on the Proposed Action were sent by Cardinal, on behalf of the USACE, to local, city, county, state, tribal, and federal agencies on November 25, 2014 to solicit their views on the anticipated environmental, social, and economic impacts of the Proposed Action. An example solicitation letter and the list of solicitation letter recipients are included in Appendix G.

Six agency comments were received as a result of the solicitation letter mailed to agencies on November 25, 2014, and they are summarized below. Agency responses are included in Appendix G.

1. The OAS submitted a letter response indicating that the Project area had been surveyed, and no significant cultural resource sites were located.
2. The USFWS submitted an email response indicating that the information provided was not sufficient for adequate review. (Subsequent to the above response, the USFWS on-line project review, which included additional information and correspondence, was submitted via the IPaC system for consultation.
3. The ONHI submitted an email response indicating one federally listed species (Interior least tern) was located within the vicinity of the proposed project.
4. The ODEQ submitted a letter response indicating concern regarding storm water permitting, the source and use of potable water supply, the limitations of using a septic system and suggestions to connect to Mannford's wastewater system or use an aerobic system, and that ODEQ could better assess issues once an engineering report was made available.
5. The OWRB submitted a letter response recommending that the local floodplain administrator be contacted for possible permit requirements.
6. The Osage Nation Historic Preservation Office submitted an email response requesting that a cultural resource survey be conducted for the Project area.

Public Scoping Meeting and Public Announcements

On December 18, 2014, a public scoping meeting was held at the Mannford Senior Citizens Center in Mannford, OK. The public meeting was an informal, come-and-go workshop format with no formal presentation. Ten general public responses were received during the meeting and the corresponding public input period, and are included in Appendix H.

Public announcements about the public scoping meeting and the Proposed Action were placed in local newspapers five to ten days prior to the December 18, 2014 meeting, and included the Sapulpa Herald, Cleveland News, Sand Springs Leader, and the Tulsa World. Additionally, during the first week of December 2014, the USACE submitted a news release to local radio and television stations and newspapers, including KJRH, KTUL, KOKI, KOTV, KRMG, KGOU, Tulsa World, Associated Press, Journal Record, Sand Springs Leader, Cleveland American, and the Sapulpa Daily Herald. The public announcement was also posted to the USACE Tulsa District website, and the USACE's Facebook and Twitter accounts. Newspaper announcements are included in Appendix I.

Comments to the Draft EA

The Draft EA was submitted for public, agency, and Tribal comment on March 25, 2015. The public comment period lasted for 33 calendar days and ended April 27, 2015. Copies of the draft EA on compact disc were mailed to all entities included on the mailing list included in Appendix J. The USACE posted the Draft EA to the Tulsa District website with a request to submit comments by April 27, 2015.

Three agency and Tribal comments and three comments from individuals were received in response to the Draft EA. The agency and Tribal comments and how they have been addressed are summarized below. All responses to the Draft EA are included in Appendix J.

1. The Department of Energy, Southwestern Power Administration (Southwestern) expressed concern over the design of some of the Resort features, particularly the functionality of certain features at lower lake levels. A review of the Resort design suggests that some of the Resort features may become limited or inaccessible at lake elevations lower than 720 feet; however, Keystone Lake has dropped below an elevation of 720 feet for 16 of the past 20 years. Southwestern expresses concern that the design of the Resort has not taken into account the fluctuations of Keystone Lake as they depend on a variety of factors, including rainfall (or lack thereof), flood control operations, and conservation pool storage use (water supply and power demand). Southwestern also recommends that designers and developers recognize that the construction and operation of the Resort must not negatively impact conservation pool operations for the purposes of hydropower and water supply. Southwestern comments were forwarded to the project developer and designer for consideration.

2. The United States Environmental Protection Agency (EPA) did not have any objections to the development of Proposed Project, but did offer comments on air quality to assure minimal impacts during the construction process. Dust and source control measures from the EPA comments have been incorporated into Section 7.0 Mitigation Plan – 7.4 Air Quality, of this Final EA, and will be followed as applicable and practicable.

3. The Muscogee (Creek) Nation indicated they had no objection to the project and were in support of the planned activities.

Comments received from three individuals expressed either support for or opposition to the proposal and provided general comments on the adequacy of the environmental evaluation. These comments can be found in Appendix J.

9.0 REFERENCES

Beard, Ron D. & Associates. 2015. Addendum to Economic & Feasibility Study by Eaton, et. al. February 24, 2015.

Eaton, Andy; Aragona, Mark; Ventura, Joseph. 2014. Economic and Feasibility Study, Yogi Bear's Jellystone Park, Camp-Resort and Marina at Keystone Lake. December 1, 2014.

Federal Poverty Guidelines. http://familiesusa.org/product/federal-poverty-guidelines. Accessed December 16, 2014.

Johnson, Darrell. ODOT. Telephone conversation RE: traffic conditions and design capacity of SH 51. By Mike Zorba of Cardinal on December 18, 2014.

National Wild and Scenic Rivers System (NWSRS) Website. Available at http://www.rivers.gov/. Accessed January 11, 2015.

Nunneley, Mike. City of Mannford. Telephone conversation RE: planned future projects, water supply, sewage lagoon, traffic conditions. By Mike Zorba of Cardinal on January 5 and February 10, 2015.

Oklahoma Department of Wildlife Conservation. 2008. Lake Keystone Management Plan.

Oklahoma Department of Transportation (ODOT). Oklahoma Traffic Count Information System. Available at http://www.okladot.state.ok.us/aadtcnt/. Accessed 12/16/14.

Oklahoma Geological Survey Website. (Curtis, Ham, Johnson). Geomorphic Provinces of Oklahoma. http://www.ogs.ou.edu/pubsscanned/EP9_2-8geol.pdf. Accessed on January 11, 2015.

Oklahoma Department of Environmental Quality (ODEQ). 2012. Water Quality in Oklahoma, 2012 Integrated Report. Available at http://www.deq.state.ok.us/WQDNew/305b_303d/2012IRReport/2012%20IR%20document%20-%20Final.pdf. Accessed 1/8/15.

Sloan, Joe. BNSF Railway. Telephone conversation RE: Railroad crossing between SH 51 into project. By Mike Zorba of Cardinal on February 11, 2015.

Spence, Kristine. ODOT. Telephone conversation RE: traffic conditions and design capacity of SH 51. By Mike Zorba of Cardinal on December 17, 2014.

United States Army Corps of Engineers, Tulsa District, Keystone Lake Website http://www.swt.usace.army.mil/Locations/TulsaDistrictLakes/Oklahoma/KeystoneLake.aspx. Accessed December 10, 2014.

U.S. Army Corps of Engineers (USACE). 1996. Keystone Lake, Arkansas River, Oklahoma; Shoreline Management Plan, Operational Management Plan to Design Memorandum No. 12B, master Plan.

U.S. Army Corps of Engineers. 1974. Keystone Lake, Arkansas River, Oklahoma; DM No. 12B; Master Plan (Revised).

U. S. Census 2010. American Fact Finder Website. Available online at http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed December 16, 2014.

U.S. Environmental Protection Agency (EPA) National Ambient Air Quality Standards (NAAQS) Website. Available at http://www.epa.gov/air/criteria.html. Accessed January 11, 2015.

U. S. Department of Health & Human Services. 2014 Poverty Guidelines. Available online at http://aspe.hhs.gov/poverty/14poverty.cfm. Accessed December 16, 2014.

10.0 APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS

This section provides a listing of environmental protection statutes and other environmental requirements. The following Table 10-1 summarizes applicable laws and regulations as they pertain to the Project.

TABLE 10-1
SUMMARY OF APPLICABLE LAWS AND REGULATIONS

Law/Regulation	Applies to
American Indian Religious Freedom Act	Archaeological resources and Tribal Consultation
Antiquities Act of 1906	Archaeological resources and Tribal Consultation
Archaeological Resources Protection Act	Archaeological resources and Tribal Consultation
Clean Air Act	Air pollution prevention and control Emission levels of regulated pollutants
Clean Water Act (Sections 401/402/403/404)	Surface water quality Discharge or dredge or fill materials into jurisdictional waters of the U.S.
Endangered Species Act	Threatened and endangered species
Executive Order 11593	Protection and enhancement of the cultural environment
Executive Order 11988/11990 (10CFR 1022 DOE)	Floodplains and wetlands
Executive Order 12898	Environmental Justice
Executive Order 13112	Noxious weeds
Executive Order 13175	Consultation and coordination with Tribal government
Farmland Protection Policy Act	Prime and Unique Farmlands
Flood Control Act	Flood water impoundment facilities
Migratory Bird Treaty Act	Protection of Selected Bird Species
National Resource Conservation Service	Farmland Conversion Impact Rating, Form AD-1006
National Environmental Policy Act	Federal undertakings / USACE NEPA regulations
National Historic Preservation Act (NHPA)	Historic properties and traditional cultural properties
Native American Graves Protection and Repatriation Act of 1990	Archaeological resources and Tribal Consultation
Noise Control Act of 1972, as amended	Noise protection
Occupational Safety and Health Act	Health and safety standards
Pollution Prevention Act of 1990	Reducing potential for pollution sources
Secretarial Order 3206	Endangered Species Act and Tribal Trust responsibilities

11.0 LIST OF PREPARERS

This section identifies persons who prepared or contributed to the document and their areas of expertise.

U. S. Corps of Engineers, Tulsa District

Stephen Nolen	Chief, Natural Resources and Recreation Branch
Sara Goodeyon	Public Affairs
Kenneth Shingleton	Archaeologist
Stacy Dunkin	Biologist
William Jeffries	Lake Manager (Keystone, Heyburn & Arcadia)

City of Mannford, Oklahoma

Mike Nunneley	Town Administrator

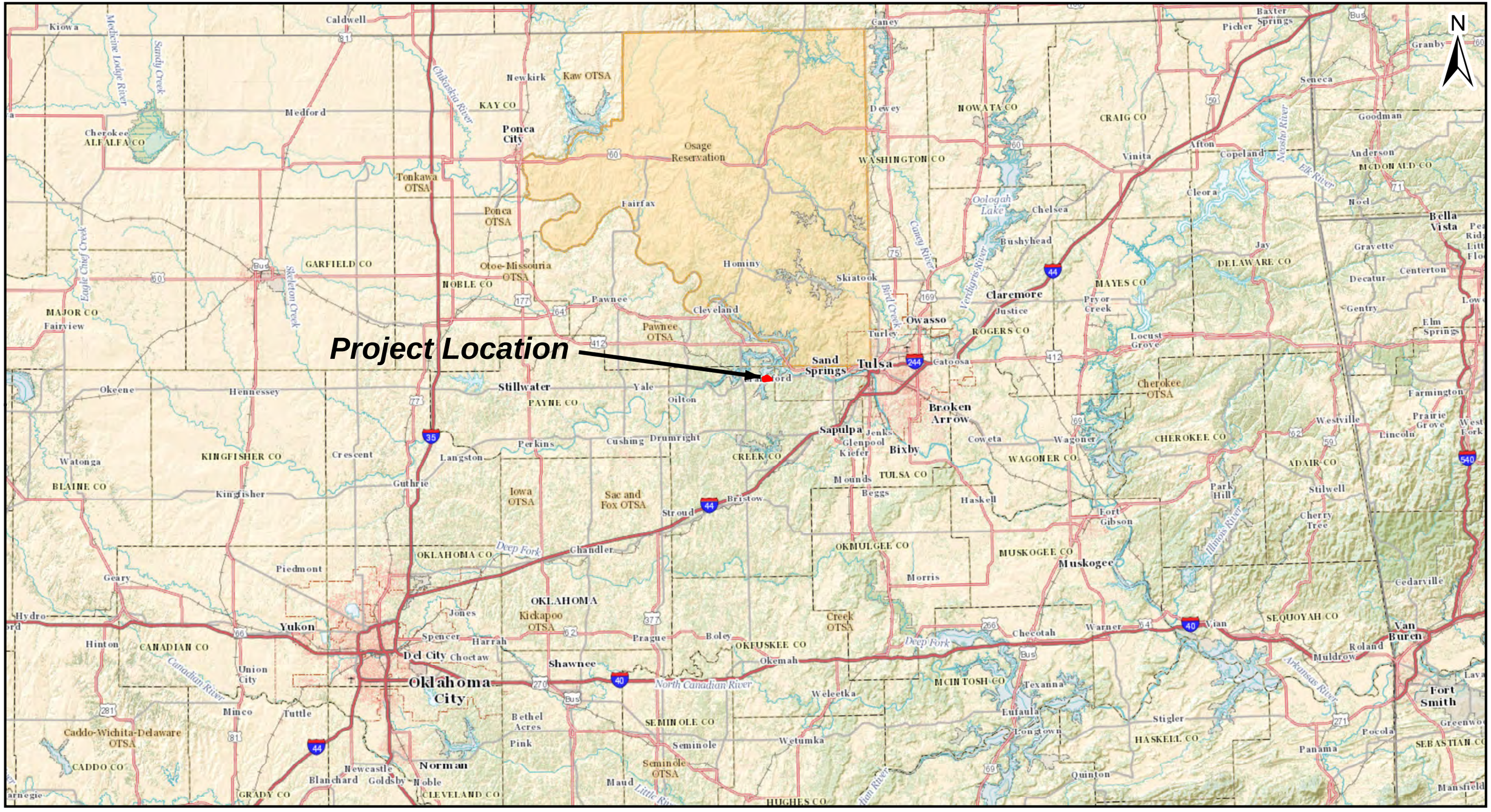
RKM Custom Design & Detailing, Inc.

Ron Miller	Proposed Project Concept Maps

Cardinal Engineering, LLC

Kristine Baranski	Climate Change
Laurie Bennett	Biological Resources, Cultural Resources, Wetland and Water Resources, Public Outreach
Jennifer Booth	Geology, Minerals, and Soils; Hazardous Materials and Solid Waste
Matthew Moore	GIS Mapping
Neil Robinson	Senior Review, QA/QC
Michael Zorba	Project Manager; Land Use, Air Quality, Noise, Transportation, Socio Economic and Environmental Justice, Health and Safety, Recreation at Keystone Lake, Cumulative Impacts, Mitigation Plan, Agency and Public Outreach

FIGURES



Property Location Elements

Project Boundary

0 40,000 80,000 120,000 160,000
Feet
Coordinate System: NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet / Datum: North American 1983 /

Prepared By:

CARDINAL ENGINEERING

Cardinal Engineering, Inc.
1015 N. Broadway, Ste. 300
Oklahoma, City, OK 73102
Ph. 405-842-1066

Figure Title:

Figure 1
Location Map

Proposed Jellystone Camp Resort™ Project
Salt Creek Cove North Recreation Area - Keystone Lake
Mannford, Oklahoma

Project No:	14227.00
Drawn By:	MM
Checked By:	MZ
Date:	1/21/2015
Scale:	1:1,000,000
Job Number:	

Property Location Elements

Project Boundary

0 250 500 750 1,000
Feet

Coordinate System: NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet / Datum: North American 1983 /

Prepared By:

CARDINAL ENGINEERING

Cardinal Engineering, Inc.
1015 N. Broadway, Ste. 300
Oklahoma, City, OK 73102
Ph. 405-842-1066

Figure Title:

Figure 2
Project Area Boundary

Proposed Jellystone Camp Resort™ Project
Salt Creek Cove North Recreation Area - Keystone Lake
Mannford, Oklahoma

Project No:	14227.00
Drawn By:	MM
Checked By:	MZ
Date:	1/21/2015
Scale:	1 " = 500 feet
Job Number:	

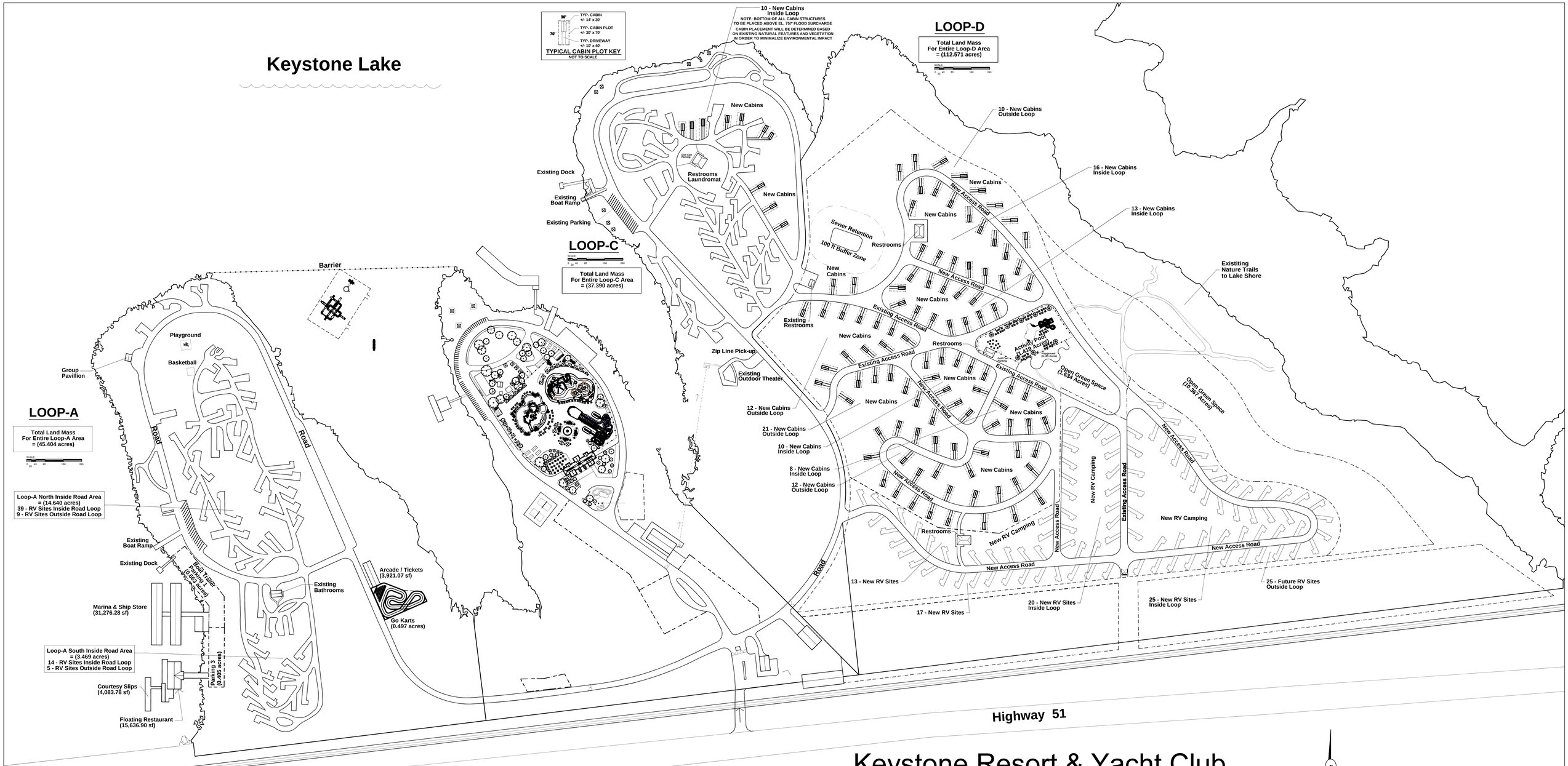


Figure 3A
Proposed Project Concept

PDF created with pdfFactory trial version www.pdffactory.com

Figure 3B
Proposed Project Concept (Aerial)

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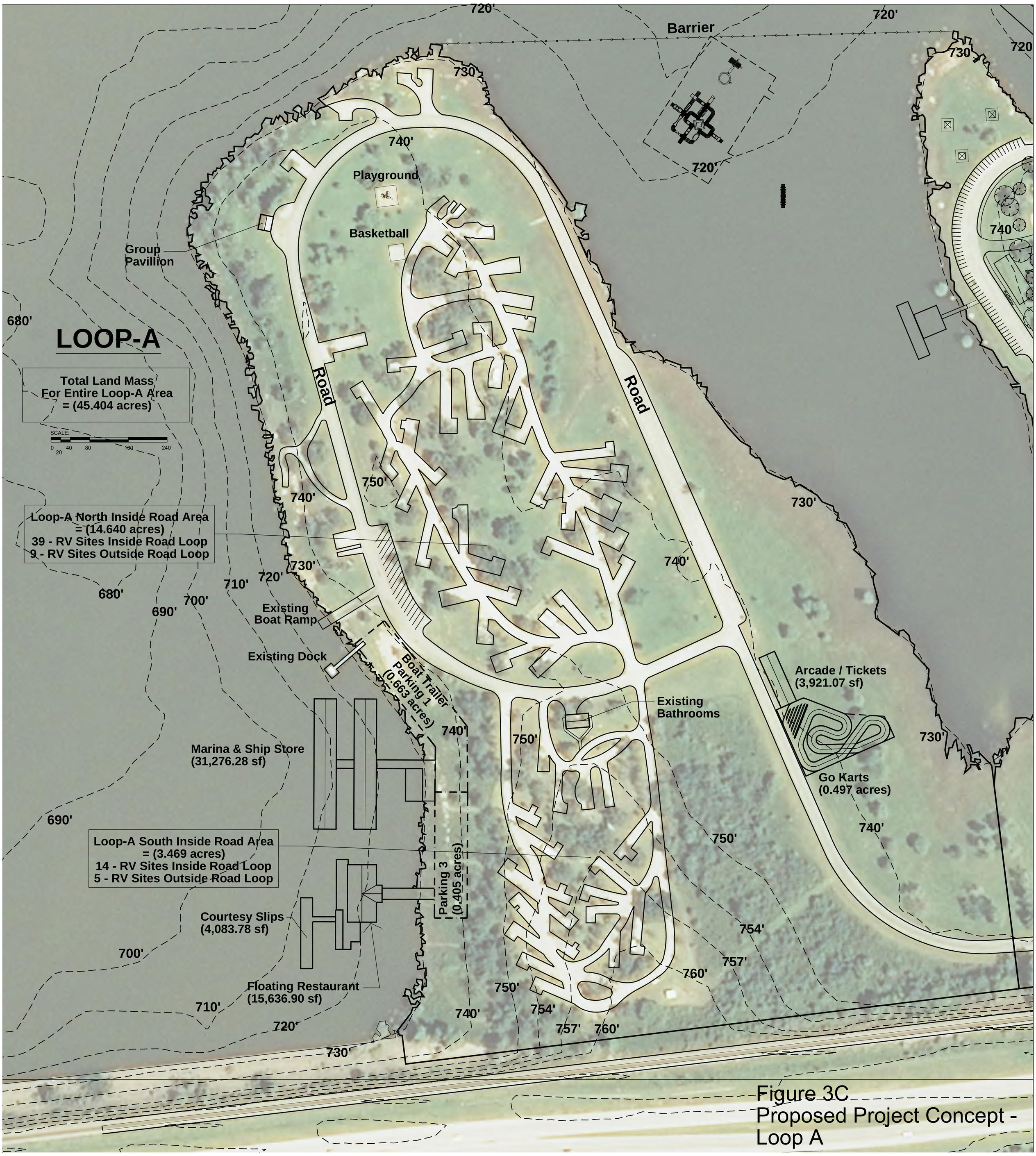

Figure 3C
Proposed Project Concept - Loop A

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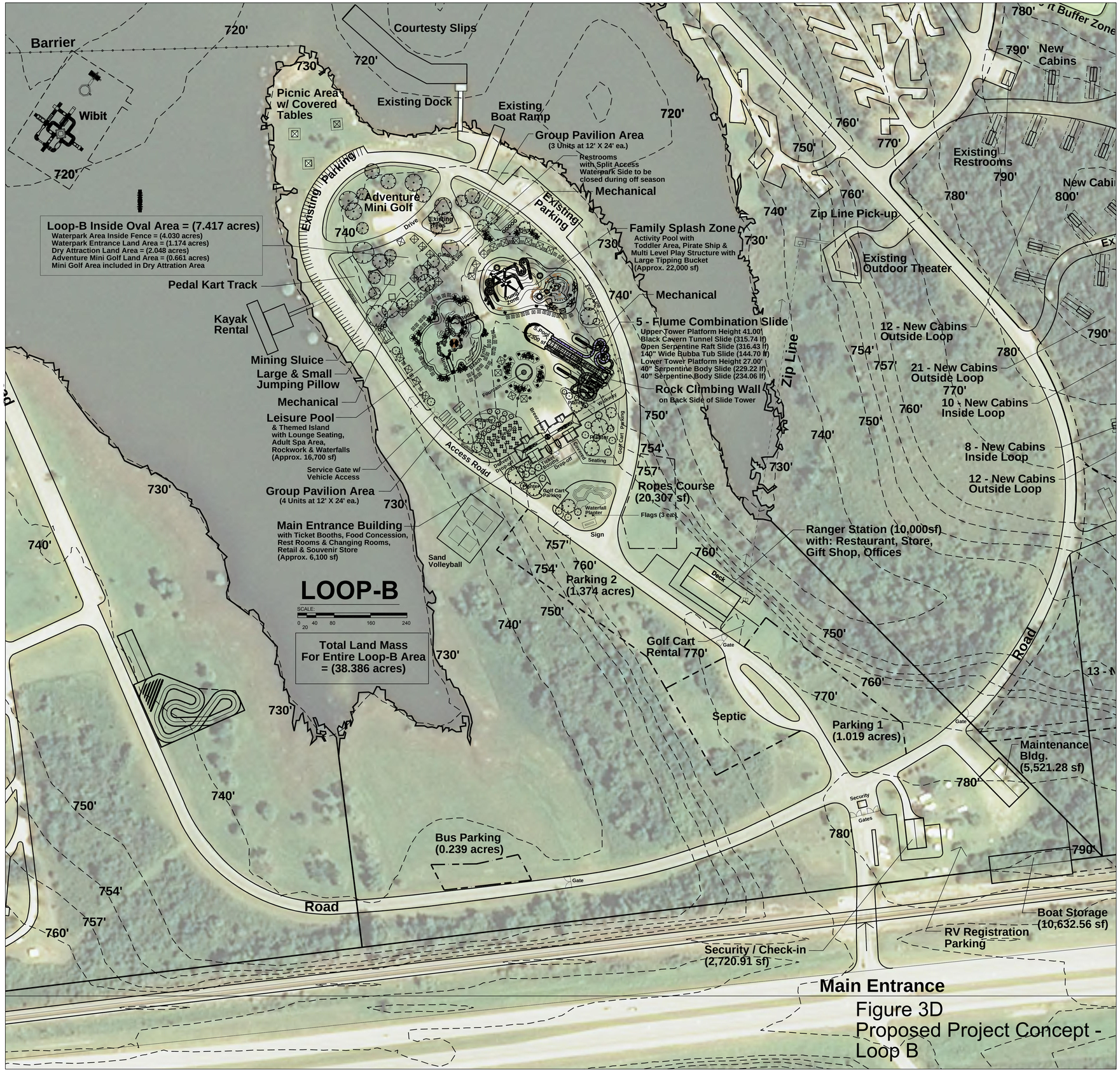

