

**FINAL ENVIRONMENTAL ASSESSMENT
WITH
FINDING OF NO SIGNIFICANT IMPACT**

**Wappapello Lake Master Plan Update
U.S. Army Corps of Engineers
Wappapello Lake Project
Wayne and Butler Counties, Missouri**



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1 INTRODUCTION

Wappapello Lake is a 44,000 acre project which offers the public a wide variety of outdoor recreation activities while still serving its purpose as a public-owned flood risk management reservoir within the St. Francis River Basin (Figure EA-1). The Lake covers approximately 8,000 acres, while a variety of habitat types are managed within the 36,000 acres of terrestrial land. Approximately 3,000 acres are utilized for open land management such as row crops and food plot plantings, successional mowing and discing, prescribed burning and managed wetlands. The remaining 32,000 acres are forested areas that highlight the unique hunting and hiking experience of the Ozark Region (Figure EA-2). Recently, a timber management program has been implemented with in order to reduce erosion, regenerate forests, and promote forest tree and shrub species beneficial to wildlife.

1.1 Project Location

Wappapello Lake is located on the Upper St. Francis River in southeastern Missouri. The dam site lies 22 miles southeast of Greenville, MO, one mile southwest of Wappapello, MO, and 16 miles northeast of Poplar Bluff, MO. Although most of the lake is in Wayne County, a small southern portion extends into Butler County (Figure EA-1).

1.2 Project Authorization

Federal laws provide that land and water areas of U. S. Army Corps of Engineers (Corps) water resource projects, constructed for the primary purposes of flood risk reduction management, navigation and/or power, shall be administered to encourage and develop collateral uses, such as recreation, conservation of fish and wildlife resources and other purposes in the public interest. The St. Francis Basin Project, which includes Wappapello Dam and Lake, was authorized for flood control by the Flood Control Act, approved 15 June 1936 (Overton Act), and amended by subsequent Flood Control Acts. Development and use of flood-control reservoir areas for recreational and related purposes was authorized by Section 4 of the Flood Control Act, approved 22 December 1944, and amended by the Flood Control Act approved 24 July 1946 and Section 209 of the Flood Control Act of 1954, approved 3 December 1954. The Fish and Wildlife Coordination Act, enacted 10 March 1934, as amended, provides authority for making project lands of value for wildlife purposes available for management by interested federal and state wildlife agencies.

1.3 Need for the Proposed Action

The St. Louis District proposes to adopt and implement a revision of the Wappapello Lake Master Plan. The Master Plan applies changes to land classifications, most notably assigning land classifications to

recently acquired land parcels not covered by the 2000 Master Plan, as well as changing land classification in one area. The land classification change and initial land classifications would take effect at the time the updated Master Plan is approved. The Master Plan also lays out future recommendations for management of both recreation and natural resources.

1.4 Purpose of the Proposed Action

The Master Plan is defined by the U.S. Army Corps of Engineers as 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 a Corps water resources development project. The Master Plan presents an inventory and analysis of land resources, resource management objectives, land classifications, resource use plans for each land classification, current and projected park facility needs, an analysis of existing and anticipated resource use, and anticipated influences on overall project operation and management. In general, it defines “how” the resources will be managed for public use and resource conservation. Through the implementation of updated Master Plans, project managers can provide responsible and timely protection, conservation, and enhancement of Project resources. Table EA-1 lists the land classification categories and subcategories per EP 1130-2-550, Chapter 3, Change 5 dated 31 Jan 2013).

Table EA-1. Land Classification Categories, Subcategories, and Descriptions.

Land Classification Categories and Subcategories	Description
Project Operations	Lands required for the dam, spillway, switchyard, levees, dikes, offices, maintenance facilities, and other areas that are used solely for the operation of the Project.
High Density Recreation	Lands developed for intensive recreational activities for the visiting public including day use and/or campgrounds, commercial concessions, marinas, comprehensive resorts, and major boat ramps.
Mitigation	Lands with an allocation of “Mitigation” and that were acquired specifically for the purposes of offsetting loses (normally ecological losses) associated with development of the Project.

Land Classification Categories and Subcategories	Description
Environmentally Sensitive Areas	Areas where scientific, ecological, cultural, or aesthetic features have been identified. These areas must be considered by management to ensure that they are not adversely impacted. These areas are typically distinct parcels located within another, and perhaps larger, land classification area.
Multiple Resource Management	This classification allows for the designation of a predominate subclass use as listed below, with the understanding that other compatible subclass uses listed below may also occur on these lands.
 Recreation – low density	Lands with minimal development or infrastructure that support passive public recreational use (i.e., primitive camping, fishing, hunting, trails, wildlife viewing, etc.).
 Wildlife Management	Lands designated for stewardship of fish and wildlife resources.
 Vegetative Management	Lands designated for stewardship of forest, prairie, and other native vegetative cover.
 Future or Inactive Recreation Areas	Areas with site characteristics compatible with potential future recreational development or recreation areas that are closed. Until there is an opportunity to develop or reopen these areas, they will be managed for multiple resources.
Water Surface	Surface water zoning.
 Restricted	Water areas restricted for Project operations, safety, and security purposes.
 Designated No-Wake	To protect environmentally sensitive shoreline areas, residential water access areas from disturbance, and for public safety.
 Fish and wildlife Sanctuary	Annual or seasonal restrictions on areas to protect fish and wildlife species during periods of migration, resting, feeding, nesting, and/or spawning.

Land Classification Categories and Subcategories	Description
 Open recreation	Waters available for year-round or season water-based recreational use.

1.5 Proposed Action

Numerous proposed actions have been included in the updated Master Plan, including land classification changes; assigning land classification to recently acquired land; adjusting acreages as a result of such changes and based on more accurate mapping capabilities; evaluating road raise and/or relocation plans; updating plates to reflect changes since the 2000 Master Plan was prepared; and a listing of future undertakings such as new construction and facility replacement. As funding becomes available for a future Proposed Action identified in the Master Plan, an environmental compliance review will be completed prior to any decisions or commitment of resources being made.

The U.S. Army Corps of Engineers (USACE), St. Louis District, has prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality’s Regulations (40 Code of Federal Regulations §1500-1508, as reflected in the USACE Engineering Regulation 200-2-2). The EA evaluates potential impacts on relevant environmental resources in the natural and human environment that would be *implemented immediately upon the approval of the updated Master Plan*.

1.5.1 Proposed Actions to be Implemented Immediately upon Approval of the Updated Master Plan

USACE is proposing to implement land classification changes for Wappapello Lake Project lands as identified in the Master Plan; as well as to assign land classifications to recently acquired land parcels not covered by the 2000 Master Plan. The land classification changes and initial land classifications would take effect at the time the updated Master Plan is approved. Proposed land classification actions are shown in Table EA-2. At this time, no actions other than land classification / reclassification are being proposed within the parcels covered in this EA.

Table EA-2. Proposed land classification actions.

