

RIVERS PROJECT MASTER PLAN UPDATE

APPENDIX A – Draft Environmental Assessment and Unsigned Finding of No Significant Impact



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U.S. Army Corps of Engineers, St. Louis District
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1. INTRODUCTION

The U.S. Army Corps of Engineers (Corps), Mississippi Valley Division, St. Louis District, has prepared this Environmental Assessment (EA) to evaluate the environmental impacts of the proposed Rivers Project Master Plan Update. This Master Plan is a long-term planning document for Rivers Project that is focused on operation and maintenance of those lands and waters as it relates to public use and natural resource management. This document does not specifically address operation and maintenance of the locks and dams, service base or the navigation channel. Although, various features of the navigation program are discussed as they relate to public use and management of natural resources.

1.1. Location

The navigable portion of the Mississippi River is divided into three segments based on Congressional authority and the current operations of obtaining and maintaining the navigation channel: the Upper Mississippi River (from the confluence of the Missouri River to St. Anthony Falls in Minneapolis, Minnesota – sometimes also referred to herein as the pooled river, **Figure 1**), the Middle Mississippi River (from the confluence of the Ohio River to the confluence of the Missouri River), and the Lower Mississippi River (from the Gulf of Mexico to the confluence of the Ohio River).

For the purposes of this plan, as it relates to Rivers Project management, the rivers will primarily be referred to as the Upper Mississippi River and Middle Mississippi River. As those are the two primary segments that fall under the responsibility of Rivers Project. The lower 80 miles of the Illinois River that Rivers Project is responsible for will be referred to as the Illinois River. Further, when this document refers to the Nine-Foot Navigation Channel Project, it is using this single term to describe those portions of the projects for operating and maintaining a navigation channel within the St. Louis District, which includes the entire Middle Mississippi River, the lower 80 miles of the Illinois River, and the Upper Mississippi River from the confluence of the Missouri River to Locks and Dam 22.