Figure 3D
Proposed Project Concept - Loop B

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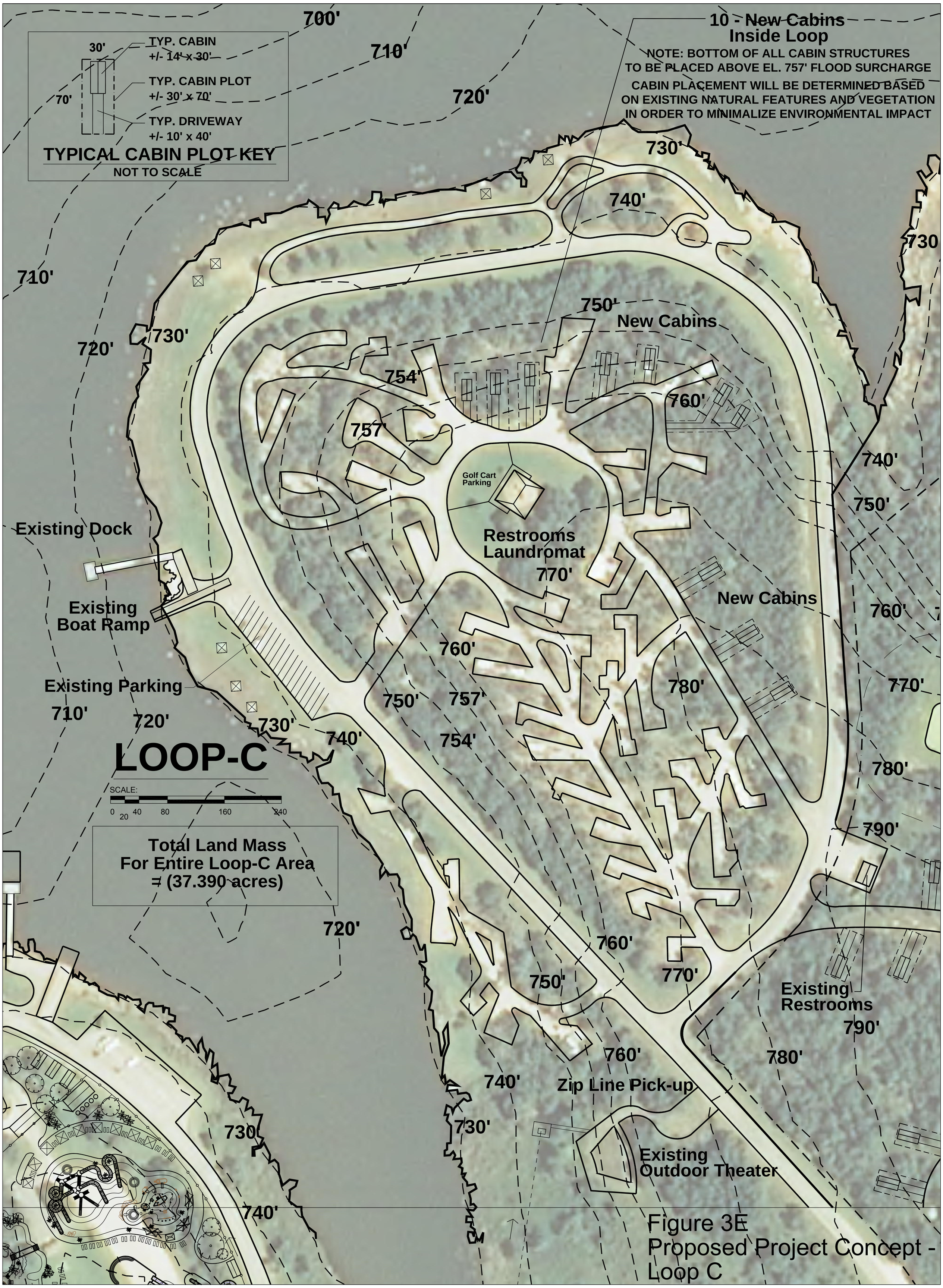

Figure 3E
Proposed Project Concept - Loop C

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Figure 3F
Proposed Project Concept -
Loop D

PDF created with pdfFactory trial version www.pdffactory.com

Property Location Elements

- Project Boundary
- 100 Yr Flood Elevation
- FIRM Panels

0 250 500 750 1,000
Feet
Coordinate System: NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet / Datum: North American 1983 /

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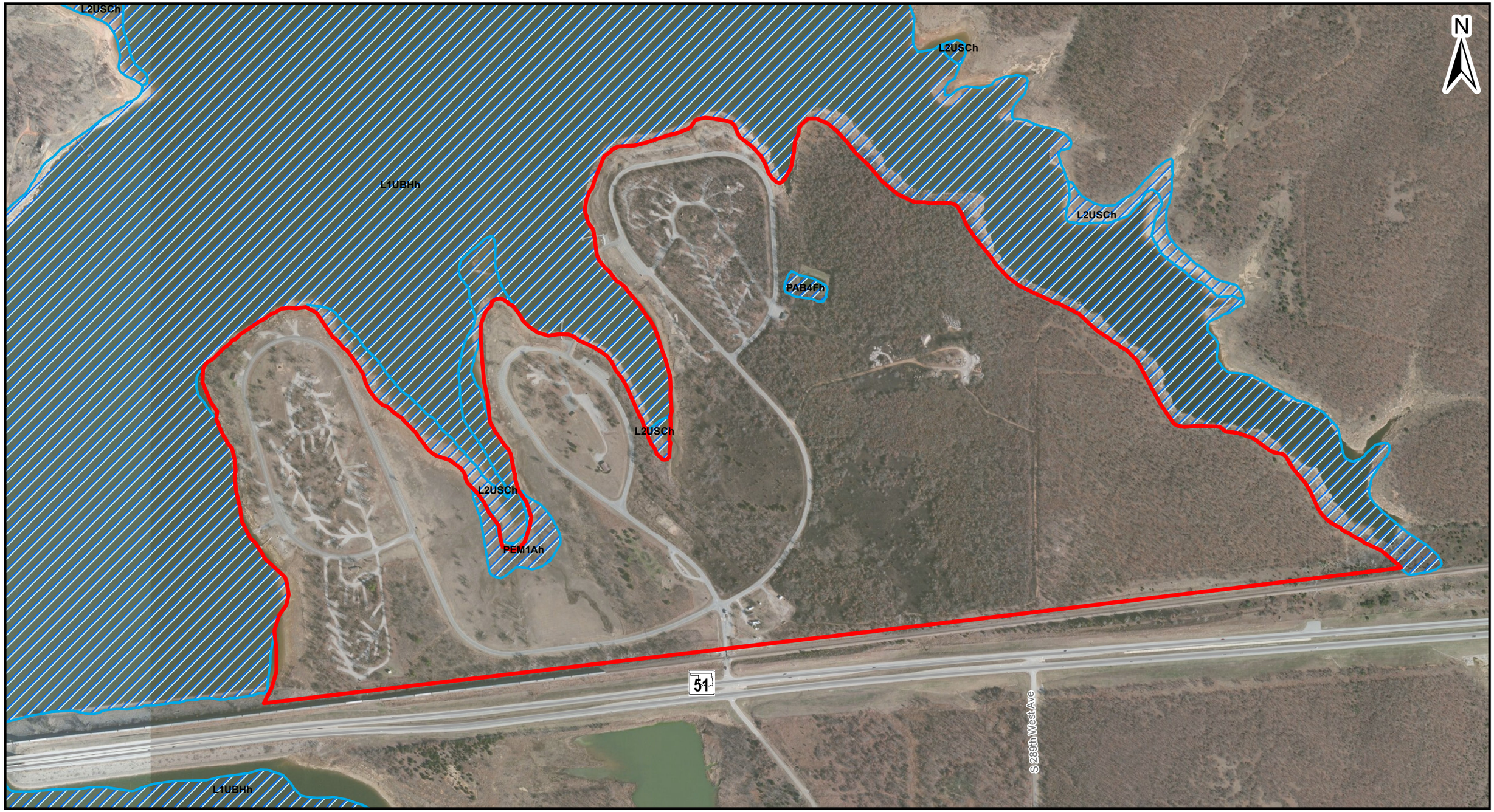
Figure Title:

Figure 4
Floodplain Map

Proposed Jellystone Camp Resort™ Project
Salt Creek Cove North Recreation Area - Keystone Lake
Mannford, Oklahoma

Project No:	14227.00
Drawn By:	MM
Checked By:	MZ
Date:	1/21/2015
Scale:	1 " = 500 feet
Job Number:	



Property Location Elements

Project Boundary

Environmental and Cultural Parameters

Wetlands

ATTRIBUTE	WETLAND_TYPE
PEM1Ah	Freshwater Emergent Wetland
PAB4Fh	Freshwater Pond
L2USCh	Lake
L1UBHh	Lake

0 250 500 750 1,000
Feet

Coordinate System: NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet / Datum: North American 1983 /

Prepared By:

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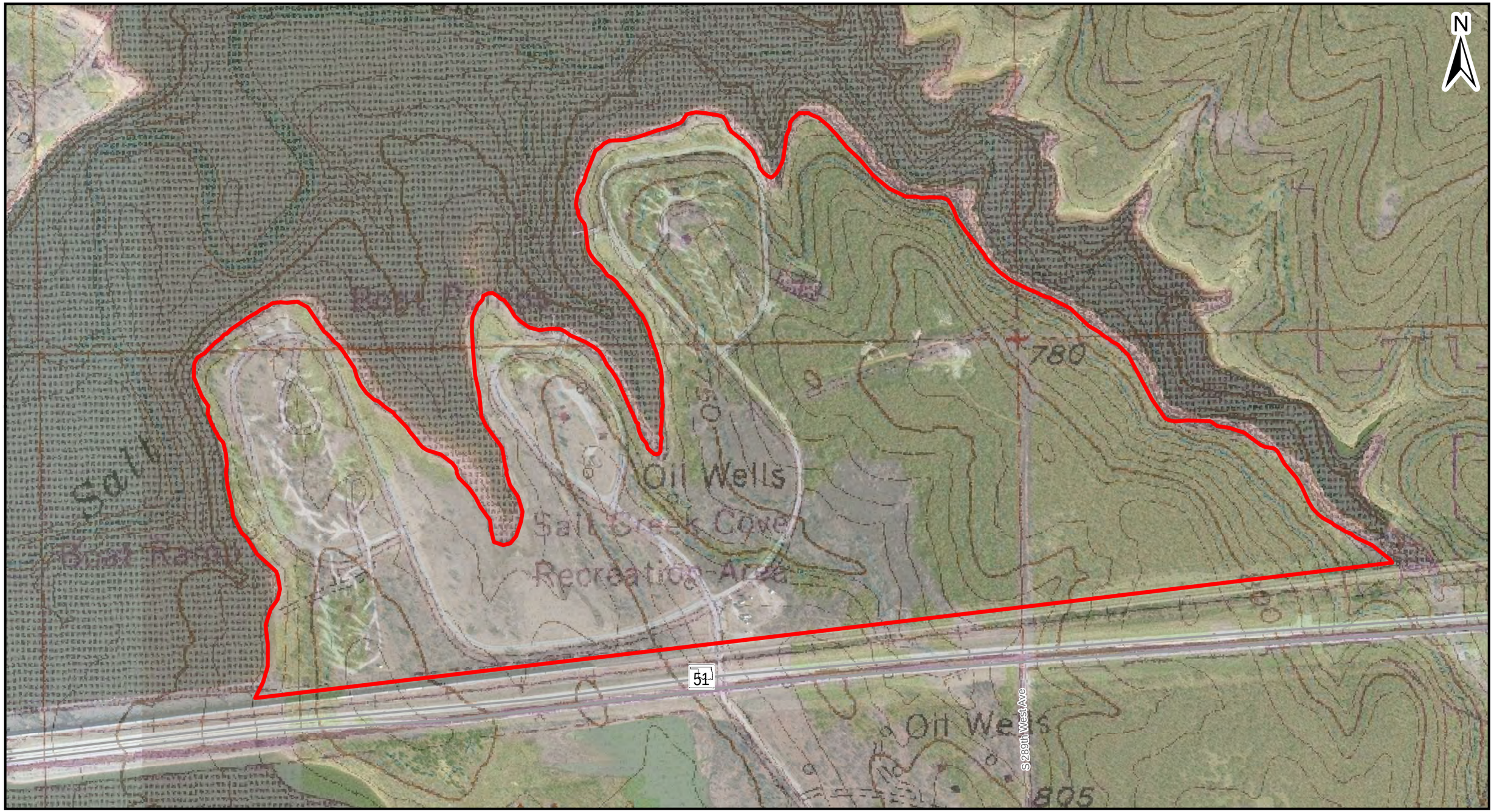
Figure Title:

Figure 5
National Wetlands Inventory

Proposed Jellystone Camp Resort™ Project
Salt Creek Cove North Recreation Area - Keystone Lake
Mannford, Oklahoma

Project No:	14227.00
Drawn By:	MM
Checked By:	MZ
Date:	1/21/2015
Scale:	1 " = 500 feet
Job Number:	



Property Location Elements

Project Boundary

0 250 500 750 1,000
Feet

Coordinate System: NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet / Datum: North American 1983 /

Prepared By:

CARDINAL ENGINEERING

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Ph. 405-842-1066

Figure Title:

Figure 6
Topographic Map

Proposed Jellystone Camp Resort™ Project
Salt Creek Cove North Recreation Area - Keystone Lake
Mannford, Oklahoma

Project No:	14227.00
Drawn By:	MM
Checked By:	MZ
Date:	1/21/2015
Scale:	1 " = 500 feet
Job Number:	

Property Location Elements

- Project Boundary
- NRCS Soils
- Prime_Farmland

Symbol	DESCRIPTION
BNRD	Bigheart-Niotaze-Rock outcrop complex, 1 to 8 percent slopes
Ce	Collinsville and Talihina soils, 5 to 12 percent slopes
DAM	Large dam
Dc	Dennis and Okemah soils, 1 to 3 percent slopes
NBRE	Niotaze-Bigheart-Rock outcrop complex, 3 to 15 percent slopes, very stony
NBRF	Niotaze-Bigheart-Rock outcrop complex, 15 to 25 percent slopes, extremely stony

0 250 500 750 1,000
Feet

Coordinate System: NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet / Datum: North American 1983 /

Prepared By:

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Figure Title:

Figure 7
Soil Classification and Prime Farmland

Proposed Jellystone Camp Resort™ Project
Salt Creek Cove North Recreation Area - Keystone Lake
Mannford, Oklahoma

Project No:	14227.00
Drawn By:	MTM
Checked By:	NR
Date:	1/21/2015
Scale:	1 " = 500 feet
Job Number:	

APPENDICES

Appendix A

USFWS on-line project review submittal

From: Cardinal Engineering, LLC
Attn: Laurie Bennett
1015 North Broadway, Suite 300
Oklahoma City, OK 73102
lb@cardinalengineers.com, 405-842-1066

To: U.S. Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 E 21st Street
Tulsa, Oklahoma 74129

6 January 2015

Re: Online Project Review Request

USACE, Keystone Lake, Salt Creek NEPA Report for the Development of Jellystone Park Recreational Area

We have reviewed the referenced project using the Oklahoma Ecological Services Field Office's online project review process and have followed all guidance and instructions in completing the review. We completed our review on 6 January 2015 and are submitting our project review package in accordance with the instructions for further review.

Our proposed action consists of:

The addition of a waterpark, cabins, marina with a restaurant and ship store, go kart track, additional parking areas, ropes course area, hiking and bike trails, new RV camp sites, upgrade of the existing RV camp sites, and in water recreation features.

The location of the project and the action area are identified on the enclosed map

Please see enclosed map created in IPaC and project area map with "loops" defined.

The project is expected to be completed The project is to be completed in phases with construction

This project review is needed for

USFWS concurrence with a the ESA Section 7 determination of "Habitat present, no recent surveys" for the American Burying Beetle (Nicrophorus americanus). Please see attached species conclusion table and official species list.

The enclosed project review package provides the information about the species and critical habitat considered in our review, and the species conclusions table included in the package identifies our determinations for the resources that may be affected by the project.

For additional information, please contact Laurie Bennett at the address listed above.

Sincerely,

Laurie Bennett
Project Manager
Cardinal Engineering, LLC

Enclosures:

1) ENTIRE PROJECT REVIEW PACKAGE:
   - ☑ Species Conclusion Table
   - ☑ IPaC Species List and Action Area map
   - ☑ This letter (Online Project Review Request Letter)
   - ☐ (Optional) Additional maps
2) Other relevant project data/documents

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Oklahoma Ecological Services Field Office
9014 EAST 21ST STREET
TULSA, OK 74129
PHONE: (918)581-7458 FAX: (918)581-7467
URL: www.fws.gov/southwest/es/Oklahoma/

Consultation Code: 02EKOK00-2015-SLI-0474 January 06, 2015
Event Code: 02EKOK00-2015-E-00549
Project Name: Jellystone Park Development

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Non-federal entities conducting activities that may result in take of listed species should consider seeking coverage under section 10 of the ESA, either through development of a Habitat Conservation Plan (HCP) or, by becoming a signatory to the General Conservation Plan (GCP) currently under development for the American burying beetle. Each of these mechanisms provides the means for obtaining a permit and coverage for incidental take of listed species during otherwise lawful activities.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit through our Project Review step-wise process http://www.fws.gov/southwest/es/oklahoma/OKESFO%20Permit%20Home.htm.

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: Jellystone Park Development

Official Species List

Provided by:

Oklahoma Ecological Services Field Office
9014 EAST 21ST STREET
TULSA, OK 74129
(918) 581-7458
http://www.fws.gov/southwest/es/Oklahoma/

Consultation Code: 02EKOK00-2015-SLI-0474
Event Code: 02EKOK00-2015-E-00549

Project Type: Development

Project Name: Jellystone Park Development
Project Description: Development of the Salt Creek Park on Keystone Lake, Mannford, Oklahoma. Development includes the addition of a water park, parking, cabins, a marina and restaurants.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

United States Department of Interior
Fish and Wildlife Service

Project name: Jellystone Park Development

Project Location Map:

Project Coordinates: MULTIPOLYGON (((-96.3196266 36.137256, -96.3196805 36.1372006, -96.3196867 36.1371962, -96.3196941 36.1371945, -96.3197017 36.1371957, -96.3197082 36.1371996, -96.319837 36.1373157, -96.3198416 36.1373218, -96.3198435 36.1373291, -96.3198427 36.1373367, -96.319839 36.1373434, -96.3198331 36.1373482, -96.3198259 36.1373505, -96.3198183 36.1373499, -96.3196388 36.1373008, -96.3195997 36.137341, -96.319593 36.1373456, -96.3195851 36.1373471, -96.3195771 36.1373453, -96.3195706 36.1373405, -96.3195665 36.1373336, -96.3195655 36.1373255, -96.319569 36.1372817, -96.3188741 36.1370917, -96.3188675 36.1370885, -96.3188625 36.137083, -96.3188598 36.1370762, -96.3187713 36.1366156, -96.3172001 36.1358268, -96.316656 36.1360361, -96.3166477 36.1360374, -96.3166396 36.1360352, -96.3166331 36.1360298, -96.3166294 36.1360223, -96.3166291 36.1360139, -96.3167504 36.1353275, -96.3159649 36.134659, -96.3142175 36.1340433, -96.3142098 36.1340384, -96.3134923 36.1333064, -96.3134913 36.1333052, -96.3128135 36.1324965, -96.3112187 36.1322935, -96.3112117 36.1322913, -96.311206 36.1322868, -96.3112024 36.1322805, -96.3109167 36.1314842, -96.3106653

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Project Counties: Creek, OK

United States Department of Interior
Fish and Wildlife Service

Project name: Jellystone Park Development

Endangered Species Act Species List

There are a total of 4 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	**Status**	**Has Critical Habitat**	**Condition(s)**
Least tern *(Sterna antillarum)* Population: interior pop.	Endangered		
Piping Plover *(Charadrius melodus)* Population: except Great Lakes watershed	Threatened	Final designated	
Red Knot *(Calidris canutus rufa)*	Threatened		
Insects			
American Burying beetle *(Nicrophorus americanus)* Population: Entire	Endangered		

Critical habitats that lie within your project area

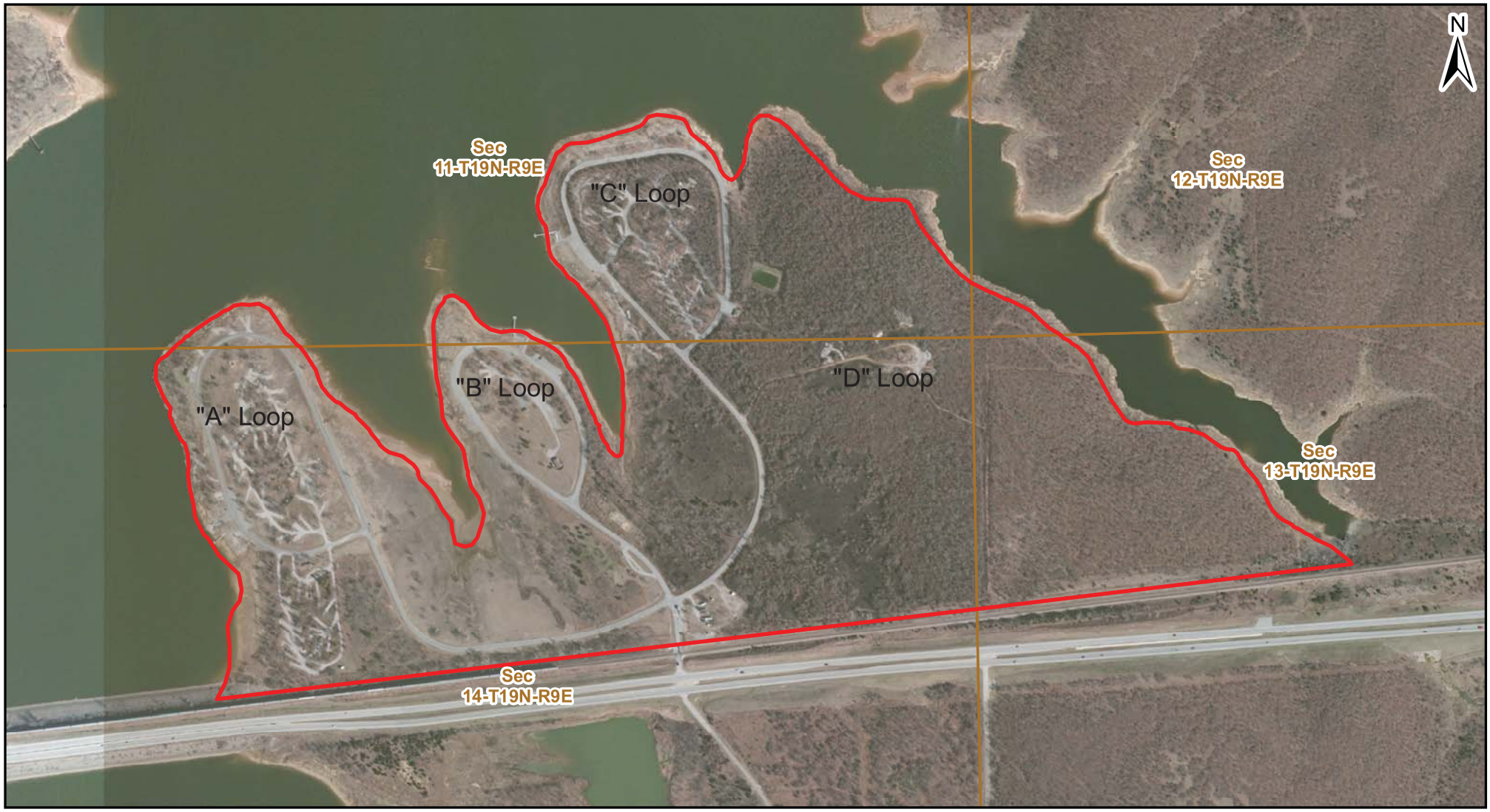
There are no critical habitats within your project area.

Species Conclusions Table

Project Name: USACE, Keystone Lake, Salt Creek NEPA Report for the Development of Jellystone Park Recreational Area

Date: 1/6/2015

Species / Critical Habitat	Habitat Determination	Notes / Documentation	ESA Determination
American Burying Beetle (Nicrophorus americanus)	Habitat Present	Habitat Present, no recent surveys in the area of the park that is largely undeveloped, which is identified as “D Loop” on the included maps. “A, B and C” Loops are not favorable for the ABB due to vegetation structure.	Recommend coordination with this office
Interior least tern (Sterna antillarum)	Species not present, no potential habitat present	No potential habitat present	No Effect
Piping plover (Charadrius melodus)	Species not present, no potential habitat present	No potential habitat present	No Effect
Red Knot (Calidris canutus rufa)	Species not present, no potential habitat present	No potential habitat present	No Effect
Critical Habitat	No Critical Habitat Present	No Critical Habitat within the Action Area	No Effect



Property Location Elements

Project Boundary | Section

0 250 500 750 1,000
Feet

Coordinate System: NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet / Datum: North American 1983 /

Prepared By:

CARDINAL ENGINEERING

Cardinal Engineering, Inc.
1015 N. Broadway, Ste. 300
Oklahoma, City, OK 73102
Ph. 405-842-1066

Figure Title:

Figure 1
Aerial Map

Creek County
Keystone Lake Project

Project No:	14227.00
Drawn By:	MM
Checked By:	MZ
Date:	1/6/2015
Scale:	1 " = 500 feet
Job Number:	

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Division of Ecological Services
9014 East 21st Street
Tulsa, Oklahoma 74129
918/581-7458 / (FAX) 918/581-7467

06 January 2015

Online Project Review Concurrence Letter

To: Cardinal Engineering, LLC
Attn: Laurie Bennett
1015 North Broadway, Suite 300
Oklahoma City, OK 73102

Project Name: USACE, Keystone Lake, Salt Creek NEPA Report for the Development of Jellystone Park Recreational Area

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Oklahoma Ecological Services Field Office online project review process. By providing this letter in conjunction with your project review package, you are certifying that you have accurately completed the online project review process for the referenced project in accordance with all instructions provided, using the best available information to reach your conclusions. Concurrence with "not likely to adversely affect" determinations does not provide any exemption for violations of section 9 of the ESA or "take" of federally-listed species. The Federal action agency is ultimately responsible for ensuring compliance with the ESA and any take that occurs due to your proposed action would be considered a violation under section 9 of the ESA.

This letter and the enclosed project review package complete the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA). This letter also provides information for your project review under the National Environmental Policy Act (National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be emailed to **okprojectreview@fws.gov** for this certification to be valid. This letter and the project review package will be maintained in Service records. **Please allow the OKESFO 35 days to review your information. If the OKESFO determines that the package is not complete, or that additional coordination is necessary, we will contact your office. If after 35 days from the time you emailed your project review package the OKESFO has not contacted your office, consider your section 7 consultation complete.**

The proposed action consists of

The addition of a waterpark, cabins, marina with a restaurant and ship store, go kart track, additional parking areas, ropes course area, hiking and bike trails, new RV camp sites, upgrade of the existing RV camp sites, and in water recreation features.

The project is expected to be completed:

The first phase of the project, which includes "A,B and C Loops" as diagrammed, are expected to be completed 2015-2016
The second phase of the project, which includes "D Loop" is expected to be completed 2017-2019

This project review is needed for:

USFWS concurrence with an ESA Section 7 determination of "Habitat present, no recent surveys" for the American Burying Beetle (Nicrophorus americanus). Please see attached species conclusion table and official species list.

The species conclusions table in the enclosed project review package summarizes your ESA conclusions. These conclusions resulted in “not likely to adversely affect/modify” determinations for listed species and critical habitat in relation to potential effects of your proposed project. We certify that the use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with determinations of “not likely to adversely affect” for listed species and critical habitat reached by proper use of this process. For projects where this particular determination is reached, additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages efforts to avoid or minimize adverse impacts to them from project effects. Some federal agencies have standing policies that grant limited protections to candidate species. Conservation of candidate species now may preclude future needs to federally list them as endangered or threatened, at which point their legal protection would become required. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of listed species or critical habitat becomes available, this determination may be reconsidered. You should re-visit the Service's Information, Planning, and Conservation (IPaC) website at http://ecos/fws.gov/ipac/ within 90 days of project inititaion to ensure species information is correct. If new species or critical habitat is identified, this letter is no longer valid and a new project package should be submitted to the OKESFO.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Oklahoma is available at our website: <http://www.fws.gov/southwest/es/oklahoma/ >. If you have any questions, please call 918-581-7458 or send an email message to OKProjectReview@fws.gov.

Sincerely,
/s/ Jontie Aldrich
Acting Field Supervisor
Oklahoma Ecological Services Field Office

Enclosures:

1) ENTIRE PROJECT REVIEW PACKAGE:
   - ☑ Species Conclusion Table
   - ☑ IPaC Species List and Action Area map
   - ☑ This letter (Online Concurrence Letter)
   - ☑ (Optional) Additional maps
2) Other relevant project data/documents

Additional map of the area that identifies the different "loop" locations.

Appendix B

USFWS, ONHI and ODWC Coordination/Correspondence

OBS Ref. 2014-704-BUS-CAR

Dear Mr. Zorba, Dec. 1, 2014

We have reviewed occurrence information on federal and state threatened, endangered or candidate species, as well as non-regulatory rare species and ecological systems of importance currently in the Oklahoma Natural Heritage Inventory database for the following location you provided:

Sec. 11 and 14-T19N-R9E, Creek County

We found 11 occurrence(s) of relevant species within the vicinity of the project location as described.

Interior least tern (*Sternula antillarum athalassos*) a federally listed threatened species for listing, 1 occurrence, in Sec. 22-T19N-R9E, Creek County

Additionally, absence from our database does not preclude such species from occurring in the area.

If you have any questions about this response, please send me an email, or call us at the number given below.

Although not specific to your project, you may find the following links helpful.

ONHI, guide to ranking codes for endangered and threatened species:
http://vmpincel.ou.edu/heritage/ranking_guide.html

Information regarding the Oklahoma Natural Areas Registry:
http://www.oknaturalheritage.ou.edu/registry_faq.htm

Todd Fagin

Oklahoma Natural Heritage Inventory/
Department of Geography and Environmental Sustainability

Mike Zorba

From: Fenner, Daniel <daniel_fenner@fws.gov>
Sent: Monday, December 22, 2014 1:27 PM
To: Mike Zorba
Subject: FWS Response - Public Scoping for the Proposed Jellystone Camp Resort and Commercial Marina Development Project, Salt Creek Cover North - Keystone Lake, Mannford, OK

Project Reference: Public Scoping for the Proposed Jellystone Camp Resort and Commercial Marina Development Project, Salt Creek Cover North - Keystone Lake, Mannford, OK

Mr Zorba,

Thank you for your letter requesting an endangered species review in regard to the proposed project identified above. The information you provided in not sufficient for adequate review by our office.