Name	Former Classification	New Classification	Total Acreage	Management Location	Information	NEPA Compliance for Acquisition
Land Classification Change						
Blue Springs	High Density Recreation	Multiple Resource Management-Vegetative Management	60	MR-VM-9	The Boy Scouts of America relinquished their lease and all facilities have been removed	N/A
Total Acres Reclassified as Multiple Resource Management- Vegetative Management: 60.00						
Initial Land Classifications						
Lake Wappapello State Park	Unclassified (Non-USACE property)	High Density Recreation	2.92	R-4	Former Lake Beach Inholding (1 parcel)	Acquisition of Inholding Land Parcels EA, FONSI signed 15 Jul 2016
Peoples Creek	Unclassified (Non-USACE property)	High Density Recreation	0.34	R-15	Former Ferry Point Inholdings (2 parcels)	Acquisition of Inholding Land Parcels EA, FONSI signed 15 Jul 2016
Total Acres Classified as High Density Recreation: 3.26						
Asher/Bluewater Creek	Unclassified (Non-USACE property)	Multiple Resource Management-Vegetative Management	38.5	MR-VM-2	Adjacent lands purchased to reduce flood concerns or access (5 parcels)	Acquisition of Inholding Land Parcels EA, FONSI signed 15 Jul 2016

Name	Former Classification	New Classification	Total Acreage	Management Location	Information	NEPA Compliance for Acquisition
St. Francis West	Unclassified (Non-USACE property)	Multiple Resource Management-Vegetative Management	240	VM-5	FF Highway subordination	Wappapello Lake Road Relocation Project EA, FONSI signed 28 Mar 1996
Lost Creek	Unclassified (Non-USACE property)	Multiple Resource Management-Vegetative Management	28	VM-10	Mitigation land for 69-KV transmission line and substation	Wappapello Lake M&A Electric Power Cooperative, Inc., 69-KV Transmission Line and Substation EA with Mitigation Plan, FONSI signed 8 Dec 1999
Lost Creek	Unclassified (Private ownership)	Multiple Resource Management-Vegetative Management	10	VM-10	Land purchased adjacent to a road raise project and to protect environmentally sensitive area.	Environmental Compliance - Acquisition of Inholding Land Parcels EA, FONSI signed 15 Jul 2016
Total Acres Classified as Multiple Resource Management- Vegetative Management: 316.50						

2 ALTERNATIVES CONSIDERED

2.1 Alternative 1 - No Action Alternative

Under this alternative, the former Poole Lodge Recreation Area, which was previously classified as High Density Recreation would remain so, even though the Boy Scouts of America have relinquished their lease and all facilities have been removed. High Density Recreation Lands are designed for intensive recreational activities for the visiting public including day use and/or campgrounds, commercial concessions, marinas, comprehensive resorts, and major boat ramps. These types of facilities no longer exist in this area.

The parcels which have been acquired since the 2000 Master Plan was prepared would remain unclassified, and the primary use for which the lands should be managed would remain undefined.

2.2 Alternative 2 - Land Classification Alternative

The 60-acre former Poole Lodge Recreation Area would be reclassified from High Density Recreation to Multiple Resource Management - Vegetative Management. Additionally, under this alternative, approximately 3.26 acres would be classified as High Density Recreation, and 316.5 acres would be classified as Multiple Resource Management - Vegetative Management. Environmental compliance for acquisition of each parcel has been completed and is listed in Section 1.5.1 of this EA.

2.3 Recommended Alternative

The Recommended Alternative is Alternative 2 – Land Classification Alternative.

Approximately 3.26 acres would be classified as High Density Recreation, which are lands developed to provide for the recreational activities of the visiting public. No agricultural uses are permitted on these lands except on an interim basis where the terrain is adaptable for maintenance of open space and/or scenic values. Factors such as road access, natural resources, recreational facility design and management practices make these lands conducive to accommodating major use by the visiting public. Lands in this classification include areas for concessions and group use development.

Approximately 376.50 acres would be classified as Multiple Resource Management - Vegetative Management. Vegetative Management activities for these lands include protection and development of forest and vegetative cover, as well as wetland restoration. These lands are

available to the public for hiking, walk-in hunting, fishing and nature study. All lands in government fee ownership are managed to maintain forest resources for recreation, wildlife and scenic values. Timber is harvested when required to achieve other management objectives such as wildlife habitat improvement.

This alternative would accurately define current land use for each parcel, and provide guidance for the orderly development, use and management of the lake's resources.

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

3.1 Topography and Geology

The area around the Lake lies on the edge of the Uplands and is often referred to as the Poplar Bluff Brown Iron District of the Ozark Foothills. The topography of the Lake is characterized by steeply sloping hills with dense forest cover. The valleys, which are tributaries to the St. Francis River, are generally narrow. The Lake lies adjacent to the Southeastern Lowlands province, an area of flat, poorly drained land that occupies extreme southeastern Missouri.

Wappapello Lake lies within the southeastern limits of the Salem Plateau section of the Ozark Plateau Physiographic Province. This province is frequently referred to as the Ozark Dome since the area is topographically an east-west elongated dome of outward dipping Paleozoic rocks. The Salem Plateau section contains most of the higher summits of the province.

Rock formations in the area consist of lower Paleozoic sedimentary rocks, primarily Ordovician calcium and magnesium carbonates. Since carbonate rocks are somewhat soluble in groundwater, karst features such as caves, springs and sinkholes are common throughout the area.

Alternative 1 – No Action (Future without Project) – The current status is anticipated to remain unchanged.

Alternative 2 – Land Classification Alternative – No changes to topography or geology are anticipated due to the proposed land classification actions.

3.2 Aesthetics

When Wappapello Lake was created, the rugged terrain and many small tributaries along the St. Francis River created an irregular shoreline. As a result, a variety of coves can be found around

the lake. At normal recreation pool, the lake is approximately 28 miles long, with an average width of 1.3 miles and average depth of 6.5 feet, although some areas are up to 45 feet deep. Wooded hills along the bluffs near the lake add to the scenic value.

Alternative 1 – No Action (Future without Project) – The current status is anticipated to remain unchanged.

Alternative 2 – Land Classification Alternative – The 376.50 acres classified as Multiple Resource Management - Vegetative Management would be maintained in forest and vegetative cover, as well as wetlands. This is highly aesthetically pleasing to many people. The 3.26 acres classified as High Density Recreation may be further developed for public use, which is aesthetically appealing to some people.

3.3 Land Cover

Presently, land-use in the upper sub-basin of the St. Francis River watershed can be classified as 77 percent woodland, 10 percent grassland, 7 percent cropland and 6 percent other uses.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – The 376.50 acres classified as Multiple Resource Management - Vegetative Management would be maintained in forest and vegetative cover, as well as wetlands. The 3.26 acres classified as High Density Recreation would be maintained for intensive recreational activities for the visiting public.

3.4 Noise

Noise associated with recreation, vehicular traffic, and agriculture are common. In general, noise emissions do not typically exceed about 60 dB, but may attain 90 dB or greater, especially noise involving hunting and power equipment work. (Figure EA-2).

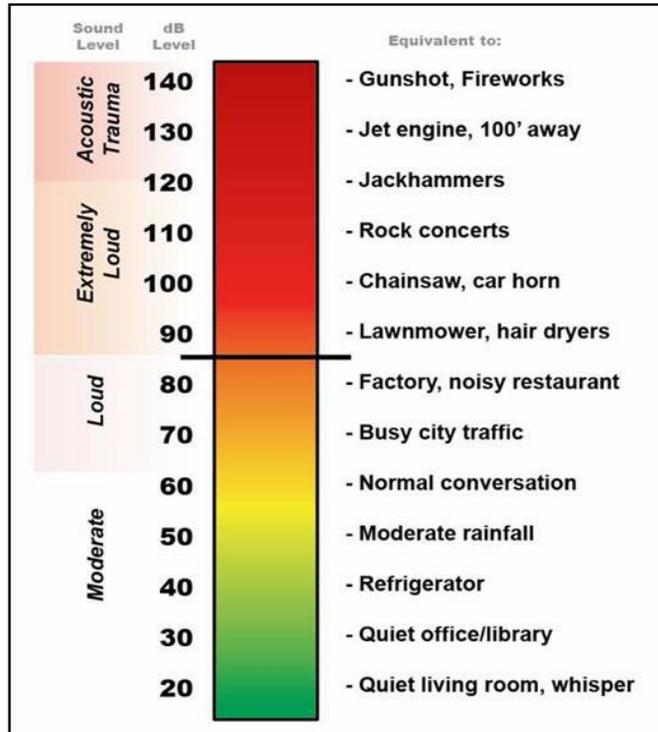


Figure EA-2. Examples of the sound level and decibel (dB) level of various sources.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – Minimal changes to noise are anticipated due to the proposed land classification action. It is anticipated that the newly reclassified and classified areas would be used in a manner similar to USACE property with the same designation.

