

FINAL
ENVIRONMENTAL ASSESSMENT
COMMERCIAL MARINA PROJECT
PRAIRIE VIEW LEASE ON KEYSTONE LAKE, OKLAHOMA

PROJECT PROPONENT:

CITY OF MANNFORD
MANNFORD, OKLAHOMA

PREPARED FOR:

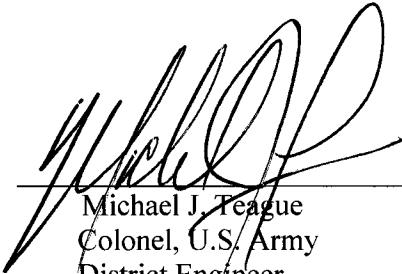
U.S. ARMY CORPS OF ENGINEERS
TULSA DISTRICT
TULSA, OKLAHOMA

NOVEMBER 2011

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 construction and operation of a new commercial marina and related recreational facilities at the City of Mannford, Oklahoma Prairie View Lease on Keystone Lake, Oklahoma. The City of Mannford proposes to construct and operate a new marina under the "Clean Marina" concept and provide other facilities to include a heated fishing dock, expanded parking, cabins, and other amenities. Land-based facilities are proposed for construction within the existing Prairie View/New Mannford camping/boat ramp area leased to and managed by the City of Mannford. On-water marina facilities would require lease expansion to include approximately 19 acres of water surface in the area. The enclosed environmental assessment, which is incorporated by reference, indicates the above actions would have no significant adverse effects on the natural or human environment. Therefore, an environmental impact statement will not be prepared.

2 Dec 2011
Date



Michael J. Teague
Colonel, U.S. Army
District Engineer

Enclosure
Final Environmental Assessment

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- Attachment 2: Cultural Resources Survey Report and Correspondence
- Attachment 3: Scoping Information and Comments
- Attachment 4: Comments Received on DRAFT Environmental Assessment

**FINAL
ENVIRONMENTAL ASSESSMENT
COMMERCIAL MARINA PROJECT, PRAIRIE VIEW LEASE,
KEYSTONE LAKE, OKLAHOMA**

I. PURPOSE, NEED, AND SCOPE

The purpose of this Environmental Assessment (EA) is to assess the environmental impacts from the proposed construction of a commercial marina (boat docks and on-water facilities, sales/service buildings, and parking) and other recreational amenities on Federal lands at Keystone Lake in Creek County, Oklahoma. The area is currently under lease to the City of Mannford, Oklahoma and includes the existing location of the Prairie View boat ramp, courtesy dock, camping area, and other related facilities. Although Federal lands in this area are already currently zoned under the Keystone Lake Master Plan for recreation (high density) use and part of an existing recreational lease, changes in the current land use in some areas will result from the proposed construction activities. This EA was prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended.

Keystone Lake was authorized for construction by the Flood Control Act approved 17 May 1950 (Project Document SD 107, 81st Congress, and 1st Session). Purposes of the Keystone Lake project include flood control, water supply storage, recreation, hydroelectric power, navigation, and fish & wildlife.

The proposed marina project and other facilities would require approximately 6 acres of land and 19 acres of water; all land for the proposed project is within the current existing lease area, however, the water portion would need to be added to the existing lease.

II. ALTERNATIVES INCLUDING PROPOSED ACTION

A. No Action

Analysis of a No Action alternative is required under NEPA. Under this alternative, constructed facilities in the existing City of Mannford lease area would remain and operate as they do at present. None of the facilities contemplated under the proposed action, to include a new marina and associated parking area, would be constructed and environmental conditions would remain as they do at present. Opportunities for enhanced recreation in the Prairie View lease area near Mannford, Oklahoma associated with proposed features would not be realized.

B. Purchase an Existing Marina Facility

This alternative would retain existing conditions and would not result in any project related environmental impacts or changes from present conditions in the Prairie View

lease area. Instead, an existing marina would be purchased to meet required needs. Currently, existing marina operators are not pursuing the sale of their facilities or have recently experienced significant damage to their existing facilities. This alternative would therefore not be considered a viable option for a purchase and expansion proposition. Existing marinas do not meet “Clean Marina” standards desired by the City of Mannford. This alternative would therefore not be in the best interest of or meet the needs of the City of Mannford or its sub-lessee.

C. Construct Marina Facilities and Related Amenities

This alternative would provide a high quality, “clean marina” facility along with service and sales buildings. The “clean marina” concept of marina development and operation seeks to minimize any environmental impact of the construction and operations of the marina. Best management practices are employed to improve petroleum control, waste management, stormwater control, among many others. The construction of structures is designed to minimize excavation and reduce disturbance to native vegetation and natural topography. Proposed structures on land would include the following: boat show room, service building, recreational area, caretaker facility and parking lot. Proposed on-water structures would include fueling station, pump-out station, food service, and ship store. Initially, 150 commercial marina slips would be proposed for construction. In addition, a public heated fishing dock would be constructed and operated adjacent to existing Prairie View recreational facilities. Finally, depending upon future market demand, small rental cottages could be constructed on the east end of the lease area and minor recreational amenities such as playgrounds, a swimming pool, sports courts (e.g., basketball and volleyball), nature trails, and picnic areas constructed within the existing lease area as appropriate. Locations of all proposed features associated with initial phases of development are shown in Attachment 1. Landscaping and plantings would include native grasses, trees and shrubs. Buildings would be constructed in concert with the local environment not at the price of the local environment. All of the proposed facilities would be public facilities.

D. Potential Future Development Plan

Alternative C above includes all features proposed under an initial phase of development (Phase 1). At this time, these features are all that are proposed for this area. Should market demand indicate the need for future amenities in this area, future construction of other features may be considered. Such future development would be subject to a decision regarding the need for additional NEPA analysis and compliance with other Federal environmental laws.

E. Proposed Action

The proposed action is Alternative C as described above.

III. AFFECTED ENVIRONMENT

A. Location

The proposed marina facility would be located at Prairie View/New Mannford Cove. The marina would be built on approximately 6 acres of U.S. Army Corps of Engineer Tulsa District (Tulsa District) land and 19 acres of water located to the south and west of the dam. A site map is provided as Attachment 1.

B. Climate

Keystone Lake lies in a region characterized by moderate winters and comparatively long summers with relatively high temperatures. The summer rains usually occur as thunderstorms of short duration and limited extent but with intense rainfall. The winter rains are generally of low intensities but cover large areas and are several days in duration. Normal annual precipitation over the watershed is about 37.1 inches. May is normally the wettest month and December the driest; however major storms may occur at any time during the year. Nearly two-thirds of the precipitation occurs during the growing season, April through September. Annual snowfall averages around 8.9 inches per year.

The mean temperature for the area is around 60°F with record extremes ranging from a minus 26°F to a plus 115°F. The Keystone Lake watershed is in an area of prevailing southerly winds. Greatest wind movements occur in the spring months. A study of available wind velocity data indicates that 45 miles per hour is the highest wind velocity that can be reasonably expected for the duration of one hour or more.

C. Social and Economic Conditions

1. Study Area. Creek County is in north-central Oklahoma and is bordered to the north by Pawnee and Osage Counties and to the east by the Tulsa metropolitan area. Keystone Lake, due to its size, is located within five counties with the proposed project being located in the north-central portion of Creek County. The lake is operated by the U.S. Army Corps of Engineers. The Prairie View camping facilities maintain approximately a 100% occupancy rate on weekends and some weekdays (turning away a number of individuals during the season). While seasonal changes may be experienced, the three (3) existing marinas on Keystone Lake (Pier 51, Keyport, Westport) generally operate in a range near the upper end of existing capacities.

2. Population. The 2010 Census data provide current county populations. The current population of Creek County is 69,967 as of 2010. The populations of Osage, Pawnee, and Tulsa Counties are 47,472, 16,577, and 603,403, respectively. The City of Mannford has seen a growth rate of approximately 45% over the last 10 years.

3. Employment and Income. The economy is primarily based on agriculture, livestock, and oil and gas production. The unemployment rate in Creek County was

6.9% in 2010. The 2010 per capita income for Creek County was \$20,937 compared to \$22,561 per capita for the State.

4. Social Ecology. Land use in the Keystone Lake area is very diverse ranging from residential, ranching and commercial/retail. Over the past ten years numerous housing developments have emerged surrounding the lake. Entry level to upscale housing has been built on all sides of the lake due to its close proximity to the Tulsa metropolitan area. As additional amenities are constructed on and around Keystone Lake, more land within the area will become available for development. The City of Mannford has recently been discussing a \$20 million real estate project with major Tulsa developers.

5. Environmental Justice. Executive Order (EO) 12898 requires federal agencies to identify and address disproportionately high and adverse human health and environmental effects of federal programs, policies, and activities on minority and low-income populations. Federal agencies are directed to ensure that federal programs or activities do not result, either directly or indirectly, in discrimination on the basis of race, color or national origin. Federal agencies are required to provide opportunities for input in the NEPA process from affected communities and to evaluate significant and adverse environmental effects proposed federal actions on minority or low-income communities during the preparation of federal environmental documents. The proposed project was evaluated in accordance with EO 12898.

6. Protection of Children from Environmental Health Risks and Safety Risks. Executive Order 13045 requires federal agencies shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children. Federal agencies are directed to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health and safety risks. The proposed project was evaluated in accordance with EO 13045.

D. Natural Resources

1. Terrestrial. Keystone Lake is located in the Eastern Cuesta plains subdivision of the Interior Lowlands physiographic (Bailey 1995). The Central Lowland is further divided into: Dissect Till Plains, Osage Plains, Chautauqua Hills and the Flint Hills. Only the Chautauqua Hills and Osage Plains subdivision are geographically related to the Keystone Lake area. These subdivisions are further divided into area by soil and vegetative types: crosstimbers (upland woods), elm-ash-cottonwood (bottomland) associations, and bluestem (tall grass) prairies.

2. Soils. Although several different soil types are present, the general predominant soil type in the proposed development area is the Niotaze-Darnell complex. The Niotaze-Darnell complex consists of small areas of Niotaze and Darnell soils that are so intermingled that distinct separation is often not possible on a small mapping scale. The Niotaze-Darnell soil complex, which forms on the crests and side slopes of uplands,

range from moderately deep (Niotaze) to thin (Darnell), somewhat poorly drained (Niotaze) to well drained (Darnell), and are very gently sloping (3%) through moderately steep (25%) in slope.

In typical Niotaze soils, the surface layer to a depth of about 3 inches consists of very dark grayish brown silt loam that grades at that depth to a brown silt loam to 6 inches. The upper part of the subsoil is reddish brown silty clay to a depth of 15 inches. The middle part is mottled in shades of red, brown, and olive silty clay to a depth of 28 inches. The lower part is olive silty clay to a depth of 36 inches. The underlying material of Niotaze soils is shale bedrock. The permeability of the Niotaze soil is slow and available water capacity is medium.

The Niotaze-Darnell soil complex is used mostly for range, but is also well suited for the growth of native trees (scrub oaks, blackjacks, etc) that are useful as firewood and posts. The smoother, less stony areas are also suited to tame pasture grasses.