The Oklahoma Ecological Services Field Office has developed measures to streamline the threatened and endangered species consultation process and other requests for technical assistance. The information you have requested is available on our website at

http://www.fws.gov/southwest/es/Oklahoma/OKESFO%20Permit%20Home.htm

Please review these streamlining measures and our review is needed, please submit your request electronically, as described on our website. For assistance in navigating the website, please contact our office.

Sincerely,

Daniel Fenner

--

Daniel Fenner
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, Oklahoma 74129
(918) 382-4524 (voice)
(918) 581-7467 (fax)

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Oklahoma Ecological Services Field Office
9014 EAST 21ST STREET
TULSA, OK 74129
PHONE: (918)581-7458 FAX: (918)581-7467
URL: www.fws.gov/southwest/es/Oklahoma/

Consultation Code: 02EKOK00-2015-SLI-0425 December 16, 2014
Event Code: 02EKOK00-2015-E-00496
Project Name: Jellystone Park Development

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Non-federal entities conducting activities that may result in take of listed species should consider seeking coverage under section 10 of the ESA, either through development of a Habitat Conservation Plan (HCP) or, by becoming a signatory to the General Conservation Plan (GCP) currently under development for the American burying beetle. Each of these mechanisms provides the means for obtaining a permit and coverage for incidental take of listed species during otherwise lawful activities.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit through our Project Review step-wise process http://www.fws.gov/southwest/es/oklahoma/OKESFO%20Permit%20Home.htm.

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: Jellystone Park Development

Official Species List

Provided by:

Oklahoma Ecological Services Field Office
9014 EAST 21ST STREET
TULSA, OK 74129
(918) 581-7458
http://www.fws.gov/southwest/es/Oklahoma/

Consultation Code: 02EKOK00-2015-SLI-0425
Event Code: 02EKOK00-2015-E-00496

Project Type: Development

Project Name: Jellystone Park Development
Project Description: Development of the existing Salt Creek Recreation Area with addition of a water park, cabins, recreational area that includes mini golf, ropes course, kayak rental, water sports, a new marina and slips, restaurant, and RV camping areas.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:

Project Coordinates: MULTIPOLYGON (((-96.31583 36.1346284, -96.3163818 36.1350365, -96.3163881 36.1350443, -96.3166559 36.1356315, -96.3166577 36.1356398, -96.3166577 36.1359367, -96.3171104 36.1360697, -96.3174057 36.1360015, -96.3174142 36.1360014, -96.3177575 36.1360708, -96.3177628 36.1360727, -96.3184633 36.1364416, -96.3184682 36.1364452, -96.3192865 36.1372676, -96.3197002 36.1372676, -96.3199904 36.1370333, -96.3201167 36.1366253, -96.3201595 36.136073, -96.3201617 36.1360652, -96.3201668 36.1360589, -96.3202097 36.1360243, -96.3202173 36.1360205, -96.3202257 36.1360202, -96.3202335 36.1360233, -96.3202393 36.1360294, -96.3206671 36.1367203, -96.321262 36.1372693, -96.3215513 36.137336, -96.3222752 36.1370609, -96.3222796 36.1370598, -96.3233061 36.1369216, -96.3237684 36.1366841, -96.3239789 36.1361402, -96.3239789 36.1357303, -96.3238095 36.1350464, -96.3229138 36.1343575, -96.322909 36.1343521, -96.3225227 36.1337282, -96.3225197 36.1337187, -96.3224339 36.132055, -96.3224349 36.1320476, -96.3224386 36.1320411, -96.3224445 36.1320364, -96.3224516 36.1320341, -96.3224591 36.1320347, -96.3224658 36.132038, -96.3224709 36.1320435, -96.3230281 36.1329434, -96.3235409 36.1335647, -96.3240084 36.1339423, -96.3243462 36.1340446, -96.324988 36.1341137, -96.3249985 36.134118, -96.3255093 36.1345306, -96.3257132 36.1345636, -96.3259599 36.1344639, -96.3261672 36.1341627, -96.3261248 36.1335139, -96.3257412 36.1324809, -96.3255725 36.1323107, -96.3255683 36.1323045, -96.325225 36.1315073, -96.3252234 36.1314998, -96.3252247 36.1314922, -96.3253964 36.1310454, -96.3254011 36.1310383, -96.3254084 36.1310337, -96.3254169 36.1310327, -96.3254251

36.1310353, -96.3254314 36.131041, -96.3257747 36.1315262, -96.3257783 36.1315355, -96.3258199 36.1319025, -96.3262393 36.1321092, -96.3262406 36.1321098, -96.327013 36.1325603, -96.3270175 36.1325639, -96.3288578 36.1345342, -96.3291888 36.1345675, -96.3303423 36.1341191, -96.3309785 36.1338107, -96.3311437 36.1334104, -96.3306329 36.13241, -96.330631 36.1324044, -96.3305031 36.1316845, -96.3299479 36.1309222, -96.3299467 36.1309202, -96.3297321 36.130539, -96.3297299 36.1305333, -96.3296441 36.1301208, -96.3296441 36.1301126, -96.3298953 36.1289158, -96.32979 36.128887, -96.315887 36.1296826, -96.3158793 36.1296815, -96.3158726 36.1296775, -96.3158679 36.1296713, -96.3158659 36.1296637, -96.315867 36.129656, -96.315871 36.1296493, -96.3158772 36.1296446, -96.3158848 36.1296426, -96.329791 36.1288468, -96.3297974 36.1288475, -96.329924 36.1288822, -96.3299307 36.1288855, -96.3299358 36.1288911, -96.3299384 36.1288981, -96.3299383 36.1289056, -96.3296841 36.1301167, -96.3297684 36.1305221, -96.329981 36.1308996, -96.3305382 36.1316647, -96.3305417 36.131673, -96.3306699 36.1323945, -96.3311835 36.1334004, -96.3311857 36.1334087, -96.3311842 36.1334171, -96.3310126 36.133833, -96.3310087 36.1338391, -96.3310028 36.1338434, -96.330359 36.1341554, -96.3303575 36.134156, -96.3291988 36.1346065, -96.3291896 36.1346078, -96.3288463 36.1345732, -96.3288394 36.1345712, -96.3288337 36.134567, -96.3269903 36.1325934, -96.326221 36.1321447, -96.3257925 36.1319335, -96.3257871 36.1319297, -96.3257833 36.1319242, -96.3257814 36.1319179, -96.3257391 36.1315452, -96.3254204 36.1310947, -96.325265 36.131499, -96.3256036 36.1322852, -96.3257726 36.1324558, -96.3257771 36.1324629, -96.3261633 36.1335027, -96.3261646 36.1335084, -96.3262076 36.134167, -96.3262069 36.1341736, -96.3262041 36.1341796, -96.3259895 36.1344915, -96.3259805 36.1344987, -96.325723 36.1346027, -96.3257123 36.1346039, -96.3254977 36.1345692, -96.3254883 36.1345651, -96.3249779 36.1341529, -96.3243401 36.1340842, -96.3243364 36.1340834, -96.3239931 36.1339794, -96.3239863 36.1339759, -96.3235142 36.1335946, -96.3235114 36.1335917, -96.3229964 36.1329678, -96.3229948 36.1329656, -96.3224779 36.1321307, -96.3225594 36.1337115, -96.3229411 36.134328, -96.3238394 36.1350189, -96.3238439 36.1350239, -96.3238466 36.13503, -96.3240183 36.1357231, -96.3240189 36.1357279, -96.3240189 36.1361439, -96.3240176 36.1361511, -96.323803 36.1367056, -96.3237992 36.1367118, -96.3237934 36.1367162, -96.3233213 36.1369588, -96.3233149 36.1369608, -96.3222873 36.1370991, -96.3215598 36.1373756, -96.3215541 36.1373769, -96.3215482 36.1373764, -96.3212478 36.1373071, -96.3212387 36.1373023, -96.3206379 36.1367478, -96.3206345 36.1367436, -96.3202172 36.1360697, -96.3201987 36.1360846, -96.3201564 36.1366306, -96.3201556 36.136635, -96.3200268 36.1370509, -96.3200243 36.1370562, -96.3200203 36.1370606, -96.3197199 36.1373032, -96.319714 36.1373065, -

96.3197073 36.1373076, -96.3192782 36.1373076, -96.3192705 36.1373061, -96.319264 36.1373017, -96.318442 36.1364756, -96.3177467 36.1361094, -96.3174105 36.1360415, -96.3171143 36.1361099, -96.3171042 36.1361096, -96.3166321 36.1359709, -96.3166246 36.1359668, -96.3166195 36.13596, -96.3166177 36.1359517, -96.3166177 36.1356441, -96.3163538 36.1350656, -96.3157979 36.1346545, -96.3157919 36.1346472, -96.3157898 36.134638, -96.3158778 36.1297144, -96.3158795 36.1297068, -96.3158839 36.1297004, -96.3158905 36.1296962, -96.3158982 36.1296948, -96.3159058 36.1296965, -96.3159122 36.1297009, -96.3159164 36.1297075, -96.3159178 36.1297152, -96.31583 36.1346284)))

Project Counties: Creek, OK

United States Department of Interior
Fish and Wildlife Service

Project name: Jellystone Park Development

Endangered Species Act Species List

There are a total of 4 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	**Status**	**Has Critical Habitat**	**Condition(s)**
Least tern *(Sterna antillarum)* Population: interior pop.	Endangered		
Piping Plover *(Charadrius melodus)* Population: except Great Lakes watershed	Threatened	Final designated	
Red Knot *(Calidris canutus rufa)*	Threatened		
Insects			
American Burying beetle *(Nicrophorus americanus)* Population: Entire	Endangered		

Critical habitats that lie within your project area

There are no critical habitats within your project area.

OBS Ref. 2015-008-BUS-CAR

Dear Ms. Bennett, Jan. 6, 2015

We have reviewed occurrence information on federal and state threatened, endangered or candidate species, as well as non-regulatory rare species and ecological systems of importance currently in the Oklahoma Natural Heritage Inventory database for the following location you provided:

Sec. 11 and 14-T19N-R9E, Creek County

We found 1 occurrence(s) of relevant species within the vicinity of the project location as described.

Interior least tern (*Sternula antillarum athalassosi*) a federally candidate species for listing, 1 occurrence in 14-T19N-R9E, Creek County.

Additionally, absence from our database does not preclude such species from occurring in the area.

If you have any questions about this response, please send me an email, or call us at the number given below.

Although not specific to your project, you may find the following links helpful.

ONHI, guide to ranking codes for endangered and threatened species:
http://vmpincel.ou.edu/heritage/ranking_guide.html

Information regarding the Oklahoma Natural Areas Registry:
http://www.oknaturalheritage.ou.edu/registry_faq.htm

Todd Fagin

Oklahoma Natural Heritage Inventory/
Department of Geography and Environmental Sustainability

Mike Zorba

From: Rich Fuller <rich.fuller@odwc.ok.gov>
Sent: Friday, January 09, 2015 2:06 PM
To: Laurie Bennett
Subject: Re: Salt Creek Cove Recreation Area in Mannford, Oklahoma
Attachments: Keystone 11x17 figure 1 aerial.pdf

Follow Up Flag: Flag for follow up
Flag Status: Flagged

Dear Ms. Bennett,

I am writing in response to your email of January 6, 2015 regarding any state resource concerns regarding development in the Salt Creek Cove Area of Keystone Lake near Mannford, Oklahoma.

This letter is provided to you as a courtesy of the Oklahoma Department of Wildlife Conservation. It is our hope that this information will help in the planning, siting and design of your project(s) in such a way as to avoid or minimize its potential negative impacts on wildlife resources. Please understand that we have not conducted an actual field investigation of your project area due to financial and personnel constraints, however we have endeavored to provide you with the most comprehensive information that we can based upon the information that we have on hand. Ultimately it is the responsibility of the parties involved in the planning, design, construction, operation, and maintenance of the proposed bridge to evaluate the impact of this project on wildlife resources, including threatened and endangered species. The area of Creek county that this project is located has no presence of state endangered or threatened species.

Federally Listed Species:
According to the US Fish & Wildlife Service, the following listed species exist within Creek County: Threatened Piping Plover (shorebird), Endangered Least tern (shorebird) and Endangered American Burying Beetle. We recommend that you contact the USFWS Tulsa Field Office and the Oklahoma Natural Heritage Inventory to ascertain whether they have specific information about the above species and any specific habitat concerns associated with the bridge replacement project. The addresses are as follows:

- U. S. Fish and Wildlife Service - Ecological Services,
  9014 East 21st Street
  Tulsa, OK 74129

- Oklahoma Natural Heritage Inventory
  111 East Chesapeake Street
  Norman, OK 73019

In terms of the description of your project, it appears likely that you will be disturbing soil and/or vegetation which could impact the Endangered American Burying beetle (ABB). Most of eastern Oklahoma, including Creek County was recently included in the 45-county listing of the U.S. Fish and Wildlife Service's (USFWS) Industry Conservation Plan for the federally endangered American Burying Beetle (ABB) in Oklahoma (Ref. C.F.R. 79 FR 21480 issued on 4-16-2014). Soil disturbance due to energy exploration, construction of roads or buildings, or burial of pipelines and/or transmission lines have been identified as possible threats to ABB.

Because of your project's close proximity to Keystone Lake, we recommend that any surface damaged areas be restored to as close to pre-development condition as possible. This will prevent erosion and the introduction of sediments into the lake. This would include such practices as re-contouring damaged or exposed soils and re-seeding exposed soils with native grasses to curtail erosion. Damaged/exposed areas should be replanted to native warm-season grasses and forbs as soon as possible. The establishment of native vegetation is most successful when seed is planted in the fall or early winter months. When revegetation is not immediately practical (e.g. summer and winter months), erosion control measures such as mulch or erosion control fabric should be applied to stabilize the soil until the next planting season. The use of native plant species is strongly recommended because this prevents the establishment of less desirable exotic plant species that may spread and invade adjacent undeveloped areas. Additionally, native plants tend to have greater value to native wildlife as sources of food and cover.

If you have any additional questions or concerns, please contact me at the information below. Thank you.

Rich Fuller, Wildlife Biologist – Energy Emphasis
Oklahoma Department of Wildlife Conservation
P.O. Box 53465
Oklahoma City, OK 73152
405.397.1599
Fax: 405.521.4706
rich.fuller@odwc.ok.gov

Cc: Matt Mattioda, Wildlife Biologist-Keystone Wildlife Management Area

---------- Forwarded message ----------
From: **Laurie Bennett** <lb@cardinalengineers.com>
Date: Tue, Jan 6, 2015 at 10:55 AM
Subject: USFWS On-Line Project Review State Resource Concerns
To: "jena.donnell@odwc.ok.gov" <jena.donnell@odwc.ok.gov>

Good Morning Ms. Donnell,

As part of the USFWS on line project review, coordination with the Oklahoma Department of Wildlife Conservation is necessary to address any state resource concerns.

Attached is the map with the area of concern outlined. The property is Salt Creek Cove Recreation Area in Mannford, Oklahoma. The property currently has hook ups for campers, areas for tent camping, fishing docks, dump station, sewage lagoon, playground and roadways. The proposed project is to add a water park, marina, go karts, additional parking areas, cabins and more roadways to access the cabins.

Please let me know if you have any questions or if you can provide additional information on impacted resources on this property.

Sincerely,

Laurie Bennett

Mike Zorba

From: Fenner, Daniel <daniel_fenner@fws.gov>
Sent: Monday, January 26, 2015 1:53 PM
To: Laurie Bennett
Subject: FWS Response - Keystone Lake, Jellystone Park Project

Project Reference - Keystone Lake, Jellystone Park Project

Ms. Bennett,

Thank you for your review request regarding the above mentioned project. We agree that additional coordination with the Service may be warranted on this project.

To assist you and the COE with making an affect determination for the American burying beetle (ABB), I am providing you a link to the ABB's Oklahoma Ecological Services Field Office (OKESFO) website.

http://www.fws.gov/southwest/es/oklahoma/ABB_Add_Info.htm

You will find guidance on this page for assessing potential impacts to the ABB and its habitat.

I'm also providing you a link the OKESFO's migratory birds and eagle guidance.

http://www.fws.gov/southwest/es/oklahoma/eagles_mig_birds.htm

Please review the provided information and let me know if you have any additional questions.

Sincerely,

Daniel Fenner

--

Daniel Fenner
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, Oklahoma 74129
(918) 382-4524 (voice)
(918) 581-7467 (fax)

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Appendix C

Cultural Resources Coordination/Correspondence

Oklahoma Archeological Survey
THE UNIVERSITY OF OKLAHOMA

December 9, 2014

Michael Zorba
Cardinal Engineering
3750 West Robinson, Ste. 140
Norman, OK 73072

RE: Proposed Jellystone Camp Resort and Commercial Marina Development Project, Salt Creek cove North – Keystone Lake. Legal Description: N ½ Section 14 T19N R9E, and SE ¼ Section 11 T19N R9E, Creek County, Oklahoma.

Dear Mr. Zorba:

The above referenced project has been reviewed by the Community Assistance Program staff of this agency to identify potential areas that may contain prehistoric or historic archaeological materials (historic properties). The location of your project has been cross-checked with the state site files containing approximately 23,000 archaeological sites which are currently recorded for the State of Oklahoma. Our records indicate that your project area has been previously surveyed for other projects, and that no significant cultural resource sites were located. Thus, an additional field inspection is not considered necessary for your project. However, should construction activities expose buried archeological materials such as chipped stone, tools, pottery, bone, historic crockery, glass, metal items or building materials, this agency should be contacted immediately at (405)325-7211. A member of our staff will be sent to evaluate the significance of these remains.

This environmental review and evaluation is performed in order to locate, record, and preserve Oklahoma's prehistoric and historic cultural heritage in cooperation with the State Historic Preservation Office, Oklahoma Historical Society, and you must also have a letter from that office to document your consultation pursuant to Section 106 of the National Historic Preservation Act. In addition to our review comments, under 36CFR Part 800.3 you are reminded of your responsibility to consult with the appropriate Native American tribe/groups to identify any concerns they may have pertaining to this undertaking and potential impacts to properties of traditional and/or ceremonial value.

Sincerely,

for Dave Jacobson
Staff Archaeologist

Robert L. Brooks
State Archaeologist

:ls

Cc: SHPO

111 E. Chesapeake, Room 102, Norman, Oklahoma 73019-5111 PHONE: (405) 325-7211 FAX: (405) 325-7604
A UNIT OF ARTS AND SCIENCES SERVING THE PEOPLE OF OKLAHOMA

Mike Zorba

From: Mike Zorba
Sent: Thursday, December 11, 2014 3:S2 PM
To: 'Shingleton, Kenneth L SWT'
Subject: RE: Can you provide some info? (UNCLASSIFIED)

Thanks.

Michael Zorba
Environmental Planner

Office: 405.701.5058
Mobile: 480.794.0852

-----Original Message-----
From: Shingleton, Kenneth L SWT [mailto:Kenneth.L.Shingleton@usace.army.mil]
Sent: Thursday, December 11, 2014 3:48 PM
To: Mike Zorba
Cc: Nolen, Stephen L SWT
Subject: RE: Can you provide some info? (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

This should be it.

-----Original Message-----
From: Mike Zorba [mailto:mike.zorba@cardinalengineers.com]
Sent: Thursday, December 11, 2014 3:42 PM
To: Shingleton, Kenneth L SWT
Cc: Nolen, Stephen L SWT
Subject: [EXTERNAL] RE: Can you provide some info? (UNCLASSIFIED)

Thank you Kenneth for the correspondence. I have the survey report and addendum, but no photos or maps, so please send.

Thanks.

Michael Zorba
Environmental Planner

Office: 405.701.5058
Mobile: 480.794.0852

-----Original Message-----
From: Shingleton, Kenneth L SWT [mailto:Kenneth.L.Shingleton@usace.army.mil]
Sent: Thursday, December 11, 2014 2:43 PM

To: Mike Zorba
Cc: Nolen, Stephen L SWT
Subject: RE: Can you provide some info? (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Mike,

Section 106 consultation letters for the Keystone SCN project are attached. For the survey report, there should be the report plus an addendum. There should also be associated maps and photos. Please let me know if you don't have these materials and I will provide them.

Regards,
Ken Shingleton
918-69-7661

-----Original Message-----
From: Nolen, Stephen L SWT
Sent: Thursday, December 11, 2014 1:47 PM
To: Shingleton, Kenneth L SWT; Dunkin, Stacy W SWT
Cc: Mike Zorba
Subject: FW: Can you provide some info? (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Ken/Stacy:

This pertains to Salt Creek North @ Keystone and EA for proposed Keystone Resort and Yacht Club developments.

Ken:

I spoke with Mike Zorba and he has a copy of the SCN CR survey report but none of the associated correspondence (letters to SHPO/tribes and responses to same). Could you please send him all associated letters so that they can be included in EA?

Stacy:

I mentioned to Mike that the only Sec 7 online actions we have taken thus far pertain to the proposed replacement of utilities (electric/water) at existing camping sites and our "may affect/not likely to adversely affect" determination for ABB. I think we are likely at or near the end of the 35 day USFWS response period. Could you please send Mike copies of all related information? They will follow up with additional project coordination for proposed future development activities.

Mike is copied on this email and his phone is 405.701.5058 if you need to speak with him. Thanks!

sln

-----Original Message-----
From: Mike Zorba [mailto:mike.zorba@cardinalengineers.com]

Sent: Wednesday, December 10, 2014 3:23 PM
To: Nolen, Stephen L SWT
Subject: [EXTERNAL] Can you provide some info?

Hi Steve,

Can you please provide the following documentation, if you have it, so we may summarize and include in the Draft EA:

* USFWS online project review form, if that was used; or other information regarding what has been completed that will need to be in the EA.

* Any additional information or correspondence you may have regarding archaeological/cultural resources, other than the Archaeological Survey report you already provided.

We are looking forward to the public meeting next week, and will spend the earlier part of the day studying the project area. Cardinal will bring five 24" x 36" boards: two showing the entire master plan, one showing the waterpark (enlarged), one showing entrance sketches, and another graphic that AI is going to supply to us.

Thank you.

Michael Zorba

Environmental Planner

Office: 405.701.5058

Mobile: 480.794.0852

Classification: UNCLASSIFIED
Caveats: NONE

Appendix D

Archeological Survey
(by others)

Archaeological Survey of the Proposed Salt Creek North Recreation Area Lease, Keystone Reservoir, Creek County, Oklahoma

U.S. Army Corps of Engineers, Tulsa District
February 2014

The City of Mannford, Oklahoma has requested a lease of the Salt Creek North Recreation Area at Keystone Reservoir, Creek County, Oklahoma. Salt Creek North is owned and operated by the U.S. Army Corps of Engineers, Tulsa District. Current plans call for the City of Mannford to lease the area and operate the park in the same manner in which the Corps has in the past. Current recreation features include boat ramps, campsites, pavilions, campsites, playgrounds, and beaches. New recreation features are not planned for the immediate future, although the City does have near-term plans to utilize usage fees to upgrade electric service at the campsites to 50-amp capability. Normal operations of the area will include mowing, operating the sewage lagoon and associated spray fields, road and structure maintenance, etc.

The proposed lease triggers Section 106 and the associated Area of Potential Effect (APE) consists of the entire lease area, approximately 225 acres. Over half of the lease area consists of open high intensity recreation features (campsites, boat ramps, etc.). The remaining portion of the lease area is dissected uplands, consisting of wooded areas on high ridges. Attached figures include aerial photographs of the proposed lease area; an outline of the proposed lease area on a USGS topographic map; photographs of the proposed lease area; and plan map drawings of one portion of the recreation area.

Project Location and Physiographic Setting

Salt Creek North Recreation Area is located in Creek County, Oklahoma, approximately one mile east of the City of Mannford. Specifically, the project area is located in N ½ Section 14, SE ¼ Section 11, and NW ¼ Section 13, Township 19N, Range 9E. The recreation area is located north of Highway 51 and east-west railroad tracks that run parallel to the highway, on the east side of the Salt Creek arm of Keystone Reservoir. The park consists of three "loops," including "A," "B," and "C" (identified from west to east). Each "loop" is a former ridge finger that runs northwest to southeast and extends into the reservoir toward the old Salt Creek channel. The "A" and "B" loops extend from normal conservation pool (e.g., 723 ft. amsl) to approximately the top of the flood control pool (e.g., 754 ft. amsl) and higher. The "C" loop is considerably higher in elevation, extending from conservation pool to as much as 820 ft. amsl.

Keystone Reservoir is located in the Eastern Sandstone Cuesta Plains geomorphic province, which includes a significant portion of eastern Oklahoma west of the Ozark and Ouachita Mountains (Albert and Wyckoff 1980). In this province surface rock is predominately sandstone. Local sources of workable chert are not abundant. Kay County chert sources are located approximately 75 miles to the northwest of the

Reservoir and Oologah chert veins are located in limestone ridges to the northeast approximately 50 miles. Naturally occurring sandstone deposits and the alluvial deposited chert gravels and cobbles from upstream in the Arkansas River are not uncommon however, and provided prehistoric human inhabitants of this area with some variety of stone material for the production of ground stone and flaked stone tools (Wyckoff 1980).

In terms of biotic province, the proposed lease area lies in Oklahoma's Osage Savanna district, a transition zone between western grasslands and eastern forests. Specifically, the lease area falls within what is commonly called "Cross Timbers," which consists primarily of post oak and blackjack oak forest. Additionally, Creek County is located in a portion of the state recognized as Study Region 5 by the Oklahoma Archeological Survey (Wyckoff and Brooks 1983).

Soils in the lease area footprint include Darnell Series; Dennis Series; Collinsville Series; and Stephensville Series, with Darnell Series the predominant one. Specific soils include Darnell and Pottsville soils; Dennis and Okemah soils; Collinsville and Talihina soils; and Stephenson and Darnell fine sandy loams (USDA 1959). Shovel and auger tests conducted as a part of this investigation found soils throughout the proposed lease area to be comprised of a thin A horizon; a sandy loam B horizon generally extending 10-50 centimeters in depth and with associated sandstone inclusions; and a shallow C horizon consisting of tabular sandstone.

Cultural History

Comprehensive cultural histories of Oklahoma include "Oklahoma Archeology: A 1981 Perspective" (Brooks and Wyckoff 1983); "From Clovis to Comanchero: Archaeological Overview of the Southern Great Plains" (Hofman et al. 1989); and "Prehistory of Oklahoma" (Bell 1984). Despite their age, these sources remain the most comprehensive and definitive ones on Oklahoma prehistory and historical archaeology although considerable work has been completed in the state since their publication.

The Paleo-Indian period is the earliest confirmed archaeological culture stage in the archaeological record of North America and began roughly at the end of the last glacial period. While a number of Paleo-Indian sites have been recorded in western Oklahoma, only a few isolated surface finds have been discovered in northeastern Oklahoma (Brooks and Wyckoff 1983). Paleo-Indian sites are characteristically the remains of small, temporary campsites, although some are represented as mass kill sites. Diagnostic artifacts include lanceolate projectile points of the fluted Clovis and Folsom styles in the earlier portions of the period. The late interval is characterized by non-fluted points, including but not limited to the Plainview, Scottsbluff, Eden, and Agate Basin types. Although sites containing megafauna have received more attention, ongoing research is providing evidence that small game hunting and plant gathering were important activities in the subsistence base.

The Archaic period is an archaeological culture representing a much longer time interval, consisting of changing but relatively stable climate conditions following the last glaciations. Archaic period sites indicate that human populations, while still relatively small, were increasing in size. Sites also indicate populations were still highly mobile, perhaps following seasonal resources as they were available. For example, seasonal mobility often appears to have been linked to exploitation of resources up and down a water source, or may have been linked to optimizing utilization of resources available at different elevations on the landscape. Specific plant and animal resources appear to have been targeted by Archaic populations in a diversified approach, with both small and large game showing importance as well as gathering of a wide range of plant resources. As with the earlier Paleo-Indian period, Early Archaic sites were small, temporary campsites. Moderately large side and/or corner-notched points are characteristic of this period. The Archaic Period is represented in the greater Keystone Reservoir area with a number of archaeological sites having reported components relating to this time period.