3.5 Air Quality

The EPA has established National Ambient Air Quality Standards for six principal pollutants with set standards aimed at providing public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. The six principal pollutants and their corresponding standards are listed in Table EA-3. Wayne and Butler counties (Missouri) are currently in attainment for all six principal pollutants (USEPA 2019).

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – No changes to air quality are anticipated due to the proposed land classification actions.

Table EA-1. List of six principal pollutants and their corresponding measurement form and criteria as published by the U.S. EPA.

Pollutant	Averaging time	Criteria	Form
Carbon monoxide	8 hours (primary)	9 ppm	Not to be exceeded more than once per year
	1 hour (primary)	35 ppm	
Lead	Rolling 3 month Average (primary and secondary)	0.15 µg/m ³	Not to be exceeded
Nitrogen dioxide	1 hour (primary)	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	1 year (primary and secondary)	53 ppb	Annual Mean
Ozone	8 hours (primary and secondary)	0.070 ppm	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution (PM _{2.5})	1 year (primary)	12.0 µg/m ³	Annual mean, averaged over 3 years
	1 year (secondary)	15.0 µg/m ³	Annual mean, averaged over 3 years
	24 hours (primary and secondary)	35 µg/m ³	98th percentile, averaged over 3 years
Particle Pollution (PM ₁₀)	24 hours (primary and secondary)	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur dioxide	1 hour (primary)	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	3 hours (secondary)	0.5 ppm	Not to be exceeded more than once per year

3.6 Surface Water and Surface Water Quality

Wappapello Lake is a medium depth reservoir located in the Ozark Hills with woodlands as the primary land use in the watershed entering the lake. The clear lake tends to become stratified in the summer, resulting in low dissolved oxygen levels in the shallows and elevated levels of soluble iron and manganese. Wappapello Lake is not included on the Missouri Department of Natural Resources' 2018 303(d) List of Impaired Waters.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – No changes to surface water or surface water quality are anticipated due to the proposed land classification actions.

3.7 Groundwater and Groundwater Quality

The limestone, dolomite, and sandstone bedrock in this region yields high quality ground water and enough volume to adequately supply urban, industrial, and other needs. The subsoil has moderate to high infiltration rates, which contributes to the recharge of groundwater supplies. Because of the high infiltration rates, groundwater contamination risks are moderate to high.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – No changes to groundwater or groundwater quality are anticipated due to the proposed land classification actions.

3.8 Hydrological Conditions

Wappapello Dam and Lake regulates the runoff from 1,310 square miles of drainage area within St. Francis River Basin. At normal recreation pool, the lake is approximately 28 miles long, with an average width of 1.3 miles and average depth of 6.5 feet, although some areas are up to 45 feet deep. Wappapello Lake contains a relatively small amount of storage at low lake elevations, particularly between the bottom of the flood control pool (stage 354.74 feet) and recreation pool (stage 359.74 feet).

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – No changes to hydrological conditions are anticipated due to the proposed land classification actions.

3.9 Recreation

Wappapello Lake is a Federally managed project that includes areas designated for recreation. Wappapello Lake has ample recreational opportunities including birding, hiking, camping, boating/canoeing, and fishing.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – The acquisition of a 2.92 acre parcel at Wappapello Lake State Park and a 0.34 acre parcel at Peoples Creek would result in an increase of 3.26 acres of lands classified as High Density Recreation.

3.10 Historic Properties

There are more than 400 known cultural properties at Wappapello Lake. Most of the sites at the Lake were identified during pre-impoundment surveys, but more recent cultural resource management activities continue to identify additional sites. As many as one-fifth of the site count total are comprised of historic sites, some dating back to the founding and settlement of Wayne County. The remainder are prehistoric sites that may date to 10,000 B.C. or even earlier. However, the majority of the prehistoric sites in the area are probably more recent and represent Lake Archaic (ca. 1,000 B.C.), Woodland (ca. 500 B.C. to A.D. 900), and Mississippian sites (ca. A.D. 900 to A.D. 1,500). As these properties are in federal ownership, all historic properties are currently, and will remain, subject to the National Historic Preservation Act of 1966, as amended (NHPA).

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – No changes to historic properties or cultural resources are anticipated due to the proposed land classification actions. All federal properties are currently, and will remain, subject to the National Historic Preservation Act of 1966, as amended. At this time, no actions other than land classification / reclassification are being proposed within the parcels covered in this EA. However, if any future undertakings are proposed, they will require a complete environmental compliance review during the planning stage.

3.11 Tribal Consultation

Consultation with federally recognized Native American Indian Tribes is required for any undertaking activity on these properties to ensure compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. St. Louis District has previously established relationships and regularly consults with 28 Indian Tribes that have ties to, or an interest in, the District's region. Any future actions or undertaking affecting these properties will be coordinated with all tribes in the following manner:

- An initial letter to the tribes will describe the location of the proposed action. Maps of the areas and a description of the types of impacts resulting from the action will also be included.
- The tribes will be requested to contact the USACE if there are known tribal areas of concern in any of the project areas and if they desire further consultation on each or any project.
- Depending on tribal response, the USACE will continue the consultation process until the completion of the project.
- Further, in the event of the discovery of any potential prehistoric human remains, the appropriate steps would be taken under the Native American Graves Protection and Repatriation Act.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – No changes to tribal resources are anticipated due to the proposed land classification actions. At this time, no actions other than land classification / reclassification are being proposed within the parcels covered in this EA.

3.12 Aquatic Resources

The area has several forested tributary waterways flowing to Wappapello Lake: Three Forks Creek, Crane Creek, Happy Hollow Creek, Little Lake Creek, Hickory Flat Creek, East and West Forks of Lost Creek, Big Lake Creek, and Holliday Creek. These are either permanent or intermittent streams with gravel/cobble substrate and slow to small riffle flow.

Wappapello Lake is home to many fishes that are typical of Midwestern waters. Major recreational species include: white and black crappie; bluegill; green sunfish; red ear sunfish; long ear sunfish; largemouth bass; white bass; channel, blue, and flathead catfishes; gizzard shad; and

a variety of other fish species. In order to improve reproductive success for the gizzard shad, the Wappapello Lake Fishery Management Plan recommends that the lake be maintained at a stable, or rising, elevation if possible during the shad spawning period.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – No changes to aquatic resources are anticipated due to the proposed land classification actions.

3.13 Wetlands

Intermittent forested streams act as tributaries to Wappapello Lake. The area surrounding these streams are either emergent, forested, or shrub/scrub wetlands. The 2017 National Wetland Inventory classifies a total of approximately 1.14 acres of riverine habitat within the land classification parcels (Table EA-4).

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – With acquisition of the new parcels, approximately 1.14 acres of riverine wetland would be added to the Wappapello Lake project.

3.14 Terrestrial Resources

The original flora of Wappapello Lake consisted of woodlands that were part of the eastern temperate deciduous forest formation composed primarily of oak-hickory. Over 80 percent of the 20,172 acres of woodland found on public lands at Wappapello Lake are of this type. Major species include white oak, black oak, shagbark hickory, and mockernut hickory. The drier ridgetops are dominated by pignut hickory and post oak. Shortleaf pine and pine-oak mixture stands are found where a sandstone soil base exists. Eastern red cedar may be locally abundant where limestone is close to the surface. Toward the ravines and lower elevations, the oak-hickory association grades into stands possessing more mesic species such as red oak and chinquapin oak, white ash, green ash, basswood, black walnut, and bitternut hickory. Persimmon, blackgum, butternut, and sugar maple occur here also. On the low, poorly drained bottomland, sycamore, sweetgum, cottonwood, and river birch predominate. Understory trees of the uplands include redbud, flowering dogwood, and shadbush.