In the specific proposed area of construction, surface materials are composed primarily of rock and thin soils. The area has been previously disturbed by historical construction activities and was previously used as a gravel pit area. Because of the prior disturbance of this area and high density of rock, surface soils and abundant vegetation are limited (see Attachment 1).

3. Prime Farmland. There are no Prime and Unique Farmland within the scope of this project.

4. Wild and Scenic Rivers. No body of water in the Keystone Lake watershed is a federally designated Wild or Scenic River.

5. Wetlands / Floodplains. There are no wetlands within the scope of this project.

Floodplains are the areas along rivers or lakes that are inundated during periods of flooding. Flooding is an inevitable event along most rivers, tending to be seasonal and caused by spring rains or storm events. Many areas have 50 and 100-year floodplains identified through the Federal Emergency Management Agency (FEMA) for flood insurance programs.

The floodplains around Keystone Lake have been inundated by construction of Keystone Lake. The floodplains within the conservation pool elevation of 723.0 National Geodetic Vertical Datum (NGVD) are permanently inundated. The floodplains along the Arkansas River and its tributaries between the conservation pool and top of the flood control surcharge pool (756.0 ft. NGVD) may become inundated at various frequencies. As a result, habitable structures and other similar development features around the lake are limited by flood pool elevations.

The top of the flood control and flood surcharge pools at Keystone Lake exist at elevations 754 and 756 ft. NGVD, respectively. Significant portions of the existing City

of Mannford Prairie View lease area lie beneath the top of flood pool elevation (754 ft) while virtually all of the lease area is at an elevation beneath that of the flood control surcharge pool (756 ft). Accordingly, much of this area has the potential for inundation, at varying frequencies, during Keystone Lake flood control operations. Currently, this includes existing access roads, restrooms, parking, and other features. A high area above elevation 754 ft. (but below 756 ft) exists just east and northeast of the existing Prairie View boat ramp parking area. This high area is the location proposed for construction of the service building and sales showroom and parking lot associated with the new marina (see Attachment 1).

6. Wildlife. The Oklahoma Department of Wildlife Conservation (ODWC) manages the Keystone Wildlife Management Area on Keystone Lake and approximately 17,000 acres are available around the lake for public hunting.

A large variety of rodents, reptiles, amphibians, and birds are plentiful throughout the region. A comprehensive list of all flora and fauna is available in the Final Environmental Impact Statement for Keystone Lake.

a. Fish. Keystone Lake has an excellent reputation as a prime fishing area. The Oklahoma Department of Wildlife Conservation manages the fishery with primary sport fish including largemouth bass, striped bass, white crappie, white bass, channel catfish, blue catfish, and flathead catfish. Stresses on the aquatic ecosystem at Keystone Lake include heavy nutrient and sediment loading as well as lake level fluctuations.

b. Amphibians and Reptiles. Species found are typical of the crosstimbers area and include many species of terrestrial and aquatic snakes, turtles, lizards, skinks, frogs, toads, and salamanders.

c. Birds. Avian species are typical of the crosstimbers area and include varying species of harriers, hawks, doves, kingfishers, woodpeckers, chickadees, titmouse, mocking birds, eastern bluebird, loggerhead shrike, starling, blue jay, crow, sparrows, eastern meadowlark, grackle, cowbird, cardinal, junco and scissor-tailed flycatcher.

d. Mammals. Species found are typical of the crosstimbers area and include such species as white-tailed deer, rabbits, squirrels, coyote, raccoon, bobcat, possum, wood chuck, ground hog, foxes, muskrat, skunk, mink, bats and beaver.

7. Unique Habitat Resource. The proposed marina project does not include any unique habitat resources within its boundaries. However, Keystone Lake does contain an increasingly rare and unique habitat type, the crosstimbers. This component, as mentioned above, is not present within the project (marina) area. The crosstimbers originally stretched from southeast Kansas, through eastern Oklahoma to northeastern Texas. This vegetation type is dominated by blackjack oak, post oak and (in the south) black hickory (*Carya texana*), with an understory dominated by little bluestem. Subdominants include big bluestem, side-oats grama, hairy grama (*Bouteloua hirsuta*),

purple lovegrass (*Eragrostis spectabilis*), sand lovegrass (*E. trichodes*), Scribner's panicum, Indian-grass, longleaf dropseed and Texas needlegrass (*Nasella leucotricha*) (*Stipa leucotricha*) as understory, and hackberry (*Celtis* spp.) as an overstory species. In Oklahoma the crosstimbers prairie habitat type originally covered approximately 30,000 square miles. Therrell and Stahle estimated 162 square miles of ancient crosstimbers remaining today, all of which has been impacted by fire suppression, grazing/agriculture, and reservoir impoundment.

Within the general habitat classification of crosstimbers there are several different plant communities. The plant community with the broadest distribution is that of the upland crosstimbers. The upland crosstimbers forest type is generally considered to be a modified version of the oak-hickory forest type that is common along the western portion of the eastern deciduous forest of North America. The major distinction being the lack of the other species of oak and hickory common in the eastern North America as well as the lack of black cherry and basswoods. In many places throughout the crosstimbers region sandstone or limestone caps many of the hills. Soils associated with the sandstone caps are mostly thin sandy soils and contain unique plant communities generally consisting of small annuals or succulent perennials with very short tap roots, or shallow spreading roots.

Throughout much of the eastern range of the crosstimbers a combination of fire suppression, plant invasion, and conversion to agriculture has resulted in the fragmentation and loss of habitat for many migrant songbirds such as the endangered Blacked-capped vireo.

One component of this habitat type is "old growth" or ancient crosstimbers, which is composed of growth forms that may be 300-500 years old. Tree ring investigations indicate that the ancient crosstمبر community has remained relatively unchanged following the last glacial period some 6,000 years ago (Stahle et.al. 2000). Due to the rapidly declining trends in this habitat type the value and function of the old growth crosstimbers is of special importance. Little is known about the bird communities in these ancient forests.

The proposed project area does not reside in a location containing old growth crosstimbers forests.

E. Cultural Resources

Archaeological sites representative of the Early Archaic Period through the Middle and Late Archaic, Woodland, Plains Village/Late Prehistoric, and Historic Periods are known in the larger vicinity of Keystone Reservoir in northeastern Oklahoma. This culture-historical sequence falls generally within the overall sequence that has been established for north-central and northeastern Oklahoma. Many archaeological sites in this area have undisturbed, deeply-buried deposits; many are comprised of multi-component prehistoric and/or historic occupations. Several cultural resources investigations, including archaeological survey and testing, were conducted incident to the construction of

Keystone Reservoir. At Keystone and in the larger regional area there are hundreds of archaeological sites and historic standing structures on record with the Oklahoma Archeological Survey (OAS).

While archaeological reconnaissance efforts undertaken in the area by the Army Corps of Engineers resulted in the identification of hundreds of archaeological sites at the Reservoir, none of these investigations occurred within the proposed project area. A small-scale, limited archaeological survey was conducted in 1999 adjacent to the project area, however, when an access road and parking lot were constructed for the same lease area (leased to the City of Mannford).

For the proposed action, an archaeological survey was conducted on September 28, 2011 by the U.S. Army Corps of Engineers. One historic archaeological site (34CR191) was identified within the proposed lease area. The site consists of a scatter of historic archaeological materials (glass, brick, ceramics, and metal), but with no associated historic surface features. A short report of archaeological investigations is included in Attachment 2.

F. Threatened and Endangered Species

The U.S. Fish and Wildlife Service (USFWS) notes four (4) Federally-listed species for Creek County, Oklahoma (<http://www.fws.gov/endangered>). Included are the threatened piping plover (*Charadrius melodus*), the recovering American peregrine falcon (*Falco peregrines anatum*), and the endangered interior least tern (*Sterna antillarum*) and American burying beetle (*Nicrophorus americanus*).

G. Water Quality

The USACE conducted a water quality study for Keystone Lake between April and October 1996 and found that waters impounded by the reservoir are too highly mineralized to be suitable for municipal and industrial uses without extensive treatment. Keystone Lake presents an unusual situation in that the Cimarron River carries significantly higher dissolved salts to the lake than the Arkansas River. Higher specific conductance and chloride levels were consistently observed at depth at lacustrine stations. The water in Keystone Lake was classified as very hard, and total dissolved solids levels in the lake exceed levels acceptable for domestic uses.

Trophic classification of Keystone Lake using epilimnetic total phosphorus concentrations resulted in a classification of hyper-eutrophic. Because phosphorus has a high affinity to sorb to suspended particulates this trophic state classification may be an overestimate given the short retention time (42 days) and relatively high turbidity of the reservoir. More than one-third of all turbidity observations during the study exceeded the Oklahoma Water Quality Standard of 25 NTUs. Based on chlorophyll *a* concentrations, trophic classification of Keystone Lake would fall into a meso-eutrophic category. The lower index values are indicative of the effects of inorganic turbidity limiting algal productivity.

Iron and manganese were also found in relatively high concentrations. During times of oxygen depletion in the hypolimnion, water users would experience staining problems. Analysis of other metals indicated no need for concern at this time.

Results of the USACE study indicate that overall, the water in Keystone Lake is of a reasonably good water quality when considering its primary uses.

H. Air Quality

The U.S. Environmental Protection Agency (USEPA) published a Conformity Rule on 30 November 1993, requiring all Federal actions to conform to appropriate State Implementation Plans which were established to improve ambient air quality. At this time, the Conformity Rule only applies to Federal actions in non-attainment areas. A non-attainment area is an area which does not meet one or more of the National Air Quality Standards for the criteria pollutants designated in the Clean Air Act (CAA).

To comply with this rule, a conformity determination based on air emission analysis is required for each proposed Federal action with a non-attainment area. This geographical region is in attainment and meets the National Air Quality Standards for the criteria pollutants designated in the CAA. Consequently, a conformity determination is not required.

I. Noise

Noise levels in the project area are consistent with an area that is experiencing a growth in population levels. Various housing areas are in the process of development and construction, with many home sites already being completed over the past five years. The City of Mannford is currently working with a major Tulsa/Owasso development firm on a \$20 million mixed use project that would be within a couple of miles of the project site. Development within the City of Mannford is expected to continue over the coming years with noise levels characteristic of a typical community. Noise levels associated with boating activities on Keystone Lake are seasonal and typical of a lake recreation setting.

J. Hazardous, Toxic, Radiological Waste (HTRW)

The lease area has been in Government control since lake construction, is currently undeveloped, and is not near major industrial areas. Accordingly, there is minimal potential for current existence of HTRW in the area proposed for construction. Visual evidence of the existence of waste containers, staining, vegetation distress, or other indications of HTRW has not been noted.

IV. ENVIRONMENTAL IMPACTS

A. No Action Alternative

Under a No Action scenario, constructed facilities in the existing City of Mannford lease area would remain and operate as they do at present. None of the facilities contemplated under the proposed action, to include a new marina and associated parking area, would be constructed and environmental conditions would remain as they do at present. Opportunities for enhanced recreation in the Prairie View lease area near Mannford, Oklahoma associated with proposed features would not be realized.