Overall across the southern Plains, Woodland Period sites represent a time of rapid innovations in economy, social organization, and technology. The Woodland period defines the shift from atlatls and darts to the bow and arrow and the advent of pottery (Hofman and Brooks 1989). In addition to changes in the material culture, Woodland period sites appear to be larger, more sedentary village settlements, with a shift toward an increased reliance on horticulture. Vehik (1984) reported that north-central Oklahoma – particularly around Kaw Reservoir – contains significant evidence of Woodland human occupation of the Arkansas River Valley. The proximity of Keystone to Kaw Reservoir suggests that similar Woodland occupations were likely in the project area.

In Oklahoma the Late Prehistoric, or Plains Village, Period is characterized by sedentary or semi-sedentary groups that practiced an agrarian lifestyle and are generally described as village farming societies (Brooks 1989). Complexes of Plains Village sites in the vicinity of Keystone Reservoir include the Custer and Washita Phase to the southwest, Bluff Creek Phase to the northwest in Kansas, Pomona Phase to the northeast in Kansas, and eastern woodland (Caddoan) sites to the east in the Grand River and Arkansas River Basin in eastern Oklahoma (Brooks 1989). In general, Plains Village sites may display a fairly wide assemblage of artifacts and associated archaeological features, including house patterns, storage pits, and middens. Utilitarian ceramics are a typical artifact component of Plains Village sites.

Lands comprising what is now southeastern Oklahoma were initially explored by the French in the early 1700s, which is incorporated into what is termed the Protohistoric, or Contact, Period (A.D. 1600-1800) in Oklahoma. One of the relevant French exploration expeditions was the 1718–1719 trading expedition of Jean Baptist Bernard sur de la Harpe. La Harpe traveled from New Orleans northwest up the Red River and encamped with the Caddo Indians near the present-day city of Texarkana. From there, la Harpe traveled north overland until he reached the Arkansas River, where he met a large group consisting of several thousand Indians, and where they engaged in the Calumet ceremony (Odell 2002). The purported location (Lasley Vore Site) where la Harpe met the Wichita Tribes is not far from the project area, in southern Tulsa County (Odell

2002). Similar to Lasley Vore, however, are the Protohistoric Sites Deer Creek (34KA3) and Bryson-Paddock (34KA1). Both sites are located on the north end of Kaw Reservoir in north-central Oklahoma and both represent French-Wichita Contact sites.

The Historic Period in Oklahoma (A.D. 1800-present) represents the settlement of Indian Territory and the subsequent building of the State. During the early- through late 1800s many Indian tribes were removed from other portions of the United States and forced to relocate in Indian Territory. Initially, these tribes included the Cherokee, Choctaw, Chickasaw, Muscogee (Creek), and Seminole Tribes. However, other tribes (nearly 40 in total) were soon relocated to reservations in the Territory. These tribes included many from the central and southern Great Plains and northeastern United States, and even a couple from the American far west. In 1907 the Indian Territory and Oklahoma combined to become one state. Historic Period sites dating to the 1800s are often associated with farmsteads or energy development. Farming and energy were, through the mid-1900s, the primary economic drivers of the Oklahoma economy.

History and Specifications of Keystone Reservoir

Construction on Keystone Reservoir began in 1957, with the project made operational for flood control purposes in 1964. Hydropower generation became operational in 1968. Normal conservation pool at Keystone is 723 ft. amsl, while top of the flood control pool is 754 ft. amsl. Keystone Dam and Bridge has been determined eligible (by consensus) for listing on the National Register under Criteria A because of direct association with the economic development of Tulsa, surrounding communities, and eastern Oklahoma; and also because of direct association with the Cold War. Under Criterion C, Keystone Dam retains a unique feature of the Cold War, a nuclear fallout shelter.

Previous Archaeological and Historical Research

Initial investigations at Keystone Reservoir began in 1952 as a part of a joint effort by the University of Oklahoma, Smithsonian Institution, and National Park Service (Brighton 1952). Approximately 80 archaeological sites were recorded in that 1952 effort. Since the investigation began prior to completion of the reservoir it is presumed that most of the federal property surveyed lies within the conservation pool footprint (e.g., underwater), although this is not specifically addressed in the investigation report.

Archaeological investigations of portions of the uplands (above conservation pool level) were conducted in 1980 on contract with Archaeological Research Associates (Moore 1980). Total new recorded sites for that effort numbered 270. One site, 34CR125, was recorded within the APE during the investigation in 1980 (see attached site form). Site 34CR125 was recorded as a prehistoric chipped stone artifact scatter, including projectile points and other tools or tool fragments.

Perhaps the most extensive survey work at Keystone was conducted long-term. Former Keystone ranger Paul Roberts maintained a cultural resources journal for the Reservoir over a three decade period. During his tenure at Keystone, Mr. Roberts visited

and recorded numerous archaeological sites and kept notes of those efforts. In the journal he specifically noted in 2000 that rangers Shane Charlson and Mike Schrick picked up a Gary point in the water on the west side of 34CR125. Mr. Roberts' journals are on file at the U.S. Army Corps of Engineers, Tulsa District Office and a copy is curated at the Sam Noble Oklahoma Museum of Natural History in Norman.

Other archaeological investigations at Keystone have been more focused in nature, incident to Section 106 projects. Those investigations consist of oil and gas exploration and production (Briscoe and Bowman 2004; Briscoe and Gay 1997; Brown 1999; Dycus 2004; and Henry 1995); bridge and road widening (Powell 2002); waterlines (Winchell 1994); and commercial development (K&K Environmental 2007). Most recently, the Flanagan South Pipeline Project crossed a small portion of Keystone Reservoir, and this government portion was investigated for cultural resources (URS 2013).

Still other archaeological investigations have been more research-oriented in nature even if not representing large efforts. Site 34PW83 is one of the sites that has received a small amount of attention, primarily because of pictographs at this rockshelter (Moore n.d.; Moore n.d.). Additionally, the University of Tulsa conducted limited investigation of 34PW83 as part of a field school in the early 1990s (no report). Most recently, the University of Tulsa worked in partnership with the Sam Noble Oklahoma Museum of Natural History (SNOMNH) to investigate site 34OS362, which is chronicled in Odell 2007.

While review of previously completed archaeological investigation reports was the primary method used in the literature search, a review of site forms (e.g, 34CR125, attached) and historic maps was also accomplished. As a part of standard literature review, historic General Land Office (GLO) maps from 1898 were consulted. The GLO map for T19N R9E show no historic structures or features in or near the proposed lease area (see attached GLO map) when the map was produced in 1898.

APE and Associated Methods

The APE for the proposed lease of Salt Creek North Recreation Area consists of the entire proposed lease area, approximately 225 acres. Over half of the proposed lease area consists of three recreation "loops" constructed incident to the completion of the reservoir. Each of the three "loops," including A, B, and C, are equipped with recreation features including roads, camping pads, restrooms, pavilions, boat ramps, courtesy docks, and other associated amenities. The other portion of the proposed lease area is largely undeveloped, although several supporting features are present, including a sewage pond, electric line right-of-way, firebreaks, and a large materials storage area. Attached photos show all major features of the proposed lease area.

Investigation of the APE was accomplished largely by pedestrian archaeological survey and subsurface sampling where appropriate. Survey was conducted on December 3, 4, 17, and 23, 2013; and January 8 and 9, 2014. A total of six days was spent in the

field. The Primary Investigator (PI) for this effort was Ken Shingleton, Tulsa District archaeologist. Assisting personnel included Michelle Horn, Tulsa District archaeologist; Stacy Dunkin, Tulsa District biologist; and Josh Wingfield, Tulsa District ranger.

Pedestrian survey consisted of a walkover at intervals appropriate to the vegetation and terrain, typically 15-30 meters. Intervals were increased over rocky and sloped terrain. Subsurface sampling was accomplished as appropriate both as an investigation technique and an effort to identify site boundaries. Subsurface sampling consisted of both shovel tests and auger holes. Auger holes consisted of a four-inch diameter hand turned auger (see attached photo), which was considered appropriate for saving the investigator's back from rupturing a vertebral disc. In total, eight shovel tests and 27 auger tests were excavated, primarily in the "B" loop in an effort to identify the horizontal and vertical extent of site 34CR125.

Survey in all three recreation loops focused primarily on shoreline exposure and observation of eroded or non-vegetated areas, including around the base of trees, around playground equipment, walking paths, etc. Between December 2013 and January 2014, the conservation pool at Keystone was at or slightly below normal elevation, allowing for good shoreline visibility.

Investigation of the unimproved portions of the APE focused entirely on pedestrian walkover at intervals appropriate to the vegetation and terrain. Again, shoreline visibility was excellent because the reservoir was at or below normal conservation pool level. Throughout this portion of the APE, terrain was sloping and relatively steep at times, and surface bedrock (tabular sandstone) was ubiquitous. Surface visibility, although hampered in places because of leaf litter and understory, was around 25% overall. Presumably because of controlled burns through the years, understory was thin, making accessibility and visibility decent.

Firebreaks on the extreme east and south sides of the undeveloped area, as well as an electric line corridor contributed to the high surface visibility enjoyed during pedestrian survey (see aerials and photographs). These corridors were walked in their entirety. Similarly, areas of lower elevation between recreation loops were intensively surveyed, and visibility was excellent. These areas, including a very large area between the "A" and "B" loops, frequently become inundated as the reservoir pool rises and falls. Vegetation is thin, because of frequent inundation, but also because portions are mowed periodically throughout the year.

Previous Impacts to the Project Area

Overall, the APE has been significantly impacted with construction of the recreation area and associated loops, as well as with the overall operation of the reservoir in its flood control function. The three recreation area loops have all been similarly impacted. Large areas have been cleared or thinned of trees significantly. A blacktop road was constructed in each of the loops; roads are built up with fill material and a gravel base, with a blacktop (tar) surface. Gravel roads are interspersed throughout campsites,

primarily on the "A" and "C" loops, and a gravel loop was constructed on the south side of the "A" loop. The "B" loop has an additional gravel parking area and both the "B" and "C" loops have large blacktop parking areas associated with the boat ramps and courtesy docks. Several "brown round" old-style vault restrooms are located throughout each of the loops, and the undeveloped portion of the APE has a set of these type restrooms that appear to be out of service. Modern-style flush restrooms have also been constructed in each of the three loops. There is a sewage treatment spray-field associated with the "A" and "B" loop restrooms, located on the south end of the "B" loop, and a sewage treatment lagoon associated with the "C" loop restrooms, clearly visible on aerial photographs.

Other impacts to the APE include gravel base camper pads, electric lines, water lines, playground equipment, fire pits, grills, picnic tables, concrete and stone stairs, street lights, fish cleaning stations, and other recreation-related features. There is a large area in the undeveloped portion of the APE that is utilized for materials storage, including concrete blocks, gravel, rip rap, etc. As previously mentioned, several electric lines run through the area, including one through the undeveloped area. Also as previously addressed, the eastern and southern sides of the undeveloped portion of the APE are bounded by firebreaks approximately 20 feet in width. Finally, there is a set of trailers (resident volunteers) located at the park entrance and the entire southern boundary of the park is formed by a railroad causeway.

The shoreline of the APE has been significantly impacted by reservoir operation. The Keystone floodpool has a large vertical range from 723-754 ft. amsl. It is not uncommon for the reservoir to reach the top elevation of that floodpool (as recently as 2007 and 2008) when operating in its flood control mission, although it is far more common for the reservoir to be 1-5 or even 10 feet above normal conservation pool. As a result of repeated operation of the reservoir floodpool over a period of nearly 50 years, the soil matrix at those lower elevations near the normal conservation pool level has been eroded away leaving a rocky shoreline with many large tabular pieces of sandstone. This effect is very pronounced on the west side of the "A" loop, the east side of the "B" loop, and along the shoreline in the undeveloped area to the east of the "C" loop, all of which are fairly steep in elevation.

Results and Discussion

Site 34CR125

Tulsa District cultural resources maps showed site 34CR125 as being located on the northern tip of the "B" loop. As a part of this investigation the site was re-identified in this area, which appears to have been an accurate plot. A thin scatter of chipped stone material was identified along the eroded shoreline of the "B" loop from the boat ramp to the west along the northern tip of the loop and around the west side of the loop shoreline to the south, a short distance. The extent of the cultural material was limited to the eroded shoreline, and it seems likely that the cultural deposits were originally present on

the terrace with elevation roughly 700-725 ft. amsl, which is generally below normal conservation pool.

In an effort to define the horizontal extent of 34CR125, shovel tests and auger holes were excavated between the shoreline and the "B" loop blacktop road. Soil in this small area was extremely thin and tabular sandstone bedrock was present in large quantities. Erosion features and the thin soil column in this section of the loop suggest that erosion from the reservoir floodpool operations has been significant at these lower elevations. Accordingly, no cultural material was identified in subsurface sampling.

As pedestrian survey progressed up the loop in elevation, chipped stone material was identified in erosion areas closer to the blacktop loop "B" road. This material was found to have a wider dissemination, essentially parallel to the road and at a slightly lower elevation. Most of the presumed cultural material consisted of blocky fragments, with an occasional nicely formed chert flake. These materials were an omen of a puzzling find to come shortly thereafter.

Small Mounds Containing Chipped Stone Debris

While excavating shovel tests and auger holes, two distinctive mounds of chert material were identified on the west side of the "B" loop just to the south of the plotted location of 34CR125. The two low mounds are slightly higher in elevation than the loop road and lower in elevation than the playground, camping pads, and restrooms. Each mound is approximately five meters in diameter and at its central vertical apex, roughly 50 centimeters in height. The two mounds are visible when one stands back on the loop road and looks upslope.

One shovel test was excavated in each mound as well as multiple auger holes in an X-Y pattern. Hundreds of chipped stone (chert) fragments were recovered in each shovel test and auger hole, most of which were small blocky fragments but some of which were small fully formed flakes. Quantities of chert fragments dropped off substantially and quickly to zero once auger holes were excavated off the mounds. Nearly all the chipped stone fragments were recovered in the A horizon, generally between 10-15 centimeters in depth. This layer is underlain by a B horizon consisting of a light brown sandy clay from 15-30 centimeters, and below 30 centimeters is a buried A horizon.

Because the mounds are located so close in proximity to site 34CR125 and because of the chipped stone debris contained within, the initial interpretation of the mounds was that they might represent relic activity areas not disturbed during construction of the "B" loop and its recreation features. One suggested explanation was that the two small mounds could represent activity areas where bipolar reduction was practiced, which would explain the high proportion of blocky fragments. In fact, bipolar reduction is found in areas that are resource-poor, and the resulting reduction of originally small cobbles will result in the use of overloading force to acquire a small number of usable pieces.

Strangely however, chipped stone debris was subsequently inadvertently observed in the blacktop loop road although not in the gravel parking lot or gravel camper pads. At closer examination, the blacktop road (all throughout the APE) is full of the same chert material that is located in the two small mounds (see photos). Further research on road construction methods revealed that the loop roads were likely all constructed with the "chip and seal" method, which would have consisted of tar sprayed on a gravel base. Small rock was then spread over the tar and pressed into the tar with a roller. In this case, the small rock consisted of chert. In short, the two low mounds are most likely leftover chert from production of the blacktop road and are not related at all to site 34CR125. No further testing of the mounds is thus required.

National Register Eligibility Determination – 34CR125

With a sufficient explanation for the presence of the two small mounds, site 34CR125 appears to be relegated to the lower terrace and does not extend upslope to higher elevations. The shoreline where 34CR125 is located is highly eroded and contains virtually no remaining soil matrix. Slightly further upslope from the shoreline, soil A horizons are thin and transition quickly into a C horizon and associated tabular sandstone bedrock, suggesting that floodpool operations at the reservoir have, over time, had a degrading effect on the soil matrix particularly at these lower elevations closer to the normal conservation pool level. Beyond the apparent horizontal extent of 34CR125 and yet further upslope, the "B" loop recreation features (e.g., road, campsites, parking lots, restrooms, playground, pavilion, etc.) have heavily impacted the landscape. No cultural material was observed further upslope to the south of the site, and little potential remains for *in situ* cultural horizons because of the extensive impacts to the area. Accordingly, the site does not have the potential to yield data and is therefore not eligible for listing on the National Register.

"A" Loop, "C" Loop, and Unimproved Area

Similar to the "B" loop road, blocky chipped stone materials were identified in erosional areas parallel to and in a slightly lower elevation relative to the blacktop roads in the "A" and "C" loops. One additional small, low mound like the two in the "B" loop was identified in "C." However, blacktop roads in these portions of the APE again have chert pressed into the tar. Thus, the interpretation is that these do not represent cultural materials but instead are materials remaining from the construction of the blacktop roads in the recreation areas.

No other cultural materials were identified in the pedestrian survey of the unimproved area, or in any other portion of the recreation loops. Similarly, no historic standing structures were identified in any portion of the APE.

Summary

Salt Creek North Recreation Area (~225 acres) is proposed for lease to the City of Mannford, which will operate the park and collect fees in a manner consistent with Tulsa District policy. Only minor improvements are identified in the initial five-year plan, consisting primarily of utilities upgrades with an emphasis on 50-amp electric service at the camper pads. The proposed lease of the park triggers the Section 106 process, which resulted in an archaeological investigation of the entire park as the Area of Potential Effect (APE). One previously recorded archaeological site, 34CR125, was recorded within the APE and this site was re-identified. Investigations suggest that the site has no potential to yield archaeological data and it is therefore determined to be "not eligible" for listing on the National Register of Historic Places. No other archaeological sites or historic standing structures were identified as a part of this investigation. Accordingly, the Tulsa District determination for the proposed Salt Creek North lease is "no historic properties identified."

References Cited

Bell, R.E. (editor)
1984 *Prehistory of Oklahoma*. Academic Press, New York.

Brighton, Harold D.
1952 An Archeological Survey of Keystone Reservoir: A Preliminary Report. University of Oklahoma Graduate School.

Briscoe, James and Ryan Bowman
2004 "Archeological Survey Report on the Berexco Corporation Vida Way Lease #29 Well Project, Creek County, Oklahoma." Briscoe Consulting Services.

Briscoe, James and John Gay
1997 "Archeological Survey Report on the Farmers Energy Corporation Glasgow #1 Well, Keystone Reservoir, Pawnee County, Oklahoma."

Brooks, R.L.
1989 Village Farming Societies. In *From Clovis to Comanchero: Archaeological Overview of the Southern Great Plains*, by J. Hofman, R.L. Brooks, J.S. Hays, D.W. Owsley, R.L. Jantz, M.K. Marks and M. H. Manhein, pp. 71-90. Arkansas Archaeological Survey Research Series No. 35. Arkansas Archaeological Survey Fayetteville.

Brooks, R.L. and D.G. Wyckoff
1983 *Oklahoma Archaeology: A 1981 Perspective of the State's Archaeological Resources, Their Significance, Their Problems, and Some Proposed Solutions*. Report No. 16, Archaeological Resource Survey, Oklahoma Archaeological Survey, Norman, OK.

1989 Prehistoric Culture History – Hunters and Gatherers in the Southern Great Plains. In *From Clovis to Comanchero: Archaeological Overview of the Southern Great Plains*, by J. Hofman, R.L. Brooks, J.S. Hays, D.W. Owsley, R.L. Jantz, M.K. Marks and M. H. Manhein, pp. 25-60. Arkansas Archaeological Survey Research Series No. 35. Arkansas Archaeological Survey Fayetteville.

Brown, Donald N.
1999 "Cultural Resources Survey Report Submitted to the U.S. Army Engineer District, Tulsa Corps of Engineers."

Dycus, Don
2004 "A Phase I Archaeological Survey of the Proposed Plains All-American Farmland Pipeline Project, Creek, Osage, Pawnee, Payne, and Washington Counties, Oklahoma." Prepared for Cinnabar Environmental Services.

Henry, Don
1995 "Cultural Resource Survey of Selected Segments of a Proposed Gas Line on Tulsa District Corps of Engineers Managed Land Associated with Lake Keystone, Creek County, Oklahoma."

Hofman, J.L., R.L. Brooks, J.S. Hays, D.W. Owsley, R.L. Jantz, M.K. Marks, and M.H. Manhein
1989 *From Clovis to Comanchero: Archaeological Overview of the Southern Great Plains*. Arkansas Archaeological Survey Research Series No. 35. Arkansas Archaeological Survey, Fayetteville.

Hofman, J.L. and R.L. Brooks
1989 Prehistoric Culture History: Woodland Complexes in the Southern Great Plains. In *From Clovis to Comanchero: Archaeological Overview of the Southern Great Plains*, by J. Hofman, R.L. Brooks, J.S. Hays, D.W. Owsley, R.L. Jantz, M.K. Marks and M. H. Manhein, pp. 61-70. Arkansas Archaeological Survey Research Series No. 35. Arkansas Archaeological Survey Fayetteville.

Hofman, J.L. and R.W. Graham
1998 *The Paleo-Indian Cultures of the Great Plains. In Archaeology of the Great Plains*, edited by W. Raymond Wood, pp. 87-139. University Press of Kansas, Lawrence.

K&K Environmental, LLC
2007 "Phase I Cultural Resource Survey of Proposed Terracon Consultants, Inc. Wal-Mart Super Center #207-02 Project, Pawnee County, Oklahoma." Prepared for Terracon Consultants., Inc.

Moore, Bruce M. (assembler)
1980 A Cultural Assessment of the Archeological Resources in the Keystone Lake Project Area, North-Central Oklahoma. Archeological Research Associates Research Report No. 23.

Moore, Bruce M.
n.d. Locational and Cultural Documentation for Three Projectile Points from 34PW-83, Pawnee County, Oklahoma.

n.d. The 34PW-83 Pictographs, Pawnee County, Oklahoma.

Morris, J.W., C.R. Gins, and E.C. McReynolds
1986 Historical Atlas of Oklahoma. University of Oklahoma Press, Norman.

Odell, G.H.
2007 "Walnut Creek Archaeology – or, Why Doesn't the OAS Just Go Dig?" Oklahoma Archeology, Vol. 55, No. 4.

2002 La Harpe's Post: A Tale of French-Wichita Contact on the Eastern Plains. University of Alabama Press.

Powell, Valli
2002 "Archaeological Survey of Approximately 60 Acres of New Right-of-Way in Conjunction with Proposed Widening of SH-51 from Salt Creek Bridge to 0.25 Miles East of the Creek-Tulsa County Line." Oklahoma Department of Transportation, Cultural Resources Survey Report, Project No. STPY-019B(258).

Sabo, G. III, A.M. Early, J.R., B. Burnett, L. Vogele Jr., and J. Harcourt
1990 *Human Adaptation in the Ozark and Ouachita Mountains*. Arkansas Archaeological Survey Research Series No. 31, Fayetteville, Arkansas.

United States Department of Agriculture (USDA)
1959 *Soil Survey of Creek County, Oklahoma*. U.S. Department of Agriculture, Soil Conservation Service, Washington, D.C.

URS Corporation
2013 Enbridge Pipelines (FSP) L.L.C. Flanagan South Pipeline Project Addendum #1-Phase I Cultural Resources Inventory, USACE Tulsa District Lands, Arkansas River.

Vehik, Susan C.
1984 The Woodland Occupations. In *Prehistory of Oklahoma*. Academic Press, New York.

Winchell, Frank
1994 "Cultural Resource Assessment along a Proposed Water Line at Keystone Lake in Creek County, Oklahoma." U.S. Army Corps of Engineers, Tulsa District.

Wyckoff, D.G. and R.L Brooks (editors)
1983 *Oklahoma Archaeology: A 1981 Perspective of the State's Archaeological Resources, Their Problems, and Some Proposed Solutions*. Archaeological Resource Survey Report Number 16. Oklahoma Archaeological Survey, Norman.

Subsurface Test Data

"A" Loop

Shovel Test 4: 30 cm; no artifacts.
0-15cm: dark brown sandy loam 5YR4/2
15-30cm: medium brown sandy loam 5YR5/6

Auger Test 27: 50 cm; no artifacts

"B" Loop

Shovel Test 1: 10 cm; no artifacts.
0-10cm: dark brown sandy loam 5YR4/2
Sandstone inclusions, larger blocks of sandstone in bottom
Rapid transition to C horizon

Shovel Test 2: 15 cm; no artifacts.
0-5cm: dark brown sandy loam 5YR4/2
5-15cm: medium brown sandy clay 5YR5/6
Unit contained hundreds of blocky chert debris fragments left over from road construction.

Shovel Test 3: 10 cm; no artifacts.
0-5cm: dark brown sandy loam 5YR4/2
5-10cm: medium brown sandy clay 5YR5/6
Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 1: 40 cm; no artifacts.

Auger Test 2: 15 cm; no artifacts. Encountered bedrock.

Auger Test 3: 40 cm; no artifacts.

Auger Test 4: 15 cm; no artifacts. Encountered bedrock.

Auger Test 5: 20 cm; no artifacts.

Auger Test 6: 30 cm; no artifacts.

Auger Test 7: 30 cm; no artifacts.

Auger Test 8: 15 cm; no artifacts. Terminated at presumed cultural layer; proceeded to excavate Shovel Test No. 2. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 9: 50 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 10: 30 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 11: 40 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 12: 20 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 13: 30 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 14: 30 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 15: 30 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 16: 25 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 17: 15 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 18: 50 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 19: 30 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 20: 30 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 21: 30 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 22: 35 cm; no artifacts. Unit contained hundreds of blocky chert debris fragments left over from road construction.

Auger Test 23: 30 cm; no artifacts.

Auger Test 24: 60 cm; no artifacts.

Auger Test 25: 40 cm; no artifacts.

Auger Test 26: 30 cm; no artifacts.