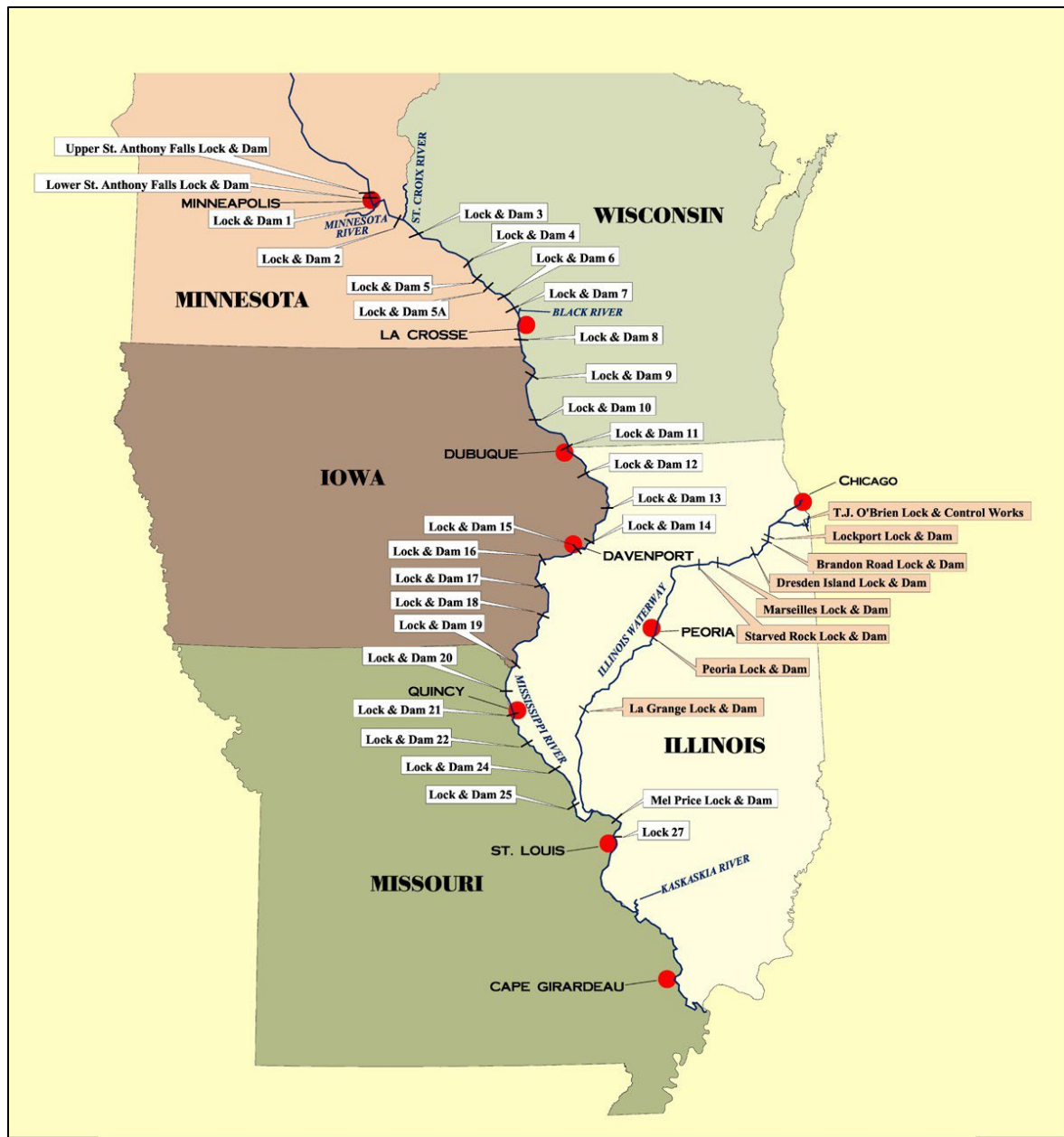


Figure 1. The Upper Mississippi River System showing Lock & Dam locations.

1.2. Authorizations

Nine-Foot Navigation Channel

Congress originally authorized the Corps of Engineers to maintain a navigation channel in the Mississippi River in 1824. Through a series of Rivers and Harbors Acts, based upon reports and surveys provided by the Chief of Engineers, Congress eventually authorized various projects to provide a nine (9) foot deep navigation channel in the Mississippi River from the Gulf of Mexico to St. Anthony Falls in Minneapolis, MN to adequately support the navigation needs of the country. For the Middle Mississippi River, in 1910 (with modifications in 1927 and 1930), Congress authorized the Corps of Engineers to use a combination of regulating works and

dredging, with a goal of minimizing dredging, to maintain a navigation channel of nine feet deep. The Chain of Rocks Canal, Locks 27, and the low water rock dam at Chain of Rocks just below the Missouri River confluence were all later authorized as modifications to the Middle Mississippi River navigation channel project to address specific problem areas for navigation. For the Upper Mississippi River in the early and mid-1930's, Congress authorized a series of pools to be created through the construction of locks and dams and provided the Chief of Engineers the discretion to use other means in these areas to maintain the navigation channel, if necessary, e.g., dredging and regulating works.

Cache River Diversion Channel

The Cache River Diversion Channel Project was authorized by the Flood Control Act of 1938. The project included construction of a 5,260-foot diversion channel from the point where the former channel of the Cache River intersected the Mounds and Mound City Levee to the new outlet into the Mississippi River at MRM 13. Three new railroad and highway bridges were also constructed. Land acquired for the project included 89.14 acres in fee simple and 3.63 acres in easements.

The project purpose was to divert the Cache River to avoid intersecting a Corps of Engineers Memphis District levee which provided flood risk reduction for the Mound City area. Construction on the \$2,837,100 project was initiated in June 1940, and was ready for use in December 1950.

1.3.Purpose and Need

The purpose of Rivers Project Master Plan is to provide a clear, practical and balanced plan that guides future Corps personnel and partner agencies with land use decisions as well as public use development actions on the Project's portion of the Upper Mississippi River System (UMRS). The intent of the Master Plan is to provide a guide for effective management of the federal lands natural and cultural resources while preserving habitat and accommodating public recreational demands within the framework of a multi-use navigation project. There is a need for a Master Plan Update, as the previous 2015 Master Plan is out of date.

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 recreation 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.

The proposed update to the Master Plan also applies changes to land classifications, most notably assigning land classifications to recently acquired land parcels not covered by the previous plan,

as well as changing land classifications to existing areas (**Table 1**). The land classification change and initial land classifications would take effect at the time the updated Master Plan is approved.

Table 1. Land Classification categories and subcategories per EP 1130-2-550, Chapter 3, Change 5 dated 31 Jan 2013.

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 losses (normally ecological losses) associated with development of the Project.
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.
Water Surface	Surface water zoning.
💧 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.

2. ALTERNATIVES EVALUATED

2.1. Alternatives 1 – No Action Alternative

The “No Action” alternative is the alternative for which no federal actions would be carried out. This alternative represents the baseline or reference against which to describe environmental effects of the action alternative. Under this scenario, Rivers Project would continue to perform its operation and maintenance responsibilities but would not implement any newly proposed land classification changes proposed in the updated Master Plan.

2.2. Alternative 2 – Land Classification Changes

Numerous proposed actions have been included in the updated Master Plan, including land classification changes; assigning land classification to unclassified land; and adjusting acreages of given land classifications. Alternative 2 includes those actions in the updated Master Plan that are substantial enough to require an Environmental Assessment (EA), and which would be implemented within the next 1-2 fiscal years. Other proposed actions that may require further National Environmental Policy Act (NEPA) review, but that are dependent on future funding, would be covered in a future NEPA document. The remainder of the actions may be Categorically Excluded from further (NEPA) documentation if they meet the qualifications and no extraordinary circumstances exist. Categorically Excluded actions would not require either an EA nor an Environmental Impact Statement (EIS). Specifically, this EA evaluates the effects of the proposed land classification changes in several areas of Pool 26 and the Illinois River (**Table 2**).

