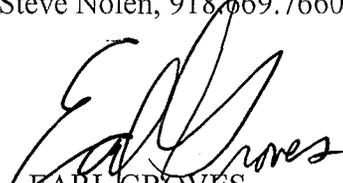


14 October 2015

MEMORANDUM FOR Commander, Tulsa District

SUBJECT: Pat Mayse Lake, Texas Master Plan Revision (October 2015)

1. Enclosed subject Master Plan is submitted for review and approval in accordance with ER 1130-2-550, Change 7 and EP 1130-2-550, Change 5.
2. Point-of-contact in Operations Division is Mr. Steve Nolen, 918.669.7660.


EARL GROVES
Chief, Operations Division

Encl

Approved:  _____ Disapproved: _____


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

9 NOV 2015

Pat Mayse Lake Master Plan

Sanders Creek
Lamar County, Texas



October 2015



US Army Corps
of Engineers®
Tulsa District

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PAT MAYSE LAKE MASTER PLAN

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CHAPTER 1 - INTRODUCTION

1.1 PROJECT AUTHORIZATION

Pat Mayse Lake, formerly designated as Pat Mayse Dam and Reservoir, is a multipurpose project authorized by the Flood Control Act of October, 1962. The project was constructed and is operated by the U.S. Army Corps of Engineers (USACE). In House Document No. 602, 79th Congress, 2d Session, published in 1946, the Chief of Engineers recommended the construction of Boswell, Hugo, and Millwood Reservoirs above Fulton, Arkansas and other reservoirs and improvements downstream from Fulton. Then, in response to a resolution by the Public Works Committee of the House of Representatives, adopted 21 May 1957, House Document No.71, 88th Congress, 1st session, recommended the construction of Pat Mayse Dam and Reservoir. The proposed project was then authorized for construction by Public Law 87-874. 87th Congress, on 23 October 1962.

Construction began on March 9, 1965; closure of the embankment occurred on November 29, 1966; and the diversion opening in the outlet works was closed in August 1967. The project was placed in full flood control operation on September 28, 1967. The top of conservation pool was reached on April 20, 1968. After construction the channel was cleared and snagged beginning at the exit channel from the outlet works at river mile 3.7 downstream to the FAS 197 bridge at river mile 2.0. The cleared area was approximately 100 feet wide.

1.2 PROJECT PURPOSE

Pat Mayse Lake is a multipurpose project for flood risk management, municipal and industrial water supply, recreation, fish and wildlife, and channel improvement of Sanders Creek, based on a conservation pool elevation of 451.0 mean sea level (msl).

1.3 PURPOSE AND SCOPE OF MASTER PLAN

The *Pat Mayse Lake Master Plan*, originally published as *Design Memorandum 3C*, hereafter referred to as Plan or master plan is the strategic land use management document that guides the comprehensive management and development of all project recreational, natural, and cultural resources throughout the life of the project. The Plan guides the efficient and cost-effective development, management and use of project lands. This Plan, no longer referred to as a Design Memorandum, is a vital tool for responsible stewardship and sustainability of the project's resources for the benefit of present and future generations. This Plan guides and articulates USACE responsibilities pursuant to federal laws to preserve, conserve, restore, maintain, manage, and develop the land, water, and associated resources. The Plan is dynamic and flexible based on changing conditions. This Plan focuses on goals and objectives. Details of design, management and administration, and implementation are addressed in the *Pat Mayse Lake Operational Management Plan*. This Plan does not address the specifics of regional water quality, shoreline management, or water level management. The operation and maintenance of primary project operations facilities, including but not limited to the dam, spillway, and gate-controlled outlet is not included in this Plan.

This report proposes public use development and conservation necessary to develop and conserve existing project lands to realize the optimal potential of the project. This plan incorporates conservation, enhancement, development, operation, management, and public interest use of all project lands, waters, forests, and other resources throughout the life of the project, and includes plans showing the most desirable and feasible locations and types of facilities needed to meet these goals. Emphasis has been placed on a balanced approach to public access, camping, shoreline use, water based recreation, and conservation. Adequate facilities and land-based requirements are proposed to ensure all desired recreational opportunities are achieved and assure compliance with applicable environmental regulations, laws and policies. This plan also proposes proper utilization of natural resources and recreational facilities, assuming the continued availability of Congressionally-appropriated funds, while at the same time conserving and protecting all resources held in the public trust.

Implementation of this Plan must recognize and be compatible with the primary project missions of flood risk management and water conservation. Recreational facility development proposed in this plan is dependent on availability of appropriated funds, but may also be achieved through partnerships, donations and volunteer efforts. This plan does not propose the acquisition of additional land.

Additional information regarding environmental impacts to existing conditions as a result of this Plan can be found in the Environmental Assessment for the Pat Mayse Lake Master Plan in Appendix B.

1.4 DESCRIPTION OF PROJECT AND WATERSHED

Pat Mayse Lake is located in Lamar County, Texas on Sanders Creek within the Bois D'arc-Island Watershed and is a right-bank tributary to the Red River Basin. Sanders Creek has its source near Honey Grove, Texas and flows in a northeasterly direction to its confluence with the Red River at river mile 636, about three miles upstream from Arthur City, Texas. The watershed is about 30 miles in length with a maximum width of about 10 miles near the upper end. The total drainage area of Sanders Creek is 190 square miles, and the area above the dam site is 175 square miles. The watershed lies in a region of low rolling hills. The upper portion of the basin is moderately steep and is well drained. The main stream channel is very tortuous and choked with brush and timber. Elevations range from about 690 msl at the source to about 400 msl at the mouth. The weighted slope of the entire stream is about 6 feet per mile and is about 3 feet per mile near the mouth. Towns of Bonham, Sherman, Denison, and Hugo are located within the watershed. A vicinity map of the lake is located in the Environmental Assessment at Figure 1.1 in the Appendix B.

1.5 PRIOR DESIGN MEMORANDA

Design Memorandums were prepared from 1964 thru 1976 setting forth design criteria for all aspects of the project including the prime flood risk management facilities, real estate acquisition, road and utility relocations, reservoir clearing, and the master plan for recreation development and land management. The Design Memoranda is listed in the table below.

Table 1.1 Design Memoranda

Design Memo	Title	Date Submitted	Date Approved
1	Hydrology – Part I	Apr 2, 1964	Aug 17, 1964
1	Hydrology – Part II	Jul 27, 1964	Nov 23, 1964
2	General Design Memorandum	Jul 16, 1964	Dec 21, 1964
3A	Preliminary Master Plan	Sep 11, 1964	Apr 13, 1965
3B	Updated Master Plan	Sep 10, 1975	Feb 6, 1976
Ltr. Report	Concrete Aggregate Design Memorandum	Sep 21, 1964	Nov 2, 1965
4-1	Real Estate for Dam Site and Spillway	Oct 19, 1964	Feb 1, 1965
4-2	Real Estate for Reservoir Area	Nov 22, 1965	Mar 29, 1966
4-3	Real Estate – Additional Land for Fish and Wildlife Purposes	Mar 17, 1970	May 5, 1970
6	Embankment, Outlet Works and Spillway	Oct 15, 1964	Dec 10, 1964
8	Relocation of Texas Power and Light Company Facilities	Dec 21, 1964	-
9	Access and Service Roads	Nov 5, 1964	Dec 18, 1964
10	Reservoir Clearing	Apr 9, 1965	Jun 4, 1965
11	Sedimentation and Degradation Ranges	Jul 9, 1965	-
12	Project Buildings	Nov 4, 1964	Dec 14, 1964
13	Relocation of FM Highway 1499	Apr 14, 1966	May 22, 1966

1.6 PERTINENT PROJECT INFORMATION

The following table provides pertinent information regarding existing reservoir storage capacity at Pat Mayse Lake.

Table 1.2 Water Storage Capacity

Feature	Elevation (feet)	Area (acres)	Capacity (acre-feet)	Equivalent Runoff⁽¹⁾ (inches)
Top of Dam	488.5	-	-	-
Top of Flood Control Pool	460.5	7,680	182,940	19.60
Flood Control Storage	451.0 – 460.5	-	64,830	6.95
Top of Conservation Pool	451.0	5,940	118,110	12.66
Conservation Storage	415.0 – 451.0	-	114,700 ⁽²⁾	12.29
Top of Normal Lower Pool	415.0	720	3,410	0.37

(1) Drainage area is 175 square miles.

(2) Includes 109,600 acre-feet for water supply (55 mgd yield)

The following table provides pertinent information regarding acreages by land use classifications at Pat Mayse Lake.

Table 1.3 Acreage by Land Use Classification

Classification	Acres
Project Operations	370
High Density Recreation	2,718
Environmentally Sensitive Areas	0
Multiple Resource Managed Lands: Low Density Recreation	2,478
Multiple Resource Managed Lands: Wildlife Management	7,760
Multiple Resource Managed Lands: Vegetative Management	0
Multiple Resource Managed Lands: Future/Inactive Recreation Areas	0
Water Surface: Restricted	10
Water Surface: Designated No-wake	2
Water Surface: Fish and Wildlife Sanctuary	0
Water Surface: Open Recreation	5,928
Total	19,266

Note 1: Total acreage taken from 1980 Real Estate Audit

Note 2: Water Surface total acres taken from 2004 Pertinent Data Book

Note 3: Land acres taken from Supplement 1 to Design Memorandum 3A

CHAPTER 2 - PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

2.1 DESCRIPTION OF RESERVOIR

Pat Mayse Lake is located at river mile 4.6 on Sanders Creek, a tributary of the Red River, about 1.5 miles southwest of Arthur City and 12 miles north of Paris in Lamar County, Texas. Purposes include flood control, water supply, recreation, and fish and wildlife. Construction began on March 9, 1965; closure of the embankment occurred on November 29, 1966; and the diversion opening in the outlet works was closed in August 1967. The project was placed in full flood control operation on September 28, 1967. The top of conservation pool was reached on April 20, 1968. The earth-filled embankment is 7,080 feet long, excluding the spillway; rises 96 feet above the streambed; and has a top width of 32 feet. The auxiliary spillway is located in a saddle about 1,400 feet right of the right abutment. The auxiliary spillway is 1,700 feet long with a 100-foot bottom width at elevation 477.0 and has 1-on-3 side slopes. The outlet works consist of a morning-glory-type drop inlet with the crest at the top of the conservation pool; a 7-foot 3-inch conduit; and a stilling basin. The inlet forms a relatively constant level pool, thus allowing for more favorable conditions for development and management of the recreational and biological resources.

2.2 HYDROLOGY AND GROUNDWATER

Pat Mayse Lake is located in the Red River Basin on Sanders Creek (a tributary of the Red River) within the Bois D'arc-Island Watershed. The lake's total drainage controls the runoff from an area of 175 square miles. Pat Mayse Lake is located in Groundwater Management Area 8 and is a management area created to assist Groundwater Conservation Districts in future planning for groundwater for the Texas Water Development Board. The lake is above the major aquifer of the Trinity Aquifer and minor aquifer of the Woodbine Aquifer.

The flood of record occurred in December 1971 with an estimated peak discharge of 30,600 cfs and a volume of 75,500 acre-feet, which is equivalent to 8.09 inches of runoff from the upstream drainage area. When the lake fluctuates it affects approximately 1/3 of the recreational facilities on the lake. The remaining facilities are located above the flood control pool. The time required to lower the flood pool during long periods of recurring rains results in excessive damage to the facilities near the normal pool. During periods of drought lake levels have not been extreme and have had little adverse effect on the use of the recreational facilities.

2.3 SEDIMENTATION AND SHORELINE EROSION

At the top of the conservation pool level the shoreline length is 67 miles. Varying degrees of shoreline erosion have occurred throughout the project area depending on exposure to wind, fetch and topography. Soil type is another factor governing the rate of shoreline erosion. Turbidity and sediment accumulation in the reservoir is affected primarily by row crop farming, construction activity and other actions taking place in the watershed in areas remote from the project and to a much lesser extent by wave-induced erosion along the

shoreline of the lake. All recreation areas have experienced erosion problems. Erosion control efforts that combine vegetation plantings and structural solutions are implemented as needed to protect recreation facilities, sensitive habitats, or cultural resources. With few exceptions, the resource objectives set forth in this Plan call for the establishment of permanent vegetative cover on all project lands in accordance with ecosystem management principles.

2.4 WATER QUALITY

Water quality at Pat Mayse Lake is dependent upon many factors. The lake is typical of many of the reservoirs in Texas and surrounding states that were constructed in the 20th century. As a reservoir ages, water quality declines can be attributed to many factors, individually and collectively. Factors which generally contribute to a decline in water quality in aging reservoirs includes sedimentation, increased human habitation within the vicinity of the lake, changing land management practices within the watershed, increase urbanization and associated urban runoff, and increased reliance on allocated water supply. Adverse impacts to the local economy due to water quality and quantity issues have been an increasing matter of local, state, and regional concern throughout the contiguous United States in recent years.

An analysis of Sanders Creek prior to impoundment showed high amounts of iron, manganese and hardness. However, after proper water treatment to reduce the iron and manganese levels, the water is acceptable for municipal and industrial use. The City of Paris, Texas has contracted for 21,900 acre feet of water supply storage through an intake structure on the southern shoreline at 407.4 msl. The current use of this water has shown no adverse problems resulting from water quality and none is expected in the future.

Currently, Pat Mayse Lake staff monitors water quality near recreation areas from numerous sites during the recreation season between April and October. Blue-green algae, also known as cyanobacteria, are closely monitored for increases in toxicity. Blue-green algae are present in the lake, but no significant amounts which have produced toxic levels have been noted.

2.5 PROJECT ACCESS

Pat Mayse Lake is located in Lamar County, Texas approximately 12 miles north of Paris, Texas. The lake is accessible from federal, state and county roads. Major U.S. Highways serving the area include US Highway 271 approximately 2 miles east of the lake, US Highway 82 approximately 12 miles to the south in Paris, Texas and US Highway 70 approximately 12 miles to the north in Hugo, Oklahoma. Access to the dam, overlook, project office and Sanders Cove is provided by an asphalt paved road connecting with US Highway 271 on the east and Texas Highway 197 on the north. Lamar Point is served by FM Road 1499 which is paved. Access to Forest Point, Pat Mayse East and Pat Mayse West is via county roads from Texas Highway 197. The county road serving the lake is paved while roads serving Forest Point and Pat Mayse East are unpaved outside the project boundary but paved inside. The access to all use areas is relatively good and safe; however, the access to some areas is remote and difficult to find unless the visitor is well acquainted with the region.

2.6 CLIMATE

The climate at Pat Mayse Lake is favorable for year-round outdoor sports and recreation. The area has mild winters and hot summers. The average rainfall is 47.07 inches, a 6.77 inch increase from 1975, with an average temperature of 64.5 degrees F, a 0.6 degree increase from 1975. The length of the growing season ranges from 210 to 220 days. The prevailing wind is from a southerly direction with the greatest wind movement occurring during the spring months. A wind velocity of 45 miles per hour is the highest that can be normally expected for duration of one hour or more.

The topic of worldwide climate change, including the causes and extent, continues to be studied by the scientific community and world governments. In the United States, two Executive Orders, EO 13514 and EO 13653, as well as the President's Climate Action Plan (CAP) set forth requirements to be met by Federal agencies. These requirements range from preparing general preparedness plans to meeting specific goals to conserve energy and reduce greenhouse gas emissions. USACE has prepared an Adaptation Plan in response to the Executive Orders and CAP. The Adaptation Plan includes the following USACE policy statement:

“It is the policy of USACE to integrate climate change preparedness and resilience planning and actions in all activities for the purpose of enhancing the resilience of our built and natural water-resource infrastructure and the effectiveness of our military support mission, and to reduce the potential vulnerabilities of that infrastructure and those missions to the effects of climate change and variability.”

2.7 TOPOGRAPHY, GEOLOGY, AND SOILS

The general geology and topography of the region surrounding Pat Mayse Lake consists of low relief and flat-lying to gently dipping formations in the Western Hills section of the Gulf Coast Plains Physiographic Province. The Eagle Ford shale and Woodbine formation of Cretaceous age underlie the entire area. Overburden in the flood plain consists of fat clays and averages 35 feet in thickness. Rock in the flood plain is tentatively assigned to the Woodbine formation. The strata range from a moderately hard fossiliferous calcareous sandstone to a soft shaly sandstone. The flood plain areas are productive dark brown clay soils and the upland areas are principally poor sandy loam soils. The bottomland areas are suited for legume and tame grass hay production and the upland areas are used for livestock grazing and timber production. Other formations adjoining the project area include the Bonham formation and traces of Fluvial Terrace deposits.

The general character of the shoreline is moderately rolling hills with a dense tree cover and underbrush. The natural topography of the area is the determinant of the elongated, irregular shape of the lake. During construction of the project timber was cleared from all areas of the lake except the area west and south of Lamar Point and east of Lamar Point along Fiser Creek and south of Sanders Cove. The water depth in the cleared areas is adequate for safe boating and the moderate slopes are suitable for recreational use.

Detailed information on all soil types surrounding Pat Mayse Lake is available on websites maintained by the Natural Resources Conservation Service, U.S. Department of Agriculture.

2.8 RESOURCE ANALYSIS

2.8.1 Fish and Wildlife Resources

At the estimated average annual minimum pool elevation of 445 feet, Pat Mayse Lake provides 4,940 surface-acres of fish habitat suitable for the production of largemouth bass, white crappie, various sunfish, white bass, channel catfish, flathead catfish, drum, buffalo, carp, gizzard shad, and various species of minnows. The lake is moderately clear and provides fish habitat suitable for the production of a large population of fish.

The downstream fishery is insignificant due to a lack of adequate releases and channel improvements. Infrequent flood releases and elimination of holes by channel alteration do not allow a sustained fishery in Sanders Creek from the dam to State Highway 197. From this point to the Red River, backwaters from the Red River do sustain a fishery.

The project lands provide habitat for whitetail deer, gray squirrel, bobwhite quail, mourning dove, cottontail rabbit, raccoon, and fox. The reservoir provided resting and, to some extent, feeding habitat for migratory waterfowl. A few miles north of the project area are the famed Red River Bottoms where waterfowl congregate in great numbers.

The impacts of the wildlife management program are beneficial in providing wildlife food and habitat and protection to endangered species. Wildlife areas will provide a suitable area for public hunting and fishing as a result of management practices. Project lands managed for wildlife purpose also have the effect of withdrawing these lands dedicated to such use from the production of food and fiber for human consumption.

There is a total of 8,317 acres of improved wildlife habitat managed by the Texas Parks and Wildlife Department (TPWD). The species principally managed are deer, squirrels, rabbits, quail, and dove.

2.8.2 Vegetative Resources

The vegetative data of the Pat Mayse Lake were classified using information derived from FY2014 Project Site Vegetation Classification Records reported in the Operations and Maintenance Business Information Link (OMBIL). These data are displayed in Table 2.1.

Table 2.1 Vegetation Classification Records

Order	Class	Sub-Class	Acreage
Non-Vegetated	Non-Vegetated	Non-Vegetated	5,990
Herb Dominated	Herbaceous Vegetation	Hydromorphic rooted vegetation	24
Herb Dominated	Herbaceous Vegetation	Perennial gramimoid vegetation (grasslands)	339
Shrub Dominated	Shrubland (Scrub)	Mixed evergreen- deciduous shrubland (scrub)	34
Tree Dominated	Closed Tree Canopy	Deciduous closed tree canopy	12,206
Tree Dominated	Closed Tree Canopy	Evergreen forest	131
Tree Dominated	Closed Tree Canopy	Mixed evergreen- deciduous closed tree canopy	22
Tree Dominated	Open Tree Canopy	Mixed evergreen- deciduous open tree canopy	158
Vegetation Not Dominant	Sparse Vegetation	Consolidated rock sparse vegetation	362

2.8.3 Threatened and Endangered Species

Considerations for federally-listed threatened and endangered species at Pat Mayse Lake are in accordance with Tulsa District's current Biological Opinion (BO) issued by the USFWS. Past and potential future actions include such measures such as construction and management of nesting habitat for the endangered the Interior Least Tern (ILT) (*Sterna antillarum*) and the American Burying Beetle (ABB) (*Nicrophorus americanus*). Should federally-listed species change in the future (e.g., delisting of the ILT or other species or listing of new species) associated requirements will be reflected in a revised BO from the USFWS. Natural resources needs and management for listed species at Pat Mayse Lake will change accordingly.

Section 7(a)(2) of the Endangered Species Act requires federal agencies to ensure that any action authorized, funded, or carried out by such agency is not likely to: 1) jeopardize the continued existence of any endangered or threatened species, or 2) result in the destruction or adverse modification of critical habitat. The term, "jeopardize the continued existence of", means to reduce appreciably the likelihood of both the survival and recovery of listed species in the wild by reducing the species' reproduction, numbers, or distribution.

Jeopardy opinions must present reasonable evidence that the project will jeopardize the continued existence of the listed species or result in destruction or adverse modification of critical habitat.

The Interior Least Tern (ILT) (*Sterna antillarum*) is a federally-listed endangered bird that nests on sand bars along the Arkansas River in Oklahoma and Arkansas. Preferred nesting habitat for the ILT is bare sand substrate located a considerable distance from trees or other potential roosting spots for avian predators. ILT nesting success is monitored by Tulsa District biologists.

The American Burying Beetle (ABB) (*Nicrophorus americanus*) can be found at Pat Mayse Lake. It was proposed for federal listing in October 1988 (53 FR 39617) and designated as an endangered species on July 13, 1989 (54 FR 29652) and retains this status. The ABB is an annual species and typically reproduces once in its lifetime. It competes with other invertebrate species as well as vertebrate species, for carrion. Although ABBs are considered feeding habitat generalists, they are believed to be more selective regarding breeding habitat. Direct adverse impacts to ABBs during their inactive and active periods may occur as a result of impacts from clearing vegetation; soil compaction due to heavy equipment operation; fuel and chemical contamination of the soil; grading; soil excavation and filling; and re-vegetation and reseeded of disturbed areas. During construction of dredge disposal pits and access roads, soil is excavated and vegetation is cleared. Excavating soils, clearing vegetation, and constructing access roads involve displacement of soils that could uncover ABBs. Uncovered ABBs could be exposed to predation, adverse environmental conditions, or crushed by equipment. If construction occurs during the active season, ABB broods could be displaced during soil excavation, adults could be separated from larvae/eggs, and/or both could be crushed by equipment.

For future actions where incidental take may occur, USACE will comply with the BO to conduct presence/absence surveys. These surveys must be performed during the ABB active season and are valid until the beginning of the active season in the following year. Also, if soil disturbance has not commenced by the beginning of the active season in the following year, another survey will be conducted.