"C" Loop

Shovel Test 5: 25 cm; no artifacts.
0-10cm: dark brown sandy loam 5YR4/2
10-25cm: medium brown sandy loam 5YR5/6

Shovel Test 6: 30 cm; no artifacts.
0-15cm: dark brown sandy loam 5YR4/2
15-30cm: medium brown sandy loam 5YR5/6

Undeveloped Area

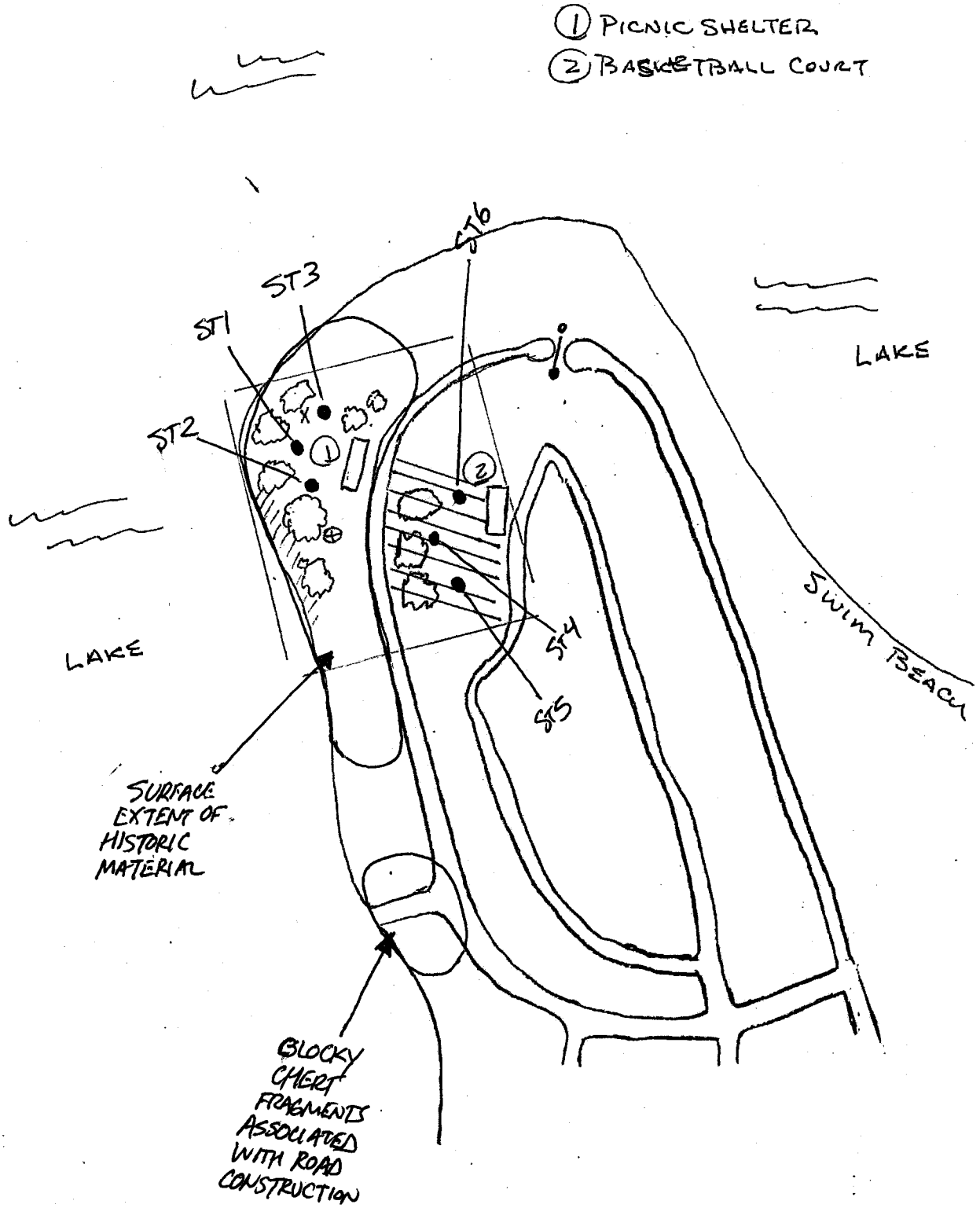
Shovel Test 7: 20 cm; no artifacts.
0-10cm: dark brown sandy loam 5YR4/2
10-20cm: medium brown sandy loam 5YR5/6

Shovel Test 8: 20 cm; no artifacts.
0-10cm: dark brown sandy loam 5YR4/2
10-20cm: medium brown sandy loam 5YR5/6

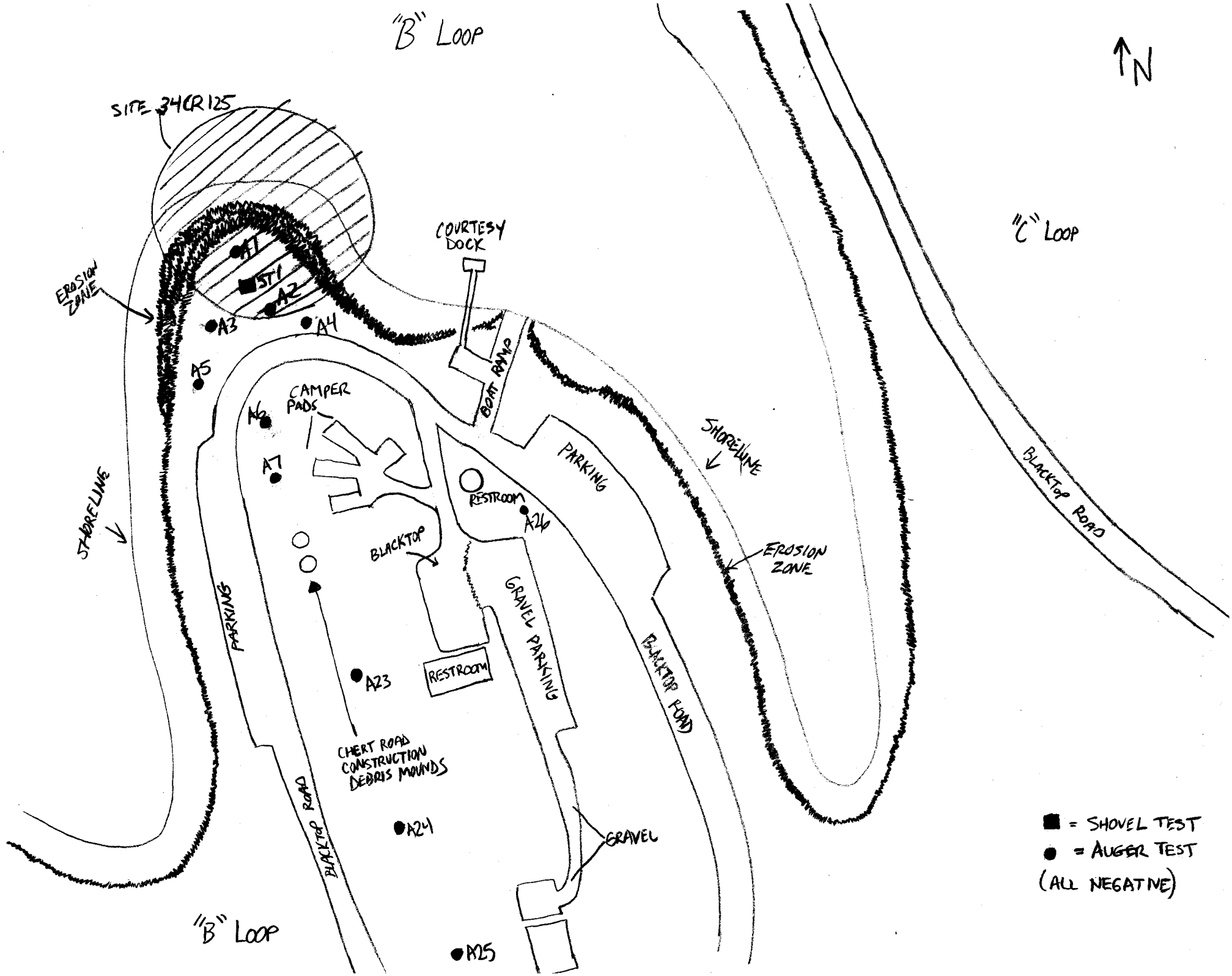
"C" Loop
Chert Road Construction Debris Mound
Undeveloped Area
Site 34CR125
Sewage Lagoon
"A" Loop
Materials Storage Area
Chert Road Construction Debris Mounds
Utility Right-of-Way
"B" Loop
Treated Sewage Spray Field
Firebreak
Firebreak
Railroad Embankment
©2010 Go
36°07'58.80" N 96°19'21.38" W elev 727 ft

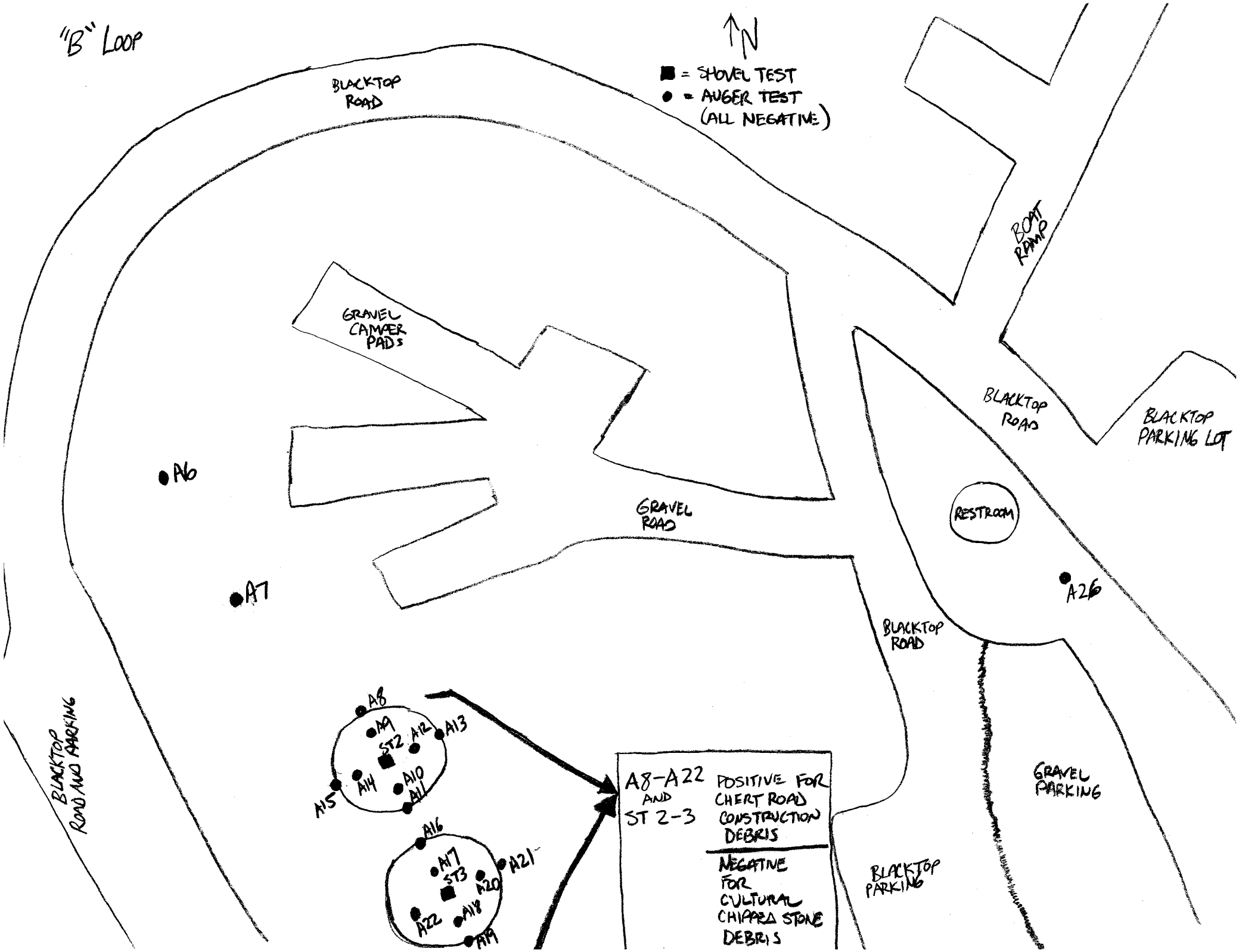
SALT CREEK NORTH
WEST CAMP LOOP

34CR200



⊕ HOMINY CUP MORTAR
X PROJECTORAL POINT, HAMMER/CHOPPER
//// HISTORICAL DEBRIS FIELD
≡ RESIDENCE, FARM


"B" LOOP
N
SITE 34CR125
COURTESY DOCK
"C" LOOP
EROSION ZONE
A1
ST1
A2
A3
A4
A5
A6
A7
CAMPER PADS
BOAT RAMP
PARKING
SHORELINE
BLACKTOP ROAD
RESTROOM
A26
BLACKTOP
EROSION ZONE
SHORELINE
GRAVEL PARKING
PARKING
BLACKTOP ROAD
A23
RESTROOM
CHERT ROAD CONSTRUCTION DEBRIS MOUNDS
BLACKTOP ROAD
A24
GRAVEL
"B" LOOP
A25
■ = SHOVEL TEST
● = AUGER TEST
(ALL NEGATIVE)


"B" Loop
N
■ = SHOVEL TEST
● = AUGER TEST (ALL NEGATIVE)
BLACKTOP ROAD
BOAT RAMP
GRAVEL CAMPER PADS
BLACKTOP ROAD
BLACKTOP PARKING LOT
A6
GRAVEL ROAD
RESTROOM
A7
A26
BLACKTOP ROAD
A8
A9
ST2
A12
A13
A14
A10
A11
A15
A16
A17
ST3
A21
A20
A22
A18
A19
A8-A22 AND ST 2-3
POSITIVE FOR CHERT ROAD CONSTRUCTION DEBRIS
NEGATIVE FOR CULTURAL CHIPPED STONE DEBRIS
BLACKTOP PARKING
GRAVEL PARKING
BLACKTOP ROAD AND PARKING

ADDENDUM TO:

Archaeological Survey of the Proposed Salt Creek North Recreation Area Lease, Keystone Reservoir, Creek County, Oklahoma

U.S. Army Corps of Engineers, Tulsa District
February 2014

On February 16, 2014 a Corps of Engineers archaeologist revisited site 34CR200, which was documented in 2012 on the northwest end of the "A" recreation loop in the Salt Creek North Recreation Area at Keystone Reservoir. The "A" loop is the furthest west of the three recreation areas within Salt Creek. It should be noted that the topographic map in the site form submitted by Mr. Paul Roberts in 2012 shows site 34CR200 as being located on the northwest end of the "B" loop – or, middle recreation loop, of the Salt Creek North Recreation Area. However, because of the excellent site plan drawing submitted in the same site form, this discrepancy was easily resolved. The site is clearly located on the northwest end of the "A" loop, not the "B" loop.

Mr. Roberts reported (see attached site form) that the site consisted of a significant amount of historic material scattered in two areas of the "A" loop, primarily between the basketball court and the loop road, and on the west and northwest side of the road between the pavilion and along the slope down to the lake. Additionally, Mr. Roberts noted in the site form that prehistoric material was also identified, primarily consisting of a bedrock mortar (hominy cup), a projectile point, and a hammer stone; and a later addition to the collection of three scrapers, one drill, another hammer stone, and four chipped stone flakes. Prehistoric materials – according to the site plan map in the site form – were found between the pavilion and the slope down to the lake.

Investigation

The historic component of site 34CR200 was re-identified during the investigation on February 16, 2014; the prehistoric component was not observed. Surrounding areas were re-investigated as well since the site was overlooked in the initial survey. Initially this portion (north end of "A" loop) of the survey area was investigated in early December 2013, but between December and January 2014, rangers conducted a small controlled burn of vegetation on the west side of the "A" loop. The west side transitions quickly from the higher elevation of the park recreation area down to the lake. The controlled burn tremendously increased ground visibility and facilitated observation of historic artifacts around the pavilion and on the sloped side of the area. However, visibility in the park area, between the basketball court and the road, was less favorable as ground coverage consisted of thick grass. A few trees were present in this portion of the loop, the base of which provided some good visibility.

Historic artifact materials were observed primarily on the west slope, extending from the northwest point of the "A" loop to the south to a gravel road on the slope (not as far south as the boat ramp). The highest concentration of historic materials was encountered just to the west (within about 30 feet) of the pavilion. No historic materials were observed on the ground surface between the loop road and the basketball court. Also as previously mentioned, no prehistoric materials were encountered in any portion of the surveyed area, including in the portion of site 34CR200 where Mr. Roberts reported having previously identified those materials.

The area to the east, around the north side of the "A" loop as well as the slope further to the south and around the boat ramp on the west side of the "A" loop were also surveyed. The area to the east around the north side of the loop transitions quickly to eroded sandstone bedrock shelves, with soil matrix nearly completely eroded. To the south on the west side of the loop, blocky chert material was encountered in large quantities around the boat ramp. The quantity and shape of this material suggests that – similar to situations encountered in the "B" and "C" loops – this material is debris from construction of the hardtop road. While the "A" loop road appears to be a newer construction, the boat ramp and associated parking lot adjacent to the loop road was likely constructed by the "chip and seal" method, and chert debris is observable throughout the hardtop matrix. The blocky chert material encountered around the boat ramp is therefore interpreted as construction debris.

In addition to pedestrian survey, six shovel tests were excavated in 34CR200. Each shovel test was screened through ¼ inch mesh. Mr. Roberts' original site plan map has been augmented with shovel test locations, and is attached. Three shovel tests were excavated between the pavilion and the slope down to the lake (ST 1-3), which was the area where prehistoric materials were previously encountered. Three shovel tests were also excavated in the area of 34CR200 between the basketball court and the road (ST 4-6). ST 1, between the pavilion and the slope, produced one piece of clear glass. ST 4, located between the basketball court and the road, produced one piece of clear glass and one piece of green glass. None of these items was diagnostic in terms of maker's marks. All other shovel tests were negative for archaeological material. Of the shovel tests, only ST 1 exceeded 20 centimeters in depth, as all others encountered sandstone bedrock by that depth.

Historic archaeological materials collected from the surface on the slope (west side) of the "A" loop included glass and ceramics. Glass materials included two green (one of which is a rim); one brown; and 13 clear (including two bases and one rim). Ceramic materials included two crockery sherds and four white glazed sherds (including one patterned saucer piece and one plate rim).

The one feature originally reported at 34CR200 is the bedrock mortar (hominy cup), which was re-located, approximately 30-40 feet to the southwest of the pavilion. This feature appears to be a bedrock feature with an initial center depression that was later filled (as Mr. Roberts' site form documents) with concrete (see photos). Because it

is currently filled with concrete it cannot be appropriately evaluated, but it is notable that these types of features are ubiquitous in the sandstone topography around Keystone Reservoir, and they can most often appropriately be attributed to erosion attributes.

Discussion

Mr. Roberts' 2012 site form indicates that site 34CR200 has been extensively impacted by development and operation of the "A" recreation loop. The Corps of Engineers investigation of the site corroborates Mr. Roberts' conclusion in this regard. Construction of the pavilion, basketball court, camping pads, loop road, playground, and other associated recreation features has resulted in significant damage to the site. The prehistoric component – if it still exists – was not observed. It is possible that most materials have been collected through the years by Mr. Roberts and associated investigators.

The types of historic archaeological materials encountered and the fact that no historic structure is identified on the 1989 General Land Office map (see original Salt Creek North report), the site most likely represents an early- to mid-20th century occupation. However, with no above ground features present and no subsurface features likely, the historic component of the site retains little potential for significance under any National Register criteria. Additionally, without an observable prehistoric component and again little potential for subsurface features or cultural horizons, the prehistoric component of the site also retains little potential for yield data of significance. Therefore, neither the prehistoric nor historic components of site 34CR200 retain integrity, and neither component is eligible for listing on the National Register.

Subsurface Test Data

34CR200

Between Pavilion and West Slope to Lake

Shovel Test 1: 30 cm; glass – one clear.
0-30cm: medium brown sandy loam 5YR5/6

Shovel Test 2: 20 cm; no artifacts.
0-20cm: medium brown sandy loam 5YR5/6

Shovel Test 3: 10 cm; no artifacts.
0-10cm: medium brown sandy loam 5YR5/6

Between Basketball Court and Loop Road

Shovel Test 4: 20 cm; glass – one green and one clear.
0-20cm: medium brown sandy loam 5YR5/6

Shovel Test 5: 20 cm; no artifacts.
0-20cm: medium brown sandy loam 5YR5/6

Shovel Test 6: 10 cm; no artifacts.
0-10cm: medium brown sandy loam 5YR5/6

Oklahoma Archeological Survey

THE UNIVERSITY OF OKLAHOMA

February 10, 2104

William K. Dunlap
Chief, Recreation Section
Department of the Army
Corps of Engineers, Tulsa District
1645 South 101 East Avenue
Tulsa, OK 74128-4609

Re: Proposed lease of Salt Creek North Recreation Area at Keystone Lake to the City of Mannford. Legal Description: N ½ Section 14, SE ¼ Section 11, and NW ¼ Section 13 T19N R9E, Creek County, Oklahoma.

Dear Mr. Dunlap:

I have received a report documenting the results of a cultural resource inventory for the above referenced action. Personnel from the Corps of Engineers, Tulsa District performed this work on December 3, 4, 17, and 23 2013 and January 8 and 9 2014. Field investigation consisted of a surface inspection and shovel tests in the some 225 acres representing the area of potential effect. No previously unrecorded archaeological or historic resources were documented. One previously recorded prehistoric archaeological site was reexamined (34CR125). Site 34CR125 was found to have been extensively damaged by shoreline erosion and presented no evidence of intact features, midden deposits, or more substantive material content. I concur with the finding that 34CR125 is not eligible for the National Register and that no further treatment measures are warranted.

However, I found no mention of 34CR200 in the report. This site is located in the NW/4 NW/4 NW/4 of Section 14. Site 34CR200 was reported by Paul Roberts in 2012 as a homestead with some evidence of prehistoric presence as well (a hominy hole and flakes). The location around the picnic tables on the northwest shoreline of Section 14 needs to be reexamined for documentation of 34CR200.

This review has been conducted in cooperation with the State Historic Preservation Office, Oklahoma Historical Society.

Sincerely,

Robert L. Brooks
State Archaeologist

Cc: SHPO

111 E. Chesapeake, Room 102, Norman, Oklahoma 73019-5111 PHONE: (405) 325-7211 FAX: (405) 325-7604
A UNIT OF ARTS AND SCIENCES SERVING THE PEOPLE OF OKLAHOMA

Oklahoma Archeological Survey

THE UNIVERSITY OF OKLAHOMA

February 21, 2014

William K. Dunlap
Chief, Recreation Section
Department of the Army
Corps of Engineers, Tulsa District
1645 South 101st East Avenue
Tulsa, OK 74128-4609

Re: Addendum for the proposed Salt Creek North Recreation Area lease to the City of Mannford, Keystone Reservoir. Legal Description: NW ¼ NW ¼ NW ¼ Section 14 T19N R9E, Creek County, Oklahoma.

Dear Mr. Dunlap:

In a review letter dated February 10, 2104 I noted that archaeological site 34CR200 was not incorporated into the discussion of the proposed lease. In response to this omission, Corps of Engineers archaeologists revisited the proposed lease area and the location of 34CR200 on February 16, 2014. Previous description of 34CR200 noted the presence of historic debris, prehistoric debris including a projectile point, drill and scrapers, and a hominy hole. In the reexamination, no evidence was found of additional prehistoric materials. The hominy hole is currently filled with concrete but would probably hold no additional content. I concur with the assessment that the prehistoric component at 34CR200 is not eligible for the National Register. Historic materials encountered include 16 glass fragments and six ceramic sherds. **I defer opinion on the potential eligibility of the historic component at 34CR200 and project effect to the Historic Archaeologist with the State Historic Preservation Office.**

This review has been conducted in cooperation with the State Historic Preservation Office, Oklahoma Historical Society.

Sincerely,

Robert L. Brooks
State Archaeologist

Cc: SHPO

111 E. Chesapeake, Room 102, Norman, Oklahoma 73019-5111 PHONE: (405) 325-7211 FAX: (405) 325-7604
A UNIT OF ARTS AND SCIENCES SERVING THE PEOPLE OF OKLAHOMA

Oklahoma Historical Society *Founded May 27, 1893*
State Historic Preservation Office
Oklahoma History Center • 800 Nazih Zuhdi Drive • Oklahoma City, OK 73105-7917
(405) 521-6249 • Fax (405) 522-0816 • www.okhistory.org/shpo/shpom.htm

February 24, 2014

Mr. William Dunlap
US Army, Corps of Engineers, Tulsa District
1645 South 101st East Avenue
Tulsa, OK 74128-4609

RE: File #0736-14; Keystone Reservoir Salt Creek North Recreation Area Lease Project, Including 34CR200

Dear Mr. Dunlap:

We have received and reviewed the documentation concerning the referenced project in Creek County. Additionally, we have examined the information contained in the Oklahoma Landmarks Inventory (OLI) files and other materials on historic resources available in our office. We find that there are no historic properties affected by the referenced project.

Thank you for the opportunity to comment on this project. We look forward to working with you in the future.

If you have any questions, please contact Catharine M. Wood, Historical Archaeologist, at 405/521-6381.

Should further correspondence pertaining to this project be necessary, please reference the above underlined file number. Thank you.

Sincerely,

Melvena Heisch
Deputy State Historic
Preservation Officer

MH:jr

Appendix E

NRCS Correspondence

Mike Zorba

From: Boyett, Jake - NRCS, Claremore, OK <Jake.Boyett@ok.usda.gov>
Sent: Friday, April 17, 2015 9:42 AM
To: Mike Zorba
Subject: RE: Farmland Conversion Impact Rating form for Proposed Project in Creek County
Attachments: Creek AD-1006 Jelly stone camp resort.pdf; WebSoilSurvey Create AOI.pdf

Hi Mr. Zorba,

Please see the attached completed FPPA AD-1026.

In the future please feel free to send FPPA requests directly to me, the Field Offices are still supposed to be responsible for NEPA requests.

Thank you very much for attaching the soils map it would be very helpful to have a summary of acres by each mapunit for any future request.
I have also attached instructions for sending a zipped shapefile for me to use in Web Soil Survey, if that is an easier option for you. If you have any questions please feel free to contact me.

Thank you,

Jake Boyett
Resource Soil Scientist
Claremore, OK
Office 918-341-3276 ext. 116
Cell 405-612-1711

From: Jones, Nicholas - NRCS, Bristow, OK
Sent: Friday, April 17, 2015 8:55 AM
To: Boyett, Jake - NRCS, Claremore, OK
Subject: FW: Farmland Conversion Impact Rating form for Proposed Project in Creek County

Jake could you assist me with this when you have time. Give me a call, thanks.

From: Mike Zorba [mailto:mike.zorba@cardinalengineers.com]
Sent: Thursday, April 16, 2015 11:09 AM
To: Jones, Nicholas - NRCS, Bristow, OK
Subject: FW: Farmland Conversion Impact Rating form for Proposed Project in Creek County

Hello Mr. Jones,

Have you been able to review the attached documents yet, and is there anything else you need on my part to complete this process?

Thank you.

Michael Zorba
Environmental Planner

Direct: 405.701.8155
Office: 405.701.5058
Mobile: 480.794.0852

From: Mike Zorba
Sent: Tuesday, February 17, 2015 11:05 AM
To: 'Nicholas.Jones@ok.usda.gov'
Cc: Stephen Nolen (stephen.l.nolen@usace.army.mil)
Subject: Farmland Conversion Impact Rating form for Proposed Project in Creek County

Hello Mr. Jones,

Attached please find the Farmland Conversion Impact Rating form and a scaled map for a proposed project located at the existing Salt Creek Cove North campground area at Keystone Lake. The proposed site is under jurisdiction of the U.S. Army Corps of Engineers, Tulsa District. The proposed site is located approximately one mile east of Mannford, on the north side of State Route 51 (see attached map).

Per the instructions, we have filled in Parts I & III of the form at this time. Please feel free to contact me with any questions or comments. Thank you.

Best Regards,

Michael Zorba
Environmental Planner

CARDINAL
ENGINEERING
An ENVIROCLEAN Company

3750 W. Robinson, Ste. 140
Norman, OK 73072
Office: 405.701.5058
Mobile: 480.794.0852

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request February 17, 2015
Name of Project Proposed Jellystone Camp Resort	Federal Agency Involved U.S. Army Corps of Engineers
Proposed Land Use Recreation	County and State Creek County, Oklahoma (Mannford, NRCS)
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 2/17/2015 / Person Completing Form: Nick Jones

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☐ NO ☑	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	34			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	246			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)				
2. Perimeter In Non-urban Use	(10)				
3. Percent Of Site Being Farmed	(20)				
4. Protection Provided By State and Local Government	(20)				
5. Distance From Urban Built-up Area	(15)				
6. Distance To Urban Support Services	(15)				
7. Size Of Present Farm Unit Compared To Average	(10)				
8. Creation Of Non-farmable Farmland	(10)				
9. Availability Of Farm Support Services	(5)				
10. On-Farm Investments	(20)				
11. Effects Of Conversion On Farm Support Services	(10)				
12. Compatibility With Existing Agricultural Use	(10)				
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	0	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Name of Federal agency representative completing this form:	Date:

(See Instructions on reverse side) **Form AD-1006 (03-02)**

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map, or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Mike Zorba

From:	Mike Zorba
Sent:	Tuesday, February 17, 2015 11:05 AM
To:	'Nicholas.Jones@ok.usda.gov'
Cc:	Stephen Nolen (stephen.l.nolen@usace.army.mil)
Subject:	Farmland Conversion Impact Rating form for Proposed Project in Creek County
Attachments:	NRCS Farmland Conversion Form.pdf; Figure 7 Soil Class & Prime Farmland.pdf

Hello Mr. Jones,

Attached please find the Farmland Conversion Impact Rating form and a scaled map for a proposed project located at the existing Salt Creek Cove North campground area at Keystone Lake. The proposed site is under jurisdiction of the U.S. Army Corps of Engineers, Tulsa District. The proposed site is located approximately one mile east of Mannford, on the north side of State Route 51 (see attached map).

Per the instructions, we have filled in Parts I & III of the form at this time. Please feel free to contact me with any questions or comments. Thank you.