Under the No Action alternative, population trends of the past decade would be expected to continue. Recreational use would be expected to grow along with the population. The unemployment rate would be expected to remain at the same level, being slightly higher than the State's level. Ranching would remain the important part of the local economy and the income level of persons living in Osage County would be expected to stay below the income level of persons living in other parts of Oklahoma. Building of traditional homes would continue within the City of Mannford. Living standards would continue to increase as development increases in the general area.

Under the No Action Alternative, land use and level of development (both on-land and on-water) in the City's Prairie View lease area would remain as it does at present. Accordingly, no additional disturbance to soils, vegetation, aquatic habitat, or other resources would occur. Recreational needs and demands in this area would go unmet absent the new marina and related facilities. It is anticipated that existing marinas on Keystone Lake would continue to operate and provide boat storage and marina-related services for lake users.

B. Proposed Action

1. Socioeconomics

a. Population. The proposed action should not have a direct impact on the number of people living in Creek County, Oklahoma. The project would, however, be anticipated to have a direct impact on the existing population using Keystone Lake facilities. While population trends of the past decade should continue, construction of the marina facility would increase recreational opportunities for the local population as well as for those persons living in other locales. The new facilities should generate additional visitation to the Keystone Lake area, particularly in the area near Mannford, Oklahoma.

b. Employment and Income. Projected construction would increase job opportunities in the area. When all components of the marina facility are completed and in operation it is anticipated that approximately 25-30 new jobs would be created, making this operation one of the major employers in the local area. In the long-term, the unemployment rate should remain slightly higher or equal to the state. Construction related expenditures should increase local income slightly. Income for local residents is expected to remain slightly lower than in other more urbanized areas of Oklahoma.

c. Social Ecology. The project would fit in with the local development around the lake. The central portions of Keystone Lake, especially in and around the City of

Mannford, have seen an increase in housing development in the last five to ten years. The City of Mannford now reports that it is expected to experience significant retail/commercial development over the next 3-5 years.

Water to the proposed project would come from the City of Mannford. The marina, through the use of water preservation means, should not expend a significant amount of water supply throughout any given year. The City of Mannford's water supply comes from surface water from the City of Mannford Lake. The City of Mannford plans to connect the current camp grounds as well as the proposed new marina facility into their existing main sewer line located to the northwest of the current lease grounds. Accordingly, sewage treatment would be accomplished by the City of Mannford sewage treatment plant. Water and wastewater systems to be employed would comply with all applicable state and federal laws and regulations.

Overall traffic patterns within the current Prairie View lease area should not be significantly affected. Traffic flow to the area would come from the West and East on Oklahoma SH 51. Access to the marina would be made by taking Basin Road north off of SH 51. This is the normal traffic pattern today. Noise in the area is expected to increase slightly during construction and then to be consistent with the project activities.

The aesthetics of the proposed development are of utmost importance. The proposed marina would be built to fit in with its surroundings, with existing facilities in Oklahoma, Missouri, Tennessee and Kentucky being used as templates for project design. The "Clean Marina" standard of development emphasizes environmental stewardship and operations consistent, to the extent possible, with environmental protection.

A total of three commercial marinas currently operate on Keystone Lake (Pier 51, Keyport, and Westport marinas). While normal seasonal variation in occupancy rates exist for all, it appears that these marinas operate in a normal range at or near full capacity. Existing marinas would be anticipated to continue to operate on Keystone Lake subject to recreation demands and market conditions. Comments provided by two of the existing marinas are provided in Attachment 3. For the proposed new marina, a feasibility study would be prepared and reviewed by the Tulsa District.

d. Environmental Justice. In accordance with Presidential Executive Order 12898, a review of this project was evaluated in terms of its effect of excluding persons (including populations) from participating in; denying persons (including populations) the benefits of; or subjecting persons (including populations) to discrimination because of their race, color, or national origin. The review indicates that no such effects would result from the project. All facilities would be open to all members of the public.

e. Protection of Children from Environmental Health Risks and Safety Risks. In accordance with Presidential Executive Order 13045, a review of this project was evaluated in terms of any health risks and safety risks that may disproportionately affect children. The review indicates that no such effects would result from the project.

2. Natural Resources

a. Terrestrial. Temporary disturbance to soils and existing vegetation would occur from construction activities (i.e., shaping, minor excavation, and sod placement using turf). Within the existing lease grounds, the marina facility would potentially disturb 6 acres of land and utilize 19 acres of water. Approximately half of the land area is open and the other half is timbered. Losses to existing hardwoods within the designated construction areas should be minimal. Disturbance to shoreline riparian and timber habitats should be minimal or non-existent, as these habitats would be left in place to provide an aesthetic buffer zone and to minimize maintenance.

There are no old growth trees that exist in the project area. The project, however, would make best efforts to preserve the trees that currently exist in the marina area. Anticipated impacts by habitat type are noted in Table 1.

Table 1. Estimated wildlife habitat type to be altered by the proposed project.

	Prairie (acres)	Interspersed Forest (acres)	Closed Canopy Forest (acres)	Riparian (acres)	Aquatic (acres)	Total (acres)
Service Building	0.25	0.0	0.0	0.0	0.0	0.25
Sales Building	0.25	0.0	0.0	0.0	0.0	0.25
Parking	2.0	1.0	0.0	0.0	0.0	3.0
Cottages	0.5	0.5	0.5	0.0	0.0	1.5
Recreation Area	0.4	0.6	0.0	0.0	0.0	1.0
Dock/On water Facilities	0.0	0.0	0.0	0.0	19.0	19.0
Marina (Total)	3.4	2.1	0.5	0.0	19.0	25.0

b. Prime and Unique Farmland. As defined by the U.S. Natural Resources Conservation Service there are no Prime and Unique Farmlands within the scope of this project.

c. Aquatic and Wetlands. Nutrient loading from fertilization applications and contamination from pesticides used at the marina would be minimal to non-existent due

to efforts taken to maximize the integration of existing undeveloped lands into the project design. A buffer of existing shoreline habitats composed of hardwoods, riparian species, natural plants and grasses to maintained areas (Bermuda grass) should be ideal for natural assimilation and/or decomposition of any possible pollutants. The marina will promote proper operation and maintenance of equipment as well as strict adherence to state and federal regulations. These, among other operational measures, will ensure the current levels of water quality remain intact.

Proper construction and operation of the proposed marina would not impact existing aquatic resources or wetlands. A review by the Tulsa District Regulatory Office indicates that no permits under Section 404 of the Clean Water Act of 1972 (404 permits) or Section 10 of the Rivers and Harbors Act of 1899 (Section 10 permits) would be required for any portion of the proposed action.

d. Fish and Wildlife. The construction of a marina facility, within the existing Prairie View lease grounds, 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 residing within previously-disturbed open prairie lands (approximately 3.4 acres), the impacts to these land species should be minimal. Likewise, loss of approximately 2.6 acres of currently-forested areas should have minimal impact on wildlife species requiring such habitat. Most species would relocate to nearby forested areas.

Dock construction has the potential to displace some fish and other aquatic species while benefiting others. Approximately 19 acres of docks and associated structures proposed to be constructed 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 as well as fishing opportunities. In addition to the marina, a proposed heated fishing dock would provide additional brush cover. Minimal impacts 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.

e. Migratory Birds. The potential impacts of the proposed development on migratory birds should be minimal. While construction activities would likely displace some avian species, the affected area is small and 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.

f. Impacts on Fishing and Hunting Opportunities. While dock construction would result in restricted boating access for a small area of shoreline and a buffer area around docks, the proposed project would be expected to have an overall positive impact on the existing fishery resource and fishing opportunities. With the proposed marina development, the boat docks will provide seasonal cover for sport fish such as crappie, black bass, and catfish species. The dockage also provides cover for young of the year sport fish and prey species such as shad, and provides an attachment point for algal communities that provide food and cover for many species of fish.

Due to safety concerns of patrons walking the docks, it is anticipated that an area of approximately 50 feet from the docks will be zoned as “off limits” to the general public and fishing from a boat. This would somewhat limit public fishing access to this area; however, it is proposed that the public will have fishing opportunities from the docks allowing those individuals/families that do not have access to a boat the opportunity to take part in fishing. Additional habitat would be placed within the marina area to mitigate any impact of decreased access to those fishing from boats and provide additional attractors/coverage for sport fish. A substantial benefit to fishing opportunities in the area would be provided by the proposed heated fishing dock (Attachment 1). This would provide increased public fishing opportunities, particularly during cold weather seasons when many anglers might not otherwise participate in fishing.

Since the proposed project area (Prairie View Lease Grounds) is currently zoned for recreation intensive use, no hunting has been allowed in these areas. Consequently, there would be no loss of hunting opportunity with implementation of the proposed project.

g. Threatened and Endangered Species. The proposed action would have no effect on Federally-listed species. The proposed project area does not provide required habitat for the interior least tern, piping plover, or peregrine falcon. While these species do exist in the Lake Keystone region, they would not be expected to inhabit the proposed project area owing to the lack of suitable habitat. A land surface dominated by rock, previous disturbance, and thin surface soils in the area of construction render these areas unsuitable as habitat for the American burying beetle.

h. Wetlands/Floodplains and Water Quality Permits. No existing wetlands as identified by the USFWS National Wetlands Inventory would be negatively impacted by the project. The Regulatory Office of the Tulsa District has determined that no features associated with the proposed action would require either Section 404 or Section 10 permits for implementation. No discharges to surface waters are required for implementation of the proposed action; therefore no discharge permits would be required.

Certain land-based features of the proposed action would be constructed at elevations below the Keystone Lake authorized top of flood control pool elevation of 754 ft. NGVD. All features, as proposed, would be constructed at an elevation below the Keystone Lake

flood surcharge pool (756 ft. NGVD). Accordingly, in addition to existing facilities in this area, portions of the proposed development could experience flooding at varying frequencies when Keystone Lake is in flood pool operation. This would include access roads, existing restroom facilities, and other amenities. As flood control is an authorized project purpose for Keystone Lake, the Tulsa District must be capable of efficiently operating the lake for this purpose. Accordingly, all construction and development plans associated with this action would require review and approval by the Tulsa District prior to construction and implementation. This review would likely result in the requirement for no net loss of flood storage capacity for the reservoir at any given elevation at or below elevation 756 ft. NGVD and the prohibition of construction of habitable structures in the Keystone Lake flood pool. Such requirements would ensure safety of recreational users and the capacity for the Tulsa District to efficiently operate Keystone Lake for authorized project purposes.

i. Cultural Resources. The proposed marina and associated features have the potential to impact cultural resources. Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) requires agencies to evaluate the impacts of Federal undertakings on historic properties, which include prehistoric and historic archaeological sites, and historic standing structures. Section 106 requires the identification of all historic properties, which emphasizes an evaluation of eligibility for listing on the National Register of Historic Places (NRHP). Agencies must then determine which historic properties (those eligible for listing on the NRHP) will be adversely impacted. Section 106 requires that agencies resolve adverse effects to these properties. Plans for resolving adverse effects are determined through consultation with the Oklahoma State Historic Preservation Office (SHPO), the Oklahoma Archeological Survey (OAS), potentially the Advisory Council on Historic Preservation (ACHP), and appropriate and interested Native American tribes and other interested parties.