If a survey for a project site is positive for the ABB the following best management practices would be implemented:

- Project footprint will be minimized to the greatest extent practicable.
- Equipment will utilize existing roads and all equipment will use the same path to minimize disturbance.
- Habitat will not be altered until necessary for the project. Construction equipment access points to dredge disposal sites will be minimized to the greatest extent practicable.

- Project sites will be canvassed and any carcasses that may be present will be removed. Searches for carcasses must be initiated at least two weeks prior to project-related soil disturbance and conducted once a week until soil disturbance begins.
- The minimum amount of lighting necessary to meet the objectives of the project will be used. If night time work is required, lighting will be down shielded.
- Vegetation will be established in areas not permanently impacted that were disturbed during project construction as soon as possible following construction. This will be accomplished with an appropriate mix of plant species native to the project site. Plants listed as invasive by the U.S. Department of Agriculture or the state of Texas should be avoided.
- At least an area equal to the suitable habitat impacted by the project actions (impacts of existing flood pools excluded) will be replaced through improved management or restoration of habitat suitable for ABBs. USACE will prepare an ABB habitat plan outlining proposed habitat improvements and the improved or restored habitat must be in a location approved by the Service. Management and monitoring of these improved habitat areas must be incorporated to maintain these areas and such actions will be included in an annual report to the Service.

Other threatened and endangered species having potential habitat at Pat Mayse Lake fee lands, as identified by the USFWS Information for Planning and Conservation (IPaC) Trust Resource Report, can be found in Table 2.2.

Table 2.2 Threatened and Endangered Species

	Status	FED/State List	Has Critical Habitat	Biological Opinion Issued	Final Recovery Requirements	Recovery Actions Designated
Birds						
Piping Plover	Threatened	FED	No	Yes	No	No
Least Tern	Endangered	FED	No	Yes	No	No
Red Knot	Threatened	FED	No	No	No	No
Insects						
American Burying Beetle	Endangered	FED	No	Yes	No	No

2.8.4 Invasive Species

Table 2.3 lists the important invasive species that occur on Pat Mayse Lake fee lands. Data were retrieved from the FY2014 Project Site Invasive Species Records reported in OMBIL.

Table 2.3 Invasive Species

Species Group	Common Name	Type of Occurrence	Acreage Impacted	Percent Acreage Impacted	Acreage Treated
Aquatic and Wetlands Animals	Cattail	Moderate	100	0.52%	0
Terrestrial Animals	Red imported fire ant	Moderate	100	0.52%	10
Terrestrial Animals	Wild Boar	Moderate	1,000	5.19%	0
Terrestrial Plants	Giant Reed	Minor	10	0.05%	0
Terrestrial Plants	Johnson Grass	Moderate	100	0.52%	5
Terrestrial Plants	Korean Iespedeza	Minor	10	0.5%	0
Terrestrial Plants	Red Cedar	Moderate	100	0.52%	10
Terrestrial Plants	Kudzu	Minor	10	0.5%	0
Terrestrial Plants	Orange day lily	Minor	10	0.5%	0
Terrestrial Plants	Queen Annes Lace	Minor	10	0.5%	0
Terrestrial Plants	Sericea Lespedeza	Minor	10	0.5%	0
Terrestrial Plants	Tall Fescue	Minor	10	0.5%	0
Terrestrial Plants	Tamarix chinensis	Minor	10	0.5%	0
Terrestrial Plants	Varseygrass	Minor	10	0.5%	0
Terrestrial Plants	White Poplar	Minor	10	0.5%	0
Terrestrial Plants	Yellow Sweet Clover	Minor	10	0.5%	0

2.8.5 Ecological Setting

Pat Mayse Lake is located in the Northern Post Oak Savanna ecoregion, referred to as the East Central Texas Plains in TPWD's Texas Conservation Action Plan. This region is generally more level and gently rolling compared to the more dissected and irregular topography of much of ecoregion. The Post Oak Savannah is a transition zone between the blackland prairies to the west and the Pineywoods to the east. This ecosystem is part of a historic oak belt, which travels south from Canada towards Central America. Few true examples of old-growth Post Oak Savannah in Texas still exist today. This setting is underlain by mostly Eocene and Paleocene-age formations with some Cretaceous rocks to the north. The soils have an udic soil moisture regime compared to ustic in this ecoregion to the south, and are generally finer textured loams. Annual precipitation averages 40-48 inches. The deciduous forest or woodland is composed mostly of post oak, blackjack oak, eastern redcedar, and black hickory. Prairie openings contained little bluestem and other grasses and forbs. The land cover currently has more improved pasture and less post oak woods and forest than other regions. Some coniferous trees occur. Loblolly pine has been planted in several areas. Typical wildlife species include white-tailed deer, eastern wild turkey, northern bobwhite, eastern fox squirrel, and eastern gray squirrel.

2.8.6 Wetlands

Table 2.4 lists the acreages of various types of wetlands present at Pat Mayse Lake. Data were retrieved from the FY2014 Project Site Invasive Species Records reported in OMBIL.

Table 2.4 Wetland Classes

System	Sub-System	Class	Class Acres
Lacustrine	Limnetic	Unconsolidated Bottom	5,990
Palustrine	No Sub-System	Emergent Wetland	267
Palustrine	No Sub-System	Forested Wetland	1,015
Palustrine	No Sub-System	Scrub-Shrub Wetland	134
Palustrine	No Sub-System	Unconsolidated Bottom	33
Riverine	Lower Perennial	Unconsolidated Bottom	5

2.9 BORROW AREAS

There are no borrow or spoil areas on project lands. All borrow materials for recreational facilities were obtained outside project boundary. Any topsoil removed during construction was used in the public areas to improve vegetative cover.

2.10 CULTURAL RESOURCES

The Pat Mayse Lake Cultural Resource Management Plan is on file at the Lake Office. All known and new archaeological sites are under the terms and guidelines of the Historic Properties Preservation Program, ER 1130-2-540, and 18 CFR Part 1312; Protection of Archaeological Resources. Matters concerning vandalism on USACE property are addressed in cooperation with TPWD and the U.S. Marshall's Office in Dallas, Texas.

2.10.1 Archaeological Features

There are 26 known archeological sites in the Pat Mayse Lake area, indicating a period of occupation for possibly 10,000 years. These sites are primarily located on the first and second terraces along either side of Sanders Creek. A few sites can be found along the adjacent ridges and knolls.

The earliest known habitation of the Pat Mayse Lake area occurred during the late Paleo-Indian or Early Archaic period around 8000 B.C. Scattered deserve and Plainview dart points have been found at sites during archeological surveys made prior to inundation. These people were primarily big-game hunters searching for now extinct species of late Pleistocene Fauna. Due to their nomadic way of life, very little artifactual evidence remains to be found. Although a few of their characteristic dart points have been found in this area, sufficient evidence to suggest extensive occupation during Paleo-Indian or Early Archaic times has not been uncovered.

There are at least four sites that can be assigned Archaic affiliations. These sites span a time period from around 8000 B.C. to perhaps as late as A.D. 500. Archaic sites of east Texas are typically small open campsites found on low terraces near small tributary streams. They are more closely related to the Archaic of Louisiana, Oklahoma, and Arkansas than to those of central Texas. Archaic sites that extend along the western edge of the pine-oak forest from central Oklahoma to near the Gulf Coast are grouped in the La Harpe aspect. The sites in the Pat Mayse Lake area lie in the north part of this area. Material traits in common throughout the La Harpe aspect are flexed burials, pitted manos, expanding stem dart points in the early phase, contracting stem darts points in the later phase, plain ceramics in the terminal phase, and various polished and ground stone artifacts.

Two sites exhibit characteristics that are commonly found in the late Archaic Period. They appear to be similar to sites in the northern area of the La Harpe aspect represented by the Fourche Maline focus in Oklahoma. In the Oklahoma sites, plain pottery, such as Williams Plain, occurs in the late phase. The most common lithic artifacts are projectile points, drills, scrappers, double-bitted axes, performs, ground stone celts, atlatl weights, grinding stones, hammerstones, and cupstones. The small campsites in the Pat Mayse Lake area exists in a similar ecological setting and have material traits in common with Fourche Maline focus sites. Both expanding stem and contracting stem dart points are present along with plain pottery in small quantities. Unlike the Fourche Maline sites in Oklahoma, however, cultural midden depth as Pat Mayse Lake is shallow and a sequence of cultural changes is not demonstrated.

Several pottery and arrow point types have been found that link the Pat Mayse Lake area to the Caddoan are of the Mississippian Period which lasted until the beginning of European influence. The Caddoan area extends over an area in southeast Oklahoma, southwest Arkansas, northeast Texas, and northwest Louisiana. The pottery types represented are Sanders, Sanders Engraved, Crockett Curvilinear, and Monkstown Fingernail Puncate. The arrow points found representing this period are Scallorn, Washita, Fresno, Alba, Catahoula, and small Gray.

Cultural ties with southeast Oklahoma or southwest Arkansas are indicated by a portion of materials present at Pat Mayse Lake which were used in the manufacture of stone artifacts. The stone materials commonly occur in outcrops in the Southern Ouachita Mountains. Typical materials from the mountains found on the cultural sites include quartzite, quartzitic sandstone, Novaculite, Siliceous shale, crystalline quartz, and silicified wood. A high level gravel deposit of Nebraskan age I the Sanders Creek Basin contains a majority of lithic materials found in the form of artifacts of debitage.

None of the currently known sites warrant registration on the National Register of Historic Places. The State Historic Preservation Officer and the National Register have been consulted, and none of the sites in the area are listed on the National Register. Archeological needs are coordinated with the National Park Service on a continuing basis, but there are currently no plans for future archeological investigations.

2.10.2 Historical Features

Pat Mayse Lake is located in Lamar County, Texas in the heart of the Red River Valley, an area rich in the history of Texas. The county was first established as part of the Red River County in 1836. In 1840 it was created as a separate county and named in honor of Mirabeau B. Lamar, President of the Texas Republic.

The lake is named for the late A. G. (Pat) Mayse, a former publisher of the Paris (Texas) News, and a leader in water resources development in the Red River Valley. Among the early settlers of the area was Claiborne Wright, who in the fall of 1816 brought his family from Tennessee by keelboat up the Red River to Pecan Point. In 1839, his son, George W. Wright, settled in what became Lamar County. In 1844, he donated 50 acres for the county seat, which he named Paris. He later became the first president of the company that established the Memphis, El Paso, and Pacific Railroad. During the War Between the States he served as Confederate Provost Marshall of Lamar County.

Other early settlements in the area are Chicota; near the Red River and Sanders Creek which was established in 1897, Arthur City, also in the Red River, founded in 1866, and Unity, which had a post office as early as 1890. Other settlements included Powderly (the first settlement in Lamar County), Direct, and Sumner.

The lake now covers much of the former Camp Maxey, an infantry training camp during World War II. In addition to the Army Ground Forces trained at Camp Maxey, Army Services Forces and Army Air Forces had a part in the development of camp activities. An artillery range, obstacle course, infiltration course, and a "German Village" were included in

training maneuvers. The camp, named for General Samuel Bell Maxey, was placed on inactive status on October 1, 1945.

The State Historic Preservation Officer has been contacted and the National Register of Historic Places consulted for location of any sites within the Government property line. No sites listed on the National Register are in the area affected by operations and maintenance activities.

2.10.3 Archeological-Historical Sites

Of the 26 known archeological sites in the Pat Mayse Lake area, four have been inundated for the life of the project, eight are subject to shoreline erosion, twelve are located above the conservation pool elevation, and two sites were destroyed by construction activity.

Approximately two-thirds of the lake shore are has been examined to determine the effect of the operations and maintenance program on the cultural and paleontological resources. Periodic examinations will be continued in the future of the 26 known archeological sites in the Pat Mayse Lake area. About 10 sites are subject to possible shoreline erosion or disturbance by the visiting public. If future examinations reveal any significant damage to these sites, measures will be taken to protect then within the scope of USACE authority and available funds. Two sites have been seeded to Bermuda grass to prevent possible damage from erosion and conceal the presence from the general public.

With the exception of one site, which is in a remote area and not being affected by operational activities, none of the sites warrant salvage activities because of the shallow nonstratified cultural zones. The one site which appears to warrant testing is archaic with a historic (late 19th century) homesite superimposed on it. The site is in a remote part of the project with limited access except by boat. Consequently, the site is not endangered by human actives.

2.11 DEMOGRAPHICS

The zone of interest for the socio-economic analysis consists of Atoka, Bryan, Choctaw, McCurtain, and Pushmataha Counties in Oklahoma and Delta, Fannin, Franklin, Hopkins, Lamar and Red River Counties in Texas.

2.11.1 Population

The total population for the zone of interest is 264,287, as shown in Table 2.5. Approximately 19% of the population is in Lamar County, Texas; 16% in Bryan County, Oklahoma; 13% each in McCurtain County, Oklahoma, Hopkins County, Texas, and Fannin County, Texas; 6% in Choctaw County, Oklahoma; 5% in Atoka County, Oklahoma and Red River County, Texas and 4% or less in Pushmataha County, Oklahoma and Delta and Franklin Counties in Texas. The population makes up approximately 7% of the total population of Oklahoma and 1% of the total population of Texas. From 2013 to 2060, the population in the zone of interest is expected to increase to 385,474, an annual growth rate of 0.8% per year. By comparison, the population of Oklahoma is projected to increase at an annual rate of 0.7% per year while Texas is expected to grow annually by 1.3%. Choctaw County, Oklahoma is the only county projected to lose population, while Fannin County,

Texas is expected to grow significantly faster than the other zone of interest counties, at 2.4% annually. The distribution of the population among gender, as shown in Table 2.6, is approximately 49.5% male and 50.5% female in the zone of interest. This near 50/50 distribution is typical for each of the counties as well as Texas and Oklahoma.

Table 2.5 2013 Population Estimates and 2060 Projections

Geographical Area	2013 Population Estimates	2060 Population Projections
Oklahoma	3,785,742	5,140,129
Texas	25,639,373	46,354,818
Atoka County, OK	14,070	18,268
Bryan County, OK	43,079	59,438
Choctaw County, OK	15,167	13,999
McCurtain County, OK	33,143	39,286
Pushmataha County, OK	11,406	14,301
Delta County, TX	5,237	5,376
Fannin County, TX	33,819	101,915
Franklin County, TX	10,611	12,447
Hopkins County, TX	35,295	49,556
Lamar County, TX	49,751	58,092
Red River County, TX	12,709	12,796
Zone of Interest Total	264,287	385,474

Source: US Bureau of the Census, American Fact Finder (2013 Estimate); OK State Data Center (2060 Projections, OK), Texas Water Development Board (2060 Projections for TX)

Table 2.6 2013 Percent of Population Estimate by Gender

Geographical Area	Male	Female
Oklahoma	49.5%	50.5%
Texas	49.6%	50.4%
Atoka County, OK	52.3%	47.7%
Bryan County, OK	48.9%	51.1%
Choctaw County, OK	48.1%	51.9%
McCurtain County, OK	49.1%	50.9%
Pushmataha County, OK	49.1%	50.9%
Delta County, TX	48.8%	51.2%
Fannin County, TX	52.6%	47.4%
Franklin County, TX	50.7%	49.3%
Hopkins County, TX	49.4%	50.6%
Lamar County, TX	48.2%	51.8%
Red River County, TX	47.9%	52.1%
Zone of Interest Total	49.5%	50.5%

Source: US Bureau of the Census, American Fact Finder (2014 Estimate)

According to the U.S. Bureau of the Census, American Fact Finder (2013 Estimate) the distribution by age group is similar among the counties, zone of interest and the state overall. The largest age group is the 45 to 54, with 14% of the total population for each geographic area. Approximately 10%-12% of the total population for each area is between 35 and 44 years of age, and 9 to 13% for the 25 to 34 age group.

Population by race and Hispanic Origin for the zone of interest According to the U.S. Bureau of the Census, American Fact Finder (2013 Estimate) show 74% of the population is White, 8% Black, 7% Hispanic, 6% American Indian or Native Alaskan, and 5% two or more races. The remainder of the races makes up less than 1% each. By comparison, Oklahoma, 68% of the population is White, 9% Hispanic, 7% each for Black, American Indian/Native Alaskan, and two or more races, 2% Asian, with the remaining less than 1% each. For Texas, 45% is White, 38% Hispanic, 12% Black, 4% Asian, 1% Two or more races, and the remaining groups less than 1% each.

2.11.2 Education and Employment

In the zone of interest, for 37% of the population 25 years old and older, the highest level of education attained is a high school diploma or equivalent. Twenty-three percent have some college, but no degree, 12% have 9-12 years but with no diploma, 10% have a Bachelor's degree, 6% have an Associate degree, 6% have less than a 9th grade education, and 6% have a graduate or professional degree. For Oklahoma, 32% has a high school diploma or equivalent, 24% has some college, but no degree, 16% has a Bachelor's degree, 9% 9-12 years of school but no diploma, 8% have a graduate or professional degree, 7% have an Associate degree, and 5% less than nine years of schooling. In Texas, 25% has a high school diploma or equivalent, 23% some college but no degree, 18% have a Bachelor's degree, 9% have less than a 9th grade education, 9% have a 9th to 12th grade education, but no diploma, and 7% have an Associate's degree.

Employment in the zone of interest, approximately 23% of the workforce is employed in the Educational Services, Health Care and Social Assistance Sector, followed by 13% in Manufacturing, 12% in Retail Trade, 8% in Professional, Scientific, and Management Services, 8% in Construction, 6% in Transportation and warehousing, 9% Arts, Entertainment, Recreation and Accommodation, 5% in Agriculture, 5% in Finance and Insurance, and 5% in Other Services. The remaining sectors had less than 4% each. Similarly, the largest employment sector for Oklahoma and Texas was also Educational Services Health Care and Social Assistance, with 23% and 22%, respectively, of the total employment. While manufacturing has importance in both the zone of interest and state, it is evident that the economies are driven by service sector employment.

As shown in Table 2.7, the civilian labor force in the zone of interest accounts for approximately 6% of the civilian labor force of Oklahoma and 1% of the civilian labor force of Texas. The unemployment rate is higher in the zone of interest, at 6.0%, compared to that of Texas, at 5.1%, and Oklahoma, at 4.5%. Some of the counties within the zone of interest, however, have much higher unemployment rates, with almost 8% in Choctaw, McCurtain and Red River Counties, and 6-7% in Atoka, Pushmataha, Delta, and Lamar Counties. Counties with lower unemployment rates are Bryan, Fannin, Franklin, and Hopkins Counties with about 5%.

Table 2.7 Labor Force, Employment and Unemployment Rates

Geographic Area	Civilian			Unemployment Rate
	Labor Force	Employed	Unemployed	
Oklahoma	1,784,035	1,703,832	80,203	4.5%
Texas	13,111,548	12,447,551	663,997	5.1%
Atoka County, OK	4,776	4,484	292	6.1%
Bryan County, OK	17,710	16,847	863	4.9%
Choctaw County, OK	5,723	5,258	465	8.1%
McCurtain County, OK	14,156	13,030	1,126	8.0%
Pushmataha County, OK	4,680	4,335	345	7.4%
Delta County, TX	2,707	2,545	162	6.0%
Fannin County, TX	15,479	14,637	842	5.4%
Franklin County, TX	4,745	4,503	242	5.1%
Hopkins County, TX	17,581	16,758	823	4.7%
Lamar County, TX	22,250	20,896	1,354	6.1%
Red River County, TX	4,966	4,578	388	7.8%
Zone of Interest Total	114,773	107,871	6,902	6.0%

Source: U.S. Bureau of Labor Statistics, , 2014 Annual Averages

2.11.3 Households and Income

The number of persons whose income was below the poverty level greater in the zone of interest (20%) as compared to Oklahoma (17%) and Texas (18%). Most of the counties in the zone of interest showed between 16% and 19% of all persons having incomes below the poverty level. McCurtain, Choctaw, Pushmataha Counties had a higher percentage than the zone of interest, with 26-27%.

For Oklahoma, there are 1.4 million households, with an average size of households at 2.55, as shown in Table 2.8. Texas has almost 9 million households with an average size of 2.82 persons per household. There are approximately 102,000 households in the zone of interest with an average household size of 2.60 persons.

Table 2.8 Households and Household Size in 2013

Area	Total Households	Average Household size
Oklahoma	1,444,081	2.55
Texas	8,886,471	2.82
Atoka County, OK	5,303	2.40
Bryan County, OK	16,575	2.53
Choctaw County, OK	6,043	2.48
McCurtain County, OK	13,078	2.49
Pushmataha County, OK	4,900	2.30
Delta County, TX	1,929	2.67
Fannin County, TX	11,814	2.63
Franklin County, TX	4,304	2.43
Hopkins County, TX	13,303	2.60
Lamar County, TX	19,416	2.50
Red River County, TX	5,052	2.47
Zone of Interest Total	101,717	2.60

Source: U.S. Bureau of the Census, American Fact Finder (2013 Estimate)

As shown in Table 2.9, the several of the counties in the zone of interest are slightly poorer than the States overall. In the counties in zone of interest, the median household income ranges from \$30,000 in Choctaw and Pushmataha Counties to \$46,000 in Franklin County. The zone of interest per capita income (\$20,297) is less than Texas (\$26,019) and Oklahoma (\$24,208). Per capita incomes range from \$18,000 in Atoka, Choctaw, and McCurtain Counties to \$28,000 in Franklin County.

Table 2.9 Median and Per Capita Income, 2012

Geographic Area	Median Household Income	Per Capita Income
Oklahoma	45,339	24,208
Texas	51,900	26,019
Atoka County, OK	37,012	17,842
Bryan County, OK	38,897	20,524
Choctaw County, OK	30,201	17,739
McCurtain County, OK	31,790	17,615
Pushmataha County, OK	29,897	18,542
Delta County, TX	40,375	20,150
Fannin County, TX	44,355	20,337
Franklin County, TX	45,523	28,189
Hopkins County, TX	43,657	21,606
Lamar County, TX	40,104	21,468
Red River County, TX	31,712	19,014
Zone of Interest Total	N/A	\$20,297

Source: U.S. Bureau of the Census, American Fact Finder (2013 Estimate)

2.12 RECREATION FACILITIES, ACTIVITIES, AND NEEDS

The recreational opportunities and potential of Pat Mayse Lake is considered to be of great importance to this region. The project offers many recreational activities such as swimming, boating, water skiing, fishing, picnicking, camping, as well as hiking and biking trails. There are three developed parks on the lake presently managed by USACE.