Best Regards,

Michael Zorba
Environmental Planner

CARDINAL
ENGINEERING
An ENVIROCLEAN Company

3750 W. Robinson, Ste. 140
Norman, OK 73072
Office: 405.701.5058
Mobile: 480.794.0852

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request February 17, 2015
Name of Project Proposed Jellystone Camp Resort	Federal Agency Involved U.S. Army Corps of Engineers
Proposed Land Use Recreation	County and State Creek County, Oklahoma (Mannford, NRCS)
PART II *(To be completed by NRCS)*	Date Request Received By NRCS / Person Completing Form:

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☐ NO ☐	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	34			
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C. Total Acres In Site	246			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

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1. Area In Non-urban Use	(15)				
2. Perimeter In Non-urban Use	(10)				
3. Percent Of Site Being Farmed	(20)				
4. Protection Provided By State and Local Government	(20)				
5. Distance From Urban Built-up Area	(15)				
6. Distance To Urban Support Services	(15)				
7. Size Of Present Farm Unit Compared To Average	(10)				
8. Creation Of Non-farmable Farmland	(10)				
9. Availability Of Farm Support Services	(5)				
10. On-Farm Investments	(20)				
11. Effects Of Conversion On Farm Support Services	(10)				
12. Compatibility With Existing Agricultural Use	(10)				
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	0	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Name of Federal agency representative completing this form:	Date:

(See Instructions on reverse side)

Form AD-1006 [03-02]

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map, or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Property Location Elements

- Project Boundary
- NRCS Soils
- Prime_Farmland

Symbol	DESCRIPTION
BNRD	Bigheart-Niotaze-Rock outcrop complex, 1 to 8 percent slopes
Ce	Collinsville and Talihina soils, 5 to 12 percent slopes
DAM	Large dam
Dc	Dennis and Okemah soils, 1 to 3 percent slopes
NBRE	Niotaze-Bigheart-Rock outcrop complex, 3 to 15 percent slopes, very stony
NBRF	Niotaze-Bigheart-Rock outcrop complex, 15 to 25 percent slopes, extremely stony

0 250 500 750 1,000
Feet

Coordinate System: NAD 1983 StatePlane Oklahoma North FIPS 3501 Feet / Datum: North American 1983 /

Prepared By:

CARDINAL ENGINEERING

Cardinal Engineering, Inc.
1015 N. Broadway, Ste. 300
Oklahoma, City, OK 73102
Ph. 405-842-1066

Figure Title:

Figure 7
Soil Classification and Prime Farmland

Proposed Jellystone Camp Resort™ Project
Salt Creek Cove North Recreation Area - Keystone Lake
Mannford, Oklahoma

Project No:	14227.00
Drawn By:	MTM
Checked By:	NR
Date:	1/21/2015
Scale:	1 " = 500 feet
Job Number:	

Appendix F

U. S. DOT Crossing Inventory Information (BNSF)

U.S. DOT - CROSSING INVENTORY INFORMATION
AS OF 2/13/2015

Crossing No.: *673650N* Update Reason: *Changed Crossing* Effective Begin-Date of Record: *06/24/13*
Railroad: *BNSF BNSF Rwy Co. [BNSF]* End-Date of Record:
Initiating Agency *Railroad* Type and Positiion: *Public At Grade*

Part I Location and Classification of Crossing

Division:	*SPRINGFIELD*	State:	*OK*
Subdivision:	*AVARD*	County:	*CREEK*
Branch or Line Name:	*CHER YD-AVARD*	City:	*Near MANNFORD*
Railroad Milepost:	*0443.66*	Street or Road Name:	*SALT CREEK RD*
RailRoad I.D. No.:	*1047*	Highway Type & No.:	
Nearest RR Timetable Stn:	*TULSA*	HSR Corridor ID:	
Parent Railroad:		County Map Ref. No.:	
Crossing Owner:		Latitude:	*36.1291880*
ENS Sign Installed:		Longitude:	*-96.3215700*
Passenger Service:	*None*	Lat/Long Source:	*Actual*
Avg Passenger Train Count:	*0*	Quiet Zone:	*No*
Adjacent Crossing with Separate Number:			

Private Crossing Information:

Category: Public Access:
Specify Signs: Specify Signals:

	ST/RR A	ST/RR B	ST/RR C	ST/RR D
Railroad Use:				
State Use:				

Narrative:

Emergency Contact: *(800)832-5452* Railroad Contact: *(817)352-1549* State Contact: *(405)521-4203*

Part II Railroad Information

Number of Daily Train Movements: Less Than One Movement Per Day: *No*
Total Trains: *21* Total Switching: *0* Day Thru: *11*
Typical Speed Range Over Crossing: From *1* to *49* mph Maximum Time Table Speed: *49*
Type and Number of Tracks: Main: *1* Other *0* Specify:

Does Another RR Operate a Separate Track at Crossing? *No*
Does Another RR Operate Over Your Track at Crossing? *No*

U.S. DOT - CROSSING INVENTORY INFORMATION
Continued

Crossing *673650N*

Effective Begin-Date of Record: *06/24/13*
End-Date of Record:

Part III: Traffic Control Device Information

Signs:

Crossbucks:	*0*	Highway Stop Signs:	*0*
Advanced Warning:	*No*	Hump Crossing Sign:	
Pavement Markings:	*No Markings*	Other Signs: *0* Specify: *0*	

Train Activated Devices:

Gates:	*0*	4 Quad or Full Barrier:	
Mast Mounted FL:	*2*	Total Number FL Pairs:	*0*
Cantilevered FL (Over):	*0*	Cantilevered FL (Not over):	*0*
Other Flashing Lights:	*0*	Specify Other Flashing Lights:	
Highway Traffic Signals:	*0*	Wigwags: *0* Bells: *1*	
Other Train Activated Warning Devices:		Special Warning Devices Not Train Activated:	
Channelization:		Type of Train Detection:	*DC/AFO*
Track Equipped with Train Signals?	*No*	Traffic Light Interconnection/Preemption:	*N/A*

Part IV: Physical Characteristics

Type of Development:	*Open Space*	Smallest Crossing Angle:	*60 to 90 Degrees*
Number of Traffic Lanes Crossing Railroad:	*2*	Are Truck Pullout Lanes Present?	*Yes*
Is Highway Paved?	*Yes*		
Crossing Surface:	*Asphalt*	If Other:	
Nearby Intersecting Highway?	*N/A*	Is it Signalized?	
Does Track Run Down a Street?	*Yes*	Is Crossing Illuminated?	
Is Commercial Power Available?	*Yes*		

Part V: Highway Information

Highway System:	*Non-Federal-aid*	Functional Classification of Road at Crossing:	*Rural Local*
Is Crossing on State Highway System:	*No*		
Annual Average Daily Traffic (AADT):	*000050*	AADT Year:	*1988*
Estimated Percent Trucks:	*04*	Avg. No of School Buses per Day:	*0*
Posted Highway Speed:	*0*		

Appendix G

Letter of Solicitation to Agencies and Agency Responses

CARDINAL
ENGINEERING
An ENVIROCLEAN Company

November 25, 2014

Mr. Scott Thompson
Executive Director
Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, OK 73101-1677

Subject: Public Scoping for the Proposed Jellystone Camp Resort™ and Commercial Marina Development Project, Salt Creek Cove North - Keystone Lake, Mannford, Oklahoma

Dear Mr. Thompson:

Keystone Resort & Yacht Club (Keystone Resort) is proposing to construct and operate a themed recreational park facility and commercial marina to serve the region as a recreational destination area. The proposed project would be located at the existing Salt Creek Cove North Recreation Area on Keystone Lake, one mile east of Mannford, Oklahoma on the north side of State Highway 51. The purpose of this letter is to inform you of this proposed project, provide notice that the Tulsa District, U.S. Army Corps of Engineers (USACE) will prepare an environmental assessment, and to seek your input regarding the project.

The USACE is the lead agency as the land is under USACE jurisdiction. Keystone Resort would sublease the property from the City of Mannford, who currently leases the property from the USACE. Keystone Resort would finance, construct, operate and maintain this project. Cardinal Engineering, LLC (Cardinal) has been contracted by Keystone Resort to assist with the development of an environmental assessment for this action in compliance with the National Environmental Policy Act. Cardinal, on behalf of the USACE, is requesting information on issues you feel are important to examine, and your interest in participating in the compliance process regarding this project.

The purpose of the proposed project is to increase tourism by providing an improved and enhanced recreational experience in this area of Keystone Lake. The project involves the renovation of existing campsites and related existing facilities, the construction of a water park, cabins, parking lots, boat storage, ranger station, maintenance buildings, septic system, miniature golf, go kart track, kayak rental and launch, courtesy boat slips, boat ramp, marina, floating restaurant, pavilions, a ropes course, hiking trails, and swimming/play area. Temporary and permanent ground disturbance would occur completely within the approximate 266-acre footprint of the existing Salt Creek North public use area. Construction may include excavation, grading, trenching, boring, very limited clearing of vegetation, and construction of the facilities listed above. Construction in these areas will occur primarily within or adjacent to previously disturbed areas within the current recreation area. A conceptual map of the proposed park at this stage of project planning is attached. Construction of the project is proposed to occur in phases, with work beginning in spring 2015 and completing in 2019.

Information regarding this project will also be presented at a public scoping meeting on **Thursday, December 18th at the Mannford Senior Citizens Center located at 169 Greenwood Avenue in Mannford**. The public meeting will be an informal, come-and-go workshop format with no formal presentation. Attendees can arrive anytime between 6:00 and 8:00 p.m. Additionally, announcements will be placed in local newspapers regarding the public scoping meeting.

To allow adequate time for evaluation of your comments, we would appreciate receiving a response within 30 days from the date of this letter. Please provide your written comments regarding this project to:

Michael Zorba
Cardinal Engineering, LLC
3750 West Robinson, Suite 140
Norman, OK 73072

If you require any further information or would like to discuss this project please contact me at 405-701-5058 or via email at mike.zorba@cardinalengineers.com.

Sincerely,

Michael Zorba
Project Manager/Environmental Planner

Enclosure: Conceptual Map

Cc: William Jeffries, USACE, Keystone Lake
Stephen Nolen, USACE
Al Sahli, Keystone Resort & Yacht Club
Mike Nunneley, City of Mannford

Keystone EA Solicitation Letter Agency/Tribal Mailing list – current as of 11/2014

Mr. Jontie Aldrich, Acting Field Supervisor
U.S. Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 E. 21st St.
Tulsa, OK 74129- 1428

Dr. Bob Blackburn
State Historic Preservation Officer
Oklahoma Historical Society
Oklahoma History Center
800 Nazih Zuhdi Drive
Oklahoma City, OK 73105

Dr. Kimberly Winton
Chief, Science Center
U.S. Geological Survey
202 NW 66th Street, Bldg 7
Oklahoma City, Oklahoma 73116

Sharon Osowski Morgan, Ph.D.
Ecologist/Environmental Scientist
Office of Environmental Justice and Tribal Affairs
US EPA Region 6
Mailcode 6RA-DA
1445 Ross Ave
Dallas, TX 75202
214-665-7506
214-665-2124 FAX

Mr. Ron Curry
Federal Region VI Administrator
U. S. Environmental Protection Agency
1445 Ross Ave., Suite 1200
Dallas, TX 75202

Mr. Gary O'Neill
State Conservationist
USDA, Natural Resources Conservation Service
100 USDA, Suite 206
Stillwater, OK 74074-2655

Mr. Richard Hatcher
Director
Oklahoma Department of Wildlife Conservation
1801 N. Lincoln Blvd.
Oklahoma City, OK 73105

Mr. Scott Thompson
Executive Director
Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, OK 73101-1677

Kristi Roy
ODEQ- Water Quality Division
PO Box 1677
Oklahoma City, OK 73130
405-702-8144

Mr. J. D. Strong
Executive Director
Oklahoma Water Resources Board
3800 N. Classen Boulevard
Oklahoma City, OK 73118

Mr. Derek Smithee
Chief, Water Quality Programs Division
Oklahoma Water Resources Board
3800 North Classen Boulevard
Oklahoma City, OK 73118

Mr. Mike Thralls
Executive Director
Oklahoma Conservation Commission
2800 N. Lincoln Blvd., Suite 160
Oklahoma City, OK 73105

Ms. Shanon Phillips
Director Water Quality Programs
Oklahoma Conservation Commission
2800 N. Lincoln Blvd., Suite 160
Oklahoma City, OK 73105

Mr. Ian H. Butler
Oklahoma Natural Heritage Inventory
Oklahoma Biological Survey
111 E. Chesapeake Street
Norman, OK 73019-0575

Dr. Robert L. Brooks
University of Oklahoma
Oklahoma Archeological Survey
111 E. Chesapeake
Norman, OK 73019-0575

Mr. Tim Vermillion
NEPA Project Manager, Division 4
Oklahoma Department of Transportation
Environmental Programs Division
200 N.E. 21st Street, Room 3D2a
Oklahoma City, OK 73105

Ms. Deby Snodgrass
Executive Director
Oklahoma Tourism and Recreation Department
120 N. Robinson, 6th Floor
Oklahoma City, OK 73102

Chief Tarpie Yargee
Alabama-Quassarte Tribal Town, Oklahoma
P.O. Box 187
Wetumka, OK 74883

Mekko Tiger Hobia
Kialegee Tribal Town, Oklahoma
P.O. Box 332
Wetumka, OK 74883

Principal Chief A.D. Ellis
Muscogee (Creek) Nation, Oklahoma
P.O. Box 580
Okmulgee, OK 74447

Principal Chief John Red Eagle
Osage Nation, Oklahoma
P.O. Box 779
Pawhuska, OK 74056

President George E. Howell
Pawnee Nation of Oklahoma
P.O. Box 470
Pawnee, OK 74058

Principal Chief George Thurman
Sac & Fox Nation, Oklahoma
Route 2, Box 246
Stroud, OK 74079

Principal Chief Leonard Harjo
Seminole Nation of Oklahoma
P.O. Box 1498
Wewoka, OK 74884

Mekko George Scott
Thlopthlocco Tribal Town, Oklahoma
P.O. Box 188
Okemah, OK 74859

President Leslie Standing
Wichita and Affiliated Tribes of Oklahoma
P.O. Box 729
Anadarko, OK 73005

Oklahoma Archeological Survey
THE UNIVERSITY OF OKLAHOMA

December 9, 2014

Michael Zorba
Cardinal Engineering
3750 West Robinson, Ste. 140
Norman, OK 73072

RE: Proposed Jellystone Camp Resort and Commercial Marina Development Project, Salt Creek cove North – Keystone Lake. Legal Description: N ½ Section 14 T19N R9E, and SE ¼ Section 11 T19N R9E, Creek County, Oklahoma.

Dear Mr. Zorba:

The above referenced project has been reviewed by the Community Assistance Program staff of this agency to identify potential areas that may contain prehistoric or historic archaeological materials (historic properties). The location of your project has been cross-checked with the state site files containing approximately 23,000 archaeological sites which are currently recorded for the State of Oklahoma. Our records indicate that your project area has been previously surveyed for other projects, and that no significant cultural resource sites were located. Thus, an additional field inspection is not considered necessary for your project. However, should construction activities expose buried archeological materials such as chipped stone, tools, pottery, bone, historic crockery, glass, metal items or building materials, this agency should be contacted immediately at (405)325-7211. A member of our staff will be sent to evaluate the significance of these remains.

This environmental review and evaluation is performed in order to locate, record, and preserve Oklahoma's prehistoric and historic cultural heritage in cooperation with the State Historic Preservation Office, Oklahoma Historical Society, and you must also have a letter from that office to document your consultation pursuant to Section 106 of the National Historic Preservation Act. In addition to our review comments, under 36CFR Part 800.3 you are reminded of your responsibility to consult with the appropriate Native American tribe/groups to identify any concerns they may have pertaining to this undertaking and potential impacts to properties of traditional and/or ceremonial value.

Sincerely,

for Dave Jacobson
Staff Archaeologist

Robert L. Brooks
State Archaeologist

:ls

Cc: SHPO

111 E. Chesapeake, Room 102, Norman, Oklahoma 73019-5111 PHONE: (405) 325-7211 FAX: (405) 325-7604
A UNIT OF ARTS AND SCIENCES SERVING THE PEOPLE OF OKLAHOMA

Mike Zorba

From: Fenner, Daniel <daniel_fenner@fws.gov>
Sent: Monday, December 22, 2014 1:27 PM
To: Mike Zorba
Subject: FWS Response - Public Scoping for the Proposed Jellystone Camp Resort and Commercial Marina Development Project, Salt Creek Cover North - Keystone Lake, Mannford, OK

Project Reference: Public Scoping for the Proposed Jellystone Camp Resort and Commercial Marina Development Project, Salt Creek Cover North - Keystone Lake, Mannford, OK

Mr Zorba,

Thank you for your letter requesting an endangered species review in regard to the proposed project identified above. The information you provided in not sufficient for adequate review by our office.

The Oklahoma Ecological Services Field Office has developed measures to streamline the threatened and endangered species consultation process and other requests for technical assistance. The information you have requested is available on our website at

http://www.fws.gov/southwest/es/Oklahoma/OKESFO%20Permit%20Home.htm

Please review these streamlining measures and our review is needed, please submit your request electronically, as described on our website. For assistance in navigating the website, please contact our office.

Sincerely,

Daniel Fenner

--

Daniel Fenner
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, Oklahoma 74129
(918) 382-4524 (voice)
(918) 581-7467 (fax)

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OBS Ref. 2014-704-BUS-CAR

Dear Mr. Zorba, Dec. 1, 2014

We have reviewed occurrence information on federal and state threatened, endangered or candidate species, as well as non-regulatory rare species and ecological systems of importance currently in the Oklahoma Natural Heritage Inventory database for the following location you provided:

Sec. 11 and 14-T19N-R9E, Creek County

We found 11 occurrence(s) of relevant species within the vicinity of the project location as described.

Interior least tern (*Sternula antillarum athalassos*) a federally listed threatened species for listing, 1 occurrence, in Sec. 22-T19N-R9E, Creek County

Additionally, absence from our database does not preclude such species from occurring in the area.

If you have any questions about this response, please send me an email, or call us at the number given below.

Although not specific to your project, you may find the following links helpful.

ONHI, guide to ranking codes for endangered and threatened species:
http://vmpincel.ou.edu/heritage/ranking_guide.html

Information regarding the Oklahoma Natural Areas Registry:
http://www.oknaturalheritage.ou.edu/registry_faq.htm

Todd Fagin

Oklahoma Natural Heritage Inventory/
Department of Geography and Environmental Sustainability

SCOTT A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

MARY FALLIN
Governor

December 2, 2014

Michael Zorba
Cardinal Engineering, LLC
3750 West Robinson, Suite 140
Norman, Oklahoma 73072

Re: Request for Comments for Proposed Jellystone Camp Resort and Commercial Marina Development Project, Salt Creek Cove North – Keystone Lake, Mannford, Oklahoma

Dear Mr. Zorba:

This letter is in response to yours dated November 25, 2014 to Ms. Kristi Roy of the DEQ, Water Quality Division concerning the proposed Keystone Lake resort project. Based on the limited information provided in your letter, the DEQ has identified the following issues as important to examine during both the planning and construction phases of the project:

1. The most immediate regulatory concern for DEQ is construction storm water permitting. For a project of this size and nature, a detailed SWP3 would be expected. Additionally, it is important to note that Keystone Lake is listed in the 303(d)/305(b) Integrated Report as impaired for turbidity. Therefore, permit limits and storm water permit conditions may be more restrictive than they would be for a non-impaired water body.
2. The proposed project includes a water park and other amenities that will potentially use large amounts of potable water once the project is operational. It is not clear from the project description where potable water will be obtained. Therefore, more information is needed on the proposed water source in order to determine what type of engineering documents would be needed for purposes of DEQ public water supply construction permitting. Also, if the water source will not be from an existing source, it is possible that a water rights permit from the Oklahoma Water Resources Board may be necessary.
3. Your letter mentions that the construction of a septic system would be involved in the project. However, it is not clear that a septic system would work properly in this area given that the terrain can vary from very sandy to very rocky depending where on the lake you are attempting to locate. For a project such as this one, it may be necessary to explore other options such as a lift station and piping to the City of Mannford's wastewater treatment system or an aerobic on-site system, if the traditional septic tank system option is not viable.
4. The DEQ will be in a better position to fully identify the issues and associated requirements for this project once a more complete engineering report is available.

Please direct future correspondence concerning this project to me at the letterhead address, or contact me by phone at (405)702-7184 or by email at Martha.penisten@deq.ok.gov, should you have any additional questions or concerns.

Sincerely,

Martha Penisten
General Counsel, DEQ

C: Kay Coffey, DEQ / WQD
Patrick Rosch, DEQ / WQD

J. D. STRONG
EXECUTIVE DIRECTOR

MARY FALLIN
GOVERNOR

STATE OF OKLAHOMA
WATER RESOURCES BOARD
www.owrb.ok.gov

OKLAHOMA WATER RESOURCES BOARD
Planning & Management Division
Oklahoma City, OK

PUBLIC NOTICE REVIEW

___ We have no comments to offer. _X_ We offer the following comments.

WE RECOMMEND THAT YOU CONTACT THE LOCAL FLOODPLAIN ADMINISTRATOR FOR POSSIBLE PERMIT REQUIREMENTS FOR THIS PROJECT. THE OWRB WEB SITE, www.owrb.ok.gov, contains a directory of floodplain administrators and is located under forms/floodplain management/floodplain administrators, listed alphabetically by name of community. **If this development would fall on STATE OWNED or operated property, a floodplain development permit is required from OWRB.** The Chapter 55 Rules and permit application for this requirement can be found on the OWRB web site listed above. If this project is proposed in a non-participating community, try to ensure that this project is completed so that it is reasonably safe from flooding and so that it does not flood adjacent property if at all possible.

Reviewer: Cathy Poage, CFM **Date:** 12/31/2014

Project Name: Proposed Construction of Jellystone Camp Resort and Commercial Marina, Located at Salt Creek Cove North, Keystone Lake, one mile East of Manford on the North side of SH 51, Creek County, OK

FIRM Name: Cardinal Engineering, Mike Zorba, Proj. Mgr/Env. Planner
CC: Craig Southern, Creek County FPA

* Creek County participates in the NFIP and has a floodplain development permitting systems. Please see paragraph above.

Mike Zorba

From: John Fox <jfox@osagenation-nsn.gov>
Sent: Thursday, January 22, 2015 11:16 AM
To: Mike Zorba
Cc: Andrea Hunter
Subject: Jellystone Camp Resort and Commercial Marina Development Project, Keystone Lake, Mannford, Oklahoma
Attachments: ONHPO S106 procedures 2015.pdf; ONHPO Survey Standards 2015.pdf

Dear Mr. Zorba,

The Osage Nation Historic Preservation Office has received a public scoping notice for the proposed Jellystone Camp Resort and Commercial Marina Development Project, Salt Creek Cove North – Keystone Lake, Mannford, Oklahoma, dated November 25, 2014. We apologize for our late response. Our office is currently undergoing reorganization, and we are working through a backlog. This area is of great concern to the Osage Nation, as the Osage were in this area in both prehistoric and historic times. The project area is near a known historic Osage trail and campsite, as well as Osage County, the Osage Reservation. Before the reservoir of Keystone Lake was constructed, the project area was likely a high point above a body of water—perfect for an archaeological site. We realize that the project area is somewhat disturbed, but intact archaeological sites could remain undisturbed in this location. Therefore, we request a cultural resource survey for the project area.

In accordance with the National Historic Preservation Act, (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings subject to the review process are referred in S101 (d)(6)(A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).

The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources. The Osage Nation anticipates reviewing and commenting on the planned Phase I cultural resources survey report for the proposed Jellystone Camp Resort and Commercial Marina Development Project.

I have included the Osage Nation's Section 106 procedures and survey standards for your convenience.

Should you have any questions or need any additional information, please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

John Fox
Archaeologist I
Osage Nation Historic Preservation Office
627 Grandview
Pawhuska, OK 74056
(918)287-5274
jfox@osagenation-nsn.gov

OSAGE NATION

Historic Preservation Office

National Historic Preservation Act Section 106 Consultation Procedures

The Osage Nation Historic Preservation Office (ONHPO) has developed the following procedures for Section 106 consultation required by the Historic Preservation Act, (NHPA) [54 U.S.C. § 300101 et seq.] 1966.

Please submit all of the following information for all NHPA Section 106 consultation requests (additional formatting and information requested in standards for cultural resource survey reports below):

A. To initiate consultation with the Osage Nation Historic Preservation Office submit a 1-page cover letter with the following included:

- Federal agency name, district, or department
- Point of contact information: individual's name, address, phone, fax, and email
- Project name and number, or other designation (if for tracking)
- Project location information: **USPLSS** (quadrangle, quarter section, section, township, and range) and **UTM (WGS84) coordinates are required** Projects will not be reviewed until both USPLSS and UTM coordinates are submitted
- Total area surveyed in acres

B. Professional cultural resource survey report. At a minimum, **all field surveyors** must possess a **BA or BS in anthropology** with an emphasis in archaeology (exception- see page 4). At a minimum, the **supervisor** who is in the field and supervises the field survey, interprets the results of the field survey, determines the cultural resource recommendation, and produces the cultural survey report must possess an **MA or MS in anthropology** with an emphasis in archaeology. **Supervisors must accompany and oversee all field surveyors during the fieldwork**. With the first cultural resource survey report, include curriculum vitaes for all project archaeologists and identify work performed. See page 3 for an outline of the documentation required in a standard cultural resource survey report.

C. USGS topographic and/or aerial maps locating project area within the: 1) state, 2) county, 3) quadrangle, and 4) section.

D. USGS topographic and/or aerial maps specifically locating: 1) project APE, 2) project staging areas outside of APE, 3) access road, and 4) location of all archaeological and historic sites in and in close vicinity of the project APE. Please do not submit hand drawn or hand annotated maps.

E. GLO maps for project area, please include both late 19th century and early 20th century maps and identify project APE on maps.

F. Project site plan map indicating location of screened shovel tests (please label shovel tests with identification number on maps). Please do not submit hand drawn or hand annotated maps. **Shovel test minimum width is 30 cm. Shovel test minimum depth is to 50 cm or sterile soil, whichever is encountered first. If terminated before sterile soil is reached, please provide an explanation either in the text or in the shovel test log. Excavated shovel tests must be screened using a 0.25 in mesh screen, dug in stratigraphic or 10 cm levels, and measurements must be recorded in centimeters. Please refer to the Archaeological Block Survey Standards for density of shovel testing.**

G. Table listing shovel test locations, width (cm), depth (cm), soils, and results.

H. Site photographs in color, specifically images depicting exact location of 1) project marked by stakes or flagging (if possible), 2) access roads, 3) utility easement (if applicable), 4) staging areas, and 5) identified archaeological/historic sites.

I. Copy of the review letter from the State Historic Preservation Office. For projects in Oklahoma, letters from both SHPO components, the Oklahoma Archaeological Survey and the Oklahoma Historical Society are required.

Please use only the following contact and address information:

Dr. Andrea A. Hunter, THPO
Osage Nation Historic Preservation Office
627 Grandview
Pawhuska, OK 74056

Phone: 918-287-5328
Fax: 918-287-5376

Standards for Cultural Resource Survey Reports

The following outlines the documentation required in a cultural resource survey report that will enable the Osage Nation Tribal Historic Preservation Office to efficiently evaluate the information gathered for a proposed project in a coherent, standardized format. Please include in all reports:

1. Abstract
   Executive summary of project, survey results, and recommendations

2. Introduction
   Introduce project and project design

3. Environmental Setting
   Specific location, legal description, composition of project site
   General location, geomorphology, landform, soils, vegetation, hydrology

4. Cultural History
   Brief overview of cultural occupation represented in locale

5. File Search and Previous Research
   Results of file search in state database for previously recorded archaeological sites and review of previous archaeological investigations, NRHP listings, GLO records and maps, late 19th and early/mid-20th century maps, and mid-20th and current aerial photographs. For projects in Osage County, OK include: Osage tribal allotment records and maps, late 19th and early/mid-20th century maps such as the Oklahoma State Highway Department's General Highway and Transportation Map of Osage County, and mid-20th and current aerial photographs such as those at the Oklahoma Petroleum Research Library in Norman, Oklahoma.

6. Field Methods and Analytical Techniques
   How field survey and analysis were conducted

7. Results of Archaeological Field Investigations
   Review findings and identification of National Register of Historic Places

8. Recommendations
   Summarize archaeological sites identified, NRHP determinations, and project recommendations

9. References Cited

Minimum Qualifications for Archaeology Personnel*

The minimum professional qualifications for archaeology field survey assistants are:

- BA or BS in anthropology with an emphasis in archaeology

Or with prior approval from the ONHPO by providing the following documentation:

- BA or BS in Applied Indigenous Studies, Native American Studies, Geology, Geography, History, Architectural History, Historic Preservation plus:

- at least one year of full-time professional archaeology experience or equivalent specialized training in archaeological research, administration, or management;

- at least four months of supervised field experience in general North American archaeology; and

- demonstrated ability to carry fieldwork to completion.

The minimum professional qualifications for personnel who supervises and conducts the archaeological field survey, interprets the results of the field survey, determines the cultural resource recommendation, and produces the cultural survey report are:

- Graduate degree in archaeology or anthropology with an emphasis in archaeology; and

- One year of full-time professional experience at a supervisory level in the study of archaeological resources of the prehistoric period.

* With the first cultural survey report, please submit the curriculum vitae for the field survey personnel and for the archaeological supervisor. When personnel change, please submit their curriculum vitae.

OSAGE NATION

HISTORIC PRESERVATION OFFICE

ARCHAEOLOGICAL BLOCK SURVEY STANDARDS

The following archaeological survey standards are the minimum amount of work acceptable for archaeological surveys conducted on the Osage Nation Reservation/Osage County and throughout Osage Nation ancestral territory as determined by the Osage Nation Historic Preservation Office (ONHPO). Additional archaeological work (i.e. more shovel tests or transects) or methods (backhoe trenches) can always be incorporated into the research design to help locate and identify archaeological sites depending on the area or potential for encountering significant cultural resources.