In order to comply with Section 106 requirements, Tulsa District conducted an archeological survey of the proposed project area on September 28, 2011. A short report of the investigations is included in Attachment 2 of this EA. During the course of those archeological investigations, one historic archeological site, 34CR191, was recorded in the area. Site 34CR191 is a surface scatter of historic archeological materials, including green, brown, and clear glass, historic crockery (ceramics), metal and brick. No surface features such as foundations or cisterns were identified. The remains of barbed wire fencing were observed imbedded in several trees, in association with clusters of the historic archeological materials. General Land Office (GLO) maps of this area do not show a structure in the vicinity in 1898, and the site became incorporated into the Keystone Reservoir floodpool at the time of the reservoir's construction in the early 1960s. Therefore, it seems most likely that site 34CR191 relates to a historic occupation (homestead) dating between 1900 and 1960.

Because site 34CR191 failed to yield historic archeological features or diagnostic artifacts, Tulsa District determined it "not eligible" for listing on the National Register of Historic Places (NRHP). Tulsa District coordinated the survey results with the Oklahoma State Historic Preservation Office (SHPO), Oklahoma Archeological Survey (OAS) and

appropriate Native American Tribes. SHPO and OAS concurred with the Tulsa District determination that site 34CR191 is not NRHP-eligible and that the proposed action would be a “no historic properties affected” determination, concluding the Section 106 process. Copies of this correspondence are included in Attachment 2 of this EA.

j. Water Quality. The marina will be designed and operated to minimize impacts to lake water quality. Potential contaminants from marina operations include petroleum products, i.e., oils and gasoline, and solid waste (e.g., paper, plastic, and metal waste). Strict adherence to state and federal regulations coupled with proper maintenance and material-handling procedures should ensure a minimum impact to water quality from marina operations. The “Clean Marina” management plan would contain procedures and instructions for safe guarding the lake water quality. The “Clean Marina” standards utilized for this marina project will be taken from the Texas and Tennessee plans, which are well-recognized as leaders in protecting water quality. Should accidental spills of pollutants occur, proper notification procedures, to include coordination with the Oklahoma Department of Environmental Quality (ODEQ) will be followed. In the event that such spills result in impacts to aquatic organisms, the Northeast Regional Office of the Oklahoma Department of Wildlife Conservation (ODWC) as well as the Creek County game warden will be contacted for investigation and resolution.

k. Air Quality. Conformity to the 1993 Conformity Rule (USEPA) for ambient air quality is not necessary because no foreseeable emissions from activities of this proposed project would result in a non-attainment area. Keystone Lake is not located in a non-attainment area as described by the Clean Air Amendments of 1990, the USEPA, or the U.S. Army Environmental Hygiene Agency (USAEHA 1990). Temporary air emissions will occur during project construction but that emission will quickly dissipate from source. A minor and temporary emission will also be present as a result of increased boating use around the marina.

l. Noise. Construction of the proposed marina would result in the temporary increase in noise levels in the project area. The types of construction equipment that would likely be used in the project area (e.g., tractor, loader, or backhoe) would generate noise levels of 80-90 dBA at a distance of 50 feet (Jones and Stokes 1998). The operation of construction equipment can vary from intermittent to fairly continuous and many pieces of equipment can operate at the same time. Assuming a bulldozer (87 dBA), backhoe (90 dBA), and front-end loader (82 dBA) are operating simultaneously in the same area, peak construction-period noise could be approximately 94 dBA at 50 feet for the construction sites (Jones and Stokes 1998).

Although construction-related noise levels could occur in the construction areas of the project during the initial construction period of up to 6 months, these effects are considered relatively minor for the following reasons: construction noise effects would be temporary, the period of most intense construction activity would occur in a relatively short period of time (several months), and the construction would occur in areas that are not sensitive to noise

m. HTRW-related Impacts. All waste and materials associated with mechanic shop and other facilities will be stored, handled, and disposed of in accordance with relevant Federal, State, and local regulations. Accordingly, there is minimal likelihood of significant effects associated with HTRW materials. Areas proposed for construction activities have been in Government control since lake construction, are currently undeveloped, and are not located near industries or other sources of contamination. The potential for inadvertent discovery of HTRW materials during project construction is therefore considered minimal.

V. CUMULATIVE EFFECTS

Cumulative effects from the construction and operation of the proposed project include minimal loss of natural habitat in conjunction with past, present, and reasonably foreseeable development around Keystone Lake. Approximately 6 acres of Tulsa District land and 19 acres of water would be utilized during the development. Impacts to wildlife would be minimized by the design and land plan for the facility, with an expectation of improved aquatic habitat for some species by the installation of docking facilities. Overall impacts to water quality would depend on the proper operation of the marina. Controlling the fuel and oil processes both at the marina and onshore are of the highest importance. Proper waste disposal and hazardous material handling both by the marina staff and private boaters would be strictly monitored and controlled. The marina would be designed to reduce and control potential pollution sources and mitigate their impacts. Because the project is proposed with the construction and operation features of a “Clean Marina” significant cumulative effects from the operation of the facility are not anticipated.

VI. MITIGATION

Mitigation includes the avoidance, minimization, rectification, reduction, and compensation for impacts associated with an action (40 CFR 1508.20). The proposed action includes construction of a commercial marina in accordance with the “Clean Marina” standards. In many instances, these standards seek to achieve mitigation actions as defined above. The proposed project incorporates mitigation 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. In addition, the proposed action provides for increased and varied recreational opportunities for a variety of lake users.

The proposed marina development and associated recreational amenities reside within a current lease which is zoned for recreational intensive activities. Due to this project’s location as well as its minimal impacts to the terrestrial and aquatic ecosystems, no additional mitigation measures are proposed for construction and operation of the proposed recreational facilities.

VII. PUBLIC PARTICIPATION AND COORDINATION

A public involvement and scoping process was conducted for this action to gain the views and concerns of agencies and stakeholders with an interest in this matter. The Tulsa District prepared and distributed scoping letters to environmental and tourism agencies and existing Keystone Lake marina owners. Newspaper advertisements requesting scoping comments were placed in the Mannford Eagle, Sand Springs Leader, Cleveland American (October 12, 2011) and Tulsa World (October 10, 2011) newspapers. Finally, a notice requesting scoping comments for this action was posted on the Tulsa District homepage at www.swt.usace.army.mil. A copy of the advertisement appearing in papers and on the Tulsa District webpage is included in Attachment 3. The scoping comment period consisted of 30 days and closed on November 7, 2011. All scoping comments received through November 7, 2011 are included in Attachment 3.

A Draft EA for this action was circulated for agency and public review with a 15-day comment period closing on November 23, 2011. Comments were provided to:

Mr. Stephen L. Nolen
U.S. Army Corps of Engineers, Tulsa District
1645 S. 101st E. Avenue (Attn: CESWT-PE-E)
Tulsa, OK 74128-4629
Email: Stephen.L.Nolen@usace.army.mil

A total of two (2) comment letters on the Draft EA were received as follows: (1) a November 9, 2011 letter from the Oklahoma Archeological Survey expressing satisfaction with the cultural resources review associated with the project; and (2) a November 17, 2011 letter from the Oklahoma Department of Wildlife Conservation (ODWC) expressing concerns regarding the length of the comment period and potential impacts related to loss of angler access, fish habitat losses, potential pollution, and the need to coordinate any chemical releases or spills with appropriate state agencies. Both comment letters are included in Attachment 4.

Attachment 1

Proposed Marina and Development Map, Prairie View Lease Area



DOCK	SLIP COUNT
A	50
B	44
C	30
D	26
G	30
TOTAL 180	

TOTAL LAND USAGE: 4.13± ACRES
 TOTAL WATER USAGE: 19± ACRES

SITE PLAN - PHASE 1

NO.	REVISION DESCRIPTION	BY	DATE

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 MCALLESTER, OKLAHOMA, USA 74501 Fax: (918) 423-3215

DRAWN BY: J.D.W.	FILE NAME: 7764-SITE	
CHECKED BY:	JOB #	PLAN # 7764
SCALE: 1" = 300'-0"	DATE: 05/13/11	SHEET SITE

CROSS TIMBERS HARBOR AT KEYSTONE
MANNFORD, OK

Attachment 2

Cultural Resources Survey Report and Correspondence

Archaeological Survey of the Proposed New Marina Sub-Lease, Keystone New Mannford Ramp Public Use Area, Keystone Reservoir, Creek County, Oklahoma

**U.S. Army Corps of Engineers, Tulsa District
September 30, 2011**

Proposed Project

The City of Mannford, Oklahoma currently leases a portion of property owned by the U.S. Army Corps of Engineers, Tulsa District at Keystone Reservoir, Oklahoma. The lease consists of the Keystone New Mannford Ramp Public Use Area, which is comprised of a boat ramp and associated parking lot, day use boat dock, and a campground. The eastern portion of the City of Mannford lease area is currently not utilized, and this area is proposed as a sub-lease for the purpose of constructing a marina and associated parking lot. The proposed sub-lease is approximately six acres in area. The enclosed figures show the project area (the sub-lease) on a topographic map, and the area proposed for sub-lease in relation to the remainder of the Public Use Area currently under lease.

Location and Setting

The project area is located immediately to the northeast of the City of Mannford, on the shore of Keystone Reservoir. The legal description of the area is N ½, NW ¼, NE ¼, Sec. 15, T19N, R9E in Creek County, Oklahoma. Prior to reservoir impoundment, the project area would have been located on a ridge top overlooking Salt Creek, which flowed north into the Cimarron River. The ridge faces to the south and east, and is approximately 30 feet higher in elevation than the normal reservoir conservation pool. The project area is currently within the Keystone Reservoir floodpool, and during extreme flood storage events (e.g., 2007; 2008) the area is underwater. The south and east faces of the ridge drop steeply to the water and consist primarily of unconsolidated sandstone.

Archaeological Survey Methods and Conditions

The area proposed for sub-lease (~6 acres) was surveyed by Tulsa District archaeologist Ken Shingleton on September 28, 2011. The entire six acre project area was covered in pedestrian transects, spaced approximately five meters apart. Ground surface visibility was excellent, approaching 50% in most portions of the project area. It was clear that the area had been thinned of undergrowth and burned, probably in the last year. Additionally, a trail and associated droppings indicate that the project area is utilized periodically for a horseback riding trail. Vegetation consists primarily of a thin post oak and blackjack oak forest with thin understory that had burned within the last year. Bedrock at the ground surface consists of unconsolidated sandstone, some of which are very large slabs. Soils within the project area, if present, are thin and very sandy (Eufaula loamy fine sand, gently sloping). Two shovel tests were excavated, revealing a very thin A horizon and a very sandy, pale tan B horizon. Neither shovel test exceeded 15-20 cm before encountering sandstone parent material.

Archaeological Survey Results

However, one historic archaeological site was identified (site number to be determined). Physical remains of the site consist of a scatter of non-diagnostic historic artifacts, primarily including brown, green, and clear glass; crockery; metal; and brick (see attached photos). Most of the materials were located in two loci within approximately 10 meters of each other. However, isolated materials were located over a 30 square meter area. Some historic materials were likely to be recent trash, including beer cans and two complete bottles with screw-on caps. However, many of the materials appeared to be greater than 50 years in age, particularly the crockery and brick.