2.12.1 Recreation Facilities

- **Pat Mayse Park (West).** Located on the north side of the lake, the campground is on the banks of Pat Mayse Lake in Lamar County, Texas. The campground is accessible by Texas State Road 197 and paved county roads. This year-round campground offers 88 sites, 83 of which have electric hookups. Amenities include flush and pit toilets, showers, drinking water, a dump station and boat ramp.
- **Pat Mayse Park (East).** Located on the north side of the lake, the campground is on the banks of Pat Mayse Lake in Lamar County, Texas. The campground is accessible by Texas State Road 197 and paved county roads. This year-round campground offers 23 sites. Amenities include flush and pit toilets, showers, drinking water, a dump station and boat ramp.

- Sanders Cove. Located on the east side of the lake, about one-third east of the dam, the campground is on the banks of Pat Mayse Lake in Lamar County, Texas. The campground is accessible by the right abutment access road of US Highway 271. This year-round campground offers 85 sites with electric hookups, a group shelter. Amenities include flush and pit toilets, showers, drinking water, a dump station and boat ramp.

2.12.2 Zones of Influence

The primary area of economic influence within a 50-mile radius of Pat Mayse Lake, from which 80 percent of the visitation emanates, is predominantly rural and sparsely populated. The principal city in the area is Paris, Texas located about thirteen miles south of the dam site. The 50-mile zone of influence encompasses all or parts of eight Texas and five Oklahoma counties.

2.12.3 Visitation Profile

The majority of visitors to Pat Mayse Lake come from within a 100 mile radius of the lake area. Pat Mayse Lake visitors are a diverse group ranging from campers who utilize the campgrounds around the lake, full time and part time residents of the immediate area, hunters who utilize the Wildlife Management Areas around the lake, fishermen launching from boat ramps or setting up on the shoreline, trail users who enjoy the scenic terrain, day users who picnic and many other user groups. The peak visitation months are April through September. July is the highest visitation month. A majority of visits to recreation areas occur in USACE managed recreation areas. Dispersed recreation visits exceed those that occur in recreation areas.

2.12.4 Recreation Analysis

Pat Mayse Lake provides recreational opportunity for swimming, boating, fishing and other water sports. In addition, picnic and camping are provided for the casual, overnight or vacationing visitors. Project lands are open for public hunting except in developed recreational area and lands in the vicinity of the dam and other project structures. Increases in these uses are expected, therefore, future development will be directed primarily toward those activities.

2.12.5 Recreation Carrying Capacity

The recreation carrying capacity of a lake is the amount of development, use, and activity any lake and associated recreational lands can sustain without being permanently adversely impacted. Capacity was estimated to be 850,000 visitors per year in the 1976 Design Memorandum 3B. This figure was a reflection of the aspects of the size, location, sustained ecological balance, aesthetics, and other characteristics of the project. Since 1976 no recreation carrying capacity studies have been conducted at Pat Mayse Lake. Presently, lake staff manage recreation areas using historic visitation data combined with best professional judgment to address recreation areas considered to be overcrowded, overused, underused, or well balanced. Lake staff will continue to identify possible causes and effects of overcrowding and overuse and apply appropriate best management practices including: site management, regulating visitor behavior, and modifying visitor behavior.

2.13 REAL ESTATE

The project includes an area of 23,732 acres acquired in fee and 1,396 acres of flowage easement with a usable land area of 17,739 acres when the lake is at normal conservation pool elevation. In general, the land required for the damsite, construction work areas, and public-use areas were acquired in fee, including mineral rights. In the lake area, fee title to the surface, with mineral interest subordinated to the right of the government to flood, was acquired to a blocked perimeter encompassing the guide taking line, elevation 477.0 (auxiliary spillway crest), with a minimum distance of 300 feet measured horizontally from the static full pool, elevation 460.5. Flowage easements were acquired in the remote reaches of the project in accordance with current land acquisition policy. Of the total fee acreage, 9,575 acres were purchased from private individuals by USACE and 14,157 acres were transferred from Camp Maxey, a Texas National Guard Military Reservation.

Government property is monitored by Pat Mayse Lake personnel to identify and correct instances of unauthorized use, including trespasses and encroachments. The term “trespass” includes unauthorized transient use and occupancy, such as mowing, tree cutting and removal, livestock grazing, cultivation and harvesting crops, and any other alteration to Government property done without USACE approval. Unauthorized trespasses may result in a Title 36 citation to appear in Federal Magistrate Court, which could subject the violator to fines or imprisonment (See 36 C.F.R. Part 327 Rules and Regulations Governing Public Use of Water Resources Development Projects Administered by the Chief of Engineers). More serious trespasses will be referred to the USACE Office of Counsel for enforcement under state and federal law, which may require restoration of the premises and collection of monetary damages.

The term “encroachment” pertains to an unauthorized structure or improvement on Government property. When encroachments are discovered, lake personnel will attempt to resolve the issue at the project level. Where no resolution is reached, or where the encroachment is a permanent structure, the method of resolution will be determined by Real Estate, with recommendations from Operations Division, Office of Counsel, and lake personnel. USACE’s general policy is to require removal of encroachments, restoration of the premises, and collection of appropriate administrative costs and fair market value for the term of the unauthorized use.

Forest products generated through clearing, flood damage and salvage operations, or incidental to implementation of the approved Forest Management Plan, and not required for USACE use, will be sold. Disposal procedure for standing timber is a real estate function and all proposed sales will incorporate a disposal plan. Generally, the plan will indicate extent, volume, and justification for such sales, and will be accomplished through the Real Estate Division, Tulsa District.

2.14 PERTINENT PUBLIC LAWS

The following Public Laws are applicable to Pat Mayse Lake. Additional information on Federal Statutes applicable to Pat Mayse Lake can be found in the Environmental Assessment for the Pat Mayse Lake Master Plan in Appendix B.

- Public Law 59-209, Antiquities Act of 1906. The first Federal law established to protect what are now known as "cultural resources" on public lands. It provides a permit procedure for investigating "antiquities" and consists of two parts: An act for the Preservation of American Antiquities, and Uniform Rules and Regulations.
- Public Law 74-292, Historic Sites Act of 1935. Declares it to be a national policy to preserve for (in contrast to protecting from) the public, historic (including prehistoric) sites, buildings, and objects of national significance. This act provides both authorization and a directive for the Secretary of the Interior, through the National Park Service, to assume a position of national leadership in the area of protecting, recovering, and interpreting national archeological historic resources. It also establishes an "Advisory Board on National Parks; Historic Sites, Buildings, and Monuments, a committee of eleven experts appointed by the Secretary to recommend policies to the Department of the Interior".
- Public Law 75-761, Flood Control Act of 1938. This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.
- Title 16 U.S. Code §§ 668-668a-d, 54 Stat. 250, Bald Eagle Protection Act of 1940, as amended. This Act prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or any manner, any bald eagle [or any golden eagle], alive or dead, or any part, nest, or egg thereof. The Act defines "take" as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.
- Public Law 78-534, Flood Control Act of 1944. Section 4 of the act as last amended in 1962 by Section 207 of Public Law 87-874 authorizes USACE to construct, maintain, and operate public parks and recreational facilities in reservoir areas and to grant leases and licenses for lands, including facilities, preferably to Federal, State or local governmental agencies.
- Public Law 79-525, River and Harbor Act of 1946. This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.
- Public Law 83-780, Flood Control Act of 1954. This act authorizes the construction, maintenance, and operation of public park and recreational facilities in reservoir areas under the control of the Department of the Army and authorizes the Secretary of the Army to grant leases of lands in reservoir areas deemed to be in the public interest.

- Public Law 85-624, Fish and Wildlife Coordination Act 1958. This act as amended in 1965 sets down the general policy that fish and wildlife conservation shall receive equal consideration with other project purposes and be coordinated with other features of water resource development programs. Opportunities for improving fish and wildlife resources and adverse effects on these resources shall be examined along with other purposes which might be served by water resources development.
- Public Law 86-523, Reservoir Salvage Act of 1960, as amended. This Act provides for (1) the preservation of historical and archeological data that might otherwise be lost or destroyed as the result of flooding or any alteration of the terrain caused as a result of any Federal reservoir construction projects; (2) coordination with the Secretary of the Interior whenever activities may cause loss of scientific, prehistoric, or archeological data; and (3) expenditure of funds for recovery, protection, and data preservation. This Act was amended by Public Law 93-291.
- Public Law 86-717, Forest Conservation. This act provides for the protection of forest cover for reservoir areas under this jurisdiction of the Secretary of the Army and the Chief of Engineers.
- Public Law 87-88, Federal Water Pollution Control Act Amendments of 1961, as amended. Section 2(b)(1) of this Act gives USACE responsibility for water quality management of USACE reservoirs. This law was amended by the Federal Water Pollution Control Act Amendment of 1972, Public Law 92-500.
- Public Law 87-874, Rivers and Harbors Act of 1962. This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.
- Public Law 88-578, Land and Water Conservation Fund Act of 1965. This act established a fund from which Congress can make –appropriations for outdoor recreation. Section 2(2) makes entrance and user fees at reservoirs possible by deleting the words "without charge" from Section 4 of the 1944 Flood Control Act as amended.
- Public Law 89-72, Federal Water Project Recreation Act of 1965. This act requires that not less than one-half the separable costs of developing recreational facilities and all operation and maintenance costs at Federal reservoir projects shall be borne by a non-Federal public body. An OCE/OMB implementation policy made these provisions applicable to projects completed prior to 1965.
- Public Law 89-90, Water Resources Planning Act (1965). - This act established the Water Resources Council and gives it the responsibility to encourage the development, conservation, and use of the Nation's water and related land resources on a coordinated and comprehensive basis.
- Public Law 89-272, Solid Waste Disposal Act, as amended by PL 94-580 (RCRA), dated October 21, 1976. This act authorized a research and development program with respect to solid-waste disposal and created a law

governing the safe disposal of solid and hazardous waste. It proposes (1) to initiate and accelerate a national research and development program for new and improved methods of proper and economic solid-waste disposal, including studies directed toward the conservation of national resources by reducing the amount of waste and unsalvageable materials and by recovery and utilization of potential resources in solid waste; and (2) to provide technical and financial assistance to State and local governments and interstate agencies in the planning, development, and conduct of solid-waste disposal programs.

- Public Law 89-665, Historic Preservation Act of 1966. This act provides for: (1) an expanded National Register of significant sites and objects; (2) matching grants to states undertaking historic and archeological resource inventories; and (3) a program of grants-in aid to the National Trust for Historic Preservation; and (4) the establishment of an Advisory Council on Historic Preservation. Section 106 requires that the President's Advisory Council on Historic Preservation have an opportunity to comment on any undertaking which adversely affects properties listed, nominated, or considered important enough to be included on the National Register of Historic Places.
- Public Law 90-483, River and Harbor and Flood Control Act of 1968, Mitigation of Shore Damages. Section 210 restricted collection of entrance fee at USACE lakes and reservoirs to users of highly developed facilities requiring continuous presence of personnel.
- Public Law 91-190, National Environmental Policy Act of 1969 (NEPA). NEPA declared it a national policy to encourage productive and enjoyable harmony between man and his environment, and for other purposes. Specifically, it declared a "continuing policy of the Federal Government... to use all practicable means and measures...to foster and promote the general welfare, to create conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." Section 102 authorized and directed that, to the fullest extent possible, the policies, regulations and public law of the United States shall be interpreted and administered in accordance with the policies of the Act.
- Public Law 91-611, River and Harbor and Flood Control Act of 1970. Section 234 provides that persons designated by the Chief of Engineers shall have authority to issue a citation for violations of regulations and rules of the Secretary of the Army, published in the Code of Federal Regulations.
- Public Law 92-347, Golden Eagle Passbook and Special Recreation User Fees. - This act revises Public Law 88-578, the Public Land and Water Conservation Act of 1965, to require Federal agencies to collect special recreation user fees for the use of specialized sites developed at Federal expense and to prohibit the USACE from collecting entrance fees to projects.
- Public Law 92-500, Federal Water Pollution Control Act Amendments of 1972. The Federal Water Pollution Control Act of 1948 (PL 845, 80th Congress), as amended in 1956, 1961, 1965 and 1970 (PL 91- 224), established the basic tenet

of uniform State standards for water quality. Public Law 92-500 strongly affirms the Federal interest in this area. "The objective of this act is to restore and maintain the chemical, physical and biological integrity of the Nation's waters."

- Public Law 92-516, Federal Environmental Pesticide Control Act of 1972. This act completely revises the Federal Insecticide, Fungicide and Rodenticide Act. It provides for complete regulation of pesticides to include regulation, restrictions on use, actions within a single State, and strengthened enforcement.
- Public Law 93-81, Collection of Fees for Use of Certain Outdoor Recreation Facilities. This act amends Section 4 of the Land and Water Conservation Act of 1965, as amended to require each Federal agency to collect special recreation use fees for the use of sites, facilities, equipment, or services furnished at Federal expense.
- Public Law 93-205, Conservation, Protection, and Propagation of Endangered Species Act of 1973, as amended. This law repeals the Endangered Species Conservation Act of 1969. It also directs all Federal departments/agencies to carry out programs to conserve endangered and threatened species of fish, wildlife, and plants and to preserve the habitat of these species in consultation with the Secretary of the Interior. This Act establishes a procedure for coordination, assessment, and consultation. This Act was amended by Public Law 96-159.
- Public Law 93-251, Water Resources Development Act of 1974. Section 107 of this law establishes a broad Federal policy which makes it possible to participate with local governmental entities in the costs of sewage treatment plant installations.
- Public Law 93-291, Archeological Conservation Act of 1974. The Secretary of the Interior shall coordinate all Federal survey and recovery activities authorized under this expansion of the 1960 act. The Federal Construction agency may transfer up to one percent of project funds to the Secretary with such transferred funds considered nonreimbursable project costs.
- Public Law 93-303, Recreation Use Fees. This act amends Section 4 of the Land and Water Conservation Act of 1965, as amended, to establish less restricted criteria under which Federal agencies may charge fees for the use of campgrounds developed and operated at Federal areas under their control.
- Public Law 93-523, Safe Drinking Water Act. The act assures that water supply systems serving the public meet minimum national standards for protection of public health. The act (1) authorizes the Environmental Protection Agency to establish Federal standards for protection from all harmful contaminants, which standards would be applicable to all public water systems, and (2) establishes a joint Federal-State system for assuring compliance with these standards and for protecting underground sources of drinking water.
- Public Law 94-422, Amendment of the Land and Water Conservation Fund Act of 1965. - Expands the role of the Advisory Council. Title 2 - Section 102a amends Section 106 of the Historical Preservation Act of 1966 to say that the

Council can comment on activities which will have an adverse effect on sites either included in or eligible for inclusion in the National Register of Historic Places.

- Public Law 95-217, Clean Water Act of 1977, as amended. This Act amends the Federal Water Pollution Control Act of 1970 and extends the appropriations authorization. The Clean Water Act is a comprehensive Federal water pollution control program that has as its primary goal the reduction and control of the discharge of pollutants into the nation's navigable waters. The Clean Water Act of 1977 has been amended by the Water Quality Act of 1987, Public Law 100-4.
- Public Law 95-341, American Indian Religious Freedom Act of 1978. The Act protects the rights of Native Americans to exercise their traditional religions by ensuring access to sites, use and possession of sacred objections, and the freedom to worship through ceremonials and traditional rites.
- Public Law 95-632, Endangered Species Act Amendments of 1978. This law amends the Endangered Species Act Amendments of 1973. Section 7 directs agencies to conduct a biological assessment to identify threatened or endangered species that may be present in the area of any proposed project. This assessment is conducted as part of a Federal agency's compliance with the requirements of Section 102 of NEPA.
- Public Law 96-95, Archeological Resources Protection Act of 1979. This Act protects archeological resources and sites that are on public and tribal lands, and fosters increased cooperation and exchange of information between governmental authorities, the professional archeological community, and private individuals. It also establishes requirements for issuance of permits by the Federal land managers to excavate or remove any archeological resource located on public or Indian lands.
- Public Law 96-510, Comprehensive Environmental Response, Compensation, and Liability Act of 1980, amended by the Superfund Amendments and Re-authorization Act on October 17, 1986. This Act's purpose is to identify sites where hazardous substances threaten the environment and or public health as a result of leakage, spillage, or general mismanagement, and then to identify the responsible party.
- Public Law 98-63, Supplemental Appropriations Act of 1983. This Act authorized the U.S. Army Corps of Engineers Volunteer Program. The United States Army Chief of Engineers may accept the services of volunteers and provide for their incidental expenses to carry out any activity of USACE, except policymaking or law or regulatory enforcement.
- Public Law 99-662, The Water resources Development Act 1986. Provides for the conservation and development of water and related resources and the improvement and rehabilitation of the Nation's water resources infrastructure.

CHAPTER 3 - RESOURCE OBJECTIVES

3.1 RESOURCE OBJECTIVES

The purpose of a USACE Master Plan is to establish the guidelines for sustainable stewardship of natural and recreational resources managed directly and indirectly on USACE fee lands. Resource considerations at Pat Mayse Lake exist primarily due to user demands on the project. Multiple user types have interests in the project lands, recreation facilities, and waters. Such demands regularly create conflicts. USACE is obligated to manage these resources for the overall interest of the public and not for a select group of individuals. Providing an environmentally sound balance of these demands is the responsibility of the project and the agency. Impacts on the environment will be assessed during the decision making process prior to any change to management plans or strategies.

3.1.1 Project-Wide Resource Goals. The following goals are the priorities for consideration when determining management objectives and development activities:

- Manage existing natural resources and recreation facilities in compliance with all pertinent laws, regulations and policies.
- Protect and preserve existing native wildlife species and improve wildlife habitat for now and in the future.
- Protect and preserve existing Government boundary line from encroachment, trespass, and private exclusive use through boundary line surveillance and communication with adjacent landowners.
- Protect and preserve existing Government property from erosion and overuse through natural resource management.
- Inform the public through programs and personal contacts about the project and resource management purposes and objectives.
- Integrate fish and wildlife management practices with other natural resource management practices while working closely with state and local natural resource agencies.
- Identify safety hazards or unsafe conditions; correct infractions and implement safety standards in accordance with EM 385-1-1.
- Develop and manage the project lands and water for maximum enjoyment of the recreating public.
- Increase value of all project lands and waters for recreation, fisheries, and wildlife.
- Encourage non-consumptive use of project lands.

Implementation of these goals is based upon time, manpower, and budget. The objectives provided in this chapter are established to provide high levels of stewardship to USACE managed lands and resources while still providing a high level of public service. These goals will be pursued through the use of a variety of mechanisms such as: Assistance from volunteer efforts, hired labor, contract labor, permit conditions, remediation, and special lease conditions. It is the intention of Pat Mayse Lake staff to provide a realistic approach to the management of all resources.

3.1.2 Fish and Wildlife Management Objectives. Fish and wildlife are managed cooperatively between the TPWD, USFWS and USACE. USACE currently licenses 7,514 acres of land to TPWD. The TPWD licensed land comprises the Pat Mayse Lake Wildlife Management Area. TPWD's primary objective in these areas is to manage game species with the understanding those actions benefit both game and non-game species. In addition, TPWD manages the natural resources for the enhancement of migrating waterfowl. These areas will continue being managed by this agency under their license.

TPWD is also the primary agency responsible for performing fisheries management. TPWD objectives for fisheries are to continue to monitor current populations, ensure the populations are healthy and stable, and reduce the number of spotted bass in the reservoir. TPWD does annual sampling and data analysis to assure fisheries populations stay within an acceptable range. They also make adjustments in creel and size limits as necessary to keep existing populations healthy. TPWD can also supplement fish populations with their hatchery program.

USACE is not directly involved with management within the TPWD area of responsibility. However, USACE has determined that both agencies objectives complement our goals for fish and wildlife management and should remain as the primary objectives for these locations. Another USACE objective for these licensed areas of responsibility will be to continue providing support when resources are available. USACE often provides support with assistance in the placement of fish structures, archeological reviews for proposals involving soil disturbance, and assistance with GIS mapping.

In addition to these licensed areas, USACE has several additional management units established for the purpose of wildlife management. The objectives for these lands are to preserve the existing native wildlife species and improve their habitat. The management plans written within this objective will be centered on both game and non-game species and can be found in the OMP.

3.1.3 Recreation Objectives. Recreation falls within two categories and can be identified as either land or water based recreation. Management objectives for each type vary depending on the location and the intensity of use. General objectives are provided in this master plan as to the work necessary to meet the public's needs for land and/or water based recreation.

Land-based recreation includes opportunities, activities, areas and facilities that typically occur on, or adjacent to, USACE land and water, such as camping, hiking, hunting, picnicking, wildlife/bird viewing, sightseeing, etc. Land-based recreation areas include campgrounds, day-use areas, overlooks, bathrooms, roads, boat ramps, courtesy docks, and wildlife management areas. Facility types typically found within these recreation areas include campsites, picnic sites, hunting areas, and trails. These recreation areas are managed by several entities: USACE, State of Texas, USFWS, county and city governments, and private/commercial concessionaires. Land-based recreation objective will be to continue providing service and rehabilitate existing parks to a "Justified Level of Service".

Water-based outdoor recreation includes opportunities, activities, areas and facilities that occur on water managed by USACE. These activities include; fishing, boating, swimming, scuba diving, kayaking, etc. Unlike land-based recreation the majority of water-based recreation is managed by USACE with some assistance from the Texas Park and Wildlife, Law Enforcement Division, Game Wardens. The objective of this program is to ensure public safety while providing recreational opportunities on the water. This program will involve looking at recreation carrying capacity vs. current use patterns, zoning requirements for no-wake or restricted areas, and areas to remain open for public recreation. USACE will keep in close coordination with the Texas Game Wardens in determining use patterns within the water portions of the project and promote water safety.

The 2012 Texas State Comprehensive Recreation Plan (SCORP) includes six recommendations addressing outdoor recreation concerns and issues. The SCORP indicates 1) the promotion to general public and decision makers the total economic value of parks and recreation as it relates to attracting tourism, economic development and improving the quality of life, 2) seek sustainable funding and leverage resources to meet the expanding outdoor recreation and conservation needs of the growing, diverse and predominately urban population of Texas, 3) respond to prominent outdoor recreation trends, 4) manage access to public waters for recreation, 5) maintain the commitment to periodically review the Open Project Selection Process (OPSP) and grant administration guidelines for state and local parks to ensure they adequately reflect current statewide outdoor recreation and conservation values and trends, and are effective and easy to understand, and 6) efficiently manage land, water and facilities for sustainable public use.