Professional Qualifications:
Archaeological investigations must be conducted by an archaeologist who meets the U.S. Secretary of the Interior's *Professional Qualification Standards for Archeology* (36 CFR Part 61; 48 FR 44716). At a minimum, all field surveyors must possess a BA or BS in anthropology with an emphasis in archaeology. At a minimum, the supervisor who is in the field and supervises the field survey, interprets the results of the field survey, determines the cultural resource recommendation, and produces the cultural survey report must possess an MA or MS in anthropology with an emphasis in archaeology. Supervisors must accompany and oversee all field surveyors during the fieldwork. With the first cultural resource survey report, include curriculum vitaes for all project archaeologists and identify work performed.

Background Research:
Archaeologists must conduct a background literature search prior to field investigations. At a minimum this shall include searches of the SHPO's databases for previously recorded archaeological sites and historic properties, and previous archaeological work in the vicinity. For projects in Osage County, OK, the archaeologists would also include searches of the Osage Allottment Maps, Oklahoma Geological Survey Archives (Norman, Oklahoma) for early USGS 7.5 and 15-minute topographic maps and aerial photographs, plus the GLO map archive available online (www.glorecords.blm.gov).

Deeply Buried Cultural Deposits:
Archaeologists must assess the potential for deeply buried cultural deposits within the block area prior to starting field investigations. At a minimum, this shall include a review of the USDA soil surveys and geologic maps. If there is a potential for deeply buried cultural deposits within the

block survey area, deeper subsurface investigations (to be determined in consultation with the ONHPO) will be required.

Survey Report:
Archaeologists must submit the results of their investigation in a report to the ONHPO that follows the Secretary of the Interior's *Standards for Archeological Documentation*. The ONHPO will complete its review within 30 days of receipt of the archaeology survey report and the SHPO review letters. For Oklahoma this would include review letters by the Oklahoma Archaeological Survey and the Oklahoma Historical Society.

Fieldwork:

MINIMUM BLOCK SURVEY STANDARDS

Transect Interval

Project Areas	Size	Interval width
	All	Not greater than 20 meters

Shovel Tests[1]

Project Areas	Size	Shovel test density
	1 to 10 acres	1 per acre
	11 to 100 acres	1 every 2 acres
	> 100 acres	1 every 3 acres
Linear Projects	≤100' (30 m) wide corridor	16 per mile or 1 every 100 meters

Number of Shovel Tests required to define site boundaries minimum 6 – more for larger sites

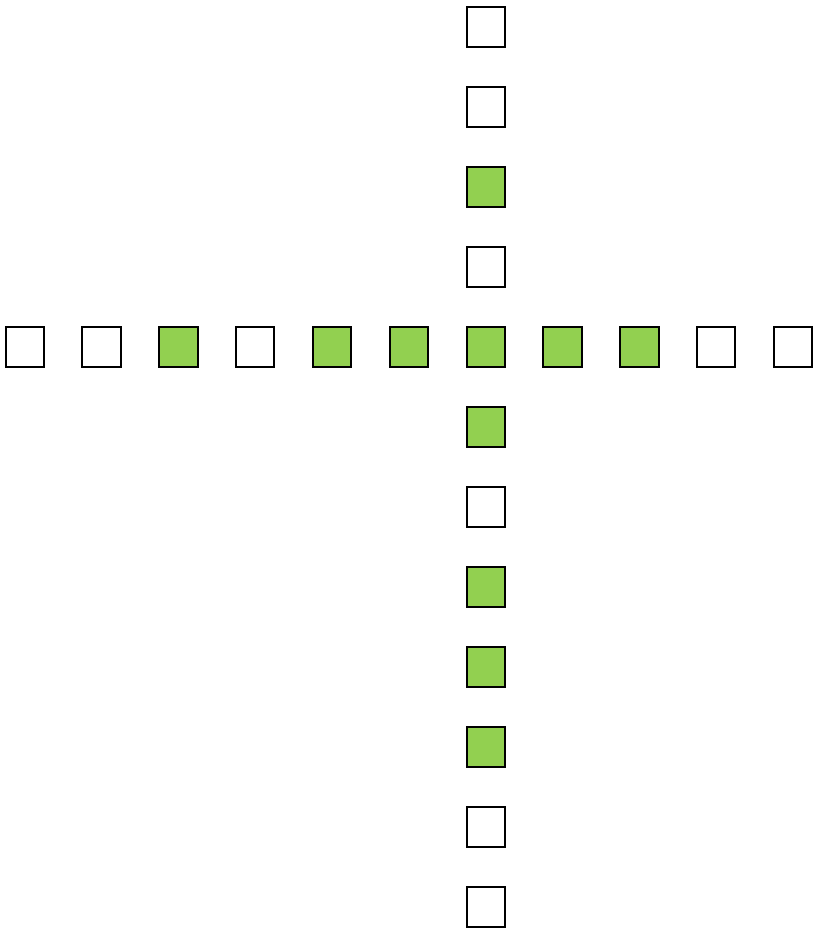
[1]Shovel tests must be dug, except on slopes greater than 20 percent. Shovel tests are 30 cm in diameter and are excavated to the bottom of Holocene deposits, if possible. They are dug in 10 cm levels with sediments screened through ¼-inch mesh unless high clay or water content requires that they be troweled through.

Determining Site Boundary:

Shovel testing is required to determine site boundaries.

A minimum of nine (9) shovel tests must be placed in a + pattern that is perpendicular extending from the center of the artifact discovery location.

A shovel test must be placed every five (5) meters until two (2) negative shovel tests are sequentially excavated.



Positive shovel test

Negative shovel test

Appendix H

Public Comments/Responses

US Army Corps of Engineers

Public Workshop
Comment Sheet

Proposed Jellystone Camp Resort™ and Commercial Marina Development
Salt Creek North – Keystone Lake, Mannford, Oklahoma

Mannford, Oklahoma
6:00 – 8:00 p.m., Thursday, December 18, 2014

Question, comments, or suggestions?

We want your input for this matter. Your participation is key to our success! Please write your questions, comments, or suggestion in the space provided below. Feel free to use the back of this form or add additional pages if needed. Leave the form with us at the workshop or fill out the form at your convenience and return it to address below. Please provide comments by **December 31, 2014**. Thank you!

If this come true. No thought to a small Boat to Clean water ways. What about a Clean up crew to pick up trash + other staff. this is way too Big for this area. I like it just the way it is. a few more camping spots not so close together.

Optional Information (used for mailing list to keep you informed and will not be used for any other purpose):

Name:_____ Affiliation:_____

Address:_____ City:_____ State:_____

Zip:_____ Phone: ___/_____ E-mail:_____

Point of Contact:
Mr. Michael Zorba
Cardinal Engineering, LLC
3750 West Robinson, Suite 140
Norman, OK 73072
e-mail: mike.zorba@cardinalengineers.com

US Army Corps of Engineers

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Awful Ideas & Plans.
Bad for the ecological environment.
Too many trees being cut down
and habitat for wildlife being
destroyed.
Too much potential for pollution
and garbage in the lake.
Please dont destroy Beautiful Keystone Lake.—

Optional Information (used for mailing list to keep you informed and will not be used for any other purpose):

Name:_____ Affiliation:_____

Address:_____City:_____ State:_____

Zip:_____ Phone: ___/_____ E-mail:_____

Point of Contact:
Mr. Michael Zorba
Cardinal Engineering, LLC
3750 West Robinson, Suite 140
Norman, OK 73072
e-mail: mike.zorba@cardinalengineers.com

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FANTASTIC PROJECT. WELCOME TO MANNFORD. WE LOOK FORWARD TO ENJOYING ALL YOU WILL HAVE TO OFFER.

Optional Information (used for mailing list to keep you informed and will not be used for any other purpose):

Name: Johnnie Bozarth Affiliation: MANNFORD BOARD OF TRUSTEES

Address: 120 N SALT CREEK DR City: MANNFORD State: OK

Zip: 74044 Phone: 918 688-1148 E-mail: MLOYLO30@CIMTEL.NET

Point of Contact:
Mr. Michael Zorba
Cardinal Engineering, LLC
3750 West Robinson, Suite 140
Norman, OK 73072
e-mail: mike.zorba@cardinalengineers.com

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I SEE NOTHING AT ALL IN THIS PLAN TO ACCOMODATE FISHING. NO PROPOSED INDOOR FISHING DOCK, NO PROPOSED FLOATING RAMPS TO FISH FROM, NO FISHERMANS WARFS OF ANYKIND, NO ANYTHING OF ANYKIND TO ACCOMODATE FISHERMEN.

ON BEHALF OF THE THOUSANDS OF PEOPLE AROUND HERE WHO CAN'T AFFORD A BOAT AND A MONTHLY BOAT SLIP FEE, I WOULD LIKE TO THANK YOU FOR VIRTUEALLY NOTHING.

Optional Information (used for mailing list to keep you informed and will not be used for any other purpose):

Name: RON JUNKAS Affiliation: NONE

Address: 4133 N. THREE FINGER BAY RD. MANNFORD, OK. 74044 City: State:

Zip: Phone: 918/865-2271 E-mail: NONE

Point of Contact:
Mr. Michael Zorba
Cardinal Engineering, LLC
3750 West Robinson, Suite 140
Norman, OK 73072
e-mail: mike.zorba@cardinalengineers.com

US Army Corps of Engineers

Public Workshop
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This will be a great asset, not only to Mannford + Lake Keystone, but to the whole region. We are so glad Jellystone is coming!

Optional Information (used for mailing list to keep you informed and will not be used for any other purpose):

Name: Elizabeth Gray Affiliation: Sand springs resident

Address: 1456 fir drive City: Sand Springs State: OK

Zip: 74063 Phone: ___/_____ E-mail: _____

Point of Contact:
Mr. Michael Zorba
Cardinal Engineering, LLC
3750 West Robinson, Suite 140
Norman, OK 73072
e-mail: mike.zorba@cardinalengineers.com

US Army Corps of Engineers

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This project is going to be such a stimulant to other private sector investment in Mannford and will be a key component to the future economic growth to Mannford and the surrounding area.

Optional Information (used for mailing list to keep you informed and will not be used for any other purpose):

Name: Rickey Hayes Affiliation: consultant to city of Mannford

Address: 12150 E. 96th St North Suite 104 City: Owasso State: OK

Zip: 74055 Phone: 918 376 6707 E-mail: rickey@retailattractions.com

Point of Contact:
Mr. Michael Zorba
Cardinal Engineering, LLC
3750 West Robinson, Suite 140
Norman, OK 73072
e-mail: mike.zorba@cardinalengineers.com

US Army Corps of Engineers

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We are in favor of bringing Jellystone Park to Mannford! Everything we see about it is positive. First, it will bring many tourists to our community. It will also mean jobs for many of our youths and some adults. Then there is the spin off of money spent in the community businesses and community growth resulting. We expect other businesses and new homes to be built as a result. We cannot see this being detrimental to the community in any way!

Optional Information (used for mailing list to keep you informed and will not be used for any other purpose):

Name: Tim Clifton Affiliation: S+T - Properties (Real Estate)

Address: P.O. Box 606 City: Mannford State: OK

Zip: 74044 Phone: 918 865-4253 E-mail: jsclifton@cintel.net

Point of Contact:
Mr. Michael Zorba
Cardinal Engineering, LLC
3750 West Robinson, Suite 140
Norman, OK 73072
e-mail: mike.zorba@cardinalengineers.com

US Army Corps of Engineers

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As probably the closest home to proposed project, I am concerned about increased road and LAKE traffic. More fishing on a lake that already needs re-stocked. We have 2 marinas in the immediate area & don't move boats stirring up the water. We moved here 5-1-13 for the lake. We are not in favor of a bunch of City Slickers taking over the area for financial gain. I am concerned that the 3 ramps will become charge ramps even though I have a lake pass & golden age pass. Future ramp parking is also a concern. And of course bringing in more people means more DRUNKS to deal with - I SAY NO to Jellystone

Optional Information (used for mailing list to keep you informed and will not be used for any other purpose):

Name: Joe Martini Affiliation: TAX PAYER

Address: 146 N. Salt Creek Dr City: mannford State: OK

Zip: 74044 Phone: 303 807 3259 E-mail: jmarfurn@yahoo.com

Point of Contact:
Mr. Michael Zorba
Cardinal Engineering, LLC
3750 West Robinson, Suite 140
Norman, OK 73072
e-mail: mike.zorba@cardinalengineers.com

Mike Zorba

From: Sheila Mcbroom <Clevelandnews@sbcglobal.net>
Sent: Tuesday, December 02, 2014 1:59 PM
To: Mike Zorba
Subject: Re: Quote for running ad

Mike,
Due to limited space this week, we will have to run this next week (12/10) and then again on 12/17. Hope that works for you. If space come available this week then the editor says he will put it in for you. The only thing I need is a billing address, should I use the one on the bottom of the Announcement?

Now, I am a Mannford girl. Graduated high school there and lived there until 1991 then moved back to the area in 2006 so let me give you my opinion on this Camp Resort if you don't mind. It won't work in this area! People enjoy coming to Keystone Lake to camp and boat and they enjoy Salt Creek and what use to be New Mannford Ramp as they are. I know that Salt Creek needs alot of TLC but a camp resort is not the thing. Also, Keystone Lake cannot support another marina. We have 3 already. Plus have you checked the lake level, holy snickies, if we don't get rain there will be no water for lake activities (not that you can do anything about that). I am not trying to be negative Nancy here but I am just telling you like it is. My husband enjoys fishing on Lake Keystone but we seldom put our bigger boat on it. I am sure there are people that will attend this Open House that feel this is a GREAT thing for Mannford and unfortunely those that don't feel that way will stay away and grumble silently (or at the coffee shop). Ok. I am stepping down off my soap box now.

Thank you for the public notice. We appreciate the business.
Sheila

On Dec 2, 2014, at 1:28 PM, Mike Zorba wrote:

Sheila,

Just remembered that you all only print on Wednesdays. So, this week or next week would be fine for the first announcement. Then on December 10th for the second.

Michael Zorba
Environmental Planner

Office: 405.701.5058
Mobile: 480.794.0852

From: Mike Zorba
Sent: Tuesday, December 02, 2014 1:24 PM
To: 'Clevelandnews@sbcglobal.net'
Subject: Quote for running ad

Hi Sheila,

Thanks for speaking with me on the phone this morning. Attached is the announcement to be run in the regular ad section (not the legal section). We would like to run this ad twice, once this coming weekend (Saturday, December 6th),

Mike Zorba

From: Bill Timmons <bftimmons@cimtel.net>
Sent: Saturday, December 13, 2014 10:58 AM
To: Mike Zorba
Subject: JellyStoneCamp Resort on Keystone lake

Mike, I live south of Salt Creek North in Pelican Point on lake Keystone and I have some concerns about this proposed development. This piece of land is joined by water on three sides. This is mostly clay substructure and doesn't perk very well. With this many people using this resort, the septic tanks cannot me made adequate to handle the amount of sewage that will be generated. This will cause pollution of Lake Keystone. The lake already has as large amount of salts and minerals coming down both the Cimarron and Keystone rivers. It cannot be used for a water supply. Lake Hamilton south of Hot Springs Arkansas is so polluted by septic tanks that people around it won't eat the fish or swim in the lake. I would hate to see that happen to Keystone.
The resort will also increase both the vehicular traffic and boat traffic in the area. Are there plans to place a traffic signal at the entrance? This would be a necessity . There are already many accidents in the vicinity of the entrance. There will need to be turn lanes at the entrance and exits, besides the stop light.
I believe that the Corp of Engineers has a statute about placing boat docks in open areas on Lake Keystone. I know people who wanted to place docks on open water and were denied permits.
This resort would also take away our boat ramps in this area.
My main concern is about the septic tanks. The area is simply to limited to handle the amount affluent that will be generated by the crowds that will visit the park.
Thank you for your time.
Bill Timmons bftimmons@cimtel.net 918 865 7785

Mike Zorba

From: Charles <getcharlie@hotmail.com>
Sent: Wednesday, December 31, 2014 3:00 PM
To: Mike Zorba
Subject: Jellystone Camp Resort and commercial marina development project

Dear Mr. Zorba:

I appreciate your time at the scoping meeting and open house held on December 18th. I found the information you shared with me to be informative and valuable. I am the owner of real property in the immediate vicinity of Salt Creek North, the location for the proposed development project. I believe the development as proposed is an optimal use of the site and will prove to be of great benefit to the lake community as well as any prospective visitor to Keystone Lake. The amenities planned for this development project will be a wonderful complimentary addition to the existing offerings at Keystone Lake.

Sincerely,
Charlie Jennemann
918.933.6403

Appendix I

Newspaper Public Notices

~Announcing~

OPEN HOUSE AND SCOPING MEETING

as related to the

Proposed Jellystone Camp Resort™ and Commercial Marina Development Project, Salt Creek Cove North - Keystone Lake, Mannford, Oklahoma

in compliance with

The National Environmental Policy Act

Open House

The U.S. Army Corps of Engineers will host an open house to answer questions about the National Environmental Policy Act process and receive comments about the potential environmental impacts of the proposed Jellystone Camp Resort™ and commercial marina development project located at the Salt Creek Cove North Recreation Area on Keystone Lake in Mannford, Oklahoma. The meeting will be open house format, with no set or formal presentation. Interested persons may arrive anytime between 6:00 – 8:00 p.m., visit the information tables, discuss the action with Corps, City of Mannford, and Keystone Resort & Yacht Club personnel, and make comments. Comments will be collected, made part of the public record, and used to guide the National Environmental Policy Act analysis. The open house will be held at the following location:

Open House
Mannford Senior Citizens Center
169 Greenwood Avenue
Mannford, OK
Thursday, December 18, 2014
6:00 – 8:00 p.m.

Scoping Process

The open house is in compliance with the National Environmental Policy Act. It is one way that agencies gather information and concerns about expected impacts from Federal actions. The Keystone Resort & Yacht Club is proposing to construct and operate a themed recreational park facility and commercial marina to increase tourism and serve the region as a recreational destination area. Keystone Resort & Yacht Club would sublease the property from the City of Mannford, who currently leases the property from the U.S. Army Corps of Engineers. Development over the next one to five years would be anticipated to include the renovation of existing campsites and related existing facilities, the construction of a water park, cabins, parking lots, boat storage, ranger station, maintenance buildings, septic system, miniature golf, go-kart track, kayak rental and launch, courtesy boat slips, boat ramp, floating restaurant, pavilions, a ropes course, hiking trails, swimming/play area, and a 250-slip marina, generally within the approximate 266-acre footprint of the existing Salt Creek North public use area. An environmental assessment will evaluate public and environmental concerns related to the proposed development. As part of the scoping process, the Corps of Engineers requests that the public, interested parties, Federal, State and local agencies take part by identifying issues related to the project and providing input for the environmental assessment. The Corps will include this input as it evaluates impacts associated with this action. Comments and questions are requested by December 31, 2014 and may be forwarded to:

Michael Zorba
Cardinal Engineering, LLC
3750 West Robinson, Suite 140
Norman, OK 73072
e-mail: mike.zorba@cardinalengineers.com

Cleveland News and Sapulpa Herald Ad

Oklahoma Highway Patrol Trooper Lon Wise pets his explosives-detection dog Mayo at a retirement announcement at the agency's Troop B headquarters in Tulsa on Friday. The 9-year-old German shepherd will soon retire to become Wise's pet. Photos by MATT BARNARD/Tulsa World

Longtime OHP bomb-sniffing dog retires

BY DYLAN GOFORTH
World Staff Writer

By the end of the month, a longtime member of the Oklahoma Highway Patrol will retire, earning the opportunity to rest his weary legs — all four of them.

Forget the days of sniffing fields for explosives, the long hours of "proficiency training" and the highly structured meals of strictly dog food, it's time for Mayo, a 9-year-old, 91-pound German shepherd, to relax.

Mayo's handler, Trooper Lon Wise, and a number of other OHP personnel attended a brief retirement ceremony for the "explosives detection dog" Friday in Tulsa, where they were presented with a commendation from Gov. Mary Fallin.

Mayo (pronounced MY-oh) has done sweeps for University of Oklahoma and Oklahoma State University football games, the NBA Finals in Oklahoma City in 2012, as well as presidential sweeps, Wise said. The pair have responded to an average of 40 calls and search warrants each year, Lt. Mike Norman said, finding things like guns under mattresses or stashed in dressers, and even explosives hidden in cabinets.

Wise and Mayo — who is Slovakian born but with an extremely patriotic birthday of July 4, 2005 — got together a little over seven years ago, Wise said. Mayo had been identified as a potential law enforcement dog in his home country, then transported to North Carolina, where he trained for three months. Wise joined him at the end of those three months, training with him for another 30 days, before coming back to Oklahoma.

Mayo, an explosives-detecting dog for the Oklahoma Highway Patrol, enjoys the attention at his retirement announcement Friday.

"I thought of him then as something that may be a good tool for the bomb squad," Wise said. "But over time, he really became family."

While that bond has grown over the years — Mayo lives with Wise, although he's been required to stay outside in a kennel — it's been hard, Wise said, to keep from going soft.

For instance, while most dog owners sneak a treat from the kitchen table to their pet every once in a while, Mayo has never had that opportunity. As a detection dog, he has to be able to clear a house, even one with food on the table, without getting distracted.

"I've wanted to give him, you know, a steak or a steak bone," Wise said. "But I've never been able to. Now, he'll get some steak scraps."

Norman said the retirement, which becomes official Dec. 31, will likely be stressful at first for Mayo, who's used to leaving with Wise every morning. But Wise thinks his former partner will adjust sooner rather than later.

Asked what he thought Mayo would do on his first day off, Wise responded: "I imagine he'll probably sleep in."

Dylan Goforth 918-581-8451
dylan.goforth@tulsaworld.com

4 teens arrested in home-invasion robberies, assaults on elderly woman

BY SAMANTHA VICENT
World Staff Writer

MUSKOGEE — Four teenage boys were arrested Friday in connection with the robberies and assaults on an 83-year-old woman during home invasions on Nov. 22 and 24.

Xavier Taylor and Darius Lockett, both 17, and Demetray Payne and Tremonte Evans, both 15, were booked into the Muskogee County Jail on complaints of robbery with a firearm, and they could face additional complaints as the investigation continues, Muskogee Police Cpl. Mike Mahan said in a press release.

The teenagers' names were released because they're being prosecuted under the Oklahoma Youthful Offender Act, Mahan said.

On Nov. 22, three people broke into the woman's home in the 2600 block of West Okmulgee Street, where they held her at gunpoint while demanding money. One of the assailants struck the woman in the face with a gun before the group stole cash and left, Mahan said.

On Nov. 24, two people entered the woman's home through the back door, again threatened her with a weapon and robbed her of various items, Mahan said. A witness told investigations as many as five boys or men were around the home at the time.

Police haven't yet said how they connected both robberies to the juveniles. All four teenagers are Muskogee residents, Mahan said.

Samantha Vicent 918-581-8321
samantha.vicent@tulsaworld.com

Man convicted of murder in tot's death

NORMAN (AP) — A man charged with killing his girlfriend's 2-year-old daughter was found guilty of first-degree murder.

The Cleveland County jury deliberated for less than two hours Friday before returning the guilty verdict against Jeremy Howard. Howard was charged in the April 11, 2013, death of Kiyla Rose Hosler, who authorities say died due to blunt force trauma to the head.

Jurors recommended Howard be sentenced to life in prison without possibility of parole. District Judge Tracy Schumacher scheduled sentencing for Feb. 18.

Howard said he dropped the child while throwing her in the air. Dr. Chrystal Carter testified the girl suffered multiple bruises, brain swelling and a skull fracture.

Published in the Tulsa World December 13, 2014

OPEN HOUSE AND SCOPING MEETING
for the
Proposed Jellystone Camp Resort™ and Commercial Marina Development Project, Salt Creek Cove North - Keystone Lake, Mannford, Oklahoma
in compliance with The National Environmental Policy Act

Open House

The U.S. Army Corps of Engineers will host an open house to answer questions about the National Environmental Policy Act process and receive comments about the potential environmental impacts of the proposed project. The meeting will be open house format, with no set or formal presentation. Representatives from the Corps, City of Mannford, and Keystone Resort & Yacht Club will be available to discuss the project. The open house will be held Thursday, December 18, 2014 from 6:00 – 8:00 p.m. at the Mannford Senior Citizens Center, 169 Greenwood Avenue, in Mannford, OK.

Scoping Process

The open house is one way that agencies gather information and concerns about expected impacts from Federal actions. The Keystone Resort & Yacht Club is proposing to construct and operate a themed recreational park facility and commercial marina to increase tourism and serve the region as a recreational destination area. Keystone Resort & Yacht Club would sublease the property from the City of Mannford, who currently leases the property from the U.S. Army Corps of Engineers. Development over the next one to five years would be anticipated to include the renovation of the facility and the construction of a water park, cabins and other recreational amenities, and a 250-slip marina, generally within the approximate 266-acre footprint of the existing Salt Creek North public use area. As part of the scoping process, the Corps of Engineers requests that the public, interested parties, Federal, State and local agencies take part by identifying issues related to the project and providing input to help evaluate impacts associated with this action. Comments and questions are requested by December 31, 2014 and may be forwarded to Michael Zorba, c/o Cardinal Engineering, 3750 West Robinson, Suite 140, Norman, OK 73072; e-mail: mike.zorba@cardinalengineers.com

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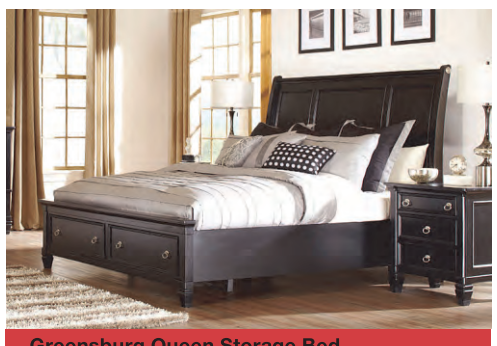

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CPHS girls place 7th at Tahlequah, coach Morrow content

By Kirk McCracken
Managing Editor
[illegible]

TAHLEQUAH — The Lady Sandites went 1-2 in the Tahlequah Tiger Invitational but it's a tournament that won't be forgotten.

CPHS lost the first two games of the tournament in overtimes, falling to Van Buren, Ark. and Rogers Heritage, Ark.

But it was the placement game on Saturday that was the most memorable. CPHS players Grace and Gloria Mutiri's mother passed away and the funeral was set for Saturday. McLain, Sand Springs' opponent, agreed to reschedule the game and signed a card for the Mutiri sisters, giving it to them before the game. McLain also prayed with them and after the two teams shared a meal.

CPHS 55, McLain 29 (7th place game): Sydney Pennington scored a game-high 21 points in a 26-point win over McLain.

CPHS (3-2) jumped out to a 17-2 lead in the first quarter and coasted to a 29-11 lead at halftime.

Selena Hitchcock scored 12 and Gloria Mutiri had 10 to put three Lady Sandites in double figures. Grace Mutiri had five, Morgan Pennington four and Jessica Collins three.

McLain had their best offensive quarter in the fourth, scoring 10 points, which was only one point less than CPHS' 11.

The Lady Sandites are now 3-2 and will face Bishop Kelley Friday, Dec. 19 at Ed Dubie Field House.

Rogers Heritage, Ark. 36, CPHS 33 OT: In a low-scoring game, CPHS went to overtime for the second-straight game and was turned away with a loss, falling to Rogers, Ark. 36-33 Friday.

Senior guard Morgan Pennington scored a team-high 11 points and it's the first time she has led CPHS this season. She hit three 3-pointers, going 3-of-7 from the arc. Morgan also hit a regular basket and was 4-of-8 from the field.

The Lady Sandites trailed after the first quarter but took a narrow 17-16 lead at halftime. The second half was incredibly low-scoring and CPHS scored only five points in the third quarter. At the end of regulation, with the game tied at only 29-29, Rogers out-scored CPHS 7-4 in the overtime for the 36-33 win.

Sydney Pennington, who is averaging just under 20 points a game, ended with 10 points.

Van Buren, Ark. 52, CPHS 51 OT: After battling it out for nearly 36 minutes it all came down to one second.

CPHS lost to Van Buren, Ark. 52-51 on a buzzer beater in overtime Thursday afternoon in the tournament.

Trailing 51-49 with time running out, Van Buren guard Jamilyn Kinney threw up a 3-pointer at the buzzer, beating Sand Springs by one point in over time. It was their first loss of the season.

The Lady Sandites couldn't seem to find a rhythm and had to fight from behind all game long. They trailed by around eight points through most of the first half but the girls made a run before halftime.

Sydney Pennington, who ended with 21 points, hit a couple of buckets to start the third quarter, giving her team a 31-30 lead, but again, it was short-lived.

Trailing late in the fourth quarter, Sand Springs refused to lie down and they fought back, starting with a lay-up from Sydney Pennington. Grace Mutiri hit a 3-pointer with forty-three seconds left in the game, pulling the Lady Sandites within one, 47-46.