Table EA-4. Description of wetlands identified within land classification parcels.

Parcel Name	Former Classification	New Classification	Total Acreage	Management Location	Information	Wetland Type	Wetland Acreage
Blue Springs	High Density Recreation	Multiple Resource Management-Vegetative Management	60	MR-VM-9	Former Boy Scouts of America lease (former Poole Lodge Recreation Area)	N/A	0.0
Lake Wappapello State Park	Unclassified (Non-USACE property)	High Density Recreation	2.92	R-4	Former Lake Beach Inholding (1 parcel)	N/A	0.0
Peoples Creek	Unclassified (Non-USACE property)	High Density Recreation	0.34	R-15	Former Ferry Point Inholdings (2 parcels)	N/A	0.0
Asher/Bluewater Creek	Unclassified (Non-USACE property)	Multiple Resource Management-Vegetative Management	38.5	MR-VM-2	Adjacent lands purchased to reduce flood concerns or access (5 parcels)	N/A	0.0
St. Francis West	Unclassified (Non-USACE property)	Multiple Resource Management-Vegetative Management	240	VM-5	FF Highway subordination	Riverine	0.16
Lost Creek	Unclassified (Non-USACE property)	Multiple Resource Management-Vegetative Management	28	VM-10	Mitigation land for 69-KV transmission line and substation	Riverine	0.97
Lost Creek	Unclassified (Private ownership)	Multiple Resource Management-Vegetative Management	10	VM-10	Land purchased adjacent to a road raise project and to protect environmentally sensitive area.	Riverine	0.01

The extensive deciduous forest and woodland-aquatic edge habitat creates a diverse landscape that supports numerous wildlife species. Otters and beavers are found along the St. Francis River and Wappapello Lake, as well as game species such as eastern cottontails, bobwhite quail, and squirrels. Deer and wild turkey are abundant as are migratory waterfowl, which use the lake for resting and feeding during the fall and winter months.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – Land classified as High Density Recreation lands are developed to provide for the recreational activities of the visiting public. No agricultural uses are permitted on these lands except on an interim basis where the terrain is adaptable for maintenance of open space and/or scenic values. Visitors would benefit from the High Density Recreation land classification.

Management activities for land classified as Vegetative Management include protection and development of forest and vegetative cover and wetland restoration. Use of these lands may also include hiking, walk-in hunting, fishing and nature study. All lands in government fee ownership would be managed to maintain forest resources for recreation, wildlife and scenic values. Timber would be harvested when required to achieve other management objectives such as wildlife habitat improvement. Terrestrial resources would benefit from the Vegetative Management land classification.

3.15 Threatened and Endangered Species

The U.S. Fish and Wildlife Service (USFWS) was contacted via USFWS Information for Planning and Consultation (IPaC) website on 10 July 2019, for a list of Federally threatened, endangered and candidate species that could potentially be located in the project areas (Consultation Code: 03E14000-2019-SLI-2326; Event Code: 03E14000-2019-E-05391). Table EA-5 presents the official IPaC species list provided pursuant to Section 7 of the Endangered Species Act (ESA). There are no critical habitats within the proposed land classification parcels.

Table EA-5. Federally listed endangered or threatened species that may occur in the proposed project location, and/or may be affected by the proposed project in Wayne and Butler Counties, Missouri.

Common Name (Scientific Name)	Federal Listing Status	Habitat	Species Present In Proposed Action Area?	Does Potentially Suitable Habitat Exist In Proposed Action Area?	Potentially Suitable Habitat Affected By Proposed Action?
Gray Bat <i>Myotis grisescens</i>	Endangered	Hibernates and roosts in caves; forages over water, along shorelines, and in riparian forest.	Yes	Yes – foraging and drinking habitat (streams, lake).	No
Indiana Bat <i>Myotis sodalis</i>	Endangered	Caves and mines (hibernacula); small stream corridors with well-developed riparian woods, upland forests (foraging).	Yes	Yes – roosting, foraging, drinking, and stopover/migration habitat	No
Northern Long-eared Bat <i>Myotis septentrionalis</i>	Threatened	Caves and mines (hibernacula); small stream corridors with well-developed riparian woods, upland forests (foraging).	Yes	Yes – roosting, foraging, drinking, and stopover/migration habitat	No
Rabbitsfoot <i>Quadrula cylindrica cylindrica</i>	Threatened	Small to medium- sized streams and some larger rivers; shallow areas along the bank and adjacent runs and riffles with gravel and sand substrates where water velocity is reduced.	No	No	No
Snuffbox Mussel <i>Epioblasma triquetra</i>	Endangered	Small- to medium-sized creeks in areas with a swift current; sand, gravel, or cobble substrates.	No	No	No

3.15.1 Gray Bat (*Myotis grisescens*)

The Gray Bat is a species that has a limited range in limestone karst areas of the southeastern United States, including several Illinois and Missouri counties. Gray Bats typically roost in caves year-round. During winter, Gray Bats hibernate in deep, vertical caves, and during summer, Gray Bats generally roost in various caves, but have been documented roosting under bridges and in other structures. Gray Bats forage on a variety of night-flying aquatic and terrestrial insects, and use water features and forested riparian corridors for foraging and travel.

Gray Bats are endangered largely because of their habitat of living in large numbers in only a few caves, thus making the species vulnerable to human disturbance and habitat loss or modification. Disturbance of Gray Bats in their caves during their hibernation can cause them to use their energy reserves and could lead to starvation. Disturbances to their caves during their nursing season (June and July) can frighten females causing them to drop non-volant pups to their death in panic to flee from the intruder. Additionally, many important caves that have been historically used by Gray Bats have been inundated by reservoirs. The commercialization of caves, and alterations of the air flow, temperature, humidity, and amount of light can make the cave unsuitable habitat for Gray Bats and drive bats away. Suitable Gray Bat winter and summer habitat may be located in the vicinity of Wappapello Lake. The fatal bat disease, white-nose syndrome (WNS), has been documented to adversely affect the Gray Bat. Gray Bats are cave obligates, and considering how WNS has decimated other cave-dwelling bat species, WNS could be a significant threat to the Gray Bat.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – The proposed land classification changes would not affect any caves or summer roost / foraging habitat (i.e.; caves, forested riparian habitat). In the event that tree removal is required for management activities, removal of trees greater than 3” diameter breast height (dbh) would be limited to the non-active season, defined in Missouri as 1 November – 31 March. Future management activities would also require separate environmental compliance reviews, including NEPA and ESA, as appropriate. Therefore, the St. Louis District has determined that the Recommended Alternative “*may affect, but is not likely to adversely affect*” the Gray Bat.

3.15.2 Indiana Bat (*Myotis sodalist*)

The endangered Indiana Bat has been noted as occurring in several Illinois and Missouri counties. Indiana Bats are considered to potentially occur in any area with forested habitat. Indiana Bats migrate seasonally between winter hibernacula and summer roosting habitats. Winter hibernacula includes caves and abandoned mines. Females emerge from hibernation in late March or early April to migrate to summer roosts. Females form nursery colonies under the loose bark of trees (dead or alive) and/or in cavities, where each female gives birth to a single young in

June or early July. A maternity colony may include from one to 100 individuals. A single colony may utilize a number of roost trees during the summer, typically a primary roost tree and several alternates. Some males remain in the area near the winter hibernacula during the summer months, but others disperse throughout the range of the species and roost individually or in small numbers in the same types of trees as females. The best available data indicate that the species or size of tree does not appear to influence whether Indiana Bats utilize a tree for roosting, provided the tree exhibits any of the following characteristics: exfoliating bark, cracks, crevices, cavities. Data also indicate that the use of a particular tree is influenced by conditions, such as solar exposure, temperature and precipitation (USFWS 2007a, USFWS 1999).