One of the unique challenges identified in the SCORP is the change in demographics that all outdoor recreation providers will see an increase in resource user groups that have historically represented ethnic and racial minorities. These groups have differences in preferences for space, facilities, and amenities. This SCORP also demonstrated that low-income and rural constituents often face unique challenges in accessing outdoor recreation resources and that Texans do not fully comprehend the costs associated with recreation services and facilities provided by the public sector. Further depletion of the available outdoor recreation resource base would increase the negative impacts on these population groups. Maintaining what is currently held in the public sector and purposefully managing some of these spaces for undeveloped outdoor recreation use would address the needs of these minority user groups.

3.1.4 General Resource Objectives. The project-wide resource management objectives involve the long-term development and management goals of project resources to guide proposed future actions for the public benefit, consistent with resource capabilities within the framework of the USACE Environmental Operation Principles.

Resource objectives are attainable goals for development, conservation, and management of natural, cultural, and manmade resources at a project. They are guidelines for obtaining maximum public benefits while minimizing adverse impacts to the environment and are developed in accordance with: 1) authorized project purposes, 2) applicable laws and

regulations, 3) resource capabilities and suitability's, 4) regional needs, 5) other governmental plans and programs, and 6) expressed public desires.

The project-wide resource objectives for Pat Mayse Lake, not in priority order, are listed below:

- Give priority to the preservation and improvement of wild land values in public use planning, design, development, and management activities.
- Preserve and protect important paleontological, archeological, ecological, and aesthetic resources.
- Manage habitat for threatened and endangered species and to support a diversity of fish and wildlife, and recreation use.
- Prevent the introduction of invasive species and aquatic nuisance species (ANS), detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner, monitor invasive species and ANS populations accurately and reliably, and provide for restoration of native species and habitat conditions in ecosystems that have been invaded.
- Manage and develop project lands to accommodate periodic fluctuations in lake elevations with minimal impacts.
- Develop and manage project resources to support types and levels of recreation activities indicated by visitor demand and consistent with carrying capacities and aesthetic, cultural, and ecological values.
- Provide access by Tribal members to any cultural resources, sacred sites, or other Traditional Cultural Properties.
- Preserve and protect cultural resources sites in compliance with existing federal statutes and regulations.
- Expand public outreach and education about the history of the area, project resources, and the USACE's role in developing and managing these resources.
- Foster stewardship by minimizing encroachments and other non-allowed uses.
- Develop and manage lands in cooperation and coordination with other management agencies and appropriate entities in the private sector.
- Maintain and manage project lands and waters to support regional management programs.
- Manage project lands and recreational programs to advance broad national climate change mitigation goals, including but not limited to climate change resilience and carbon sequestration, as set forth in Executive Order 13653, Executive Order 13693 and related USACE policy.
- Manage identified recreations lands in ways that enhance benefits to wildlife.

Execution of resource objectives at a multi-purpose project such as Pat Mayse Lake can be challenging. Project and task execution is a delicate balance between items that often compete for funds, time, and other resources. Priority will be given to those items required by law with an attempt to provide continued public use of Government land. Public access will still be a priority to service all ethnic and economic groups. Access will be in the form of offering hunting, fishing, camping, bird watching, boating, and other various lake related recreational opportunity locations.

CHAPTER 4 - LAND ALLOCATION, LAND CLASSIFICATION, WATER SURFACE, AND PROJECT EASEMENT LANDS

4.1 LAND ALLOCATION

Land allocation is identified as the congressionally authorized purpose for which the project lands were purchased. There are four categories of allocation identified as Operations, Recreation, Fish and Wildlife, and Mitigation.

4.1.1 Operations. There were 23,732 total acres acquired for construction of Pat Mayse Lake. Of this total, 9,575 acres were purchased in fee and 14,157 acres were transferred from Camp Maxey, Texas for project construction and operation.

4.1.2 Recreation. There were no separable lands acquired specifically for the purpose of recreational development at Pat Mayse Lake. Portions of acquired lands were ultimately classified for recreational purposes as described in Section 4.2 below.

4.1.3 Fish and Wildlife. There were no separable lands acquired specifically for the purpose of fish and wildlife management. Portions of lands acquired for project construction and operation were ultimately classified for this purpose as described in Section 4.2 below.

4.1.4 Mitigation. This category includes lands acquired for the specific intention of offsetting the losses associated with the creation of the project. There were no lands congressionally authorized for the purpose of mitigation at Pat Mayse Lake.

4.2 LAND CLASSIFICATION

Land Classification indicates the primary use for which project lands are managed. There are five land classifications identified as: Project Operations, High Density Recreation, Mitigation, Environmentally Sensitive Areas, and Multiple Resource Managed Lands. Maps showing the various land classifications for Pat Mayse Lake can be found in Appendix A. Total current acres based on 1980 Real Estate Audit equal 19,266 acres.

4.2.1 Project Operations. This classification includes the lands managed for the dam, spillway, project office, and maintenance yards. There are 370 acres being used specifically for these features.

4.2.2 High Density Recreation. These are lands developed for intensive recreational activities for the visiting public including day use areas, campgrounds, and concession areas. There are 2,718 acres of land classified for high density recreation.

4.2.3 Mitigation. This classification is only used for the lands allocated for mitigation for the purpose of offsetting losses associated with the development of the project. There are no lands classified as mitigation since this land allocation was not congressionally authorized.

4.2.4 Environmentally Sensitive Areas. These are areas where scientific, ecological, cultural, and aesthetic features have been identified. This designation limits and can prohibit any further development within the area. There are no acres classified for environmentally sensitive areas to manage and protected species.

4.2.5 Multiple Resource Managed Lands. This classification is for the predominant use of low density recreation, wildlife or vegetative management, and future/inactive recreation with the understanding that other compatible uses can occur within the area. This classification is divided into four sub-classifications identified as: Low Density Recreation, Wildlife Management, Vegetative Management, and Future/Inactive Recreation Areas. There are 10,238 acres of lands that are under this classification. The following identifies the amount contained in each sub-classification:

- Low Density Recreation. These are lands with minimal development or infrastructure that support passive public use (e.g., fishing, hunting, wildlife viewing, shoreline use, hiking, etc...). They were lands purchased for recreation and classified for low density recreation. The intention of these classified lands is to assure available lands for low density recreation between areas classified as recreation intensive use and wildlife management. There are 2,478 acres under this classification at Pat Mayse Lake.
- Wildlife Management. These lands are designated for the management of Fish and Wildlife resources. There are 7,760 acres of land under this classification at Pat Mayse Lake. Approximately 1,411 acres of water is classified for this purpose as well.
- Vegetative Management. These are lands designated for stewardship of forest, prairie, and other native vegetative cover. There are no acreages under this classification at Pat Mayse Lake.
- Future or Inactive Recreation. These are lands with site characteristics compatible with potential future recreation development or recreation areas that are closed or open but no longer maintained. These areas will be managed as multiple resource land until an opportunity to develop or reopen these areas. There are no acres under this classification at Pat Mayse Lake.

4.2.6 Water Surface. The project does have a surface water management program for project operations and public safety.

- Restricted. The area around the dam intake has been identified for no boat entry. There is an area above the dam that is buoyed off and in which no boat entry is allowed. Approximately 10 acres of water is classified as restricted.

- Designated No-wake. No-wake areas are located near boat launch areas. A total of approximately 2 acres of water surface is so classified.
- Fish and Wildlife Sanctuary. These areas are managed with annual or seasonal restrictions to protect fish and wildlife species during periods of migration, resting, feeding, nesting, and/or spawning. Pat Mayse Lake does not have water surfaces under this classification.
- Open Recreation. The remainder of the lake totaling 5,928 acres of water surface is open to recreational use. There is no specific zoning for these areas, but there is a buoy system in place to help aid in public safety. These buoys mark hazards, swim beaches, boats keep out and no wake areas. Buoys are managed by USACE with close coordination with the TPWD.

Table 4.1 provides a summary of land and water classification at Pat Mayse Lake. Maps representing these areas can be found in Appendix A.

Table 4.1 Land and Water Classification Acreages

Classification	Acres
Project Operations	370
High Density Recreation	2,718
Environmentally Sensitive Areas	0
Multiple Resource Managed Lands: Low Density Recreation	2,478
Multiple Resource Managed Lands: Wildlife Management	7,760
Multiple Resource Managed Lands: Vegetative Management	0
Multiple Resource Managed Lands: Future/Inactive Recreation Areas	0
Water Surface: Restricted	10
Water Surface: Designated No-wake	2
Water Surface: Fish and Wildlife Sanctuary	0
Water Surface: Open Recreation	5,928
Total	19,266

Note 1: Total acreage taken from 1980 Real Estate Audit
 Note 2: Water Surface total acres taken from 2004 Pertinent Data Book
 Note 3: Land acres taken from Supplement 1 to Design Memorandum 3A

4.3 PROJECT EASEMENT LANDS

These are lands on which easement interests are held but not fee title ownership. These are typically composed of three different classification indentified as Operations Easement, Flowage Easement, and Conservation Easement. There are 1,396 acres of easement lands at Pat Mayse Lake.

4.3.1 Operations Easement. These are easements USACE purchased for the purpose of project operations. There are no acres of operation easements at Pat Mayes Lake.

4.3.2 Flowage Easement. These are easements purchased by USACE giving the right to temporarily flood private land during flood risk management operations. There are 1,396 acres of flowage easement lands located at Pat Mayse Lake.

4.3.3 Conservation Easement. These are easements purchased by USACE for the purpose of protecting wildlife, fisheries, recreation, vegetation, archeological, threatened and endangered species, or other environmental benefits. There are no conservation easements at Pat Mayse Lake.

CHAPTER 5 - RESOURCE PLAN

5.1 MANAGEMENT BY CLASSIFICATION

This chapter describes the management plans for each area of classification within the Master Plan. The classifications which exist at Pat Mayse Lake are Project Operations, High Density Recreation, and Multiple Resource Management Lands: Low Density Recreation, Wildlife Management, and Water Surface. The management plans identified are in broad terms of how these project lands will be managed. A more descriptive plan for managing these lands can be found in the Pat Mayse Lake Operations Management Plan (OMP).

5.1.1 Project Operations

This land is classified for security reasons pertaining to project operations. This is land associated with the dam, spillway, levees, lake office, maintenance facilities, and other areas solely for the operation of the project. There are 370 acres of lands under this classification which are managed by the USACE. The management plan for this area is to continue providing physical security necessary to ensure continued operations of the dam and related facilities. This means that public access must be restricted in hazardous locations near the dam and spillway. The goal for these classified lands is to continue operating as done historically in order to ensure project operations.

5.1.2 High Density Recreation

Pat Mayse Lake has 2,718 acres classified as High Density Recreation. These are lands developed for intensive recreational activities for the visiting public including day use and campgrounds. These also include quasi-public development areas.

USACE operates and manages numerous areas designated as high density recreation. Table 5.1 shows the areas currently managed by USACE. Maps showing existing parks and facilities managed by USACE can be found in Appendix A.

Table 5.1 Management Goal

Park	Acres	Land Allocated to Recreation	Management Goal
Sanders Cove	464	Yes	Maintained Facility
Pat Mayse Park (East)	552	Yes	Maintained Facility
Pat Mayse Park (West)	829	Yes	Maintained Facility
Stilling Basin Fishing Area	5	Yes	Maintained Facility
Lamar Point	45	Yes	Access Point
Forest Point (Camp Kiwanis)	118	Yes	Quasi-public
Clay Bluff Road Access	40	Yes	Access Point
Intake Road Area	665	Yes	Quasi-Public
Total	2,718		

5.1.3 Mitigation

This classification is used for land with an allocation of Mitigation and that were acquired specifically for the purpose of offsetting losses associated with development of the project. There are no lands at Pat Mayse Lake under this classification.

5.1.4 Environmentally Sensitive Areas

These are areas where scientific, ecological, cultural or aesthetic features have been identified. Designation of these lands is not limited to just lands that are otherwise protected by laws such as the Endangered Species Act, the National Historic Preservation Act or applicable State statutes. These areas must be considered by management to ensure they are not adversely impacted. Typically, limited or no development of public use is allowed on these lands. No agricultural or grazing uses are permitted on these lands unless necessary for a specific resource management benefit, such as prairie restoration. These areas are typically distinct parcels located within another, and perhaps larger, land classification, area. There are no lands at Pat Mayse Lake under this classification.

5.1.5 Multiple Resource Management Lands

Multiple Resource Management Lands are organized into four sub-classifications. These sub-classifications are: Low Density Recreation, Wildlife Management, Vegetative Management, and Future/Inactive Recreation Areas. The following is a description of each sub-classification's resource objectives, acreages, and description of use.

- Low Density Recreation. These are lands with minimal development or infrastructure that support passive public use. There are 2,478 acres zoned Low Density Recreation under this classification.
- Wildlife Management. These are lands designated for the stewardship of fish and wildlife resources. There are currently 7,760 acres of land and 1,411 acres of water licensed to the TPWD. This area is located in the western side of the lake. TPWD's primary strategy in these areas is to manage game species with the understanding those actions benefit both game and non-game species. The resource plan for TPWD licensed land coincides with the objectives USACE desires to see on land classified as wildlife management. Therefore the plan for these areas is to continue allowing TPWD to implement their management plan.

A special note about USACE involvement within TPWD licensed land is that USACE is not directly involved with the work effort within these areas. However, USACE often provides support to TPWD when time and resources are available. Support often comes in assistance with creation of habitat, archeological reviews, identifying boundary line, and assistance with GIS mapping. USACE will continue to let TPWD be the lead agency when it comes to management of wildlife at these locations.

Non-game wildlife is something that is also managed by USACE. The species of focus within this area of consideration are animals listed as a threatened or endangered species under the ESA. These species (Table 2.3) will continue to

receive attention to assure they are managed in accordance to their habitat needs and parameters identified in a biological opinion. Any work conducted on this project will be in accordance to the Endangered Species Act and will be appropriately coordinated with the USFWS. Other non-game programs such as song bird nest box construction and installation of bat boxes are often performed on an intermittent basis. The plan is to continue providing effort to these initiatives in order to provide some form of management for non-game species.

The goal for the areas leased to TPWD is to continue working with USACE partners to assure wildlife management is being conducted so that it benefits both game and non-game species. Those lands managed directly by USACE will continue being managed in a fashion to enhance the existing environment and benefit both game and non-game wildlife.

- Vegetative Management. These are lands that have vegetative types considered to be sensitive and needing special classification to ensure success. A good example of these types of vegetation would be forested wetlands and Cross Timber forests. No lands are currently identified at Pat Mayse Lake for vegetative management purposes.
- Future/Inactive Recreation Areas. These are areas with site characteristics compatible with potential future recreational development or recreation are that are closed. Until there is an opportunity to develop or reopen these areas, they will be managed for multiple resources. There are no lands classified under this sub-classification at Pat Mayse Lake.

5.1.6 Water Surface

At conservation pool level of 451.0 msl there are 5,940 acres of surface water. Buoys are managed by USACE with close coordination with the TPWD. These buoys help mark hazards, swim beaches, boats keep out and no-wake areas.

- Restricted. Restriction is around swim beaches, the intake structures located at the dam and water supply intake southwest of the dam for project operations, safety, and security purposes. Water surface zoned as restricted total approximately ten (10) acres.
- Designated No-wake. No-wake areas are located near boat launch areas for the safety of launching and loading boat or personal watercraft. Approximately two (2) total acres of Pat Mayse Lake is designated for no-wake.
- Fish and Wildlife Sanctuary. These areas are managed with annual or seasonal restrictions to protect fish and wildlife species during periods of migration, resting, feeding, nesting, and/or spawning. Pat Mayse Lake does not have water surfaces under this classification.
- Open Recreation. The remaining lake not classified above is open to recreational use. There is no specific zoning for these areas, but there is a buoy system in place to help aid in public safety. Approximately 5,928 total acres of Pat Mayse Lake is zoned for open recreation.

CHAPTER 6 - SPECIAL TOPICS/ISSUES/CONSIDERATIONS

6.1 CULTURAL RESOURCES

As mentioned in section 2.10, there are multiple cultural resources located around and within Pat Mayse Lake. Special consideration will be given to any activity that may have a negative impact on cultural resources. Therefore, a thorough review of all actions that have soil disturbance must be conducted and reviewed by District archeologists. Any action found to have negative impact must be coordinated with the appropriate state or tribal entity before authorization of work is granted. In addition, a Cultural Resource Management Plan will be developed or updated for the continuance of managing cultural resources in accordance with relevant laws and regulations.

6.2 UNEXPLODED ORDNANCE

Pat Mayse Lake and surrounding fee property is a former training site of Camp Maxey referred to as a Formerly Used Defense Site (FUDS). Camp Maxey is located directly adjacent to the south of Pat Mayse Lake's fee boundary line. All of the land that is Pat Mayse Lake, except that which is downstream of the dam (north of FM 906), was part of the Camp Maxey training site and is considered a FUDS. This site required the use of military munitions in live-fire training and testing. The result of this land being used in this manner is the potential presence and presence of munitions constituents (MC) and munitions and explosives of concern (MEC) of unexploded ordnance (UXO) throughout fee lands. Periodically the public will identify a UXO. Pat Mayse Lake staff advocates the "Recognize, Retreat, and Report" messages from the Department of Defense regarding UXOs. Signs located at entrances to public use areas notify the public Pat Mayse Lake area was once a military artillery range and informs the public not to touch remaining ordnance. Pat Mayse Lake's parks and public use areas have been surveyed. There has been ordnance clearing activity on USACE property surrounding Pat Mayse Lake, but areas at Pat Mayse Lake remain not surveyed. Environmental cleanup at FUDS properties is conducted in accordance with the Comprehensive Environmental Response, Compensation and Liability Act. For additional information regarding FUDS at Pat Mayse Lake contact the Pat Mayse Lake Office.

6.3 MINERAL EXPLORATION AND PRODUCTION ACTIVITIES

Effective control of mineral extraction activities, particularly when USACE does not own the necessary estates in real property to control development within close proximity of dams and other structures, requires close coordination among district offices, especially Operations, Real Estate, Engineering-Construction and Counsel. Operations personnel are often the first USACE employees to become aware of new or proposed mineral extraction activities in close proximity to USACE projects. Mineral extraction activities can include exploration operations, mining operations, drilling operations, production operations, reworking operations (including hydraulic fracturing), and high pressure pipeline operations. Real Estate personnel must investigate the location of the activities and determine the federal real property interests in the location. Engineering-Construction personnel must evaluate any new or proposed activities in order to make a determination whether said activity is compatible with the structural integrity of the dam and other major structures. Counsel must review applicable laws and ordinances that may affect the site of the activities and advise as

to what legal actions can be taken to prevent harm to USACE structures and put appropriate authorities on notice of the potential danger.

CHAPTER 7 - PUBLIC AND AGENCY COORDINATION

7.1 PUBLIC AND AGENCY COORDINATION

USACE began planning to revise the Pat Mayse Lake Master Plan in fall 2014. The objectives for a Master Plan revision were 1) update land classifications to reflect changes in USACE land management policies since the 1975 plan and 2) to update the Project Master Plan to reflect new agency requirements for Master Plan documents in accordance with ER 1130-2-550, Change 7, 30 Jan 13 and EP 1130-2-550, Change 5, 30 Jan 13.

The first action was a scheduled public scoping meeting providing an avenue for public and agency stakeholders to ask questions and provide comments. This public scoping meeting was held on February 26, 2015 at the Texas National Guard, Camp Maxey Training Center in Powderly, Texas. The Tulsa District placed commercial advertisements on the USACE webpage, social media, and ads published in several local papers (*Hugo News* and *The Paris News*) on multiple dates during the two weeks prior to the public scoping meeting.

USACE employees hosted the workshop, which was conducted in a semi-structured manner. Participants were asked to sign-in at a table where staff provided the participants with information regarding the structure of the scoping meeting, comment forms, and postage paid envelopes to return comment forms. After signing in, participants were directed to an area where topic-specific information tables were set up. Large-scale boards were displayed at each table to convey information about the following topics:

- Public Involvement Process
- Project Overview
- Overview of the NEPA Process
- Master Plan and current land classifications
- How to Submit Comments

At each of the information tables and throughout the meeting room, USACE representatives were available to answer questions and receive written comments. Interested persons had the opportunity to comment about the project using a variety of methods, including the following:

- Filling out a comment form at the open house
- Taking a comment form home to be returned in a pre-stamped envelope
- Submitting a comment using electronic mail
- Submitting a comment and mailing it in on letterhead or choice of paper

In total, 68 people, not including USACE personnel, attended this public scoping meeting. Thirteen (13) comments were received following the February 26, 2015 public scoping meeting for interest groups, partner agencies, other government agencies, and businesses.

All thirteen (13) comments from the public requested improvement to park roads, additional trails, or upgrades to camp facilities. The comments did not propose a change to existing land classification to Pat Mayse Lake and the Master Plan. A representative from Camp Maxey requested access to the public become restricted in areas near their training facility for public safety concerns. Restricting public access will not result in a change in the current land classification.

On August 26, 2015 the Tulsa District and Regional Planning and Environmental Center (RPEC) released the revised draft of Pat Mayse Lake Master Plan for public and agency review. This review was open for comment until September 28, 2015 providing an opportunity for the public and agencies to comment on the Draft Master Plan, Environmental Assessment (EA) and Finding of No Significant Impact Statement (FONSI). Two responses were received during the review period. The Choctaw Nation of Oklahoma respectfully deferred to the other Tribes contacted for comments and TPWD responded with no concerns or comments regarding the revision of the Master Plan. Once public, agency, and Project Delivery Team (PDT) comments to the draft are addressed the Master Plan and all appendices are prepared for final approval. The District Engineer has the approval authority to sign the FONSI and at that time the revised Pat Mayse Lake Master Plan is implemented and supersedes the previous 1975 Master Plan.

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CHAPTER 8 - SUMMARY OF RECOMMENDATIONS

8.1 SUMMARY OVERVIEW

The preparation of this Master Plan for Pat Mayse Lake followed the new USACE master planning guidance in ER 1130-2-550 and EP 1130-2-550, both dated 13 January 2013. Three major requirements set forth in the new guidance include the preparation of contemporary Resource Objectives, Classification of project lands using the newly approved classification standards, and the preparation of a Resource Plan describing in broad terms how the land in each of the land classifications will be managed into the foreseeable future. Additional important requirements include rigorous public involvement throughout the process and the consideration of regional recreation and natural resource management priorities identified by other federal, state, and municipal authorities. The study team endeavored to follow this guidance to prepare a Master Plan that will provide for enhanced recreational opportunities for the public, improve environmental quality, and foster a management philosophy conducive to existing staff levels at the Pat Mayse Lake Project. Factors considered in the Plan development were identified through public involvement and review of statewide planning documents including TPWD's 2012 Texas Outdoor Recreation Plan (synonymous with SCORP) and the Texas Conservation Action Plan – East Central Texas Plains. This Master Plan will ensure the long term sustainability of the recreation program and natural resources associated with Pat Mayse.