Sand Springs was forced to foul and trailed by two points with only seconds to play but Lauren Foster's shot tied the game, forcing overtime.

Van Buren got the ball in the OT and didn't engage, running 1:30 off the clock. A basket from Sydney Pennington gave Sand Springs a 51-49 lead with about thirty seconds to play but Kinney hit the game-winner for Van Buren, handing CPHS their first loss.

Sydney Pennington scored a team-high 21 points and C.J. Scott added 15.

KIRK MCCRACKEN/LEADER

CPHS guard Sydney Pennington, left, averaged 17.5 a game in the Tahlequah Tiger Invitational this past weekend.

KIRK MCCRACKEN/LEADER

Sydney Pennington, right, hits a free throw in an overtime loss to Van Buren, Ark. Thursday at Tahlequah.

CPHS girls place 7th

THURSDAY

Van Buren 52, CPHS 51 OT

Van Buren 20 8 15 5 4 — 52
CPHS 12 13 14 9 3 — 51
CPHS: S. Pennington 21, Scott 15, G. Mutiri 4, Ma. Pennington 3, Foster 3, G. Mutiri 3, Collins 2.

FRIDAY

Rogers, Ark. 36, CPHS 33 OT

CPHS 7 10 5 7 4 — 33
Rogers 8 8 8 7 7 — 36
CPHS: Ma. Pennington 11, Sydney Pennington 10, G. Mutiri 5, Scott 3, Collins 2, Foster 2.

SATURDAY

CPHS 55, McLain 29

CPHS 17 12 15 11 — 55
McLain 7 9 8 10 — 29
CPHS: Sydney Pennington 21, Hitchcock 12, G. Mutiri 10, G. Mutiri 5, Ma. Pennington 4, Collins 3.

~Announcing~

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Open House

The U.S. Army Corps of Engineers will host an open house to answer questions about the National Environmental Policy Act process and receive comments about the potential environmental impacts of the proposed Jellystone Camp Resort™ and commercial marina development located at the Salt Creek Cove North Recreation Area on Keystone Lake in Mannford, Oklahoma. The meeting will be open house format with no set or formal presentation. Interested persons may arrive anytime between 6:00 – 8:00 p.m., visit the information tables, discuss the action with Corps, City of Mannford, and Keystone Resort & Yacht Club personnel, and make comments. Comments will be collected, made part of the public record, and used to guide the National Environmental Policy Act analysis. The open house will be held at the following location:

Open House
Mannford Senior Citizen Center
[illegible] Greenwood Avenue
Mannford, OK
Thursday, December 18, 2014
6:00 – 8:00 p.m.

Scoping Process

The open house is in compliance with the National Environmental Policy Act. It is one way that agencies gather information and receive those responsible impacts from Federal actions. The Keystone Resort & Yacht Club is proposing to construct and operate a desired recreational park facility and campground marina to increase tourism and serve the region as a recreational destination area. Keystone Resort & Yacht Club would sublease the property from the City of Mannford, who currently leases the property from the U.S. Army Corps of Engineers. Developments over the next one to five years would be anticipated to include the construction of swimming campsites and related recreational facilities, the construction of a water park, cabins, parking lots, boat storage, office, entertainment buildings, septic system, extensive golf go-kart track, kayak rental and launch, courtesy boat slips, boat ramp, floating restaurant, pavilions, a ropes course, hiking trails, overnight tent area, and a 20-ship marina generally within the approximate 100-acre footprint of the existing Salt Creek North public use area. An environmental assessment will evaluate public and environmental concerns related to the proposed development. As part of the scoping process, the Corps of Engineers requests that the public, interested persons, Federal, State and local agencies take part by identifying issues related to the project and providing input for the environmental assessment. The Corps will include this input in its evaluation. Comments and questions are requested by December 31, 2014 and may be forwarded to:

Michael Zerbe
Cardinal Engineering, LLC
2700 West Robinson, Suite 110
Norman, OK 73072
e-mail: [illegible]

FAITH COLUMN

We often ignore our own mortality

By Rick Cope
Pastor
Angus Church

One of the most difficult things we face as human beings is our own mortality.

We do not even like to talk about it but would rather ignore it. Of course we know it is inevitable. Scripture makes it clear as human beings we are made in the image of God. This is not a reference to our physical appearance but to the fact that we have a soul and spirit which is eternal. This means though our physical bodies may die our soul and spirit will live on eternally. Obviously at death the destiny of our soul and spirit is of great concern.

Scripture teaches there are only two destinations at death, heaven or hell. Heaven being the place prepared for those who have given control of their lives to Jesus Christ having experienced His forgiveness and grace. Hell being the place of suffering and torment prepared for those who reject the love and grace of Jesus Christ and attempt to live life on their own terms. The decision as to which place your soul and spirit ends up is entirely up to you. You have been given free will and you must exercise it for yourself.

If we knew the exact moment we would die we could possibly put off such a decision until the last moment. However, life does not offer us this knowledge so we must prepare ourselves for the inevitable by taking the time to consider what eternal destiny you want for yourself. I cannot imagine anyone choosing hell though Scripture makes it clear that wide is the way that leads to destruction and there are many who choose it. As you read this I hope you will stop to consider the destiny of your soul and spirit. None of us have any guarantee of tomorrow so real wisdom would be to make a decision now so that you know where you will spend eternity.

Jesus simply asks us to surrender our will to His, ask Him for forgiveness of our sin with a sincere attitude of being sorry for our sin, and invite Him into our lives to be our Savior and to be the Lord or boss of our life. When this is done in sincerity Scripture teaches you are made new inside, become a child of God, and have a place prepared for you in Heaven. What an incredible Christmas present to your self and to your family and friends. If you have already done this or you are going to do it, please tell your family about it so when your time of death comes they will know where you are spending eternity. Trust me that will be the best gift you could ever give them.

FILE PHOTO

—Announcing—

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Michael Zerba
Cardinal Engineering, LLC
3700 West Robinson, Suite 140
Norman, OK 73072
e-mail: mike.zerba@cardinalengineers.com

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COURTESY

Members of the Sand Springs Masonic Lodge are shown donating money to the Mike Clancy Tulsa County Sheriff's Office Christmas Toy Fund.

News! SandSpringsLeader.com

~Announcing~

OPEN HOUSE AND SCOPING MEETING

as related to the

Proposed Jellystone Camp Resort™ and Commercial Marina Development Project, Salt Creek Cove North - Keystone Lake, Mannford, Oklahoma

in compliance with

The National Environmental Policy Act

CLICK HERE FOR MORE INFORMATION.

Appendix J

Draft EA Comments

DEPARTMENT OF ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

March 24, 2015

Operations Division
Natural Resources and Recreation Branch

TO INTERESTED PARTIES

In accordance with the National Environmental Policy Act of 1969, including guidelines in 33 Code of Federal Regulations, Part 230, the Tulsa District has assessed the environmental impacts of the construction of a themed recreational park facility and commercial marina at the existing Salt Creek North Recreation Area on Keystone Lake, Oklahoma. The City of Mannford, Oklahoma, through its proposed sublessee, Keystone Resort and Yacht Club, is proposing to fully fund, construct, maintain, and operate all facilities in order to improve overall recreational opportunities at Keystone Lake. The proposed Jellystone Camp Resort™ and Commercial Marina would be constructed within Salt Creek North Park – an existing and currently-developed recreation area on Keystone Lake located along the north side of State Highway 51, approximately one mile east of Mannford, Oklahoma.

A draft environmental assessment (EA) to assess impacts associated with the proposed action has been prepared in accordance with the National Environmental Policy Act of 1969. It has been determined from the draft EA that this action will have no significant adverse impacts on the natural or human environment.

A copy of the draft EA and Finding of No Significant Impact (FONSI) is enclosed on compact disc. By this letter, we are requesting any comments you might have on the draft EA. In order to be considered, comments must be received **no later than April 27, 2015**. Contact information for submission of comments is as follows: Mr. Mike Zorba, Cardinal Engineering, LLC, 3700 West Robinson, Suite 200, Norman, OK 73072; e-mail: mike.zorba@cardinalengineers.com.

Sincerely,

Stephen L. Nolen
Chief, Natural Resources
and Recreation Branch

Enclosure

Courtesy Title	First Name	Middle Initial	Last Name	Title	Company One	Department	Address	Suite Number	City	State	Zip
Mr.	Jontie		Aldrich	Acting Field Supervisor	U. S. Fish and Wildlife Service	Oklahoma Ecological Services Field Office	9014 E. 21st Street		Tulsa	OK	74129
Dr.	Bob		Blackburn	State Historic Preservation Officer	Oklahoma Historical Society	Oklahoma History Center	800 Nazih Zuhdi Drive		Oklahoma City	OK	73105
Ms.	Sharon	Osowski	Morgan	Ecologist/Environmental Scientist	Office of Environmental Justice and Tribal Affairs	U. S. EPA Region 6	Mailcode 6RA-DA, 1445 Ross Ave		Dallas	TX	75202
Mr.	Ron		Curry	Federal Region VI Administrator	U. S. Environmental Protection Agency		1445 Ross Avenue	Suite 1200	Dallas	TX	75202
Mr.	Gary		O'Neill	State Conservationist	USDA, Natural Resources Conservation Service		100 USDA	Suite 206	Stillwater	OK	74074
Mr.	Richard		Hatcher	Director	Oklahoma Department of Wildlife Conservation		1801 N. Lincoln Blvd.		Oklahoma City	OK	73105
Mr.	Scott		Thompson	Executive Director	Oklahoma Department of Environmental Quality		P. O. Box 1677		Oklahoma City	OK	73101
Ms.	Kristi		Roy		Oklahoma Department of Environmental Quality	Water Quality Division	P. O. Box 1677		Oklahoma City	OK	73101-1677
Mr.	J. D.		Strong	Executive Director	Oklahoma Water Resources Board		3800 N. Classen Boulevard		Oklahoma City	OK	73118
Mr.	Derek		Smithee	Chief, Water Quality Programs Division	Oklahoma Water Resources Board		3800 N. Classen Boulevard		Oklahoma City	OK	73118
Mr.	Trey		Lamb	Executive Director	Oklahoma Conservation Commission		2800 N. Lincoln Boulevard	Suite 160	Oklahoma City	OK	73105
Ms.	Shanon		Phillips	Director, Water Quality Programs	Oklahoma Conservation Commission		2800 N. Lincoln Boulevard	Suite 160	Oklahoma City	OK	73105
Mr.	Ian	H.	Butler		Oklahoma Natural Heritage Inventory	Oklahoma Biological Survey	111 E. Chesapeake Street		Norman	OK	73019-0575
Dr.	Robert	L.	Brooks		University of Oklahoma	Oklahoma Archeological Survey	111 E. Chesapeake Street		Norman	OK	73019-0575
Mr.	Tim		Vermillion	NEPA Project Manager, Division 4	Oklahoma Department of Transportation	Environmental Programs Division	200 N. E. 21st Street	Room 3D2a	Oklahoma City	OK	73105
Ms.	Deby		Snodgrass	Executive Director	Oklahoma Tourism and Recreation Department		120 N. Robinson, 6th Floor		Oklahoma City	OK	73102
Chief	Tarpie		Yargee		Alabama-Quassarte Tribal Town, Oklahoma		P. O. Box 187		Wetumka	OK	74883
Mr.	Mekko	Tiger	Hobia		Kialegee Tribal Town, Oklahoma		P. O. Box 332		Wetumka	OK	74883
Principal Chief	A. D.		Ellis		Muscogee (Creek) Nation, Oklahoma		P. O. Box 580		Okmulgee	OK	74447
Principal Chief	John	Red	Eagle		Osage Nation, Oklahoma		P. O. Box 779		Pawhuska	OK	74056
President	George	E.	Howell		Pawnee Nation of Oklahoma		P. O. Box 470		Pawnee	OK	74058
Principal Chief	George		Thurman		Sac & Fox Nation, Oklahoma		Route 2, Box 246		Stroud	OK	74079
Principal Chief	Leonard		Harjo		Seminole Nation of Oklahoma		P. O. Box 1498		Wewoka	OK	74884
Mekko	George		Scott		Thlopthlocco Tribal Town, Oklahoma		P. O. Box 188		Okemah	OK	74859
President	Leslie		Standing		Wichita Affiliated Tribes of Oklahoma		P. O. Box 729		Anadarko	OK	73005
Ms.	Dawn	Ell	Carson				P. O. Box 327		Mannford	OK	74044
Mr.	Tyler		Buttram				P. O. Box 1405		Mannford	OK	74044
Ms.	Joyce		Martin				P. O. Box 1865		Mannford	OK	74044
Mr.	Foy		Howerton				109 Angler Avenue		Mannford	OK	74044
Mr.	Charles		???				P. O. Box 747		Mannford	OK	74044
Mr.	Earl		Hart				125 Deer Drive		Mannford	OK	74044
Ms.	Lindsey		Cooper				360835 West 1st Street S.		Jennings	OK	74038
	Craig & Dana		Chaffin				25004 W. 49th Street		Sand Springs	OK	74063
Ms.	Lisa		Jenkins				P. O. Box 1088		Mannford	OK	74044
Mr.	Terry		Hoyle				P. O. Box 405		Mannford	OK	74044
Mr.	Jerri		Saliba				P. O. Box 410		Mannford	OK	74044
Mr.	Adam		Gilbert				2378 S. 353rd West Avenue		Mannford	OK	74044
Mr.	Rickey		Hayes				12150 East 96th Street North	Suite 104	Owasso	OK	74055
Ms.	Linda		Daniel				103 Angler Avenue		Mannford	OK	74044
Mr.	Bill		Leatherman				103 Elk Ridge Dr.		Mannford	OK	74044
Ms.	Elizabeth		Gray	City Manager	City of Sand Springs		P. O. Box 338		Sand Springs	OK	74063
Mr.	Bill		Timmons				bftimmons@cimtel.net				
Mr.	Charles		Jennemann				getcharlie@hotmail.com				
Mr.	Sean		Adair				seana@keystonepier51marina.com				
Mr.	Jim		Clifton				P. O. Box 606		Mannford	OK	74044
Mr.	Layne		Herring				1715 E. Angel Ln.		Cleveland	OK	74020
Mr.	Kevin		Olsen				12412 W. 68th Street South		Sapulpa	OK	74066
Mr.	Vernon		Butts				1509 Basin Rd.		Mannford	OK	74044
Mr.	Phil		Hershberger				16 Woodland Rd.		Sapulpa	OK	74066
Mr.	Joe		Martin				146 N. Salt Creek Dr.		Mannford	OK	74044
Ms.	Morgan		Downing		FOX 23		mdowning@fox23.com				
Mr.	Johnnie		Bozarth				120 N. Salt Creek Dr.		Mannford	OK	74044
	Carl & Tammy		Doss				1100 S 222 West Avenue		Sand Springs	OK	74063
	Chad & Erin		Berryhill				5456 West Rule Drive		Terlton	OK	74081
	Bob & Sue		Surber				139 N. Salt Creek Drive		Mannford	OK	74044
Mr.	Joe		Moore				1989 Crosstimbers Lane		Mannford	OK	74044
Ms.	Alicia		Mendez				583 Gibson		Mannford	OK	74044
Ms.	Jennifer		Roggendorff				2388 Stone Creek Way		Mannford	OK	74044
Mr.	Mike		Nunneley	City Administrator	City of Mannford		300 Coonrod		Mannford	OK	74044-0327
Mr.	Elzie		Smith	City Manager	City of Cleveland		201 N. Broadway Street		Cleveland	OK	74020
Mr.	Patrick		Kennedy	Mayor	City of Oilton		101 West Main Street		Oilton	OK	74052
Principal Chief	George		Tiger		Muscogee (Creek) Nation, Oklahoma		P. O. Box 580		Okmulgee	OK	74447
Principal Chief	Geoffrey		Standing Bear		Osage Nation, Oklahoma		P. O. Box 779		Pawhuska	OK	74056
President	Marshall		Gover		Pawnee Nation of Oklahoma		P. O. Box 470		Pawnee	OK	74058
President	Terri		Parton		Wichita and Affiliated Tribes of Oklahoma		P. O. Box 729		Anadarko	OK	73005
CrossTimbers The Harbor Marina							1989 Crosstimbers Lane		Mannford	OK	74044
Keyport Marina							1200 S. Keyport Road		Mannford	OK	74044
Pier 51 Marina							1926 S. Highway 151		Sand Springs	OK	74063
Westport Marina							Rt. 3, Box 3-4		Cleveland	OK	74020
Mr.	Chris		Turner	Administrator	Southwestern Power Administration		One West Third Street		Tulsa	OK	74103-3502

Department of Energy
Southwestern Power Administration
One West Third Street
Tulsa, Oklahoma 74103-3502

April 27, 2014

Mr. Mike Zorba
Cardinal Engineering, LLC
3700 West Robinson
Norman, OK 73072

RE: Draft Environmental Assessment for Proposed Jellystone Camp Resort and Commercial Marina Dated March 24, 2015

Dear Mr. Zorba:

This letter provides the comments of Southwestern Power Administration (Southwestern) on the draft environmental assessment (draft EA) for the proposed Jellystone Camp Resort and Commercial Marina on Keystone Lake (Resort) dated March 24, 2015. Southwestern is a power marketing administration within the U.S. Department of Energy that markets hydroelectric power from 24 Federal multi-purpose water resources projects constructed and operated by the U.S. Army Corps of Engineers (Corps), located in the states of Arkansas, Missouri, Oklahoma, and Texas. Southwestern's marketing region includes those four states as well as Kansas and Louisiana. Southwestern schedules, markets, and distributes the hydroelectric power generated from Keystone Dam and, as such, has a clear and direct interest in any activities which may impact the operation of Keystone Lake. Southwestern's concerns regarding the draft EA are enumerated below.

Foremost, Southwestern maintains that hydropower releases from Keystone Dam shall not be limited due to perceived low lake level. The Keystone Lake conservation pool extends from elevation 723 feet to elevation 706 feet and 87 percent of that conservation pool storage is authorized for and allocated to the hydropower purpose. The remainder of the storage is authorized for municipal and industrial water supply. As such, the conservation pool storage is allocated to and paid for by Federal hydropower and water supply customers. The top of the conservation pool (723 feet) is not a target elevation; rather it is the elevation at which operations transition from flood control (above the top of conservation pool) to conservation storage project purposes (below the top of conservation pool). Keystone Lake is designed so that inflows combined with the conservation pool storage provide a reliable water source for the hydropower and water supply authorized purposes to which conservation pool storage is allocated, especially during times of drought. Therefore, the hydropower purpose maintains the full use of its authorized storage at Keystone Lake, following Corps established drawdown limits of one foot per one week period and three feet per four week period. However, it should be noted that drawing down the entire hydropower storage is not typical; in fact, it is Southwestern's practice to maintain the conservation pool above 50 percent full (about elevation 716 feet), if possible, to preserve hydropower capacity.

Several figures in the draft EA, including Figure 3-B, show proposed locations of features with elevation lines overlaid. It is apparent that multiple features of the Resort become limited or inaccessible at or below elevation 720 feet. Keystone Lake regularly drops below elevation 720 feet, which is equivalent to the conservation pool storage at about 75 percent full. During the last 20 years, Keystone Lake dropped below elevation 720 feet in 16 different years. Southwestern is concerned that the Resort design may not take into account its viable functionality given typical operation of Keystone Lake for authorized project purposes to which the conservation pool is allocated, including normal hydropower releases.

It is of utmost importance that the Resort developers should understand that Keystone Lake levels will fluctuate depending on a variety of factors, including rainfall (or lack thereof), flood control operations, and conservation pool storage use (water supply and power demand). Therefore, Southwestern recommends that the Resort developers should seriously consider the design and feature functionality at lower lake elevations. Additionally, it should be recognized that the Resort construction and operation must not negatively impact conservation pool operations for the Congressionally-authorized conservation pool storage purposes of hydropower and water supply.

We appreciate the opportunity to provide comments concerning the Resort. Please contact Tyler Gipson at 918-595-6685 or Tyler.Gipson@swpa.gov if you have any questions regarding our comments.

Sincerely,

Fritha Ohlson
Director
Division of Resources and Rates

cc:
Nicki Fuller
Executive Director
Southwestern Power Resources Association

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

April 23, 2015

Richard A. Pratt
Colonel, U.S. Army
District Engineer
U. S. Army Corps of Engineers (USACE)
Tulsa District
1645 S. 101 E. Avenue
Tulsa, OK 74128-4629

Dear Colonel Pratt:

In accordance with Section 309 of the Clean Air Act, the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) Regulation for Implementing NEPA, EPA Region 6 has completed its review of the Draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) prepared by the Tulsa District USACE on the proposed construction of a themed recreational park facility and commercial marina at the existing Salt Creek North Recreation Area on Keystone Lake in Oklahoma.

The City of Mannford, Oklahoma, through its proposed sub-lessee, Keystone Resort and Yacht Club, is proposing to fully fund, construct, maintain, and operate all facilities in order to improve overall recreational opportunities at Keystone Lake. The proposed Jellystone Camp Resort and Commercial Marina would be constructed within Salt Creek North park, an existing and currently-developed recreation area on Keystone Lake located along the north side of State Highway 51, approximately one mile east of Mannford, Oklahoma. The facilities could include, but not be limited to, expanded recreational vehicle (RV) camping sites, water park(s), rental cabins, boat storage, a ranger station, maintenance buildings, miniature golf, go kart track, kayak rental, courtesy boat slips, a 250-slip marina, floating restaurant, pavilions, ropes course, hiking trails, and swimming play area(s). Construction of recreational features is proposed to occur in phases, with work proposed to begin in 2015 and completed in 2019.

Based upon the potential impacts described in the Draft EA, EPA has no objection to the planned theme park. We have enclosed comments on air quality for your consideration to assure minimal impact and to strengthen the NEPA document.

Thank you for this opportunity to review this Draft EA and FONSI. If you have any questions or concerns, please contact Michael Jansky of my staff at 214-665-7451 or by e-mail at jansky.michael@epa.gov for assistance.

Sincerely,

Marie Stucky, Acting Chief
Office of Planning and Coordination
Office of Strategic Planning and Analysis

Enclosure:

Air Quality Comments
on the
Draft Environmental Assessment (EA)
For the
Proposed Jellystone Camp Resort and Commercial Marina Project
Manford, Oklahoma

Comment: PM_{10} Emissions and Fugitive Dust Control

EPA believes it is especially important that mitigation measures include the use of best management practices for PM_{10} and fugitive dust control (e.g., gravel roads, soil wetting practices, limiting access, traffic and speed reduction). In order to further reduce potential air quality impacts, the responsible parties should develop a more detailed Construction Emissions Mitigation Plan (Plan) – or modify Section 7.4 Air Quality of the EA accordingly.

EPA recommends that, in addition to all applicable local, state, or federal requirements, the following mitigation measures be included (**as applicable and practicable**) in the Plan in order to reduce air quality impacts associated with emissions of NOx, CO, CO_2, PM, SO_2, and other pollutants from construction-related activities, any planned structural and non-structural activities, and possible future modifications to the roadway system:

Recommendations:

- *Construction Emissions Mitigation Plan* – we recommend the following control measures be included (**as applicable and practicable**) in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of particulate matter and other pollutants from construction-related activities:

    - Fugitive Dust Source Controls: We recommend that the plan include these general commitments:
        - Stabilize heavily used unpaved construction roads with a non-toxic soil stabilizer or soil weighting agent that will not result in loss of vegetation, or increase other environmental impacts.
        - During grading, use water, as necessary, on disturbed areas in construction sites to control visible plumes.
        - Vehicle Speed
            - Limit speeds to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions.
            - Limit speeds to 10 miles per hour or less on unpaved areas within construction sites on un-stabilized (and unpaved) roads.
            - Post visible speed limit signs at construction site entrances.
        - Inspect and wash construction equipment vehicle tires, as necessary, so they are free of dirt before entering paved roadways, if applicable.

- Provide gravel ramps of at least 20 feet in length at tire washing/cleaning stations, and ensure construction vehicles exit construction sites through treated entrance roadways, unless an alternative route has been approved by appropriate lead agencies, if applicable.
- Use sandbags or equivalent effective measures to prevent run-off to roadways in construction areas adjacent to paved roadways. Ensure consistency with the project's Storm Water Pollution Prevention Plan, if such a plan is required for the project.
- Sweep the first 500 feet of paved roads exiting construction sites, other unpaved roads en route from the construction site, or construction staging areas whenever dirt or runoff from construction activity is visible on paved roads, or at least twice daily (less during periods of precipitation).
- Stabilize disturbed soils (after active construction activities are completed) with a non-toxic soil stabilizer, soil weighting agent, or other approved soil stabilizing method.
- Cover or treat soil storage piles with appropriate dust suppressant compounds and disturbed areas that remain inactive for longer than 10 days. Provide vehicles (used to transport solid bulk material on public roadways and that have potential to cause visible emissions) with covers. Alternatively, sufficiently wet and load materials onto the trucks in a manner to provide at least one foot of freeboard.
- Use wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) where soils are disturbed in construction, access and maintenance routes, and materials stock pile areas. Keep related windbreaks in place until the soil is stabilized or permanently covered with vegetation.

- Mobile and Stationary Source Controls:
  - Plan construction scheduling to minimize vehicle trips.
  - Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections.

MUSCOGEE (CREEK) NATION

Cultural Preservation Johnnie Jacobs – Manager

May 1, 2015

Mr. Stephen L. Nolen
Department of the Army
U.S. Army Corps of Engineers, Tulsa District
1645 South 101st East Ave.
Tulsa, OK 74128-4609

RE: City of Mannford - Keystone Resort and Yacht Club
Salt Creek North Recreation Area
Keystone Lake, Creek Co., OK

Dear Mr. Nolan:

Thank you for contacting the Muscogee (Creek) Nation Cultural Preservation Office in reference to your request for comments regarding the above project.

After review of the material provided, it has been determined that the Muscogee (Creek) Nation has no objections to this project.

Please consider this letter as our concurrence to your request and findings and support of the planned activities and projects. .

Should further information or comment be required please do not hesitate to contact me at (918) 732-7732 or by email at davidp@mcn-nsn.gov. Thank you.

Sincerely,

David J. Proctor
Muscogee (Creek) Nation
Cultural Preservation Dept.

P.O. Box 580 • Okmulgee, OK 74447 • Phone 918-732-7732 • Fax (918) 758-0649

Mike Zorba

From: Layne Herring <layne_herring@yahoo.com>
Sent: Friday, April 24, 2015 6:40 AM
To: Mike Zorba
Subject: EA for Lake Keystone Jellystone Camp Resort

Mr. Zorba,

We have a permanent residence and reside on Lake Keystone. You sent me a copy of the Jellystone Camp Resort EA report on compact disk. I have reviewed this submission and would like to comment that we fully support this project. It appears well planned and should further enhance the recreational opportunities available to the public on beautiful Keystone Lake.

Regards,
Layne & Cathy Herring
1715 E Angel Lane
Cleveland, OK 74020

(Keystone Lake, Pawnee County)

Mike Zorba

From: Charles <getcharlie@hotmail.com>
Sent: Monday, April 27, 2015 12:00 PM
To: Mike Zorba
Subject: Draft Environmental Assessment for Jellystone at Salt Creek North

Dear Mr. Zorba:

I appreciate your work on the Draft Environmental Assessment for the proposed Jellystone Camp Resort and Commercial Marina to be located in Mannford on the U.S. Army Corps of Engineers property at Salt Creek North. The assessment is comprehensive, giving broad consideration to potential impact. The information is interesting and provides insight into a wide variety of concerns.

I am pleased that your study has determined the proposed development will have no significant impact on the environment. The Jellystone development will certainly prove to be a great benefit to the local community and help to optimize the usefulness of this recreation area. The attraction to the public shall move Keystone Lake towards maximizing its recreational intent.

Sincerely,
Charles Jennemann
918.933.6403

Mike Zorba

From: Joe Martin <jmarfurn@yahoo.com>
Sent: Friday, April 17, 2015 10:57 AM
To: Mike Zorba
Subject: Jellystone Park @ Mannford OK

Your letter states that no significant adverse impacts on the natural or HUMAN environment were found.

Already, with the park under construction, I cannot use the boat ramps I have used for years. When open the park will cause increased highway traffic, increased boat traffic, more fishing in a lake that does not have good fishing now, more noise pollution, AND MOST OF ALL, MORE DRUNKS ON THE HIGHWAY AND ON THE LAKE.

And you say no adverse HUMAN impacts. Well, your study is wrong, just plain wrong. But I believe the park was a shoe in before it was announced or you were asked to do the study. That's my 2 cents worth. YOU NEED TO START OVER ON THE HUMAN IMPACTS STUDY.

Joe Martin