During the summer, Indiana Bats frequent the corridors of small streams with well-developed riparian woods, as well as mature bottomland and upland forests. They forage for insects along stream corridors, within the canopy of floodplain and upland forests, over clearings with early successional vegetation (old fields), along the borders of croplands, along wooded fence rows, and over farm ponds and in pastures. It has been shown that the foraging range for the bats varies by season, age and sex and ranges up to 81 acres (33 ha). Suitable Indiana Bat winter and summer habitat may be located in the vicinity of Wappapello Lake.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – The proposed land classification changes would not affect any caves or summer roost / foraging habitat (i.e.; caves, forested riparian habitat). In the event that tree removal is required for management activities, removal of trees greater than 3” diameter breast height (dbh) would be limited to the non-active season, defined in Missouri as 1 November – 31 March. Future management activities would also require separate environmental compliance reviews, including NEPA and ESA, as appropriate. Therefore, the St. Louis District has determined that the Recommended Alternative “*may affect, but is not likely to adversely affect*” the Indiana Bat.

3.15.3 Northern Long-eared Bat (*Myotis septentrionalis*)

The Northern Long-Eared Bat is sparsely found across much of the eastern and north central United States, and all Canadian provinces from the Atlantic Ocean west to the southern Yukon Territory and eastern British Columbia. Northern Long-Eared Bats spend winter hibernating in large caves and mines. During summer, this species roosts singly or in colonies underneath bark, in cavities, in crevices of both live and dead trees, and manmade structures such as barns and culverts. Foraging occurs in interior upland forests. Forest fragmentation, logging and forest conversion are major threats to the species. One of the primary threats to the Northern Long-Eared Bat is the fungal disease, white-nose syndrome, which has killed an estimated 5.5 million cave hibernating bats in the Northeast, Southeast, Midwest and Canada. Suitable Northern Long-Eared Bat winter and summer habitat may be located in the vicinity of Wappapello Lake.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – The proposed land classification changes would not affect any caves or summer roost / foraging habitat (i.e.; caves, forested riparian habitat). In the event that tree removal is required for management activities, removal of trees greater than 3” diameter breast height (dbh) would be limited to the non-active season, defined in Missouri as 1 November – 31 March. Future management activities would also require separate environmental compliance reviews, including NEPA and ESA, as appropriate. Therefore, the St. Louis District has determined that the Recommended Alternative “*may affect, but is not likely to adversely affect*” the Northern Long-Eared Bat.

3.15.4 Rabbitsfoot (*Quadrula cylindrica*)

The Rabbitsfoot Mussel is a federally threatened freshwater mussel species. The rabbitsfoot mussel is primarily an inhabitant of small to medium-sized streams and some larger rivers (Parmalee and Bogan 1998). It usually occurs in shallow areas along the bank and adjacent runs and shoals where the water velocity is reduced. Specimens may also occupy deep water runs, having been reported in 9-12 feet of water. Bottom substrates generally include sand and gravel. This species seldom burrows but lies on its side (Watters 1988; Fobian 2007). Rabbitsfoot are riverine-adapted species that depend upon adequate water flow and are not found in ponds or lakes. There is no suitable Rabbitsfoot Mussel habitat located within Wappapello Lake.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – The Rabbitsfoot Mussel has been collected from the St. Francis River upstream of Wappapello Lake. However, the USFWS website <https://ecos.fws.gov/ecp0/profile/speciesProfile?sPCODE=F03X>, accessed on 23 July 2019, does not identify the Wappapello Lake property as being within the current range of the Rabbitsfoot Mussel, as there is no suitable habitat. The proposed land classification changes would not affect any Rabbitsfoot mussel or its habitat. Therefore, the St. Louis District has determined that the Recommended Alternative would have “*no effect*” on the Rabbitsfoot Mussel.

3.15.5 Snuffbox Mussel (*Epioblasma triquetra*)

The Snuffbox is a small- to medium-sized freshwater mussel with a yellow, green, or brown shell interrupted with green rays, botches, or chevron shaped lines. This mussel is found in small- to medium-sized creeks in areas with a swift current. Adults of this species burrow in sand, gravel, or cobble substrates. Dams affect both upstream and downstream mussel populations by disrupting natural river flow patterns, scouring river bottoms, and changing water temperatures. The snuffbox depends on the logperch to complete its reproductive cycle and to transport larvae to other areas upstream.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – The Snuffbox Mussel has been collected from the St. Francis River upstream of Wappapello Lake, however it is not found within the reservoir as no suitable habitat exists. The proposed land classification changes would not affect any Snuffbox Mussel or its habitat. Therefore, the St. Louis District has determined that the Recommended Alternative would have “no effect” on the Snuffbox Mussel.

In an e-mail dated 12 November 2019, the USFWS stated “Based on the information provided the Service concurs with the Corps' determination”.

3.15.6 Critical Habitat

According to the IPaC report, there is no critical habitat identified in the local vicinity of the proposed land classification parcels.

3.16 State Listed Species

The Missouri Natural Heritage Review Website was accessed on 1 August 2019 to obtain a list of state threatened or endangered species that could potentially be located in the project areas, and a level three report was received. On 9 August 2019, MDC provided a list of state threatened or endangered species, as well as Missouri Species of Conservation Concern that may be located within one mile of the land classification parcels, as shown in Table EA-6. MDC provided no comments during the public review period.

Table EA-6. List of state threatened or endangered species, as well as Missouri Species of Conservation Concern that may be located within one mile of the land classification parcels.

Common Name (Scientific Name)	State Listing Status	Habitat	Species Present In Proposed Action Area?	Potentially Suitable Habitat Affected By Proposed Action?
Gray Bat <i>Myotis grisescens</i>	Endangered	Hibernates and roosts in caves; forages over water, along shorelines, and in riparian forest.	Yes	No
Indiana Bat <i>Myotis sodalis</i>	Endangered	Caves and mines (hibernacula); small stream corridors with well-developed riparian woods, upland forests (foraging).	Yes	No
Northern Long-eared Bat <i>Myotis septentrionalis</i>	Endangered	Caves and mines (hibernacula); small stream corridors with well-developed riparian woods, upland forests (foraging).	Yes	No
Tri-colored Bat <i>(Perimyotis subflavus)</i>	S2	Caves and mines (hibernacula); edge habitats near areas of mixed agricultural use (foraging).	Yes	No
Bald Eagle <i>(Haliaeetus leucocephalus)</i>	S3	Forested areas adjacent to large bodies of water.	Yes	No
Mississippi Kite <i>(Ictinia mississippiensis)</i>	S3	Wooded streams; groves, shelterbelts. For nesting, requires trees (preferably tall) next to open country.	No	No
Cerulean Warbler <i>(Setophaga cerulean)</i>	S2 S3	Large tracts of older deciduous forests with tall trees.	Nearby	No
Swamp Rabbit <i>(Sylvilagus aquaticus)</i>	S2	Poorly drained river bottoms and coastal marshes.	Nearby	No