8.2 LAND RECLASSIFICATION PROPOSALS

A key component in the preparation of this Master Plan was the examination of prior land classifications and the need to transition to the new land classification standards. The public involvement process explained that prior land classifications were similar to the new classification standards but in addition to simply changing the nomenclature of the classifications, USACE also wanted to know if there should be a shift of land from one classification to another (for example, should lands with a recreation classification be reclassified to a wildlife classification or vice versa). Public input was sought using several approaches as described in Chapter 7. The public involvement process did not result in a specific request or proposal to demonstrably change prior land classifications. In the absence of public or other agency suggestions/proposals to reclassify project lands, the land classifications presented in this Plan were formulated by Pat Mayse Lake Project staff and Tulsa District Office staff assigned to the Master Plan Project Delivery Team (PDT). Key decision points in the reclassification of project lands are presented in Table 8.1.

Table 8.1 Reclassification Proposals

Proposal	Description	Response
Reclassification Proposal 1	Reclassify all lands included in the prior classification of “Operations: Recreation Intensive Use” to High Density Recreation Use	Current Master Plan guidance does not include the classification title of Operations: Recreation Intensive Use. High Density Recreation Use is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.
Reclassification Proposal 2	Reclassify all lands included in the prior classification of “Natural Area” to Multiple Resource Management Lands: Low Density Recreation	Current Master Plan guidance does not include the classification title of Natural Area. Activities associated with this area are better described as Multiple Resource Management Lands: Low Density Recreation and is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.
Reclassification Proposal 3	Reclassify all lands classified as Fish and Wildlife Land to Multiple Resource Management Lands: Wildlife Management	Current Master Plan guidance does not include the classification title of Fish and Wildlife Land. Multiple Resource Management Lands: Wildlife Management is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.
Reclassification Proposal 4	Reclassify all lands classified as “Water Area” to Water Surface : Water Surface	Current Master Plan guidance does not include the classification title of Water Area. Water Surface is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.

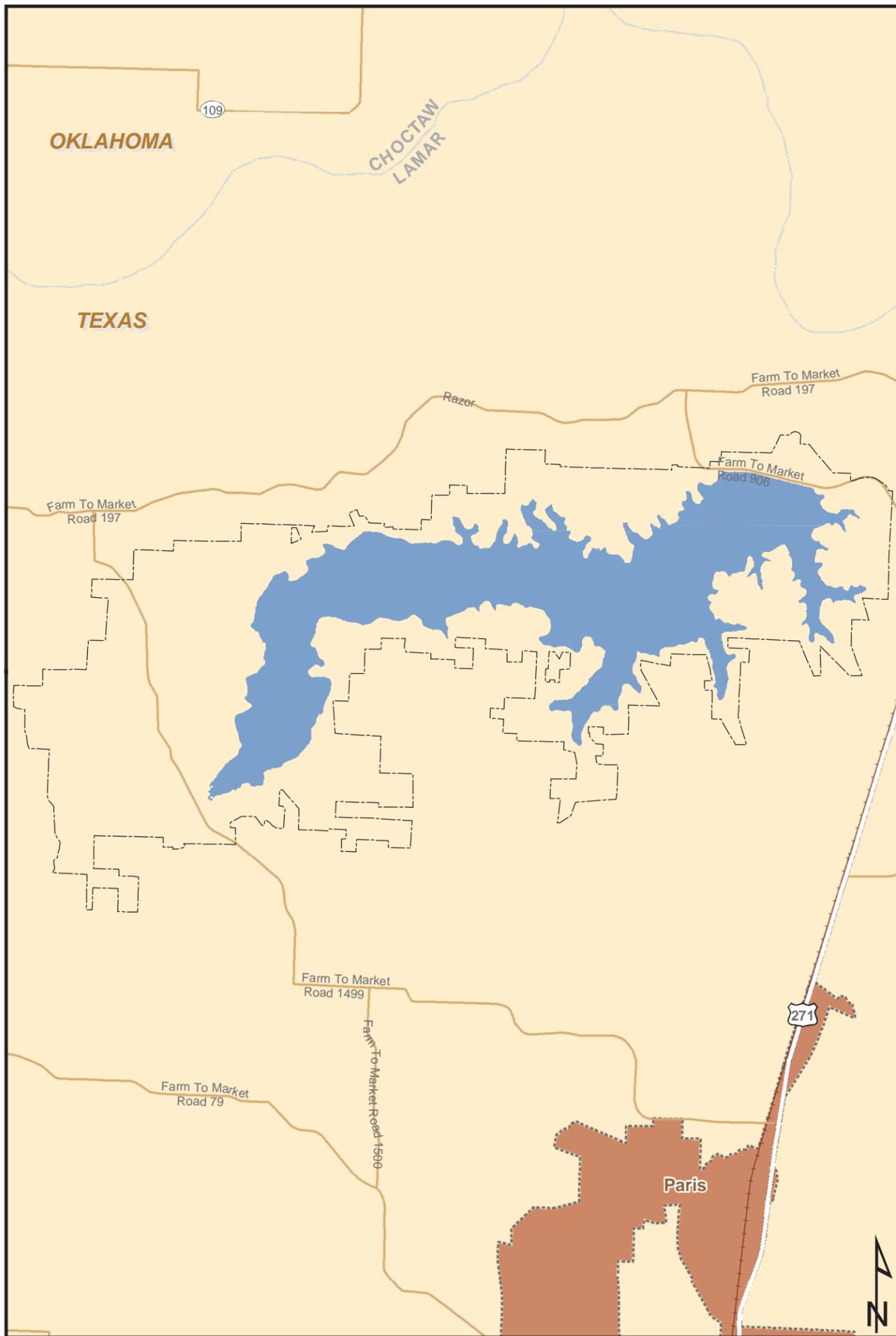
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**APPENDIX A - LAND CLASSIFICATION, MANAGING AGENCIES,
AND RECREATION MAPS**

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GENERAL

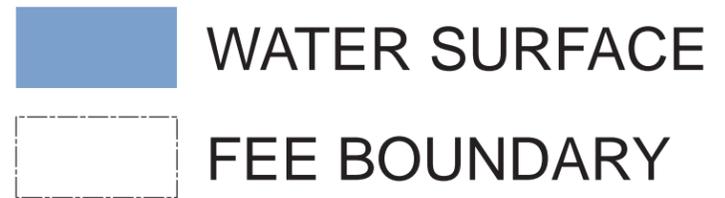
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 PATMAY15MP-OI-00
 PATMAY15MP-OM-01
 PATMAY15MP-OC-00

TITLE
 PROJECT LOCATION & INDEX TO MAPS
 LAND MANAGEMENT TYPES
 LAND CLASSIFICATION

RECREATIONAL AREAS

MAP NO.
 PATMAY15MP-OR-01
 PATMAY15MP-OR-02
 PATMAY15MP-OR-03
 PATMAY15MP-OR-04

TITLE
 SANDERS COVE
 DAM SITE
 PAT MAYSE PARK (EAST)
 PAT MAYSE PARK (WEST)





U.S. ARMY CORPS OF ENGINEERS
TULSA DISTRICT

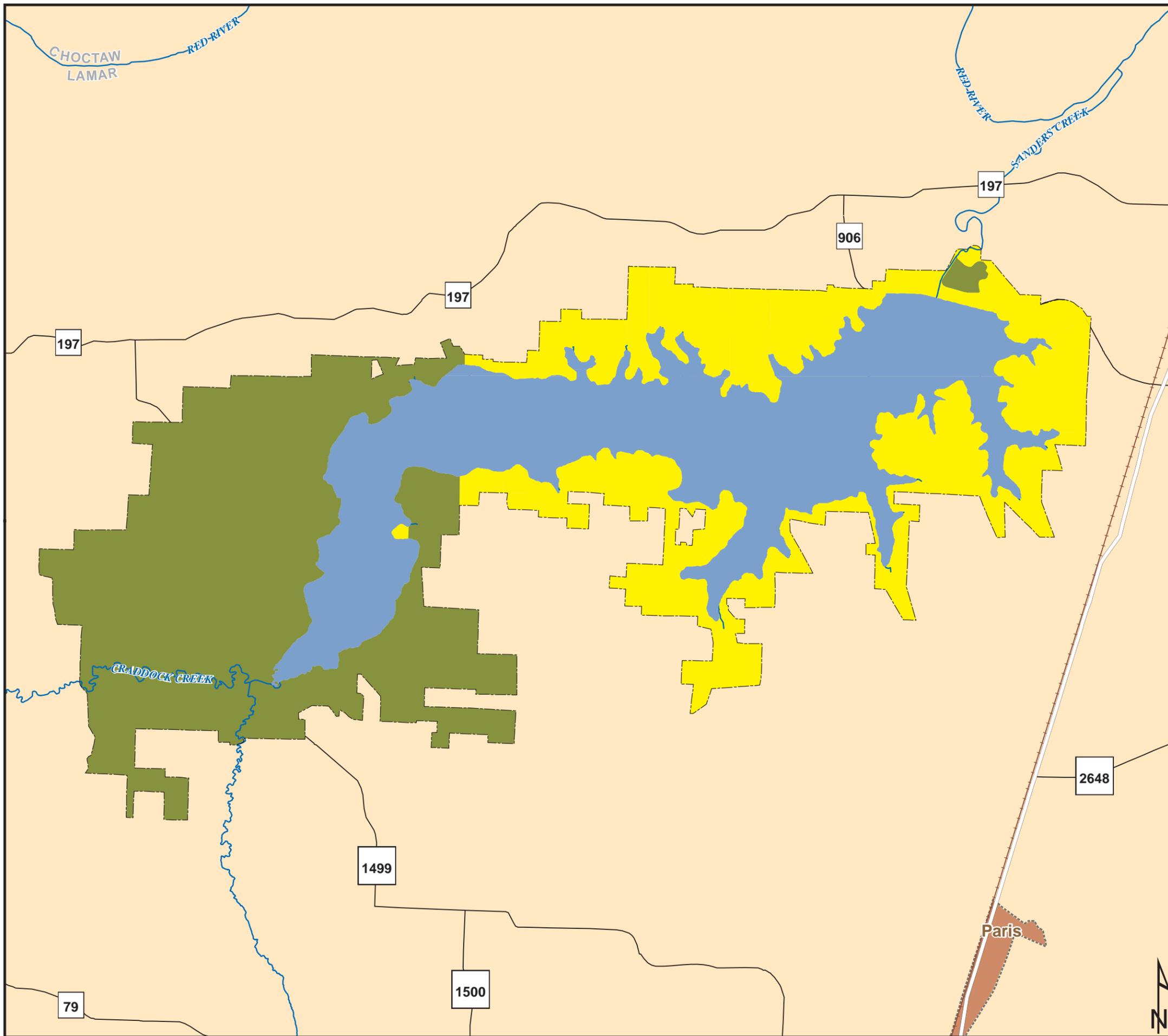
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PAT MAYSE LAKE
 PAT MAYSE MASTER PLAN
 PROJECT LOCATION AND INDEX

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DATE: OCTOBER 2015	MAP NO. PATMAY15MP-OI-00
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THIS PRODUCT IS REPRODUCED FROM GEOSPATIAL INFORMATION PREPARED BY THE U.S. ARMY CORPS OF ENGINEERS. GIS DATA AND PRODUCT ACCURACY MAY VARY. THEY MAY BE DEVELOPED FROM SOURCES OF DIFFERING ACCURACY. ACCURATE ONLY FOR CERTAIN SCALES. BASED ON MODELING OR INTERPRETATION, INCOMPLETE WHILE BEING CREATED OR REVISED. USING GIS PRODUCTS FOR PURPOSES OTHER THAN THOSE FOR WHICH THEY WERE CREATED MAY YIELD INACCURATE OR MISLEADING RESULTS.



-  FEE BOUNDARY
-  WATER SURFACE
-  U.S. ARMY CORPS OF ENGINEERS
-  TEXAS PARKS AND WILDLIFE DEPARTMENT



**U.S. ARMY CORPS
OF ENGINEERS**

TULSA DISTRICT

PAT MAYSE LAKE SANDERS CREEK, TEXAS

PAT MAYSE LAKE

PAT MAYSE MASTER PLAN

AGENCY LAND MANAGEMENT

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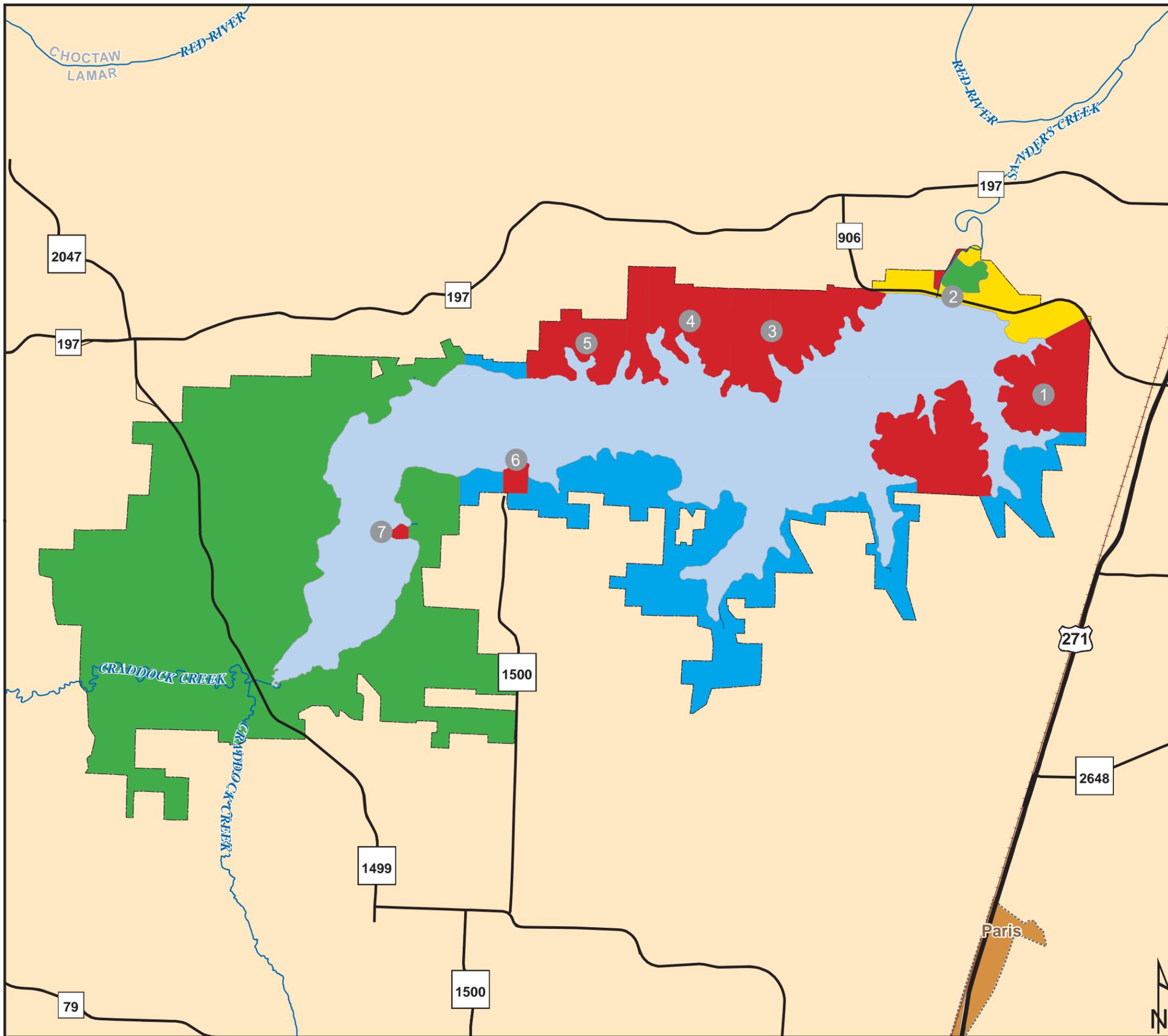
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2.25

3

MILES

DATE:	MAP NO.
OCTOBER 2015	PATMAY15MP-OM-01



- PUBLIC USE AREAS**
- ① SANDERS COVE
 - ② PAT MAYSE DAM SITE
 - ③ PAT MAYSE PARK (EAST)
 - ④ PAT MAYSE PARK (WEST)
 - ⑤ FOREST POINT
 - ⑥ LAMAR POINT
 - ⑦ CLAY BLUFF

- [Dashed Line] FEE BOUNDARY
- [Red Box] HIGH DENSITY RECREATION
- [Light Blue Box] WATER SURFACE
- [Blue Box] LOW DENSITY RECREATION
- [Yellow Box] PROJECT OPERATIONS
- [Green Box] WILDLIFE MANAGEMENT



**U.S. ARMY CORPS
OF ENGINEERS
TULSA DISTRICT**

PAT MAYSE LAKE SANDERS CREEK, TEXAS

PAT MAYSE LAKE
PAT MAYSE MASTER PLAN
LAND CLASSIFICATION

DATE: OCTOBER 2015 MAP NO. PATMAY15MP-OC-00



ITEM	EXISTING
BOAT RAMP LANES	2
COURTESY DOCK	3
GROUP CAMPSITES	5
CAMPSITES	34
ELECTRICAL HOOK-UP	55
PEDESTAL COOKERS	79
FIRERING	79
UTILITY TABLE	79
GROUP PICNIC SHELTER	2
PICNIC SITE	4
VAULT TOILET	2
RESTROOMS	2
DUMP STATION	1

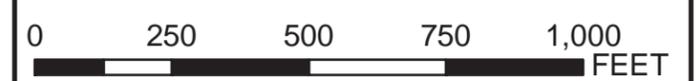
- FEE BOUNDARY
- BOAT RAMP
- COURTESY DOCK
- GROUP PICNIC SHELTER
- PICNIC SITE
- SWIM BEACH
- VAULT TOILET
- RESTROOM
- DUMP STATION
- GATE
- RANGERS STATION



**U.S. ARMY CORPS
OF ENGINEERS
TULSA DISTRICT**

PAT MAYSE LAKE SANDERS CREEK, TEXAS

PAT MAYSE MASTER PLAN
PAT MAYSE LAKE
RECREATIONAL AREAS (SANDERS COVE)



DATE: OCTOBER 2015	MAP NO. PATMAY15MP-OR-01
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ITEM	EXISTING
BOAT RAMP LANES	
COURTESY DOCK	
GROUP CAMPSITES	
CAMPSITES	
ELECTRICAL HOOK-UP	
PEDESTAL COOKERS	
FIRERING	
UTILITY TABLE	
GROUP PICNIC SHELTER	
PICNIC SITE	
WATERBORNE TOILET	2
RESTROOMS	
DUMP STATION	

-  FEE BOUNDARY
-  VAULT TOILET
-  PROJECT OFFICE
-  GATE TOWER
-  GATE
-  RANGERS STATION



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OF ENGINEERS**

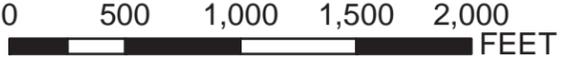
TULSA DISTRICT

PAT MAYSE LAKE
SANDERS CREEK, TEXAS

PAT MAYSE MASTER PLAN

PAT MAYSE LAKE

RECREATIONAL AREAS (DAM SITE)



0 500 1,000 1,500 2,000 FEET

DATE:
OCTOBER 2015

MAP NO.
PATMAY15MP-OR-02



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COURTESY DOCK	
GROUP CAMPSITES	
CAMPSITES	30
ELECTRICAL HOOK-UP	26
PEDESTAL COOKERS	30
FIRERING	30
UTILITY TABLE	30
GROUP PICNIC SHELTER	
PICNIC SITE	
VAULT TOILET	2
RESTROOMS	
DUMP STATION	1

-  FEE BOUNDARY
-  BOAT RAMP
-  GROUP PICNIC SHELTER
-  PICNIC SITE
-  SWIM BEACH
-  VAULT TOILET
-  RESTROOM
-  DUMP STATION



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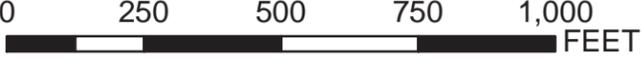
TULSA DISTRICT

PAT MAYSE LAKE
SANDERS CREEK, TEXAS

PAT MAYSE MASTER PLAN

PAT MAYSE LAKE

RECREATIONAL AREAS (PAT MAYSE EAST)



DATE:	MAP NO.
OCTOBER 2015	PATMAY15MP-OR-03



ITEM	EXISTING
BOAT RAMP LANES	2
COURTESY DOCK	1
GROUP CAMPSITES	
CAMPSITES	11
ELECTRICAL HOOK-UP	78
PEDESTAL COOKERS	89
FIRERING	89
UTILITY TABLE	89
GROUP PICNIC SHELTER	
PICNIC SITE	
VAULT TOILET	3
SHOWERS	1
DUMP STATION	1

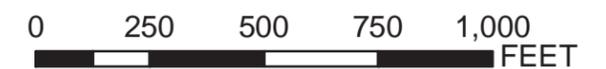
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- BOAT RAMP
- COURTESY DOCK
- GROUP PICNIC SHELTER
- PICNIC SITE
- SWIM BEACH
- VAULT TOILET
- RESTROOM
- SHOWER
- DUMP STATION



**U.S. ARMY CORPS
OF ENGINEERS**
TULSA DISTRICT

PAT MAYSE LAKE SANDERS CREEK, TEXAS

PAT MAYSE MASTER PLAN
PAT MAYSE LAKE
RECREATIONAL AREAS (PAT MAYSE WEST)



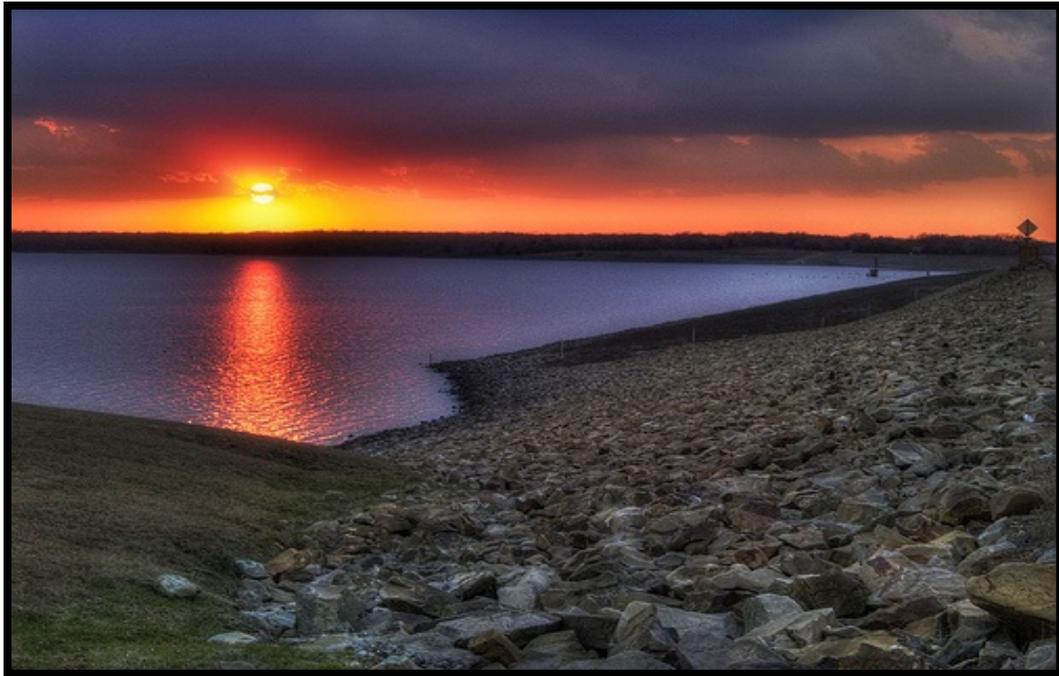
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**APPENDIX B - NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)
DOCUMENTATION**

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Environmental Assessment
For The
PAT MAYSE LAKE MASTER PLAN



Sanders Creek
Lamar County, Texas

October 2015



**US Army Corps
of Engineers** ®
Tulsa District

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**FINDING OF NO SIGNIFICANT IMPACT
PAT MAYSE LAKE MASTER PLAN
SANDERS CREEK, TEXAS**

In accordance with the National Environmental Policy Act of 1969, including guidelines in 33 Code of Federal Regulations, Part 230, Tulsa District and the Regional Planning and Environmental Center (RPEC) have assessed the environmental impacts of the Pat Mayse Lake Master Plan revisions.