Once the scatter of historic artifacts was identified a search was launched for historic features such as a brick or sandstone foundation or cistern. The only feature noted consisted of barbed wire fencing embedded in several tree trunks (see photos), where the trees had clearly grown up next to a historic fence and gradually incorporated some of the wire into the growth of the tree trunk. No other historic features were identified.

The area appears to have been heavily modified at some point in the past. Several bulldozer push piles (see attached photos) were noted on the north end of the project area. Additionally, it was also clear from observing historic flood debris that the area has been underwater (2007 and 2008) within the last several years. Surface coverage by flood water is likely to have caused a fair amount of erosion of the unconsolidated sandy soil in the project area.

Discussion

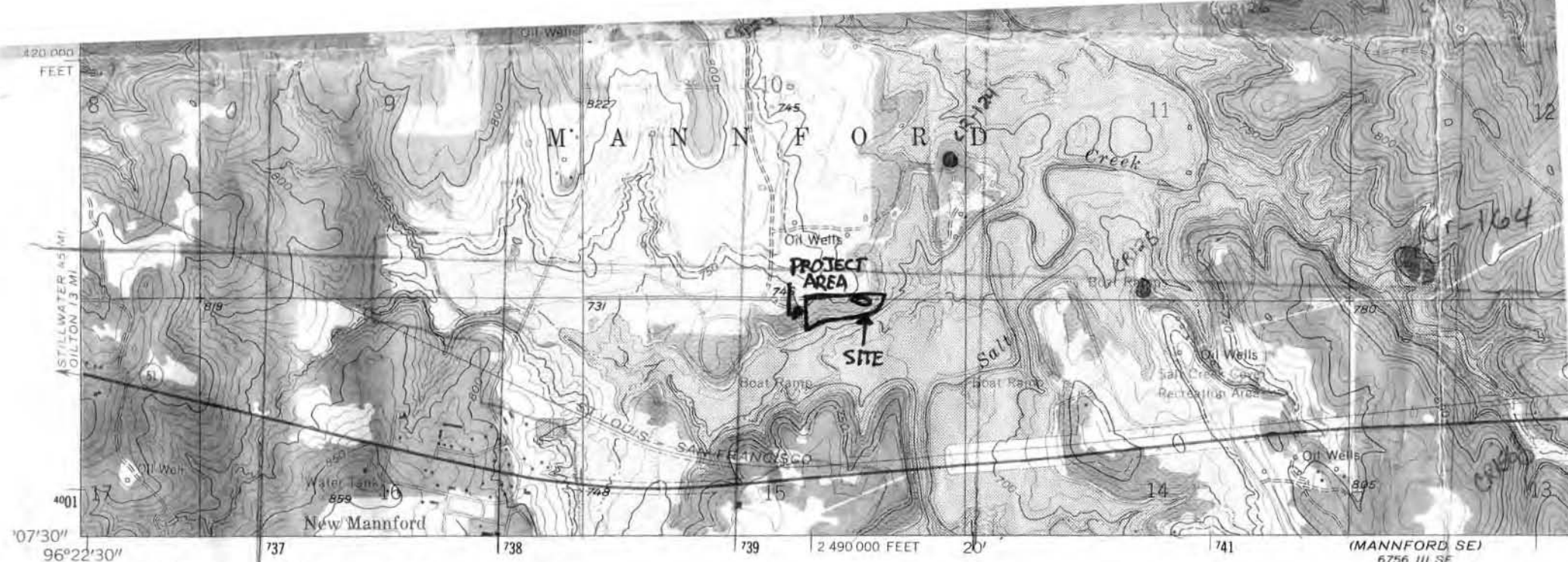
No prehistoric archaeological sites or historic standing structures were identified. The historic archaeological site appears to be the remains of a historic 20th Century homestead. The metal, crockery, and brick particularly appear to indicate a site age in excess of 50 years, and the barbed wire fence embedded in the tree trunks suggests a similar conclusion. Construction on Keystone Reservoir began in 1957 and was completed in 1964, and the purchase of property for the lake and floodpool was probably accomplished prior to and during the 1957-1964 timeframe. Standard practice in constructing Corps reservoirs was to remove all or most standing structures from the floodpool. Therefore, the historic farmstead was probably destroyed during that seven-year period. A review of the 1898 General Land Office (GLO) map for the area shows no structure existing within the project area (see enclosed GLO map). Therefore, most likely range of existence for the farmstead was between 1900-1957. Unfortunately, integrity of the site has been lost because of floodpool clearing activities during reservoir construction or because of land clearing activities since that time. With no features remaining and only a surface scatter of non-diagnostic historic artifacts, the site appears to not retain sufficient integrity to provide data on the 1900-1957 time period in this portion of Oklahoma.



Legend

— Keystone Govt Boundary

This is an unofficial representation of government property lines and descriptions. Please verify all information provided herein with a "Registered Professional Land Surveyor."



Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and USCE

Topography from aerial photographs by Kelsh plotter
Aerial photographs taken 1957. Field check 1958

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oklahoma coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks,
zone 14, shown in blue

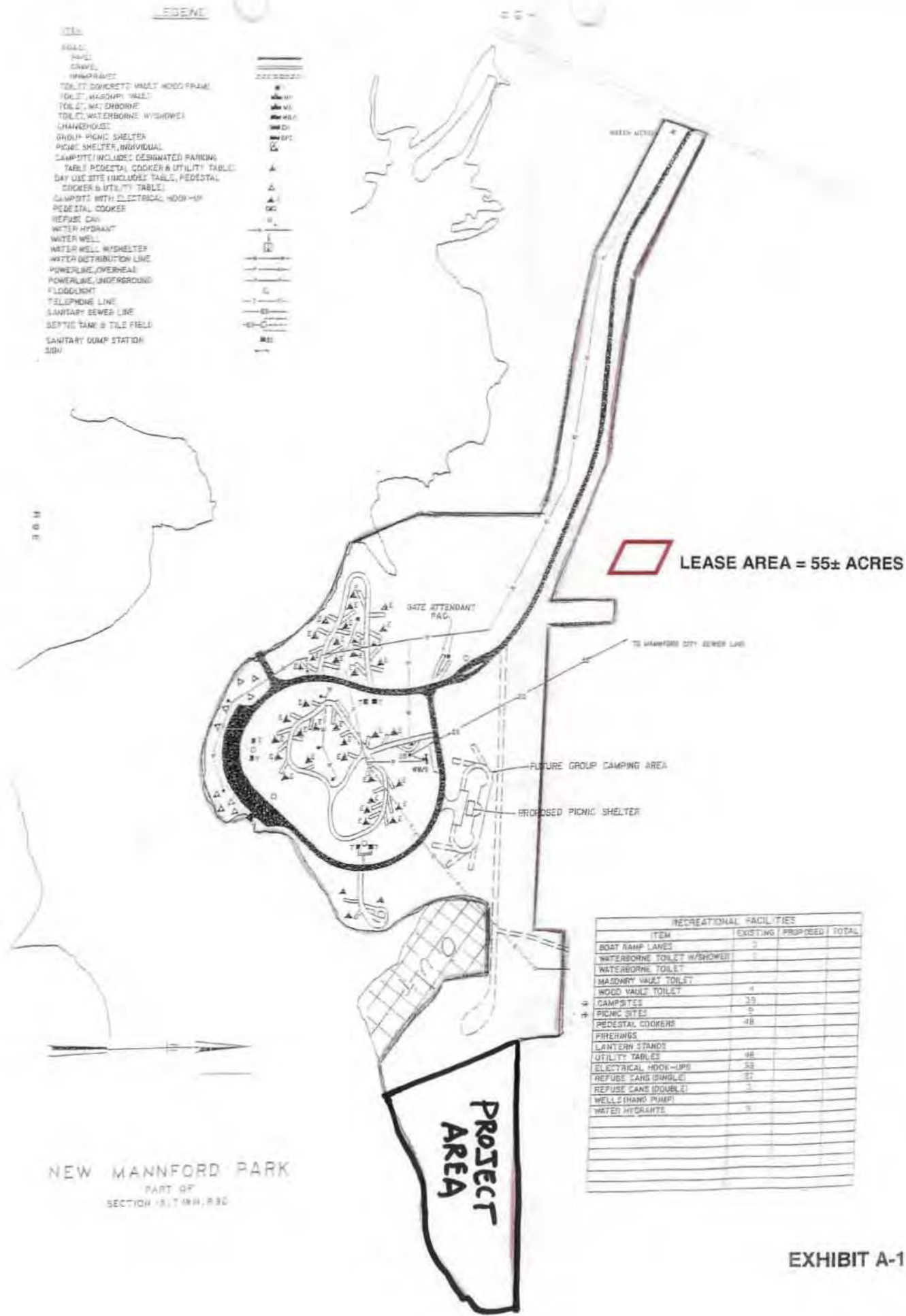
Areas covered by dashed light-blue pattern subject to controlled
inundation by Keystone Reservoir. Maximum elevation 754 feet.
Power pool elevation 723 feet. Conservation pool elevation 714.5 feet

Revisions shown in purple compiled from aerial photographs
taken 1967. This information not field checked

KEYSTONE DAM QUAD, OK

LEGEND

- SCALE
- PAVE
- GRAVEL
- INFRASTRUCT
- TOILET, DOMESTIC VAULT HOOD FRAME
- TOILET, W/SHOWER
- TOILET, WATERBORNE
- TOILET, WATERBORNE W/SHOWERS
- CHANGEROOM
- GROUP PICNIC SHELTER
- PICNIC SHELTER, INDIVIDUAL
- CAMPSITE (INCLUDES DESIGNATED PARKING TABLE, PEDESTAL COOKER & UTILITY TABLE)
- DAY USE SITE (INCLUDES TABLE, PEDESTAL COOKER & UTILITY TABLE)
- CAMPSITE WITH ELECTRICAL HOOD-UP
- PEDESTAL COOKER
- REFUSE CAN
- WATER HYDRANT
- WATER WELL
- WATER WELL W/SHUTTER
- WATER DISTRIBUTION LINE
- POWERLINE OVERHEAD
- POWERLINE UNDERGROUND
- FLAGPOLE
- TELEPHONE LINE
- SANITARY SEWER LINE
- SEPTIC TANK & TIE FIELD
- SANITARY DUMP STATION
- SIGN