Pugnose Minnow (<i>Opsopoeodus emiliae</i>)	S4	Wappapello Lake	Nearby	No
Four-toed Salamander (<i>Hemidactylum scutatum</i>)	S4	Under logs and rocks in bogs, boggy streams, and floodplains; almost always in association with sphagnum moss.	Nearby	No
Short-horned Grasshopper (<i>Metaleptea brevicornis</i>)	S4	Tall grasses along ponds and marshes.	Nearby	No
Big Creek Crayfish (<i>Faxonius peruncus</i>)	S2	Small, high-gradient rocky creeks.	Nearby	No
St. Francis River Crayfish (<i>Faxonius quadruncus</i>)	S2	Beneath rocks, on riffles, or in shallow, silt-free ponds.	Nearby	No
Canada Rush (<i>Juncus canadensis</i> var. <i>canadensis</i>)	S1	Beneath rocks, on riffles, or in shallow, silt-free ponds.	Nearby	No
Marsh St. John's Wort (<i>Triadenum tubulosum</i>)	S1	Swampy or marshy ground in woods.	Nearby	No
Few-lobed Grape Fern (<i>Botrychium biternatum</i>)	S1	Bottoms, ravines, mesic woods and thickets in various pH with fairly rich soil.	Nearby	No
Leatherflower (<i>Clematis viorna</i>)	S1	Mesic forests and woodlands, including wooded cliffs and the banks of streams, and in thickets.	Yes	No
Loesel's Twayblade (<i>Liparis loeselii</i>)	S2	Fens, bogs and dune slacks.	Nearby	No
Ozark Fen Habitat	S2	N/A	Nearby	No

3.17 Bald and Golden Eagle Protection Act

Bald Eagles (*Haliaeetus leucocephalus*) winter along the major rivers of Illinois and Missouri, and at scattered locations some remain throughout the year to breed. Perching and feeding occurs along the edge of open water, from which eagles obtain fish. The bald eagle was removed from the List of Endangered and Threatened Species in August 2007 but it continues to be protected under the Bald and Golden Eagle Protection Act and by the Migratory Bird Treaty Act. Recommendations to minimize potential project impacts to the bird and nests are provided by the U.S. Fish and Wildlife Service in the agency's National Bald Eagle Management Guidelines publication (USFWS 2010). The guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. Specifically, construction activity is prohibited within 660 feet of an active nest during the nesting season, which in the Midwest is generally from late January through late July.

Alternative 1 – No Action (Future without Project) – Current status anticipated to remain the same.

Alternative 2 – Land Classification Alternative – Bald eagle nests are located in the vicinity of two of the parcels: one nest is located near the 240 acre St. Francis West Highway FF subordination parcel which is proposed to be classified as Multiple Resource Management- Vegetative Management; another nest is located near the 2.92 acre former Lake Beach inholding parcel, which is proposed to be classified as High Density Recreation. The proposed land classification changes are not anticipated to affect the bald eagle nests.

4 ENVIRONMENTAL JUSTICE

Environmental justice is considered to determine if disproportional project impacts would occur to minority populations or people below the poverty level. The potential impacts of the proposed land classification / re-classification would result in minimal changes to land management practices and are not anticipated to have any adverse impacts on minority populations or people below the poverty level.

Alternative 1 – No Action (Future without Project) – Current status is anticipated to remain the same.

Alternative 2 – Land Classification Alternative – No disproportionate impacts to minority or poverty level populations are anticipated as most parcels are forested tracts located within or immediately adjacent to the boundaries of Wappapello Lake, and do not support resident populations. Land classification / reclassification would not disproportionately affect Lake visitors, thus no environmental justice issues would occur.

5 CLIMATE CHANGE

The USACE, Institute of Water Resources (IWR) published a document titled “Recent US Climate Change and Hydrology Literature Applicable to the U.S. Army Corps of Engineers Missions of the Upper Mississippi Region 07” (USACE 2015). The publication describes territory within the St. Paul, Chicago, Rock Island, and St. Louis USACE districts. The synopsis evaluated, observed, and projected trends in temperature, precipitation, and stream flow as well as the general consensus in the literature reviewed of the trending parameters.

The USACE IWR (USACE 2015) found a general consensus for a moderate to large upward trend in observed average temperature, minimum temperatures, average precipitation, extreme precipitation, and streamflow in the Upper Mississippi Region. There is a reasonable consensus that maximum air temperatures have decreased slightly in the recent past in the region. However, projected extreme precipitation is expected to have only a small increase with moderate consensus in the literature reviewed and forecasts of future hydrology and streamflow are anticipated to be variable, with low overall consensus in the literature reviewed. Therefore, it was presumed that these watersheds are not anticipated to incur significant precipitation changes due to climate change within the anticipated 50 year period of analysis. Furthermore, the proposed land classification / reclassification is not anticipated to influence global climate change.

6 CUMULATIVE IMPACTS

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” (40 CFR Section 1508.7). Cumulative effects are defined as, “...the impact on the environment which 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.

All property within the boundaries of the Wappapello Lake Project have land use classifications which have been determined through the guidance contained in ER 1130-2-550 and EP 1130-2-550. The impacts of the proposed land classification / reclassification are considered to be minor and would have no adverse impacts that would be considered additive to the existing land use classification practices. The incorporation of the acquired parcels into Wappapello Lake’s

Vegetative Management or High Density Recreation land use plan would be a positive impact; however, the impacts overall would be negligible. Therefore, this action would not have any major cumulative impacts when the proposed land classification / reclassification is included in the existing land use management practices.

7 RELATIONSHIP OF RECOMMENDED ALTERNATIVE TO ENVIRONMENTAL REQUIREMENTS

The relationship of the Recommended Alternative (Alternative 2 – Land Classification Alternative) to environmental requirements, environmental acts, and /or executive orders is shown in Table EA-6.

Table EA-6. Relationship of the Recommended Alternative to environmental requirements, environmental acts, and/or executive orders.

Environmental Requirement	Degree of Compliance
Archaeological and Historic Preservation Act, as Amended, 16 U.S.C. 469, et seq.	FC
Bald and Golden Eagle Protection Act, 42 USC 4151-4157	FC
Clean Air Act, as Amended, 42 U.S.C. 7401-7542	FC
Clean Water Act, as Amended 33 U.S.C. 1251-1375	FC
Comprehensive Environmental Response, Compensation, and Liability Act, 42 USC 9601-9675	FC
Endangered Species Act, as Amended, 16 U.S.C. 1531-1543	FC
Farmland Protection Policy Act, 7 U.S.C. 4201-4208	FC
Federal Water Project Recreation Act, as Amended. 16 U.S.C. 4601, et seq.	FC
Fish and Wildlife Coordination Act, as Amended, 16 U.S.C. 661-666c	FC
Land and Water Conservation Fund Act, as Amended, 16 U.S.C. 4601, et seq.	FC
National Environmental Policy Act, as Amended, 42 U.S.C. 4321- 4347	PC ³
National Historic Preservation Act, as Amended, 54 U.S.C 300101, et seq.	FC
Noise Control Act, 42 USC 4901, et seq.	FC
Migratory Bird Treaty Act of 1918, 16 USC 703, et seq.	FC
Resource Conservation and Recovery Act, 42 USC 6901-6987	FC
Rivers and Harbors Appropriation Act, (Sec. 10) 33 USC 401-413	FC
Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (EO 12898)	FC
Floodplain Management, EO 11988 as amended by EO 12148	FC
Protection of Wetlands, EO 11990 as amended by EO 12608	FC
Protection and Enhancement of the Cultural Environment, EO 11593	FC
Consultation and Coordination with Indian Tribal Governments, 06 Nov 2000, EO 13175	FC
Protection of Migratory Birds (EO 13186)	FC

FC = Full Compliance; PC = Partial Compliance

¹ Full compliance will be attained after all required archaeological investigations, reports and coordination have been completed.

² Full compliance will be attained upon completion of any permitting requirements or coordination with other agencies.

³ Full compliance will be attained upon signing of the NEPA decision document.

8 COORDINATION, DISTRIBUTION LIST, PUBLIC REVIEWS AND RESPONSES

Notification of a draft of this Environmental Assessment and unsigned Finding of No Significant Impact was sent to the officials, agencies, organizations, and individuals listed below for review and comment (Table 4). Additionally, an electronic copy is available on the St. Louis District's website at

<http://www.mvs.usace.army.mil/Missions/ProgramsProjectManagement/PlansReports.aspx>

during the public review periods.