The revised Master Plan will provide guidance for stewardship of natural resources and management for long-term public access to, and use of, the natural resources of Pat Mayse Lake. The Master Plan provides a comprehensive description of the project, a discussion of factors influencing resource management and development, the resource plan, describing how project lands and waters will be managed, an identification and discussion of special problems, a synopsis of public involvement and input to the planning process, and descriptions of existing development. The Master Plan revision only concerns areas under the ownership of the U.S. Army Corps of Engineers, Tulsa District (USACE) and does not directly address issues associated with private boat docks or permits for shoreline vegetation modification.

Under the No Action alternative, USACE would be taking no action, which means the Master Plan would not be revised. With this alternative, no new resources analysis and land-use classifications would occur at the project. The operation and management of Pat Mayse Lake would continue as outlined in the current Master Plan. Because this alternative does not result in a Master Plan that meets current guidance and regulations, it was eliminated from further consideration.

The proposed action was reviewed, coordinated with the public, and revised to comply with current USACE regulations and guidance, and to reflect changes in land management and land uses that have occurred over time. This included refining land classifications that would meet authorized project purposes and determining current resource objectives that address a mix of natural resource and recreation management objectives that are compatible with regional goals. Required land classification changes associated with this action include four reclassifications to balance resource objectives and comply with ER 1130-2-550 and EP 1130-2-550. This action results in the following:

Description	Response
Reclassify all lands classified as Operations: Recreation Intensive Use to High Density Recreation Use	Current Master Plan guidance does not include the classification title of Operations: Recreation Intensive Use. High Density Recreation Use is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.

Description	Response
Reclassify all lands classified as Natural Area to Multiple Resource Management Lands: Low Density Recreation	Current Master Plan guidance does not include the classification title of Natural Area. Multiple Resource Management Lands: Low Density Recreation is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.
Reclassify all lands classified as Fish and Wildlife Land to Multiple Resource Management Lands: Wildlife Management	Current Master Plan guidance does not include the classification title of Fish and Wildlife Land. Multiple Resource Management Lands: Wildlife Management is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.
Reclassify all lands classified as Water Area to Water Surface	Current Master Plan guidance does not include the classification title of Water Area. Water Surface is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.

This action was chosen because it would continue to meet regional goals associated with good stewardship of land and water resources, would continue to meet regional recreation goals, and would allow for continued use and development of project lands without violating national policies or public laws.

The Environmental Assessment (EA) and comments received from other agencies have been used to determine whether the proposed action requires the preparation of an environmental impact statement (EIS). All environmental, social, and economic factors that are relevant to the recommended alternative were considered in this assessment. These include, but are not limited to, climate and climate change, environmental justice, cultural resources, air quality, prime farmland, water quality, wild and scenic rivers, wetlands, fish and wildlife, invasive species, migratory birds, recreational fisheries, and threatened and endangered species.

It is my finding, based on the EA, the revision of the 1975 Master Plan for Pat Mayse Lake will have no significant adverse impact to the environment and will not constitute a major Federal action significantly affecting the quality of the human environment. Therefore, an EIS will not be prepared.

9 Nov 15
Date


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

ENVIRONMENTAL ASSESSMENT ORGANIZATION

This Environmental Assessment (EA) evaluates the effects of implementing the revised Master Plan for Pat Mayse Lake located in Lamar County, Texas. This EA facilitates the decision process regarding the proposed action and alternatives.

- SECTION 1* *INTRODUCTION, PURPOSE, NEED AND SCOPE* of the proposed action summarizes the purpose of a need for the proposed action, provides relevant background information and describes the scope of the EA.
- SECTION 2* *ALTERNATIVES INCLUDING PROPOSED ACTION* examines alternatives for implementing the proposed action and describes the recommended action.
- SECTION 3* *AFFECTED ENVIRONMENT* describes the existing environmental and socioeconomic setting.
ENVIRONMENTAL CONSEQUENCES identifies the potential environmental and socioeconomic effects of implementing the proposed action and alternatives, including cumulative effects.
MITIGATION summarizes mitigation actions required to enable a Finding of No Significant Impact for the proposed alternative.
- SECTION 4* *APPLICABLE ENVIRONMENTAL LAWS, REGULATIONS, and POLICY* provides a listing of environmental protection statutes and other environmental requirements.
- SECTION 5* *FEDERAL, STATE AND LOCAL AGENCY COORDINATION* provides a listing of individuals and agencies consulted during preparation of the EA.
- SECTION 6* *LIST OF PREPARERS* identifies persons who prepared the document and their areas of expertise.
- SECTION 7* *REFERENCES* provides bibliographical information for cited sources.
- APPENDIX A* *NEPA Coordination*

PAT MAYSE LAKE MASTER PLAN

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SECTION 1: INTRODUCTION

The Master Plan is the strategic land use management document that guides the comprehensive management and development of all project recreational, natural, and cultural resources throughout the life of the water resource project. The Master Plan guides the efficient and cost-effective management, development, and use of project lands. It is a vital tool for the responsible stewardship and sustainability of project resources for the benefit of present and future generations.

1.1 PURPOSE AND NEED FOR THE ACTION

Master Plans for Pat Mayse Lake were approved in 1965 and 1976. The current action requires revisions of the existing project Master Plan to reflect current land uses that are compatible with changes in national policies and regulations. As a result of public coordination and a public informational and National Environmental Policy Act (NEPA) scoping meeting held on February 26, 2015, it was determined that no substantive changes would be made to existing operations of the lake. The public indicated a desire for improved roads, camping facilities, and additional trails; however, project funding precludes pursuing these improvements. Project land uses will not be changed, but the names of the land-use classifications will change to comply with ER 1130-2-550 and EP 1130-2-550 requirements.

1.2 SCOPE OF THE ACTION

With the proposed Master Plan revisions, an Environmental Assessment (EA) is being completed to evaluate existing conditions and potential impacts of proposed alternatives. The EA is prepared pursuant to the NEPA, Council on Environmental Quality regulations (40 CFR, 1500–1508), and the U.S. Army Corps of Engineers (USACE) implementing regulation, Policy and Procedures for Implementing NEPA, Engineer Regulation (ER) 200-2-2 (1988).

1.3 PROJECT SETTING

Pat Mayse Lake is a multipurpose project for flood control, municipal and industrial water supply, recreation, fish and wildlife, and channel improvement of Sanders Creek, based on a conservation pool elevation of 451.0 feet mean sea level (msl). The project was approved for construction by the Flood Control Act of 23 October 1962 (P.L. 870874, 87th Congress). Pat Mayse Lake is located within the USACE, Tulsa District's Civil Works boundary. The reservoir is located in Lamar County, Texas (Figure 1), and was constructed 1965-1968, prior to passage of the NEPA in 1969. Although the lake was constructed prior to the passage of NEPA, an operational Environmental Impact Statement (EIS) was prepared for the project in 1974 and coordinated with state and federal resource agencies (USACE 1974).

The project dam site on Sanders Creek is approximately ten miles north of the town of Paris, Texas, about 100 miles northeast of the Dallas-Fort Worth, Texas metroplex, and approximately 150 miles southeast of Oklahoma City, Oklahoma. The Sanders Creek watershed is located in Fannin and Lamar Counties, Texas, and is a right-bank tributary to the Red River. Sanders Creek has its source near Honey Grove, Texas, and flows in a northeasterly direction to its confluence with the Red River at river mile 636, about three miles upstream from Arthur City, Texas. Prior to impoundment, the stream was intermittent, with the creek occasionally going dry. The basin is about 30 miles in length with a maximum width of about 10 miles near the upper end. The total drainage area of Sanders Creek is 190 square miles, and the area above the dam site is 175 square miles. The watershed lies in a region of low rolling hills. The upper portion of the basin is moderately steep and is well drained. The main stream channel is very tortuous and choked with brush and timber. Elevations range from about 690 feet (NGVD 29) at the source to about 400 feet (NGVD 29) at the mouth. The weighted slope of the entire stream is about 6 feet per mile and is about 3 feet per mile near the mouth. There are no large cities located within the watershed. Arthur City, Texas is the only nearby community located within the flood plain, and no large population centers are located on the Red River above Shreveport, Louisiana.

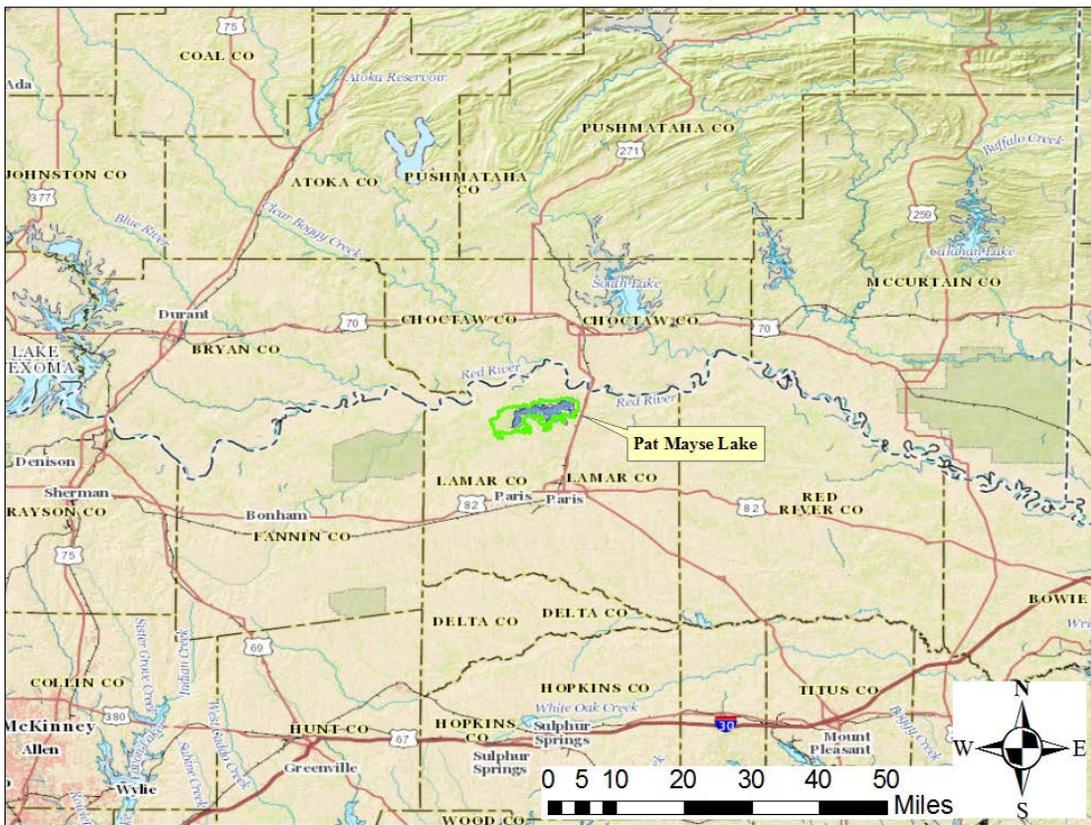


Figure 1.1 Vicinity Map

The main dam is a rolled earthfill structure, approximately 7,080 feet long. An excavated spillway is located in a saddle approximately 1,400 feet from the end of the right abutment. The outlet structure consists of an uncontrolled morning glory-type drop inlet with a 7.25-foot diameter conduit through the dam. At conservation pool elevation 451.0 mean msl there are 118,110 acre-feet of water in storage, 67 miles of shoreline, and 5,940 acres of surface area. The average annual minimum pool elevation is 450.8 msl. At flood control elevation 460.5 msl there are 64,830 acre-feet of flood water storage with a surface area of 7,680 acres. The maximum discharge that can occur through the outlet works without downstream flooding is 800 cubic feet per second (cfs). The drainage area consists of 175 square miles of the Sanders Creek watershed. Total acreage of project lands is 19,266 acres of fee owned lands and 1,396 acres of flowage easements. Project lands are managed for recreation and wildlife purposes, with minimal development of roads, trails, and campsites.

SECTION 2: ALTERNATIVES

Alternatives evaluated in this EA are compared to each other and to the No Action Alternative in order to identify the Preferred Alternative. The current project need is to revise the existing Master Plan so that it is compliant with USACE regulation and guidance. As part of this process, which includes public outreach and comment, the following alternatives were developed for evaluation:

Alternative 1: No Action

The No Action Alternative is defined as the USACE taking no action, which means the Master Plan would not be revised. With this alternative, no new resources analysis and land-use classifications would occur at the project. The operation and management of Pat Mayse Lake would continue as outlined in the current Master Plan. Because this alternative does not result in the required Master Plan revisions necessary to address changes in National Regulations and Policies, it was eliminated from further consideration.

Alternative 2: Revise Master Plan, Changes in Operation and Use

With this alternative, the Master Plan would be reviewed, coordinated with the public, and revised to comply with current USACE regulations and guidance. Changes to lake operation, land classifications, wildlife management, existing leases and outgrants, and public use would be considered or evaluated during this process. Public coordination of the Master Plan did result in recommendations for improved roads, camping facilities, and additional trails, but no changes in land-use classifications or other management practices were suggested. Upon consideration of these comments, it was determined that, based on existing and projected future project operating budgets, improvements or construction of new recreational facilities and trails would not be possible at this time, so this alternative was eliminated from further consideration.

Alternative 3: Revise Master Plan, No Change in Operation and Use

Under this alternative, the Master Plan would be reviewed, coordinated with the public, and revised to comply with current USACE regulations and guidance; however, no changes to lake operation, wildlife management, existing leases and outgrants, and public use would be made. The land classifications would be reviewed and refined in accordance with current regulations and policies. Because of funding constraints and overall public acceptance of existing project operation, this action was identified as the Preferred Alternative. In order to comply with the current USACE Master Plan ER 1130-2-550 and EP 1130-2-550, the names of the land-classifications will be changed (Table 1.1); however, these name changes do not reflect a change in actual use or management of the lands so classified.

Table 1.1 Previous and New Land Classifications

Previous Land Classifications	New Land Classifications
Project Operations	Project Operations
Operations – Recreation – Intensive Use	High Density Recreation
Natural Area	Low Density Recreation
Fish and Wildlife	Wildlife Management
Water Area	Water Surface

SECTION 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Pat Mayse Lake basin is about 30 miles in length with a maximum width of about 10 miles near the upper end. The lake total drainage area of Sanders Creek is 190 square miles, and the area above the dam site is 175 square miles. The watershed lies in a region of low rolling hills. The upper portion of the basin is moderately steep and is well drained. The main stream channel is very tortuous and choked with brush and timber. Elevations range from about 690 feet (NGVD 29) at the source to about 400 feet (NGVD 29) at the mouth. The weighted slope of the entire stream is about 6 feet per mile and is about 3 feet per mile near the mouth. The lake provides aquatic habitat for diverse fish communities. The lake watershed is a mosaic of forest, grassland, agriculture, and generally smaller to medium-sized communities and municipalities. The typically undulating topography, with its steep slopes and ravines, is a limiting factor in large-scale intensive, urban development in this part of Texas. The city of Paris has contracted for 109,600 acre-feet of water supply storage in the lake for the city and its industries.

3.1 CLIMATE

Affected Environment

The climate of northeast Texas, including Pat Mayse Lake, lies within the humid, subtropical region, with warm, moist air moving northward from the Gulf of Mexico, exerting much influence over northeastern Texas and southeastern Oklahoma. This region is characterized by moderate winters and comparatively long, hot summers, with the mean temperatures varying from 26° Fahrenheit (F) minimum to 48°F maximum temperatures in January to 68°F minimum to 91°F maximum in July. Generally, this part of Texas experiences approximately 61 days annually of temperatures 90°F or higher and 23 days annually of temperatures 20°F or lower. The average length of the growing season, or frost free period, in this region of Texas is 210 to 220 days. The typical rainfall is approximately 35 to 45 inches per year, with the heaviest rainfall occurring from April to September.

Environmental Consequences

Revision of the Lake Master Plan will have no impact on the climate of the project area. Potential impacts of climate change are presented in Section 3.13 below.

3.2 TOPOGRAPHY, PHYSIOGRAPHY, AND GEOLOGY

Affected Environmental

The general geology and topography of Pat Mayse Lake consists of low relief and flat-lying to gently dipping formations in the Blackland Prairies region of the Gulf Coastal Plains Physiographic Province. The Eagleford shale and Woodbine formation of Cretaceous

age underlie the entire area. Soils of the project area are of the Eastern Cross Timbers and Blackland Prairie series of gently sloping to moderately steep, moderately permeable and very slowly permeable, loamy upland soils. Although surrounded by relatively flat, arable land, project area lands are too steep and deeply incised for farming or other development. The Lake lies only a few miles south of the Red River Bottoms, which is intensively farmed, and which is prime habitat for migratory waterfowl.

Environmental Consequences

Revision of the Lake Master Plan will have no impact on topography, physiography, or geology of the project area.

3.3 LAND USE

Affected Environment

The primary project purposes of Pat Mayse Lake include flood control, water supply, recreation, and fish and wildlife. Land use at Pat Mayse Lake is designated to support the overall goal of providing good stewardship of land and water resources while providing safe recreation opportunities and economic uses to the public. USACE provides recreational facilities at six locations around Pat Mayse Lake that include parking, restrooms, picnic tables, camp sites, 9.2 miles of hiking and bike trails, and boat ramps. Texas Parks and Wildlife Department (TPWD) manages the 8,925-acre Pat Mayse Wildlife Management Area (WMA) located within the western portions of the lake. These undeveloped lands are managed for public fishing (largemouth bass, white crappie, sunfish, striped bass, channel and flathead catfish) and hunting (fox gray squirrel, whitetail deer, bobwhite quail, mourning dove, cottontail rabbit, raccoon, and fox). In addition to the WMA, the TPWD manages a wildlife viewing area just below the dam where no hunting is allowed. This area is managed primarily for waterfowl however, other wildlife species have been observed utilizing resources in this area.

Environmental Consequences

There will be no change to land use practices resulting from the revision of the Master Plan.

3.4 SOILS

Affected Environment

A detailed mapping and description of project area soils was reviewed using the NRCS website tools to generate a Custom Soil Resources Report for Lamar and Delta Counties, 2015. In general, upland soils are deep, light-colored loams, while bottomlands are loams and clay. The primary use of these soils is for pasturage and crops. In the project

area, the flood plain areas are productive dark brown clay soils and the upland areas are principally poor sandy loam soils. The bottom-land areas are suited for soybean and hay production, while upland areas are used for grazing and timber production.

Environmental Consequences

There will be no change to soils resulting from the revision of the Master Plan.

3.5 TERRESTRIAL RESOURCES

Affected Environment

Vegetation

The reservoir and its watershed are located in the Post Oak Savannah and Blackland Prairies Ecological Regions of Texas. These regions encompass a variety of forest communities, tall grass savannas, bottom lands and wetland communities. Historically, burning by aboriginal people and grazing by buffalo herds maintained a more open habitat than is seen today, with heavy brush now found in many upland areas. Major woody species known to occur within forest areas include shortleaf pine (*Pinus echinata*), loblolly pine (*Pinus taeda*), blackjack oak (*Quercus marilandica*), post oak (*Quercus stellata*), shumard oak (*Quercus shumardii*), black locust (*Robinia pseudoacacia*), black hickory (*Carya texana*), basswood (*Tilia americana*), eastern red cedar (*Juniperus virginiana*), sugar maple (*Acer saccharum*), and mockernut hickory (*Carya tomentosa*). Common understory species include huckleberry (*Vaccinium vacinllans*), mock orange (*Philadelphus pubescens*), early azalea (*Rhododendron roseum*), gooseberry (*Grossularia spp.*), bladder nut (*Staphylea trifolia*), and spice bush (*Lineria benzoin*).

Tall grass savannas form a transition area between upland forest areas and bottom lands. Plant species in these areas include big bluestem (*Andropogon gerardii*), little bluestem (*Andropogon scoparius*), switchgrass (*Panicum virgatum*), Indian grass (*Sorghastrum nutans*), sideoats grama (*Bouteloua curtipendula*), and Johnson grass (*Sorghum halepense*). These areas are also known to include scattered woody shrub species such as sand plum (*Prunus augustifolia*), buck brush (*Symphoricarpos obiculatus*), sumac (*Rhus glabra*), and blackjack oak (*Quercus marilandica*).