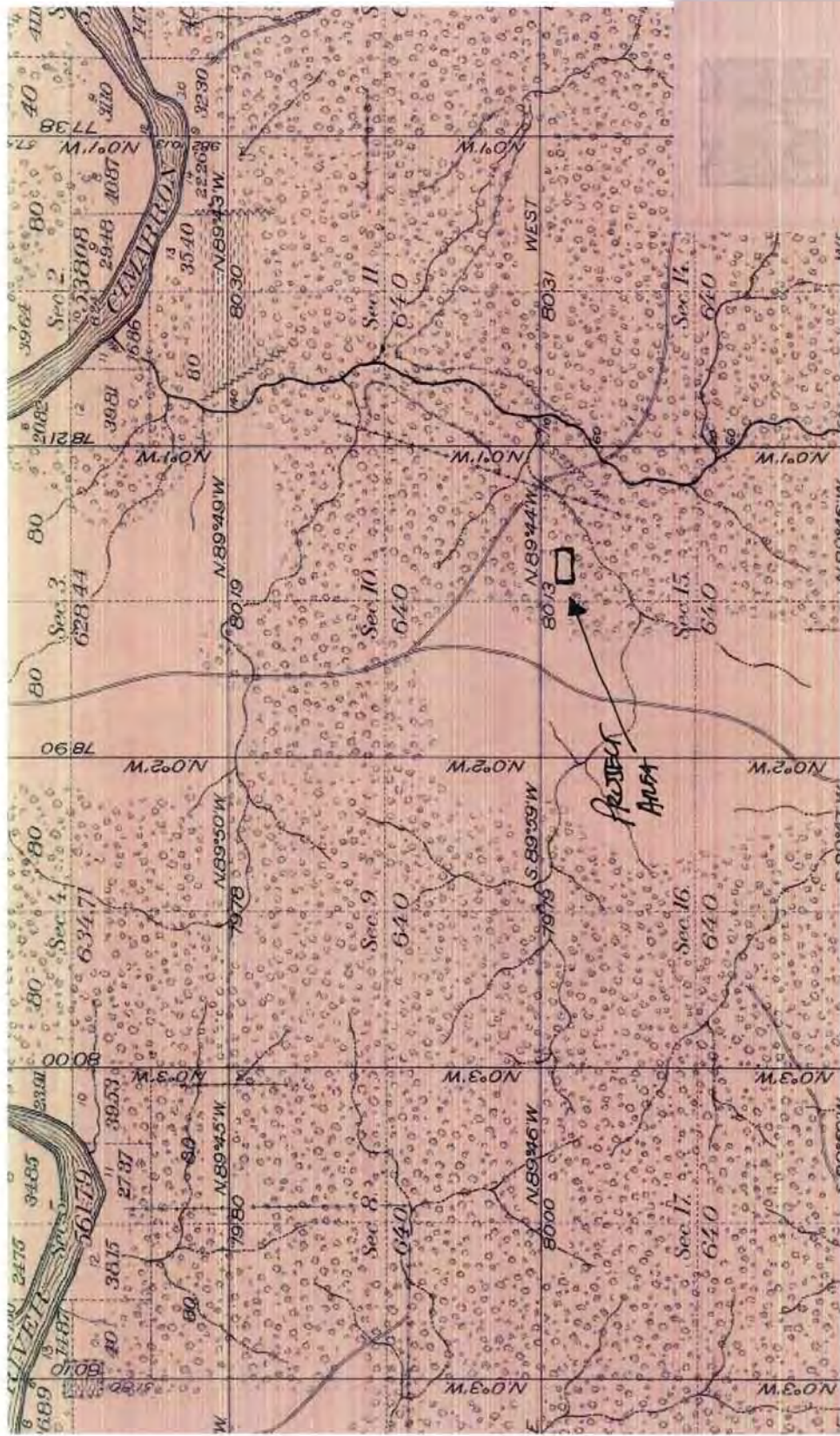


LEASE AREA = 55± ACRES

NEW MANNFORD PARK
PART 97
SECTION 18, T1N, R2E

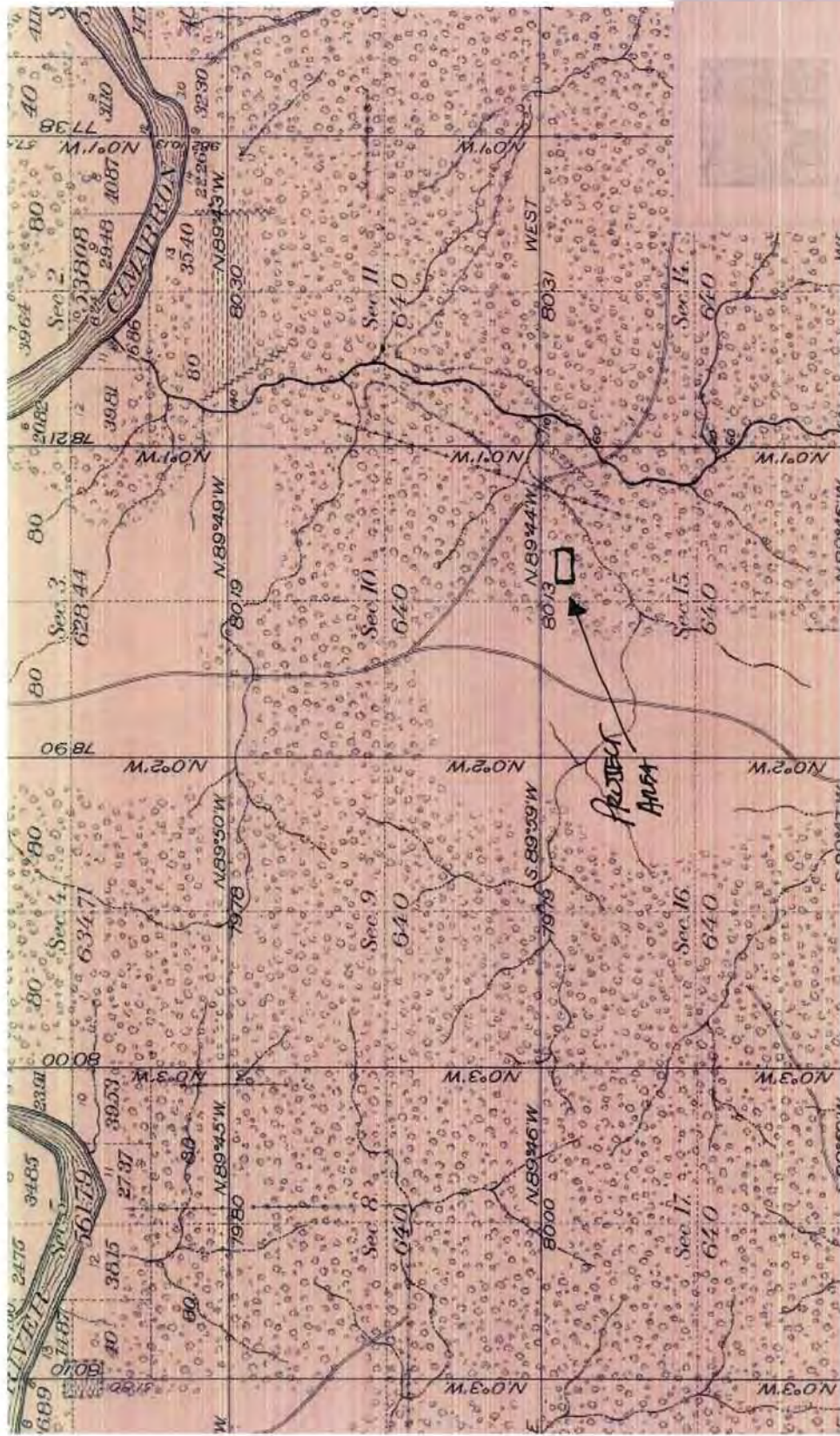
PROJECT AREA

RECREATIONAL FACILITIES			
ITEM	EXISTING	PROPOSED	TOTAL
BOAT RAMP LANES	2		
WATERBORNE TOILET W/SHOWER	1		
WATERBORNE TOILET			
MAINTENANCE VAULT TOILET			
WOOD VAULT TOILET	4		
CAMPITES	33		
PICNIC SITES	9		
PEDESTAL COOKERS	48		
FIRERINGS			
LANTERN STANDS			
UTILITY TABLES	46		
ELECTRICAL HOOD-UP	33		
REFUSE CANS (SINGLE)	31		
REFUSE CANS (DOUBLE)	3		
WELL (HAND PUMP)			
WATER HYDRANTS	3		



1898 GENERAL LAND OFFICE MAP

200000
view



200m
view



1898 GENERAL LAND OFFICE MAP

















REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

Planning and Environmental Division
Environmental Analysis and Compliance Branch

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

Dear Dr. Blackburn:

This letter is to initiate consultation as required by Section 106 of the National Historic Preservation Act of 1966 (as amended) for the proposed construction of a marina and associated parking lot at Keystone Reservoir, Creek County, Oklahoma. Keystone Reservoir and the proposed project area are owned and managed by the U.S. Army Corps of Engineers, Tulsa District.

The City of Mannford, Oklahoma currently leases and manages the Keystone New Mannford Ramp Public Use Area, located immediately north and east of Mannford on the shore of the Salt Creek arm of Keystone Reservoir. To accomplish the proposed construction, the City of Mannford proposes to sub-lease the eastern portion of the current lease area (see enclosed maps). The legal description of the area is N $\frac{1}{2}$, NW $\frac{1}{4}$, NE $\frac{1}{4}$, Sec. 15, T19N, R9E in Creek County, Oklahoma.

In order to comply with Section 106, a Tulsa District archaeologist conducted an archaeological survey of the portion of the Keystone New Mannford Public Use Area that is planned for the sub-lease and the associated marina and parking lot construction. Results are addressed in the enclosed report. One historic archaeological site (no site number yet assigned) was identified, a scatter of historic artifacts likely dating to the 1900-1957 time frame.

The enclosed report discusses the historic archaeological site and evaluates its eligibility for the National Register of Historic Places (NRHP). No features were identified and there is compelling evidence that the site has been heavily disturbed since the reservoir was constructed in the late 1950s-early 1960s, as evidenced by multiple bulldozer push piles. Because

its integrity has been compromised and there are no associated features, we do not believe the site is eligible for the NRHP.

We request your comment on our determination of "not eligible" for the historic archaeological site and on our determination of "no historic properties affected" for the proposed construction of a marina and associated parking lot in the Keystone New Mannford Ramp Public Use Area. If you have questions please contact Mr. Ken Shingleton at 918-669-7661.

Sincerely,

A handwritten signature in cursive script, appearing to read "Stephen L. Nolen", with a long horizontal line extending to the right.

Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosures



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Dr. Robert Brooks
Oklahoma Archeological Survey
111 E. Chesapeake
Norman, OK 73019-5111

Dear Dr. Brooks:

This letter is to initiate consultation as required by Section 106 of the National Historic Preservation Act of 1966 (as amended) for the proposed construction of a marina and associated parking lot at Keystone Reservoir, Creek County, Oklahoma. Keystone Reservoir and the proposed project area are owned and managed by the U.S. Army Corps of Engineers, Tulsa District.

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Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

REPLY TO
ATTENTION OF

Planning and Environmental Division
Environmental Analysis and Compliance Branch

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

Dear Chief Red Eagle:

This letter is to initiate consultation as required by Section 106 of the National Historic Preservation Act of 1966 (as amended) for the proposed construction of a marina and associated parking lot at Keystone Reservoir, Creek County, Oklahoma. Keystone Reservoir and the proposed project area are owned and managed by the U.S. Army Corps of Engineers, Tulsa District.

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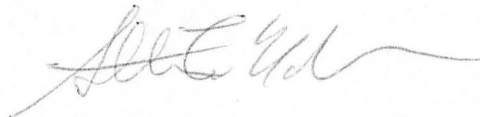
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Sincerely,

A handwritten signature in dark ink, appearing to read "S. L. Nolen", with a long horizontal flourish extending to the right.

Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

REPLY TO
ATTENTION OF

Planning and Environmental Division
Environmental Analysis and Compliance Branch

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

Dear Chief Ellis:

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Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

REPLY TO
ATTENTION OF

Planning and Environmental Division
Environmental Analysis and Compliance Branch

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

Dear Mekko Hobia:

This letter is to initiate consultation as required by Section 106 of the National Historic Preservation Act of 1966 (as amended) for the proposed construction of a marina and associated parking lot at Keystone Reservoir, Creek County, Oklahoma. Keystone Reservoir and the proposed project area are owned and managed by the U.S. Army Corps of Engineers, Tulsa District.

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Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

REPLY TO
ATTENTION OF

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Principal Chief Chad Smith
Cherokee Nation, Oklahoma
P.O. Box 948
Tahlequah, OK 74465

Dear Chief Smith:

This letter is to initiate consultation as required by Section 106 of the National Historic Preservation Act of 1966 (as amended) for the proposed construction of a marina and associated parking lot at Keystone Reservoir, Creek County, Oklahoma. Keystone Reservoir and the proposed project area are owned and managed by the U.S. Army Corps of Engineers, Tulsa District.

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Sincerely,

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Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

REPLY TO
ATTENTION OF

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Chairperson Brenda Shemayne Edwards
Caddo Indian Tribe of Oklahoma
P.O. Box 487
Binger, OK 73009

Dear Chairperson Edwards:

This letter is to initiate consultation as required by Section 106 of the National Historic Preservation Act of 1966 (as amended) for the proposed construction of a marina and associated parking lot at Keystone Reservoir, Creek County, Oklahoma. Keystone Reservoir and the proposed project area are owned and managed by the U.S. Army Corps of Engineers, Tulsa District.

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Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

REPLY TO
ATTENTION OF

Planning and Environmental Division
Environmental Analysis and Compliance Branch

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

Dear President Standing:

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Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

REPLY TO
ATTENTION OF

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Chief George Wickliffe
United Keetoowah Band
of Cherokee Indians in Oklahoma
P.O. Box 746
Tahlequah, OK 74465-0746

Dear Chief Wickliffe:

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Enclosures



DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

REPLY TO
ATTENTION OF

Planning and Environmental Division
Environmental Analysis and Compliance Branch

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

Dear Mekko Scott:

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Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosures



DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

REPLY TO
ATTENTION OF

Planning and Environmental Division
Environmental Analysis and Compliance Branch

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

Dear Chief Harjo:

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Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch

Enclosures



Oklahoma Historical Society

Founded May 27, 1893

State Historic Preservation Office

Oklahoma History Center • 800 Nazih Zuhdi Drive • Oklahoma City, OK 73105-7914
(405) 521-6249 • Fax (405) 522-0816 • www.okhistory.org/shpo/shpom.htm

October 19, 2011

Mr. Stephen Nolen, Chief
Environmental Analysis and Compliance Branch
Tulsa District Corps of Engineers
1645 South 101 East Avenue
Tulsa, OK 74128-4609

RE: File #0025-12; Mannford Lease & Keystone Reservoir Marina & Parking Lot Project
(Including 34CR191)

Dear Mr. Nolen:

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 Timothy G. Baugh, Ph.D., 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



Oklahoma Archeological Survey

THE UNIVERSITY OF OKLAHOMA

October 6, 2011

Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch
Department of the Army
Corps of Engineers, Tulsa District
1645 South 101 East Avenue
Tulsa, OK 74128-4609

Re: Proposed marina sub-lease, New Mannford Public Use Area, Keystone Lake.
Legal Description: N ½ NW ¼, NE ¼ Section 15 T19N R9E, Creek County,
Oklahoma.

Dear Mr. Nolen:

I have received a report documenting the results of a cultural resource inventory for the above referenced action. Ken Shingleton of the Corps of Engineers Environmental Analysis Branch accomplished this work on September 28, 2011. The field inspection of some six acres representing the area of potential effect resulted in the documentation of an historic farmstead (assigned as 34CR191). **I defer comment on the potential eligibility of 34CR191 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





DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101 EAST AVENUE
TULSA OK 74128-4609

October 3, 2011

REPLY TO
ATTENTION OF

Planning and Environmental Division
Environmental Analysis and Compliance Branch

Chief George Wickliffe
United Keetoowah Band
of Cherokee Indians in Oklahoma
P.O. Box 746
Tahlequah, OK 74465-0746

United Keetoowah Band
The United Keetoowah Band of Cherokee Indians in Oklahoma has no objection to the referenced project. However, if any remains, artifacts or other items are inadvertently discovered, please cease construction immediately and contact us at 918-458-6533 or by letter.

Lisa C. Stopp
Lisa C. Stopp, Tribal NAGPRA POC

10-11-11
Date

Dear Chief Wickliffe:

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Attachment 3

Scoping Information and Comments

~Announcing~

REQUEST FOR SCOPING COMMENTS

as related to a

Proposed New Marina and Related Facilities, Keystone Lake, OK

in compliance with

The National Environmental Policy Act

Proposed Action

The U.S. Army Corps of Engineers, Tulsa District (Tulsa District) has received a request from the City of Mannford, OK to construct and operate a new marina, heated fishing dock, and related facilities at Keystone Lake, OK. Development over the next 1 to 3 years would be anticipated to include a new 150-slip marina developed and operated under the “clean marina” concept, a heated fishing dock, a mechanic’s shop, boat sales room, and associated parking for vehicles and trailers. The proposed project would require approximately 6 acres of land located within the current Prairie View/New Mannford lease between the Corps of Engineers and the City of Mannford, and 19 acres of water. This area is located in Creek County, OK just east of the existing New Mannford ramp and Prairie View camping facilities at Keystone Lake. Presently, the Tulsa District is initiating preparation of an Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) and is seeking scoping comments from agencies, interested stakeholders, and the public regarding this proposed action.

Depending upon market and recreational demand, potential future phases of development in this general area in years 3 through 9 could include marina expansion to add additional boat slips, an on-water restaurant and locker room, playgrounds, a swimming pool, sports courts, nature trails, lodging, caretaker’s facilities, and related amenities. Should future requests for such facilities be submitted by the City of Mannford, it is likely that some or all of these proposed future developments would require additional analysis and documentation under NEPA.

Scoping Process

Scoping provides for an early and open process for determining the scope of issues to be addressed and for identifying a range of issues related to a proposed Federal action. As part of the scoping process, the Tulsa District requests that the public, interested parties, and agencies take part by identifying issues related to the proposed action described above and providing input for the EA. In order to be considered, scoping comments should be provided by **Monday, November 7, 2011** to the address provided below. The Tulsa District will include this input as it evaluates impacts associated with this action. Comments and questions may be forwarded to:

Mr. Stephen L. Nolen
U.S. Army Corps of Engineers, Tulsa District
1645 S. 101st East Avenue ATTN: CESWT-PE-E
Tulsa, OK 74128-4629 Phone: 918-669-7660
e-mail: Stephen.L.Nolen@usace.army.mil

Nolen, Stephen L SWT

From: Patty Hershberger [pahersh@sbcglobal.net]
Sent: Sunday, October 09, 2011 3:30 PM
To: Nolen, Stephen L SWT
Subject: Keystone Lake proposed marina

Dear Sir,

We operate Keystone Pier 51 Marina. Currently we have approximately 21 vacant slips out of 280. These vacant slips are considered our smaller slips, ranging from 21' to 26'. Currently we only have two slips available up to 32'. We do not have any plans to build any more small slips, as the need is not indicated.

I question the economics behind another marina development in this area. Pier 51 Marina offers a wide range of facilities and amenities, yet we have only had a few boaters move from surrounding lakes to Lake Keystone. This business is highly seasonal, which affects the workforce and the overall business income. The economy has had a direct impact on our boat sales and overall business services.

Let me know if I can be of further assistance.

Sincerely,

Phil Hershberger, owner
Pier 51 Marina
PO Box 750, Mannofrd, OK 74044
cell -(918) 697-4924
email - pmhersh@sbcglobal.net

Nolen, Stephen L SWT

From: Elzie Smith [elziesmith@hotmail.com]
Sent: Tuesday, October 25, 2011 11:29 AM
To: Nolen, Stephen L SWT
Subject: Scoping comments keystone

Dear Mr. Nolen:

I would like to comment on the proposed new marina requested by the City of Mannford. I live in Cleveland, Oklahoma, about 20 miles north of Mannford. I believe this marina is sorely needed. I realize there are two marinas that are not full, but there are circumstances causing the vacant slips. If you will check, you will see that the Keyport Marina at Mannford is in serious dis-repair and would certainly not attract new customers. Any storm tears it apart, and they seem to be content just collecting the next insurance check. They don't even keep consistent hours of operation during the peak times of business. Also, Ugly Johns Marina on the northwest portion of the lake(I have a boat slipped there), while not as bad as keyport, it has not received the attention it should. Two of the three docks are in sad shape. Ownership seems content to concentrate on their Grand Lake operation and ignore Keystone. They don't have an employee at their gas dock, but post a phone number to call and hope someone can come to the dock. Also, the occupancy rate is affected there because the lake is somewhat shallow in that area. The future of that marina is short-term, as it will silt in shortly. That means the only marina that has kept pace, is Pier 51. You will find their occupancy rate is very high. Only a few small slips are available, and there is a waiting list for larger boats. If the Mannford project is denied, Keystone will have no available boat slips once Ugly Johns is silted in, or closed. Please give the Mannford project your attention and provide for Keystone's future growth. It will benefit this whole region economically as well.

Nolen, Stephen L SWT

From: rita@ndnwaterproofing.com
Sent: Monday, October 31, 2011 3:35 PM
To: Nolen, Stephen L SWT
Subject: Keystone Lake

Stephen- My name is Rita Bougher and I am the President of the Mannford Area Chamber and also, a business owner on Lake Keystone in Mannford, OK.

I would like to take a moment to discuss the possible Cross Timbers project.

My mother moved our family to Mannford in 1975 and is still living there. My grandfather has pictures of the Keystone lake being built. My husband I started a bait shop ten years ago in the Mannford area where it has been very successful. So you can understand I have watched the area grow year after year.

Although our lake was built to prevent flooding it is a very popular recreational lake. Our area lacks the amenities that the other lakes have. For example: A fishing dock that is open daily and yearly; gas access on the Mannford Side. (Yes we have a marina, their hours are very flexible.) Boat slips that protect our environment.

My perspective as a Chamber member is that this project is a great opportunity for our community. Lake Keystone has not had the opportunity to grow like Grand, or Eufula but has all the potential that those lakes have. Please help us with yours and our future.

Rita J. Bougher
V. President
N-D-N Waterproofing & Restoration Inc.
1507 E. 11th St.
Tulsa, OK 74120
918-794-7374 PH
918-794-7091 FX

KEYPORT MARINA, INC.
P.O.BOX 329
MANNFORD, OK 74044

NOV. 4, 2011

U.S.ARMY CORP OF ENGINEERS (CESWT-PE-E) ATTN: STEPHEN L. NOLEN
1645 S 101 ST E. AVE.
TULSA, OK 74128 4629

GENTLEMEN:

THIS LETTER IS IN RESPONSE TO YOUR LETTER OF OCTOBER 6, 2011 REFERRING TO AND (EA) BY THE CITY OF MANNFORD TO BUILD A BOAT MARINA AND RELATED DEVELOPMENTS THERETO.