A public comment period occurred between 18 November and 18 December 2019. According to the Operations Division, no public comments were received during the public comment period. Please note that the Finding of No Significant Impact was unsigned during the public comment period. These documents will be signed into effect only after having carefully considered comments received as a result of this public review.

To assure compliance with the National Environmental Policy Act, Endangered Species Act, and other applicable environmental laws and regulations, coordination with these agencies will continue as required throughout the planning and construction phases of the proposed levee repairs.

Table EA-7. Notification of availability of the draft Environmental Assessment and unsigned Finding of No Significant Impact was sent to the following entities.

Federal, State and Local Agency Contacts

NAME	TITLE	ADDRESS		
Mike Parson	Missouri Governor	P.O. Box 720	Jefferson City	MO 65102
Asa Hutchison	Arkansas Governor	500 Woodlane St.	Little Rock	AR 72201
Missouri Senator Josh Hawley	US Senate	555 Independence Ave, Suite 1600	Cape Girardeau	MO 63703
Honorable Roy Blunt	US Congress	2502 Tanner Drive, Suite 208	Cape Girardeau	MO 63703

NAME	TITLE	ADDRESS		
Honorable Jason Smith	US Congress	2502 Tanner Drive, Suite 205	Cape Girardeau	MO 63703
Gary Romine	MO - Senator District 3	201 W. Capitol Ave. Room 334	Jefferson City	MO 65101
Doug Libla	MO - Senator District 25	201 W. Capitol Ave. Room 226	Jefferson City	MO 65101
Wayne Wallingford	MO-Senator District 27	201 W. Capitol Ave., Rm 114B	Jefferson, City	MO 65101
Elaine Gannon	MO-State Rep District 115	201 W. Capitol Ave., Rm 203C	Jefferson City	MO 65101
Dale Wright	MO-State Rep District 116	201 W. Capitol Ave., Rm 411-2	Jefferson City	MO 65101
Mike Henderson	Mo-State Rep District 117	201 W. Capitol Ave., Rm 115-H	Jefferson City	MO 65101
Chris Dinkins	Mo-State Rep District 144	202 W. Capitol Ave., Rm 110B	Jefferson City	MO 65101
Rick Francis	MO-State Rep District 145	203 W. Capitol Ave., Rm 115-I	Jefferson City	MO 65101
Andrew McDaniel	MO-State Rep District 150	204 W. Capitol Ave., Rm 115-E	Jefferson City	MO 65101
Herman Morse	MO-State Rep District 151	205 W. Capitol Ave., Rm 203-C	Jefferson City	MO 65101
Hardy Billington	MO-State Rep District 152	206 W. Capitol Ave., Rm 308	Jefferson City	MO 65101
Jeff Shawan	MO-State Rep District 153	207 W. Capitol Ave., Rm 411A	Jefferson City	MO 65101
	U.S. Fish and Wildlife Service, MWR	24279 State Highway 51	Puxico	MO 63960
Karen Herrington	U.S. Fish and Wildlife Service Missouri Ecological Services Field Office	101 Park Deville Drive, Suite A	Columbia	MO 65203-0057
U.S. Forest Service	Mark Twain National Forest	Highway 67 North	Poplar Bluff	MO 63901
Mark Dobbs	Butler County Sheriff	200 Oak St	Poplar Bluff	MO 63901
Vince Lampe	Butler County Presiding Commissioner	100 N. Main St.	Poplar Bluff	MO 63901
Don Anderson	Butler County Eastern Commissioner	100 N. Main St.	Poplar Bluff	MO 63901
Dennis LeGrand	Butler County Western Commissioner	102 N. Main St.	Poplar Bluff	MO 63901
Bob Holder	Dunklin County Sheriff	PO Box 188	Kennett	MO 63857
Don Collins	Dunklin County Presiding Commissioner	PO Box 188	Kennett	MO 63857
Ron Huber	Dunklin County First District Commissioner	PO Box 188	Kennett	MO 63857

NAME	TITLE	ADDRESS		
Patrick McHaney	Dunklin County Second District Commissioner	PO Box 188	Kennett	MO 63857
Roger Medley	Iron County Sheriff	222 S. Shepard St.	Ironton	MO 63650
Jim Scaggs	Iron County Presiding Commissioner	250 S. Main St.	Ironton	MO 63650
Dwayne Warncke	Southern Commissioner	251 S. Main St.	Ironton	MO 63650
Joshua Campbell	North Commissioner	252 S. Main St.	Ironton	MO 63650
Katy McCutcheon	Madison County Sheriff	124 N. Main St.	Fredericktown	MO 63645
Jason Green	Madison County Presiding Commissioner	1 Courthouse Square	Fredericktown	MO 63645
Tom Stephens	Madison County First District Commissioner	2 Courthouse Square	Fredericktown	MO 63645
Larry Kemp	Madison County Second District Commissioner	3 Courthouse Square	Fredericktown	MO 63645
Carl Hefner	Stoddard County Sheriff	PO Box 336	Bloomfield	MO 63825
Greg Mathis	Stoddard County Presiding Commissioner	PO Box 110	Bloomfield	MO 63825
Steve Jordan	Stoddard County 1 st District Commissioner	PO Box 110	Bloomfield	MO 63825
Carol Jerrell	Stoddard County 2 nd District Commissioner	PO Box 110	Bloomfield	MO 63825
Dean Finch	Wayne County Sheriff	PO Box 109	Greenville	MO 63944
Brian Polk	Wayne County Presiding Commissioner	PO Box 48	Greenville	MO 63944
Chad Henson	Wayne County Western Commissioner	PO Box 48	Greenville	MO 63944
Bill Hovis	Wayne County Eastern Commissioner	PO Box 48	Greenville	MO 63944
Carol Rainwater	Greenville Mayor	PO 427	Greenville	MO 63944
Shannon Poole	Fisk Mayor	508 Garfield St	Fisk	MO 63961
Glen Sedrick	Qulin Mayor	481 2 nd St.	Qulin	MO 63961
Kelly Korikis	Fredericktown Mayor	124 West Main	Fredericktown	MO 63645

Partners

NAME		BUSINESS	ADDRESS			
Dave	Rowald	Missouri Department of Conservation	Hwy 34	Piedmont	MO	63957
Janet	Sternburg	Missouri Department of Conservation	PO Box 180	Jefferson City	MO	65102
Melissa	Scheperle	Missouri Department of Transportation	P.O. Box 270	Jefferson City	MO	65102
Mark	Shelton	MDOT	2675 North Main St	Sikeston	MO	63801
Dave	Wyman	MDOT	2675 North Main St	Sikeston	MO	63801
	Missouri Department of Natural Resources	Missouri State Historic Preservation Office	P.O. Box 176	Jefferson City	MO	65102
	Missouri Department of Natural Resources	Art Goodin, Director	2155 N. Westwood Blvd.	Poplar Bluff,	MO	63901
CeCe	Totten	Wappapello Lake Area Association	Route 2 Box 2656	Wappapello	MO	63966
Gerald	Sebastian	Lost Creek Lodge	1927 College St	Cape Girardeau	MO	63755
John	Totten	Totten's Resort	Route 2 Box 2656	Wappapello	MO	63966
Charlie & Dorothy	Brotherton	Sundowner Marina	Route 1 Box 2	Wappapello	MO	63966
Dallas & Stacie	Rich	Chaonia Landing Marina & Resort	Route 2 Box 114	Williamsville	MO	63967
Dennis & Christy	Rikard	Holliday Landing	HC 1 Box 46	Greenville	MO	63944
Jeff	Hand	Wappapello Lake State Park	Route 2 Box 102	Williamsville	MO	63967
Millie	Rogers	Millies Station	10064 Highway T	Wappapello	MO	63966
Larry	Neal	National Wild Turkey Federation	2780 Hwy V	Cape Girardeau	MO	63701
Sandy	Vaughn	Camp Latonka	1420 Girl Scout Way	Dexter	MO	63841
Tanya	Winters	SEMO Independent Living Center	511 Cedar St	Poplar Bluff	MO	63901
Wendall	Clinton	Mingo Job Corps	4253 State Highway T	Puxico	MO	63960
Heather	Tuggle	Water Safety Council	Black River Coliseum 301 South 5 th	Poplar Bluff	MO	63901
Melvin	Boyers	Crowley's Ridge Blackpowder Club	P.O. Box 24	Dexter	MO	63841
Tina	Buchteit	Genesis Home Health Care	305 High St	Marble Hill	MO	63764