Bottom lands are known to exhibit mixed deciduous forests dominated by American elm (*Ulmus Americana*), hackberry (*Celtis laevigaa*), pecan, (*Cara illinoensis*), cottonwood (*Populus deltoids*), and black willow (*Salix nigra*), vines such as grape (*vitis spp*), poison ivy (*Toxicodendron radicans*), and green briar (*Smilax spp*) that are underlain by a variety of grasses and other herbaceous species.

Wetlands within project boundaries include a variety of emergent species that include small pondweed (*Potamogeton pusillus*), southern naiad (*Najas quadalupensis*), arrowhead

(*Sagittaria spp*), cattail (*Typha tulifolia*), and American lotus (*Nelumbo spp.*). Backwater areas are known to exhibit forested and scrub-shrub wetland communities that are dominated by species such as black willow (*Salic nigra*), button bush (*Cephalanthus occidentais*), cottonwood (*Populus deltoids*), river birch (*Betula nigra*), common pondweed, rushes (*Juncus sp.*), and smartweed (*Polygonum sp.*).

Invasive plants identified in Lamar County that may be present on project lands include giant reed (*Arundo donax*), chinaberry tree (*Triadica sebifera*), Bermuda grass (*Cyndon dactylon*), Johnson grass (*Sorghum halepense*), Japanese honeysuckle (*Lonicera japonica*), Chinese privet (*Ligustrum sinense*), glossy privet (*Ligustrum lucidum*), Japanese privet (*Ligustrum japonicum*), giant salvinia (*Salvinia molesta*), King Ranch bluestem (*Bothriocloa ishaemum*), heavenly bamboo (*Nandina domestica*), bastard cabbage (*Rapistrum rugosum*), field bindweed (*Convolvulus arvensis*), redtip photinia (*Photinia x fraseri*), and pincussions (*Scabiosa atropurpea*). TPWD utilizes controlled burns for invasive plant control, and Camp Maxey, which is an adjacent landowner of Pat Mayse Lake also uses controlled burns for brush control on their property. The revised Pat Mayse Lake Master Plan includes a list of specific invasive plant species that are monitored within project lands.

Environmental Consequences

There will be no change to vegetation resulting from the revision of the Master Plan.

Wildlife

Pat Mayse Lake is managed for sport fishing by TPWD, who provides stocking of largemouth bass (*Micropterus salmoides*) and hybrid striped bass (*Morone saxatilis*). In addition, the reservoir provides 5,940 surface-acres of fish habitat for white crappie (*Pomoxis annularis*), sunfishes (*Leponis sp.*), channel catfish (*Ictalurus punctatus*), flathead catfish (*Pylodictis olivaris*), drum, buffalo (*Ictiobus sp*), carp (*Cyprinus carpio*), gizzard shad (*Dorosoma cepedianum*), and several species of minnows.

The Pat Mayse Lake Wildlife Management Area (WMA) supports populations of fox and gray squirrel (*Sciurus niger*, *S. carlinensis*), whitetail deer (*Odocoileus virginianus*), bobwhite quail (*Colinus virginianus*), mourning dove (*Zenaida macroura*), cottontail rabbit (*Sylvilagus floridanus*), raccoon (*Procyon lotor*), and fox (*Vulpes velox*) that are hunted by the public. Hunting is regulated by TPWD on the Pat Mayse WMA. Other mammals include opossum (*Didelphus virginiana*), beaver (*Castor canadensis*), mink (*Neovison vison*), skunk (*Mephitis mephitis*, *Spilogale putorius*), shrew (*Blarina hylophaga plumblea*), gopher (*Geomys attwateri*), weasel (*Mustela frenata*), and bats (*Myotis austroriparius*, *Taxida taxus*).

Reservoir lands also support a wide range of other species in this ecologically diverse region of Texas. Avian species including song, water, raptor, and migratory birds are numerous on project lands, with close to 100 species documented by TPWD for the Post Oak Savannah Ecoregion (TPWD, 2015). The Red River Valley, immediately north of the project area, is a major migratory stop-over for waterfowl. Reptiles include several turtles, lizards, and snakes including the timber rattlesnake (*Crotalus horridus*).

Invasive animal species that may be present in the project area include asian clam (*Corbicula fluminea*), common carp (*Cyprinus carpio*), Eurasian collared dove (*Streptopelia decaocto*), European starling (*Sturnis vulgaris*), nutria (*Myocastor coypus*) and feral hogs (*Sus scrofa*), red imported fire ant (*Solenopsis saevissima*). Project lands are actively monitored for feral hogs and red imported fire ants. The feral hogs are known to induce considerable damage to the land. It has been necessary to install fences along the toe of the dam to keep feral hogs from damaging the dam embankment. The project office has implemented a routine monitoring and treatment regime for imported red fire ants.

Environmental Consequences

There will be no change to wildlife resulting from the revision of the Master Plan.

3.6 WATER RESOURCES

Affected Environment

Hydrology and Groundwater:

Pat Mayse Lake impounds the water of Sanders Creek, a spring and groundwater-fed tributary of the Red River in Lamar County, Texas, and several minor tributaries of Sanders Creek including Bergher, Maxey, Cottonwood, Little, and Craddock Creeks. The reservoir conservation pool elevation is 451 feet, and there are 118,110 acre-feet of storage in the reservoir. The Trinity Aquifer underlies Lamar County at depths of 100 to 600 feet. Small, shallow aquifers are also present throughout the county, and were the historic source of potable well water for early settlers (Ashworth and Hopkins, 1995).

Water Quality:

The water of Sanders Creek has naturally high mineral levels, with high levels of iron, manganese, and hardness, requiring treatment to remove iron and manganese for use as potable water by the city of Paris and local industry. Potable water at the reservoir is purchased from Lamar County Water Supply District. Pat Mayse Lake water is sampled five times per week during the high-use months of June and July at all of the designated swimming beaches by a USACE contractor for bacterial levels to ensure that contact recreational use of the lake is safe. The reservoir is also regularly tested by Texas Council on Environmental Quality (TCEQ, 2014) and has been found to fully support all general uses

and public water supply. There are no direct industrial or municipal discharges into the reservoir or its tributaries that could degrade water quality.

Aquatic Resources:

Pat Mayse Lake was constructed for flood control, water supply, and recreational water use including fishing, swimming, and water skiing. In addition to recreational benefits, the lake also provides habitat for fish and waterfowl.

Environmental Consequences

There will be no change to water resources or quality resulting from the revision of the Master Plan.

3.7 THREATENED AND ENDANGERED SPECIES

Affected Environment

There are four threatened and endangered species having potential habitat at Pat Mayse Lake fee lands according to the USFWS Information for Planning and Conservation (IPaC) Trust Resource Report. The following table lists the state and federal species protected at Pat Mayse Lake.

Table 3.1 State and Federally-Listed Threatened and Endangered Species

	Status	FED/State List	Has Critical Habitat	Biological Opinion Issued	Final Recovery Requirements	Recovery Actions Designated
Birds						
Piping Plover	Threatened	FED	No	Yes	No	No
Least Tern	Endangered	FED	No	Yes	No	No
Red Knot	Threatened	FED	No	No	No	No
Insects						
American Burying Beetle	Endangered	FED	No	Yes	No	No

Note: For additional species' specific information please refer to section 2.8.3 of the Pat Mayse Lake Master Plan.

Environmental Consequences

There will be no effect to threatened or endangered species resulting from the revision of the Master Plan. A Biological Opinion dated April 10, 2013 for American burying beetle, *Nicrophorus Americanus*, and interior population of least tern, *Sternula antillarum athalassos*, provides reasonable and prudent measures for these species for the operation of a number of USACE reservoirs in Kansas, Oklahoma, and Texas including Pat Mayse. Any future activities which could potentially result in effects to federally-listed species shall be coordinated with USFWS through Section 7 of the Endangered Species Act.

3.8 ARCHAEOLOGICAL AND HISTORIC RESOURCES

Affected Environment

Thirty-seven prehistoric archeological sites were recorded on project lands prior to inundation; the earliest dating to late Paleo-Indian or Early Archaic times, possibly 10,000 years before the present (BP). The recorded sites represent the full time-spectrum of aboriginal sites in this part of Texas, extending from 10,000 BP to early 19th century historic Caddo remains. Most of these sites were located on the first and second terraces of Sanders Creek and are now inundated. In addition to prehistoric archeological sites, Lamar County possesses a rich history of Anglo settlement beginning in the early 1800's when the area was made accessible by river boats navigating the Red River. Nineteenth century settlements in the project vicinity include Paris (1844), Arthur City (1866), Powderly (1860's), Chicota (1879), Direct (1880's), and Sumner (1885). The reservoir covers much of the former Camp Maxey, an infantry training camp during World War II that was closed in 1945. The reservoir is well signed warning the public to not pick up ordnance from that time that is still occasionally found on project lands (ER 200-3-1).

Environmental Consequences

There will be no effect to historic properties resulting from the revision of the Master Plan. Known sites not inundated have been seeded to prevent erosion and obscure their presence from the public, and mapped so that they can be avoided by any new construction or maintenance activities, should they occur.

3.9 SOCIOECONOMIC RESOURCES AND ENVIRONMENTAL JUSTICE

Affected Environment

A detailed report of current socioeconomic information is available in the Master Plan. Because of the largely rural setting of the project, statistics for Lamar County will be provided. Lamar County had an estimated 2014 population of 49,751 persons, with 19,416 households between 2009 and 2013 (USCB, 2014a). In 2013, the ethnic makeup of the

county was 81.5% white (for the State of Texas 80.3%), 13.5% African American (Texas 12.4%), 1.6% Native American (Texas 1.0%), 0.7% Asian (Texas 4.3%), no Native Hawaiian and Pacific Islander (Texas 0.1%), and 2.6% (Texas 1.8%) belonging to two or more races. Of the total population, 7.1% were Hispanic or Latino (Texas 38.4%). The median household income from 2009 to 2013 was \$40,104 (Texas \$51,900) with about 19.1% (Texas 17.6%) living below poverty level. Primary industries in Lamar County include agriculture, manufacturing, retail, healthcare, construction, professional and technical services, and transportation. Major employers include Campbell Soup, Kimberly-Clark Corporation, Paris Independent School District, and Sara Lee. In compliance with Executive Order 12898, Federal Action to Address Environmental Justice in Minority and Low-Income Populations, the census data document that minority and low income populations are present in Lamar County, with higher percentages of minority and low income populations than the state of Texas. However, Pat Mayse Lake recreational facilities are open to the public without discrimination. No new construction is proposed, and there will be no disproportionate adverse impact on minority or low-income population groups in Lamar County.

Environmental Consequences

There will be no adverse effect to area economic stability or environmental justice populations resulting from the revision of the Master Plan. Pat Mayse Lake is beneficial to the local economy through indirect job creation and local spending by visitors. Recreation at the reservoir is available to the public for minimal fees (maximum day use fee per vehicle is \$4/day).

3.10 RECREATION RESOURCES

Affected Environment

The overall recreation management program attempts to provide the visitor with a safe, quiet, and wholesome outdoor recreation environment. Project lands and water are managed to provide an optimum mix of recreation and fish and wildlife benefits. There are six public-use areas to facilitate recreational use of the reservoir. Recreational opportunities provided by USACE and TPWD at Pat Mayse Lake include boating, water skiing, swimming, fishing, hunting, camping, picnicking, and hiking. Paved access roads and parking lots, boat ramps, flush and vault toilets, potable water, picnic tables, refuse containers, fireplaces, campsites, and sanitary trailer dump stations are also provided for public use. The Pat Mayse Lake WMA is managed by TPWD and allows fishing and public hunting.

Environmental Consequences

There will be no change to recreational use of Pat Mayse Lake resulting from the revision of the Master Plan.

3.11 PRIME AND UNIQUE FARMLANDS

Affected Environment

Prime and Unique Farmlands are present at Pat Mayse Lake, and are managed for project purposes, recreational use, and wildlife management.

Environmental Consequences

There will be no change to Prime and Unique Farmlands resulting from the revision of the Master Plan. No construction or change in land management is proposed in the Master Plan revision.

3.12 AIR QUALITY

Affected Environment

Environmental Protection Agency (EPA) established nationwide air quality standards to protect public health and welfare in 1971. The State of Texas has adopted the National Ambient Air Quality Standards (NAAQS) as the state's air quality criteria. NAAQS standards specify maximum permissible short- and long-term and long-term concentrations of various air contaminants including primary and secondary standards for six criteria pollutants: Ozone (O₃), Carbon Monoxide (CO), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO), Particulate matter (PM₁₀ and PM_{2.5}), and Lead (Pb). Based on both federal and state air quality standards, an area can be classified as either an "attainment," "maintenance," or "non-attainment" area for each pollutant. The threshold for non-attainment designation varies by pollutant. According to TCEQ's current State Implementation Plan (TCEQ, 2015), Lamar County is classified as an attainment area for all criteria pollutants.

Environmental Consequences

Existing operation and management of the reservoir is compliant with the Clean Air Act and will not change with the Master Plan revision.

3.13 CLIMATE CHANGE AND GREENHOUSE GAS

Affected Environment

Climate change has become an area of concern due to the potential for effects on many aspects of the environment, especially those related to water resources. Changes in average weather conditions can persist over multiple decades and include both increases and decreases in temperature and shifts in precipitation, which changes the risk of certain types of severe weather events. Projections from the Interagency Panel on Climate Change (IPCC, 2014), indicate that by 2100 Texas may be experiencing a 3 degree F increase in the spring and 4 degree F increase in other seasons in temperature, coupled with a 5-30% decrease in winter precipitation and 10% increase in precipitation in other seasons. This is projected to result in an overall warmer and dryer climate for Texas. Increased evaporation could result in a 35% decrease in streamflow and less water for recharge of aquifers.

Air emissions from the operation of internal combustion engines that produce exhaust result in Greenhouse Gas (GHG) emissions that could contribute to global climate change. The Council on Environmental Quality published "Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions", December 18, 2014. The Draft Guidance suggests that the impacts of projects directly emitting GHGs in excess of 25,000 metric tons or more of carbon dioxide (CO₂)-equivalent (CO₂e) GHG emissions per year be considered in a qualitative and quantitative manner in NEPA reporting; however, there are no implementing regulations to direct development of these analyses for federal projects. On December 19, 2014, EPA delegated authority for GHG Prevention of Significant Deterioration (PSD) permitting in Texas to the state air regulatory agency, TCEQ (TCEQ, 2015). As implemented by TCEQ, GHG permits are required only for stationary sources or facilities already required to obtain PSD permits for other criteria pollutants. It is estimated that GHG emission of automobiles and light trucks produce about 4 to 6 metric tons of CO₂ per year (EPA 2015). As such, routine maintenance of the reservoir involving at most a few trucks and other mechanical equipment does not approach the proposed reportable limits.

Environmental Consequences

Should climate change or GHG issues become significant enough to impact the operation of Pat Mayse Lake, the Master Plan and associated documents would be reviewed and revised as necessary.

3.14 HEALTH AND SAFETY

Affected Environment

The reservoir is managed for water-related recreation, hunting, and wildlife management. Water in the reservoir is tested monthly for blue green algae from April to September to ensure that it is safe for human recreational contact. If World Health Organization standards are exceeded, the area is posted so that the public is aware of the issue. Safe boating and swimming regulations are enforced, as is permitted hunting.

In addition, USACE staff actively participate in local public out-reach programs on water safety, and provide life jacket loaner boards at beaches and boat ramps to encourage the public to practice water safety.

Environmental Consequences

There will be no change to public health and safety resulting from the revision of the Master Plan. Existing regulations and safety programs will continue to be enforced to ensure public safety.

3.15 AESTHETICS

Affected Environment

Pat Mayse Lake offers a beautiful natural area for public use and recreation. The reservoir is located in the rolling uplands that edge the Red River floodplain in the northern part of Lamar County. Bordered to the north by the Red River valley and to the south by rolling, cleared farmland, the Lake preserves a diverse wooded riparian habitat with miles of trails for hiking.

Environmental Consequences

There will be no change to aesthetics resulting from the revision of the Master Plan.

3.16 CUMULATIVE IMPACTS

A cumulative effect is defined as the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a long period of time (40 CFR Part 1508.7). The following analysis abides by the Council on Environmental Quality's Considering Cumulative Effects under NEPA (CEQ, 1997), and Guidance on the Consideration of Past Actions in Cumulative Effects Analysis (CEQ, 2005).

Historically, Lamar County has undergone extensive change with the introduction of farming and ranching in the 1800's. Land clearing and plowing destroyed much of the historic vegetation including old growth timber and native prairie. Several former railways allowed Lamar County to be a major trading hub for agriculture and commercial industries. Due to modern roads and large trucking companies the railways in the area are no longer operating. In the county seat, Paris, Texas, the former railway station, has been renovated into office space for the local chamber of commerce. During the years between 1984 to 1992 local businesses completed renovations of the Paris downtown historical district. Camp Maxey a former WWII military installation was deactivated in 1946 and the lands were transferred to the Texas National Guard. Pat Mayse Lake was built on portions of the former Camp Maxey installation. In addition to the construction of the embankment, the Pat Mayse project included construction of an administrative building, maintenance facilities and recreational developments for public use. Many of the original Camp Maxey buildings were demolished, while some were refurbished between the years of 2007 and 2010 to support current military reserve training missions. Other past construction projects in the area includes the construction of public highways and expansion of small communities.

Currently much of the area still encompasses farming and ranching operations. Camp Maxey Army Reserve Center operates military training on lands adjacent to Pat Mayse Lake. Current industries sustained within the area include several small businesses, banks, Campbell's Soup Inc., Flex-O-Lite, Kimberly Clark, Merico Grains & Packaging, Phillips Incandescent Lighting, Turner Pipe Industry, Potter's Glass Factory, and Earthgrains Bakery. In addition, Paris, Texas encompasses regional medical facilities that support the needs of adjacent counties in Texas and Oklahoma.

The Chamber of Commerce located in Paris, Texas partners with city and county entities to offer incentives to small businesses and corporations to encourage economic development within the region. As a result of economic development, it is anticipated that the communities in the area will expand. As the region grows, reasonably foreseeable projects in the area are likely to include further developments to the regional medical facilities, new housing developments, along with the construction of supporting businesses such as retail shopping and convenience stores. In addition to local urban developments, maintenance and expansions to highways 82 and 271 are likely to occur.

Environmental Consequences

Due to funding constraints, the Pat Mayse Project does not have any current plans for future developments. In the event that future development actions become necessary to support regional goals associated with Pat Mayse, environmental conditions will be assessed at that time. Therefore no increase in cumulative effects would occur as a result from revisions to the Master Plan.

SECTION 4: COMPLIANCE WITH ENVIRONMENTAL LAWS

This EA has been prepared to satisfy the requirements of all applicable environmental laws and regulations, and has been prepared in accordance with the Council on Environmental Quality's implementing regulations for NEPA, 40 CFR Parts 1500 – 1508, and USACE Regulation ER 200-2-2, *Environmental Quality: Procedures for Implementing NEPA*. The revision of the Master Plan is consistent with the USACE's Environmental Operating Principles. The following is a list of applicable environmental laws and regulations that were considered in the planning of this project and the status of compliance with each:

National Environmental Policy Act – This EA has been prepared in accordance with Council on Environmental Quality regulations for implementing NEPA. The environmental and social consequences of master plan revision have been analyzed in accordance with NEPA and presented in the assessment.

Fish And Wildlife Coordination Act Of 1958, as amended – Because no construction or change in operation of the reservoir is proposed, there is no plan to coordinate under the Act; however, information provided by USFWS and TPWD on fish and wildlife resources has been utilized in the development of this assessment.

Endangered Species Act of 1973 (ESA), as amended – Current lists of threatened or endangered species were compiled for the revision of the Master Plan. There will be no effect to threatened or endangered species resulting from the revision of the Master Plan. A Biological Opinion dated April 10, 2013 for American burying beetle, *Nicrophorus Americanus*, and interior population of least tern, *Sternula antillarum athalassos*, provides reasonable and prudent measures for these species for the operation of a number of USACE reservoirs in Kansas, Oklahoma, and Texas including Pat Mayse, and is included in Appendix A of this EA.

Executive Order 13186 (Migratory Bird Habitat Protection) – Sections 3a and 3e of EO 13186 directs federal agencies to evaluate the effects of their actions on migratory birds, with emphasis on species of concern, and inform the USFWS of potential negative effects to migratory birds. The Master Plan revision will not result in impacts migratory bird habitat.

Migratory Bird Treaty Act (MBTA) – The MBTA of 1918 extends Federal protection to migratory bird species. The nonregulated “take” of migratory birds is prohibited under this act in a manner similar to the prohibition of “take” of threatened and endangered species under the Endangered Species Act. EO 13186 “Responsibility of Federal Agencies to Protect Migratory Birds” requires Federal agencies to assess potential effects of their actions on migratory birds. The timing of construction and resource management activities would be coordinated to avoid impacts to migratory and nesting birds.

Clean Water Act of 1977 – The project is in compliance with all state and federal Clean Water Act regulations and requirements and is regularly monitored by USACE and TCEQ for water quality. A state water quality certification pursuant to Section 401 of the Clean Water Act is not required for the Master Plan revision. There will be no change in the existing management of the reservoir that would impact water quality.

National Historic Preservation Act (NHPA) of 1966, as amended – Compliance with the NHPA of 1966, as amended, requires identification of all properties in the project area listed on, or eligible for listing on, the National Register of Historic Places. Surveys and site salvage were coordinated with the Texas State Historic Preservation Officer (SHPO) and conducted prior to the construction of the reservoir in the 1960s. At that time, no sites were found to be potentially eligible for the National Register of Historic Places and no mitigation was conducted. Known sites are mapped and avoided by maintenance activities.

Clean Air Act (CAA) of 1977 – The EPA established nationwide air quality standards to protect public health and welfare. The State of Texas has adopted the NAAQS as the state's air quality criteria. The project is located in Lamar County, which has attainment status. Existing operation and management of the reservoir is compliant with the CAA and will not change with the Master Plan revision.

Farmland Protection Policy Act (FPPA) of 1980 and 1995. The FPPA's purpose is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. Prime and Unique Farmland is present on Pat Mayse Lake project lands but will not be impacted by Master Plan revision.

Executive Order 11990, Protection of Wetlands – Executive Order 11990 requires federal agencies to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in executing federal projects. The operation and management of the existing project complies with Executive Order 11990.