THE AREA IN WHICH THEY ARE PLANNING TO BUILD IS NOT SUITABLE FOR THE TYPE OF DEVELOPMENT PLANNED, I.E.:

1. THE ACCESS ROAD TO THAT AREA GOES UNDER WATER AT FLOOD STAGE.
2. REST ROOMS IN THAT AREA GO UNDER WATER AT FLOOD POOL.
3. AN EXISTING MARINA (KEYPORT) IS A "STONES THROW" FROM THEIR SITE OF DEVELOPMENT CONSISTING OF A SHIP STORE, A HEATED FISHING DOCK, A GAS FACILITY, A REPAIR SHOP AND BOAT SALES BUILDING. ANY DUPLICATION OF THESE SERVICES WOULD RESULT IN A LOSS OF REVENUE FOR THE EXISTING AND PLANNED SERVICES, THEREBY REDUCING THE CORPS. RENTAL INCOME TO SUCH AN EXTENT THAT COULD RESULT IN A NON-PROFITABLE OPERATION FOR BOTH EXISTING AND PLANNED VENTURES.
4. WE DO NOT BELIEVE THAT A CHARTERED CITY SHOULD VENTURE INTO A COMPETITIVE BUSINESS WITH PRIVATE INDUSTRY, PARTICULARLY WHEN THERE ARE EXCESS BOAT SLIPS VACANT ON LAKE KEYSTONE AMONG THE THREE EXISTING MARINAS.
5. REGARDING THE INADEQUACY OF THE SITE DEVELOPMENT, WE REFER TO A CASE IN POINT, THE CROSS TIMBERS DEVELOPMENT AT LAKE SKIATOOK, A LAKE THAT DOES NOT INCUR A LARGE VARIATION OF WATER LEVELS AS DOES KEYSTONE. THE CURRENT LEVEL AT LAKE SKIATOOK IS APPROXIMATELY 12 FEET BELOW NORMAL LEVEL, WHICH ACCORDING TO INFORMATION WE HAVE CAUSES DAMAGE TO BOAT PROPS STRIKING BOTTOM OF THE LAKE AND CAUSING INGRESS AND EGRESS TO THEIR FUEL PUMPS. IN OUR OPINION DISCRETION WAS NOT UTILIZED IN THE SKIATOOK DEVELOPMENT SITE REGARDING LAKE LEVELS, WHICH IS A PRIME EXAMPLE FOR EXTREME CAUTION IN SUCH A DEVELOPMENT THAT ALREADY FLOODS THE ROADS & AREAS AT THE (EA) SITE.
6. IN CASUAL DISCUSSION WITH THREE DOCK BUILDERS ON KEYSTONE LAKE, THEY CONFIRM OUR ASSESSMENT REGARDING A BAD LOCATION FOR THAT DEVELOPMENT. THE CORPS SHOULD REVIEW THE HISTORY OF THAT AREA'S FLOODING BECAUSE EVEN ONE OCCURRENCE COULD CAUSE A TREMENDOUS LOSS FOR THE INVESTORS.

WE HOPE THAT THESE ITEMS OF INTEREST WILL RESULT IN A VERY CAREFUL ASSESSMENT OF THE PROJECT.

RESPECTFULLY,



JACK A. TUCKER

JAT:SC

Dunn, Tonya N SWT

From: Nolen, Stephen L SWT
Sent: Tuesday, November 08, 2011 7:49 AM
To: Dunn, Tonya N SWT
Subject: FW: REQUEST FOR SCOPING COMMENTS (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Tonya:

Final scoping comment for Mannford EA (attachment 3). Thanks.

sln

-----Original Message-----

From: Paul and Beth Roberts [<mailto:broberts31@cox.net>]
Sent: Monday, November 07, 2011 10:56 PM
To: Nolen, Stephen L SWT
Subject: REQUEST FOR SCOPING COMMENTS

Hello Mr. Nolen

Re: REQUEST FOR SCOPING COMMENTS as related to a

Proposed New Marina and Related Facilities, Keystone Lake, Okla.

Comment.1 Lack of map or aerial graphic of proposal is problematic and a disservice

Comment #2 Proposed area is east of Prairie View Boat Ramp and New Mannford Campgrounds and not as stated.

Comment #3 Request for 19 acres of water seems unrelated to proposed size of marina and land acreage requested. 2nd agenda?? Where is this 19 acres?

Comment #4 Location is not suitable for this kind of investment...high south wind exposure. Entry road to park and "Marina" subject to flooding at low to moderate flood pool elevations, proposed marina location not much higher than entry road.

Comment #5 Existing marina, heated fishing dock and several restaurants' only a short distance away.

Comment #6 Not a recipe for success at this location.

Question: who is behind this misadventure?? Mannford, historically has had no money for lease required capital improvements in the park.

This is a sub lease to whom? Must be newbies as location is marginal at best.

Paul C. Roberts

8310 S. 54 W AVE

Tulsa 74131

Classification: UNCLASSIFIED

Caveats: NONE

Attachment 4

Comments Received on DRAFT Environmental Assessment



Oklahoma Archeological Survey

THE UNIVERSITY OF OKLAHOMA

November 9, 2011

Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch
Department of the Army
Corps of Engineers, Tulsa District
1645 South 101st East Avenue
Tulsa, OK 74128-4609

Re: *Environmental Assessment, Commercial Marina Project, Prairie
View Lease on Keystone Lake, Oklahoma.* Legal Description:
N ½ NW ¼ NE ¼ Section 15 T19N R9E, Creek County, Oklahoma.

Dear Mr. Nolen:

I have examined the above referenced action for its potential to affect Oklahoma's prehistoric and early historic archaeological resources. Corps of Engineers archaeologist Kenneth Shingleton examined the proposed marina on September 28, 2011. The field inspection of some six acres representing the area of potential effect resulted in the remains of an historic homestead (34CR191). Based on comment from the State Historic Preservation Office, 34CR191 does not meet the criteria for National Register eligibility and no further treatment is warranted. The environmental assessment accurately documents our consultation in this undertaking. Thus, we have no objection to the proposed commercial marina and no further comment.

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

Sincerely,

Robert L. Brooks
State Archaeologist

Cc: SHPO



Mike Bloodworth CHAIRMAN	John D. Groendyke MEMBER
M. David Riggs VICE CHAIRMAN	Bruce Mabrey MEMBER
John Zelbst SECRETARY	Dan Robbins MEMBER
Ed Abel MEMBER	Harland Stonecipher MEMBER



MARY FALLIN, GOVERNOR
RICHARD T. HATCHER, DIRECTOR
wildlifedepartment.com

P.O. Box 53465 Oklahoma City, OK 73152 PH. (405) 521-3851

November 17, 2011

Mr. Stephen L. Nolen
U.S. Army Corps of Engineers
Planning and Environmental Division
1645 S. 101st E. Ave.
Tulsa, OK 74128-4629

Dear Mr. Nolen:

We have received your request for comments on the Draft Environmental Analysis (EA) regarding the proposed marina, parking area, heated fishing dock, and other recreational amenities at Keystone Lake near the Prairie View / New Mannford area. The Oklahoma Department of Wildlife would like to express the following concerns regarding the proposed project.

1. The short time given for response of the proposed marina project is inadequate for the type and magnitude of project being proposed. The date of the request to review the EA document of November 8, 2011 and had a closing date of November 23, 2011. This time frame is insufficient to allow our agency adequate time to review such a lengthy document and prepare a proper response. We would request that our agency be notified of future projects at least 30 days prior to the closing date to allow our staff adequate time to review, research, and respond accordingly, especially on projects such as this that have a high potential for impacting fishery resources and angler access.
2. This project is removing angler access to 19 surface acres of public water and potentially several hundred feet of shoreline to allow a private entity to benefit financially. Your document addresses the need to limit access to the proposed docks/marina area by the general public for safety reasons and, although safety should be a concern to protect individuals and property from harm, we do not believe access to public waters should be restricted for private benefit.
3. The construction process will require heavy machinery moving soil and materials at or near the water's edge. This raises issues of habitat loss and pollution.
 - A) Dredging, filling or other modification of the existing shoreline as well as clearing of terrestrial vegetation to accommodate marina structures has the

potential to eliminate or render useless, significant amounts of littoral fish habitat. These habitats are vital to recruitment of sport and forage fishes and often function best during periods of high water. Locations such as the backs of coves are preferred spawning areas and loss of habitat in these areas has the potential to significantly impact fish populations. All efforts should be made to require the applicant to maintain the natural shoreline slope, substrate and vegetative cover well above the conservation pool elevation.

- B) Proper care should be taken to limit material from washing into lake and potentially harming the aquatic biota and habitat. Also, proper maintenance of all equipment and machinery involved in the project should be performed to prevent accidental leaks and/or spills of any petroleum or other harmful chemical products that could harm the aquatic biota. If such an event occurs or it is noticed that dead or dying fish or other organisms begin to appear in the area, please refer to section C below for notification procedures.
- C) The proposed marina and related facilities will undoubtedly increase the presence of pollutants including, but not limited to, trash (various paper, plastic, and metal products), petroleum products, and chemical products as a result of the increased traffic of people, automobiles, and boats to the area. Since much of the area is subject to being inundated with flood waters, most pollutants left within the proposed project site could directly affect the health of aquatic biota within Keystone Lake. Even if the operators of the marina and park facilities operate cleanly, it would be impossible to ensure that every individual utilizing those facilities will keep the area clean or keep his or her vehicle and/or boat properly maintained to prevent or limit accidental spills of pollutants.
- D) In the event of a kill of aquatic organisms (fish, mussels, invertebrates, etc.) that may occur during construction and/or operation of the marina and park facilities, the ODWC should be contacted immediately, either by the information below, or by contacting the Creek County game warden (game warden contact information can be accessed using the most current issue of either the *Oklahoma Hunting Guide* or *Oklahoma Fishing Guide*) to investigate and determine if the event is a result of the construction or operation of the marina, or if a result of other factors. If it is determined that a kill is the direct result of the construction and/or operation of the marina, mitigation may be required as well as immediate remediation of the problem. If the kill is thought to be a result of a petroleum or chemical spill, the Oklahoma Department of Environmental Quality (OKDEQ) should be contacted immediately as well.

ODWC contact information:

**ODWC Northeast Regional Office
P.O. Box 1201
Jenks, OK 74037**

Phone: (918) 299-2334

OKDEQ contact information:

24 hour emergency hotline: (800) 522-0206

We thank you for considering our comments regarding this project and would appreciate notification for updates on progress and/or changes as they occur. We look forward to working with you in the future.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Whisenhunt", written in a cursive style.

Chris Whisenhunt
Fisheries Biologist, ODWC

Cc: Barry Bolton, Fisheries Chief, ODWC
Gene Gilliland, Assistant Fisheries Chief, ODWC
Brent Gordon, Fisheries Supervisor, ODWC