NAME		BUSINESS	ADDRESS			
Karen	Noble	Chaonia Volunteer Fire	HC 2 Box 112	Williamsville	MO	63967
Robert	Wake	Wake Foundation	1103 S. College St	Mountain Home	AR	72653
Dee	Keele	Wayne County Historical Society	Route 4 Box 1117	Piedmont	MO	63957
Steve	Herrington	Nature Conservancy	3110 Crape Myrtle Drive	Columbia	MO	65203
Caroline	Pufalt	Sierra Club Missouri Chapter	2818 Sutton Blvd	Maplewood	MO	63143
		Audubon Society of Missouri	2101 W Broadway PMB 122	Columbia	MO	65203-1261

News Release Contacts

NEWSPAPERS	
Puxico Press	Puxico, MO
Southeast Missourian	Cape Girardeau, MO
Daily American Republic	Poplar Bluff, MO
Wayne County Journal Banner	Piedmont, MO
Daily Statesman	Dexter, MO
Malden Press-Merit	Malden, MO
North Stoddard Countian	Bloomfield, MO
Stoddard County News	Dexter, MO
The Delta News Journal	Malden, MO
TELEVISION	
KFVS – 12	Cape Girardeau, MO
KAIT – 8	Jonesboro, AR
WPSD - 6	Paducah, KY
WSIL - 3	Carterville, IL
RADIO	

KAHR	Poplar Bluff, MO
KJEZ	Poplar Bluff, MO
KLID	Poplar Bluff, MO
KLUH	Poplar Bluff, MO
KMAL/KTCB	Malden, MO
KKLR	Poplar Bluff, MO
KLUE	Poplar Bluff, MO
KWOC	Poplar Bluff, MO
KZMA	Poplar Bluff, MO
KOKS	Poplar Bluff, MO
KPWB	Piedmont, MO
KTJJ	Farmington, MO
KDEX	Dexter, MO
KBOA	Kennett, MO

9 ENVIRONMENTAL ASSESSMENT PREPARERS

Teri Allen, Ph.D., Supervisory Ecologist

Experience: 10 years private sector; 18 years Environmental Compliance, USACE

Role: EA Coordinator, Environmental Impact Analysis, NEPA and Environmental Compliance

James E. Barnes, District Archaeologist

Experience: 8 years private sector; 25 years Center of Expertise, Curation and Maintenance of Archaeological Collections

Role: National Historic Preservation Act Analysis and Compliance

Roxane Krutsinger, Natural Resources Specialist, St. Louis District

Experience: 8 years, USACE-MVS Natural Resources

Role: Master Plan; Technical Review

Maria Shafer, Wappapello Lake Staff

Experience: 36 years, USACE-MVS Natural Resources Specialist

Role: Master Plan preparation

Eric Limanen, Park Ranger, Wappapello Lake

Experience: 13 years, USACE-MVS Natural Resources

Role: Master Plan; GIS

Eric Lemons, Natural Resource Specialist, Wappapello Lake

Experience: 23 years, USACE-MVS Natural Resources

Role: Master Plan

Rosie Lemons, Natural Resource Specialist, Wappapello Lake

Experience: 25 years, USACE-MVS Facilities Maintenance

Role: Master Plan

10 LITERATURE CITED

Missouri Department of Natural Resource 2018 303(d) List of Impaired Waters

<https://dnr.mo.gov/env/wpp/waterquality/303d/documents/1-2018-303d-list-cwc-10-18-2018.pdf>

U.S. Army Corps of Engineers. 2015. Recent US Climate Change and Hydrology Literature Applicable to US Army Corps of Engineers Missions - Upper Mississippi Region. 26 June 2015.

U.S. Environmental Protection Agency. 2019. Green Book National Area and County-Level Multi-Pollutant Information (<https://www.epa.gov/green-book/green-book-national-area-and-county-level-multi-pollutant-information>).

FINDING OF NO SIGNIFICANT IMPACT

**Wappapello Lake Master Plan Update
Land Classification / Reclassification
U.S. Army Corps of Engineers
Wappapello Lake Project
Wayne and Butler Counties, Missouri**

1. In accordance with the National Environmental Policy Act, I have reviewed and evaluated the documents concerning the land classification and reclassification as described in the 2018 Wappapello Lake Master Plan Environmental Assessment (EA).

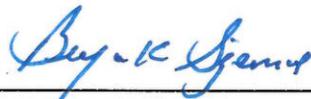
USACE is proposing to implement land classification changes for Wappapello Lake Project lands as identified in the 2018 Wappapello Lake Master Plan; as well as to assign land classifications to recently acquired land parcels not covered by the 2000 Master Plan. The land classification changes and initial land classifications would take effect at the time the updated Master Plan is approved. Approximately 3.26 acres would be classified as High Density Recreation, which are lands developed to provide for the recreational activities of the visiting public. Approximately 376.50 acres would be classified as Multiple Resource Management - Vegetative Management. Vegetative Management activities for these lands include protection and development of forest and vegetative cover, as well as wetland restoration. These lands are available to the public for hiking, walk-in hunting, fishing and nature study. Timber is harvested when required to achieve other management objectives such as wildlife habitat improvement. At this time, no actions other than land classification / reclassification are being proposed within the parcels covered in this EA.

2. As part of this evaluation, I have considered:
 - a. Existing Resources and Future without the Proposed Action - No Action Alternative.
 - b. Impacts to Existing and Future Resources under Alternative 2 – Land Classification Alternative.
3. The possible consequences of these alternatives have been studied for physical, environmental, cultural, social, and economic effects. Significant factors evaluated as part of my review include:
 - a. The Proposed Actions would greatly facilitate the recreation mission of Wappapello Lake and promote efficient land management.

- b. The Proposed Actions would not adversely impact the physical environment (e.g., topography; geology; land cover; water quality; air quality; hydrological conditions, or climate change).
 - c. The Proposed Actions would not adversely impact the socioeconomic environment (e.g., recreation, aesthetics, noise, or demographics).
 - d. No disproportionately high and adverse human health or environmental impacts on minority populations or low-income populations would occur (environmental justice).
 - e. No significant impacts are anticipated to biological resources, including wetlands, bottomland hardwood forests, or fish and wildlife resources.
 - f. The Proposed Actions would have no effect upon significant known historic properties or archaeological or tribal resources.
 - g. No adverse impacts to state or federally threatened or endangered species are anticipated.
 - h. No significant climate change impacts are anticipated.
 - i. No significant cumulative impacts are anticipated.
4. Based on the disclosure of the impacts associated with the Proposed Actions contained within the Environmental Assessment, no significant impacts to the environment are anticipated. The Proposed Actions have been coordinated with the appropriate resource agencies, and there are no significant unresolved issues. Therefore, an Environmental Impact Statement will not be prepared prior to proceeding with the Wappapello Lake Master Plan Land Classification / Reclassification action as identified in this Environmental Assessment.

11 FEB 20 2016

Date



Bryan K. Sizemore
Colonel, U.S. Army
District Engineer