Executive Order 11988, Floodplain Management – This Order directs federal agencies to evaluate the potential effects of proposed actions in floodplains. The operation and management of the existing project complies with Executive Order 11988.

Council on Environmental Quality Memorandum dated August 11, 1980, Prime or Unique Farmlands – Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. There is no farmland in the project or mitigation areas.

Executive Order 12898, Environmental Justice – This Order directs federal agencies to achieve environmental justice to the greatest extent practicable and permitted by law, and

consistent with the principles set forth in the report on the National Performance Review. Agencies are required to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. The revision of the Master Plan will not result in a disproportionate adverse impact on minority or low-income population groups.

Memorandum of Agreement (MOA) with the Federal Aviation Administration (FAA) to Address Aircraft Wildlife Strikes – This MOA was executed between the FAA, the U.S. Air Force, the U.S. Army, the EPA, the USFWS, and the U.S. Department of Agriculture. Through this MOA, the agencies establish procedures necessary to coordinate their missions to more effectively address existing and future environmental conditions contributing to aircraft-wildlife strikes throughout the United States. There are no airports located within five statute miles of the reservoir. Several small regional or private air fields are located in Lamar County and across the Red River in Oklahoma, but they range from 7 to 15 miles away from the project area. Therefore, the risk of aircraft-wildlife strikes is considered to be negligible, and no further coordination is required.

SECTION 5: AGENCY COORDINATION

The EA was coordinated with the following agencies having legislative and administrative responsibilities for environmental protection. On August 26, 2015 the Tulsa District and Regional Planning and Environmental Center (RPEC) released the revised draft of Pat Mayse Lake Master Plan for public and agency review. This review was open for comment until September 28, 2015 providing an opportunity for the public and agencies to comment on the Draft Master Plan, EA and FONSI. Two responses were received during the review period. The Choctaw Nation of Oklahoma respectfully deferred to the other Tribes contacted for comments and TPWD responded with no concerns or comments regarding the revision of the Master Plan. The mailing list for the 30-day public review period and comments received for this EA are in Appendix A.

U. S. Environmental Protection Agency

U.S. Fish and Wildlife Service

Texas Historical Commission

Red River Authority of Texas

Texas Parks and Wildlife Department

USDA Natural Resources Conservation Service

Red River Valley Association

Texas A&M Forest Service

Texas State Soil and Water Conservation Board

Texas Water Development Board

Texas Commission on Environmental Quality

City of Paris

Caddo Nation

Choctaw Nation of Oklahoma

Wichita and Affiliated Tribes of Oklahoma

Board of Lamar County Commissioners

Texas Parks & Wildlife

SECTION 6: LIST OF PREPARERS

Norman Lewis – Regional Economist of Regional Planning and Environmental Center, U.S. Army Corps of Engineers; 9 years experience.

Robert Morrow – Natural Resource Specialist of Regional Planning and Environmental Center, U.S. Army Corps of Engineers; 8 years experience.

Carolyn Murphy – Chief, Unit A NEPA and Cultural Resources Section of Regional Planning and Environmental Center, U.S. Army Corps of Engineers; 37 years cultural resource and NEPA compliance experience.

SECTION 7: REFERENCES CITED

- CEQ. Council of Environmental Quality. *Considering Cumulative Effects under the National Environmental Policy Act*. January 1997.
- CEQ. *Guidance on the Consideration of Past Actions in Cumulative Effects Analysis*. Memorandum dated June 24, 2005.
- IPCC. 2014. 2014 5th Assessment Report. Available on the internet at: http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml
- Kleiner, D. J. "JEFFERSON COUNTY". Handbook of Texas Online (<http://www.tshaonline.org/handbook/online/articles/hcj05>). Accessed June 10, 2014. Uploaded on June 15, 2010. Published by the Texas State Historical Association.
- NRCS. Custom Soil Resource Report for Lamar and Delta Counties, Texas, Pat Mayse Lake Prime Farmlands. 2015
- TCEQ. 2014. 2014 Texas Water Quality Inventory – Red River Basin. Available on the internet at: <https://www.tceq.texas.gov/waterquality/assessment/14twqi/14txir>
- TCEQ. 2015. 2015 Texas State Implementation Plan. Available on the internet at: <https://www.tceq.texas.gov/airquality/sip/>
- TPWD. Rare, Threatened, and Endangered Species of Texas. Available on the internet at: <http://www.tpwd.state.tx.us/gis/ris/es/>.
- TPWD. 2015. Information on Post Oak Savannah habitat available on the internet at: http://www.tpwd.state.tx.gov/landwater/land/habitats/port_oak.
- USACE. Final Feasibility Report and Final Environmental Impact Statement, Gulf Intracoastal Waterway, High Island to Brazos River, Texas. Prepared by the U. S. Army Corps of Engineers, Galveston District. September 2003.
- USACE. 2011. Sea-Level Change Considerations for Civil Works Programs. EC 1165-2-212. 1 October 2011.
- United States Census Bureau. 2014a. State and County QuickFacts, Texas. Available on the internet at: <http://quickfacts.census.gov/qfd/states/48000.html>.
- United States Census Bureau. 2014b. American Fact Finder. Available on the internet at: http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml
- USFWS. Listed Species by County. Available on the internet at: http://www.fws.gov/southwest/es/ES_ListSpecies.cfm. 2014

APPENDIX A: NEPA COORDINATION

AGENCY CORDINATION EXAMPLE LETTER



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
RED RIVER AREA
HUGO LAKE OFFICE
P.O. Box 99
Sawyer, OK 74756

Operations Division
Pat Mayse Lake

Agency Contact Information

Dear **Agency** :

The Tulsa District is initiating a review and revision of the master plan (MP) for Pat Mayse Lake, Texas. The MP is the strategic land management document that guides the comprehensive management and development of all project recreational, natural, and cultural resources throughout the life of a Corps lake project. It is a vital tool for efficient and cost-effective management, development, and use of project lands. We welcome your comments and participation in review and revision of the MP for Pat Mayse Lake.

An informal public workshop for discussion of the MP revision for Pat Mayse Lake is scheduled for 6:00 to 8:00 p.m. on February 26, 2015, at the Camp Maxey Training Facility, 6351 U.S. Highway 271 North, Powderly, Texas. The workshop will be come-and-go format with no formal presentation. We invite and encourage you to attend this workshop anytime between listed times, visit the information tables, and discuss MP issues with our staff. Comment forms will be provided at the workshop or you are welcome to submit comments in any form throughout the MP revision process.

Thank you for your interest in Pat Mayse Lake. We welcome your comments and participation at the public workshop and throughout the master plan review process. Questions should be directed to Mr. Kent Grimes, Pat Mayse Lake Manager, at 580-326-3345 or e-mail Kent.Grimes@usace.army.mil.

Sincerely,

Kent Grimes
Kent Grimes
Lake Manager

STAKEHOLDER MAILING LIST

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

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

Mr. Mark Wolfe
Executive Director
Texas Historical Commission
P.O. Box 12276
Austin, TX 78711

Mr. Curtis Campbell
General Manager
Red River Authority of Texas
3000 Hammon Road
Wichita Falls, TX 76310

Mr. Carter Smith
Executive Director
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744

Mr. Salvador Salinas
State Conservationist
USDA Natural Resources Conservation
Service
101 South Main Street
Temple, TX 76501

Mr. Richard Brontoli
Red River Valley Association
P.O. Box 709
Shreveport, LA 71162

Mr. Thomas G. Boggus
State Forester and Director
Texas A&M Forest Service
200 Technology Way, Suite 1281
College Station, TX 77845-3424

Mr. Rex Isom
Executive Director
Texas State Soil and Water Conservation
Board
P.O. Box 658
Temple, TX 76503

Mr. Kevin Patteson
Executive Administrator
Texas Water Development Board
1700 North Congress Avenue
Austin, TX 78701

Mr. Richard A. Hyde, P.E.
Executive Director
Texas Commission on Environmental
Quality
12100 Park 35 Circle
Austin, TX 78753

Mr. John Godwin
City Manager
City of Paris
135 SE 1st Street
Paris, TX 75460

Chair, Tamara Francis Fourkiller
Caddo Nation
P.O. Box 487
Binger, OK 73009

Dr. Ian Thompson, THPO
Choctaw Nation of Oklahoma
P.O. Drawer 1210
16th and Locust Street
Durant, OK 74072-1210

Mr. Gary McAdams
Wichita and Affiliated Tribes of
Oklahoma
P.O. Box 729
Anadarko, OK 73005

First Presbyterian Church
410 W. Kaufman Street
Paris, TX 75460
(903) 785-1715

Board of Lamar County Commissioners
Attn: Judge M.C. Superville Jr.,
119 North Main
Paris, TX 75460
Phone: 903-737-2411
Judge_Superville@co.lamar.tx.us

Ne TseO Trails Council
Boy Scouts of America
Attn: David Dean
P.O. Box 995
Paris, TX 75461
Phone: 903-784-2538

Texas Parks & Wildlife
Attn: Jack Jernigan
4200 Smith School Road
Austin, TX 78744
Phone: 903-982-7107
Jack.Jernigan@tpwd.texas.gov

City of Paris Utilities
Water/Sewer Production
Attn: Mr. Doug Harris
P.O. Box 9037
Paris, TX 75461-9037
Phone: (903) 784-2464

Powderly United Methodist Church
Attn: Mark Hutchison
131 CR 44060
Powderly, TX 75473
Cell: 903-715-0060
mark_hutchison_98@yahoo.com

Camp Maxey Training Center
6351 US Highway 271 N,
Powderly, TX 75473
(903) 732-3792

Benevolent & Protective Order of Elks
Paris Lodge No. 2433
Attn: Ed Miller
1150 Durango Dr.
Paris, TX 75461
Phone: 903-737-7112

Camp Kiwanis Foundation
Attn: Gary Pirtle
P.O. Box 554
Paris, TX 75461
Cell: 903-517-3566

United Pentecostal Church
Attn: Ronny Bolton
5075 Loop 286 SE
Paris, TX 75460
Office: 903-785-1281
Cell: 903-517-9773

PUBLIC ADVERTISEMENT ANNOUNCING MASTER PLAN REVISION

For comments received during NEPA Scoping Meeting held on Thursday, February 26, 2015 at Camp Maxey in Powderly, Texas refer to Chapter 7 in the Pat Mayse Lake Master Plan.

CLASSIFIED

Tuesday, February 10, 2015

Hugo News
Page 8

1 ANNOUNCEMENTS

Free Firewood in Hugo. Call Bob at 715-610-2356 (2/08/1)

7 LOST/FOUND

Found 1 Steer, South of Hugo. Contact Choctaw County Sheriff Office at 326-2000. (2/10/7)

12 HELP WANTED

Berry's Lawn Care and Landscape is now hiring for the 2015 mowing season. Pay is based on experience. Applications can be picked up at 212 East Bluff, Hugo, OK. (2/13/12)

Immediate opening for Medical Assistant. Must be proficient in Electronic Health Records Systems. Bring resume to Family Medical Clinic, 211 N 3rd Street, Hugo, OK. Must apply in person. (2/10/12)

Immediate openings for Welder/Fabricator. Must be able to layout and fabricate flatbed and equipment trailers. Must have reliable transportation and a good work history. Pay is production based and can range from \$12-\$20 per hour. Apply in person at Diamond T Trailer MFG on Hwy 3 one mile east of Batlan. (TFN)

***SIGN ON \$2000 BONUS CLASS A-CDL* DRIVERS WANTED**
for local sand & gravel hauling. Must be 23 years old. Min. 12 months experience Home nightly. Benefits. Weekly pay. Call 903-689-0796, or come by 8523 US Hwy. 271 North in Powderly to apply. Mon. - Fri. 8 a.m. - 5 p.m. CKJ TRUCKING, L.P. #206

Part Time Scale Clerk/Lab Tech
Computer skills a must. Must be able to multi-task, work flexible hours, and must have good phone skills and good people skills. Pay discussed at interview. To set up an interview call Traci at 580-326-0801

LOOKING FOR A JOB?
Builder needs help. Immediated opening. References required. Call 580-873-2377 or 903-272-0926

Healthcare Innovations Private Services
PCA

4 PUBLIC NOTICES

~ Announcing ~ OPEN HOUSE WORKSHOP

as related to the
Master Plan Review/Revision
Pat Mayse Lake, Texas

The Tulsa District, U.S. Army Corps of Engineers will host an open house workshop related to the review and revision of the project master plan (MP) for Pat Mayse Lake, Lamar County, Texas. Interested persons are invited to stop by the open house to visit the information tables and discuss the project with Corps personnel. The open house will be conducted between 6:00 - 8:00 p.m. on Thursday, February 26, 2015 in an informal, come-and-go format with no formal presentation. While attendees will be provided forms for providing input and comments on revision of the lake master plan, comments are welcome in any form throughout the MP revision process. The open house workshop will be held at:

Camp Masey Training Facility
6351 U.S. Highway 271 North
Powderly, Texas 75473

Thursday, February 26, 2015
6:00-8:00 p.m.

Master Plan (MP)

The Tulsa District is initiating a review and revision of the MP for Pat Mayse Lake. The MP is the strategic land management document that guides the comprehensive management and development of all project recreational, natural, and cultural resources throughout the life of a Corps project. It is a vital tool for efficient and cost-effective management, development, and use of project lands. Comments and questions regarding the open house workshop or MP revision process can be directed to:

Mr. Kent Grimes
Pat Mayse Lake Manager
P.O. Box 129
Powderly, TX 75473-0123

12 HELP WANTED

I believe I am defined by the care I give.

Home healthcare allows you to see one patient at a time like you imagined when you started your career. When you become a part of home healthcare, you become a part of your patients' lives.

Registered Nurses

- Work one-on-one with patients
- Treat a wide range of diagnoses
- Receive specialized training

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Visit us at gentiva.com/careers
Email shannon.brown2@gentiva.com
Immediate Opening in Hugo

GENTIVA
home health

Choctaw Memorial Hospital seeking help in the **Housekeeping/Laundry** Must be available to work all days & shifts

Applications can be obtained in the Administration Office at **Choctaw Memorial Hospital 1405 E. Kirk St. • Hugo, OK** Or Online at www.choctawmemorial.com No Phone Calls Please CMH is an Equal Opportunity Employer

Baptist Village of Hugo is currently accepting Applications for the following open positions on their Friends Team.

2-LPN's Full Time
1 LPN Part Time
CNA's and CMA's Full Time

All full time employees receive a full benefit package. For more information please call us at 580-326-8383 or come by the Village at 1200 West Finley Street in Hugo, or go to www.baptistvillage.org. Baptist Village

Baptist

13 WORK WANTED



Excavator & Dozer Service
Reliable Equipment Experienced Operators

- Demolition • Fence Rows
- Ponds • Debris Removal

Tyler Brisco
580-317-6148
Valliant, Ok

33 HOMES FOR SALE

3 bedroom 2 baths, large kitchen, carport, storage building on 11/2 lots. 50 E. Laurel, OK. \$31,500.00 580-326-3717 (3/10/3)

35 REAL ESTATE

Life Estate of Vernie Waley (just Life Estate only not property) \$15,081.00 interested call John Wadle 918-807-8585 (5/08/3)

42 AGRICULTURE

Hay for sale. Round bales \$40.00 each 873-995 or 873-2700. (2-27-11)

43 DRIVERS WANTED

CDL driver wants for oil and gas industry. Overnight travel on rare occasions only 972-207-4474 (2/10/14)

31 HOMES FOR RENT

2 bedroom 1004 W. Victor \$300.00 month \$200.00 deposit Call 580-317-7890 (2-27-31)

1600 square foot brick 4 bedroom 11/2 bath. Appliances \$675.00 month. Call 580-372-3335 (2/10/31)

2 Bedroom 2 Bath \$450.00 a month \$400.00 deposit 506 E. Lowery 580-317-7849 (2/10/31)

32 APARTMENTS FOR RENT

FOR RENT
Immediately available for rent - 2 bdrm disabled apartment. 2 & 3 bdrm apt available now. Rent based on income. On-site security personnel, c/h/a, washer/dryer hookups. Furnished w/ stove & frig. Full time maintenance staff and lawncare provided. Apply at: 548 1/2 Southwind Acres (580) 326-7842

18 AUTOS FOR SALE

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1500 N.E. Loop 288, P.O. Box 77
903-784-9400 COME EXPERIENCE THE DIFFERENCE

<p>2012 CHEVROLET CRUZE LT</p>  <p>STK. #P1341 \$15,984</p>	<p>2012 FIAT 500</p>  <p>STK. #P1392 \$13,987</p>
<p>2006 GMC ENVOY DENALI</p>  <p>STK. #P1359A \$10,987</p>	<p>2011 CHEVROLET CAMARO CONVERTIBLE S!</p>  <p>STK. #P1340 \$415 / per month</p>
<p>2009 TOYOTA CAMRY</p>  <p>STK. #P1375 \$185 / per month</p>	<p>2006 CADILLAC DTS</p>  <p>STK. #P1248A \$9,956</p>
<p>2004 HONDA ACCORD LX-V6</p>  <p>STK. #256370A \$8,472</p>	<p>2012 VOLKSWAGEN BEETLE W/SUNROOF</p>  <p>STK. #P1368 \$260 / per month</p>
<p>2008 HYUNDAI VERACRUZ</p>  <p>STK. #P1362 \$15,898</p>	<p>2007 CHEVROLET TAHOE LS</p>  <p>STK. #006115A \$310 / per month</p>

15 GARAGE SALES

GARAGE SALE
ATTENTION TO ALL GARAGE SELLERS
HUGO NEWS PUBLISHES 2X A WEEK ON TUESDAY AND FRIDAY
BE SURE & HAVE YOUR AD IN BEFORE 10:00 A.M. ON THE MONDAY BEFORE YOUR SALE. THIS WILL INSURE THAT YOUR AD WILL BE PRINTED ON TUESDAY AND FRIDAY BEFORE THE SALE

32 APARTMENTS FOR RENT

1 and 2 Bedrooms • Kitchen Appliances Furnished • Utility Room with Washer & Dryer Hook-up • HUD Assistance to those who qualify
For Handicapped, Senior Citizens, and Disabled
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US Army Corps of Engineers
BUILDING STRONG

Corps to hold open house workshop for Pat Mayse Lake master plan review, revision

Posted 2/10/2015

Release no. 15-006

Contact

Sara Goodeyon 918-669-7342

TULSA, Okla. — The Tulsa District, U.S. Army Corps of Engineers will host an open house workshop to review and revise the project master plan for Pat Mayse Lake, at the Camp Maxey Training Facility, 6351 U.S. Highway 271 North, Powderly, Texas, Feb. 26 from 6-8 p.m.

This will be an informal come-and-go open house with no formal presentation. Interested persons can attend the open house workshop to visit the information tables and discuss the project with Corps personnel.

Forms will be available for attendees to use to provide input and comments about the revision of the lake master plan. Comments are also welcome in any form throughout the master plan revision process.

The master plan is a strategic land management document that guides the comprehensive management and development of all project recreational, natural and cultural resources throughout the life of a Corps project. It is a vital tool for efficient and cost-effective management, development and use of project lands.

Comments and questions regarding the open house workshop or master plan review process for Pat Mayse Lake may be directed to Pat Mayes Lake Manager Kent Grimes, P.O. Box 129, Powderly, Texas 75473-0123, and email: Kent.Grimes@usace.army.mil

-30-

COMMENTS RECEIVED DURING PUBLIC COMMENT PERIOD

From: [Karen Hardin](#)
To: [Nolen, Stephen L SWT](#)
Subject: [EXTERNAL] OD-NR Pat Mayse Lake Master Plan Revision, TPWD Project 35271
Date: Wednesday, September 30, 2015 9:03:46 AM

Mr. Stephen L. Nolan,

The Texas Parks and Wildlife Department (TPWD) received the August 26, 2015 notice regarding the Draft Master Plan and Draft Environmental Assessment for revisions to the existing Pat Mayse Lake, Texas Master Plan. The U.S. Army Corps of Engineers Tulsa District and Regional Planning and Environmental Center have revised the plan to meet current guidelines.

In summary, there would be no changes to the current land management at the lake. The only changes are to update the plan to reflect new guidance which includes renaming the land classifications, as follows:

Table 8.1 Reclassification Proposals

Reclassification Proposal 1: Update park roads, boat ramps, parking and camping sites (This is based on public input at the public meeting. The only public input was for updates to these amenities.) These requests do not result in a change in land classification at Pat Mayse Lake.

Reclassification Proposal 2: Reclassify all lands classified as Operations: Recreation Intensive Use to High Density Recreation Use. Current Master Plan guidance does not include the classification title of Operations: Recreation Intensive Use. High Density Recreation Use is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.

Reclassification Proposal 3: Reclassify all lands classified as Natural Area to Multiple Resource Management Lands: Low Density Recreation. Current Master Plan guidance does not include the classification title of Natural Area. Multiple Resource Management Lands: Low Density Recreation is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.

Reclassification Proposal 4: Reclassify all lands classified as Fish and Wildlife Land to Multiple Resource Management Lands: Wildlife Management. Current Master Plan guidance does not include the classification title of Fish and Wildlife Land. Multiple Resource Management Lands: Wildlife Management is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.

Reclassification Proposal 5: Reclassify all lands classified as Water Area to Multiple Resource Management Lands: Water Surface. Current Master Plan guidance does not include the classification title of Water Area. Water Surface is the appropriate title change under ER 1130-2-550 and EP 1130-2-550.

TPWD staff have reviewed the Draft Master Plan and Draft Environmental Assessment and have no concerns or comments.

Thank you for the opportunity to provide input on the proposed project.

Sincerely,

Karen Hardin

Habitat Assessment Biologist

Wildlife Habitat Assessment Program

Texas Parks and Wildlife Department

4200 Smith School Road

Austin, TX 78744

(903)322-5001

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<Blocked<http://www.conservationplate.org>>

From: [Daniel R. Ragle](#)
To: [Nolen, Stephen L SWT](#)
Subject: [EXTERNAL] RE: Pat Mayse Lake, Texas Master Plan
Date: Monday, September 28, 2015 3:40:20 PM

Mr. Nolen,

The Choctaw Nation of Oklahoma thanks you for the correspondence regarding the above referenced project. The Choctaw Nation of Oklahoma respectfully defers to the other Tribes that have been contacted. If you have any questions, please contact me by email.

Thank You,

Daniel Ragle

NHPA Section 106 Reviewer

Choctaw Nation of Oklahoma

Historic Preservation Department

P.O. Box 1210

Durant, OK 74702

(580)924-8280 ext. 2727

dragle@choctawnation.com <<mailto:dragle@choctawnation.com>>

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