Pool 25

Pool 25 Missouri Islands:

The Pool 25 Missouri Islands area consists of two islands along the right descending bank of the Mississippi River that were previously not identified as U.S. Army Corps of Engineer (USACE) lands. The upstream island is 33 acres in size at river mile 246. The downstream island is 16 acres in size at river mile 244. Both are located adjacent to Lock & Dam 25 Saddle Dam. The islands consist of a natural riparian bottomland forest. They are open to regulated hunting and trapping in accordance with the Missouri Wildlife Code. Forest Inventory work is planned for these islands, but no future development is currently planned. The land classification change is from unclassified to Vegetation Management.

Pool 26

Ameren Missouri Portage des Sioux Power Plant Area Land Exchange:

The Ameren Missouri Portage des Sioux Power Plant Area (formerly Ameren-Union Electric) is located along Highway 94 in St. Charles County, Missouri. This area includes a facility managed as a coal fired electric generating plant and terminal and staging area under an

industrial/commercial lease. Federal land to be exchanged consists of approximately 64.25 acres (disposal tracts) of land leased from Corps by Union Electric Company DBA Ameren Missouri for the Portage Des Sioux Power Plant. Non-Federal land to be exchanged consists of approximately 77 acres (acquisition tracts) of land owned by Union Electric Company DBA Ameren Missouri located along Lockhaven Road in Jersey County, IL in Township 6N, Range 11W, Section 23. Both the disposal tracts and the acquisition tracts are within the boundaries of River Project area of responsibility. The land classification change to the acquisition tracts is from no classification to Vegetation Management.

Lincoln-Shields Recreation Area:

The Lincoln-Shields Access Area is located adjacent to the Mississippi River shoreline and Old Locks & Dam 26 abutment. The area is immediately west of the US Route 67 Clark Bridge in St. Charles County, MO in Township 48N, Range 7E, Section 36. The area is open to public access and is popular for fishing, wildlife viewing, picnicking, boat launching, and hiking/biking trail usage. Former piers of the old Locks and Dam 26 were left in place on the Missouri Abutment in this area. Facilities include an asphalt parking lot, shoreline revetment, two-way asphalt entrance roadway, connecting bike trail link, handicapped accessible vault toilet, former piers of the old Lock & Dam 26, ten picnic table sites with concrete pads and grills, 24'x36' pavilion, two 1,000-gallon pit toilets and storage room (constructed in 2010), one concrete boat ramp, civil war monument, a solar light, one bench, and three access control gates. For public safety, the area is closed to hunting and trapping. This area is part of the Riverlands Migratory Bird Sanctuary and is a designated Important Bird Area by National Audubon Society. Following the elevation of the US Route 67 Southbound lanes, this area's size was adjusted to account for a boundary line agreement with the Missouri Department of Transportation (MoDOT). The change for this area is in land ownership from MoDOT to USACE. All Corps lands referenced in this boundary line agreement will be classified as High-Density Recreation.

Mill Creek Access Area and Recreational Cottages:

The Mill Creek Access Area is located along Shady Oak Ln in Jersey County, IL in Township 6N, Range 11W, Section 23. The site is along the right descending bank of Piasa Creek just downstream of the confluence of Piasa Creek and Mill Creek. No public access facilities are developed at this time. The area is managed for public and private access purposes and includes the Mill Creek Recreational Cottages Subdivision, which was originally platted with 37 lots, a single 10.14-acre adjacent tract, and adjacent shoreline. Several cottage lots are excluded from public access under private recreation lease to cottage owners. Many lots are undeveloped and provide public access to the Piasa and Mill Creek shorelines for fishing and wildlife viewing. The area classified for Low Density Recreation would be reduced to reflect the acreage of the existing cabin leases and the remaining area (1 acre) would be incorporated to the adjacent Vegetation Management land classification. The private recreational cottage leases would continue to be phased-out in accordance with the Regional Use Plan.

Piasa Creek Recreation Area:

The Piasa Creek Recreation Area is located at the left descending bank of Piasa Creek at the confluence with the Mississippi River. The site lies along Route 100 in Jersey County, IL, in

Township 6N, Range 11W, Section 25 . The area is managed for public recreation purposes. The area was previously under a park and recreation lease with the Illinois Department of Natural Resources (IDNR). The area was improved in 1991 as a cost share project under the Federal Aid in Fish Restoration funding authority. This area is one of the most heavily used recreational boater access sites on the Illinois side of Pool 26. The Master Plan Update proposes to change the land classification from High Density Recreation to Low Density Recreation.

Piasa Island Access Area and Recreational Cottages:

Piasa Island is an undeveloped river island in the Mississippi River adjacent to the Piasa Creek Recreation area. It is in Jersey County, IL in Township 6N, Range 11W, Section 25 and 31. Piasa Island supports a riparian bottomland forest community. IDNR now manages the area under a License for Fish & Wildlife Activities on Piasa and Eagle's Nest Islands Upper Mississippi River and Memorandum of Understanding between IDNR & USACE for the Upper Mississippi River Restoration (UMRR) Piasa & Eagle's Nest Island Habitat Rehabilitation and Enhancement Project (HREP). The proposed land classification change for the cottage and access is from Low Density Recreation area to Wildlife Management. The rest of the island would change land classification from Vegetation Management to Wildlife Management.

Eagle's Nest Island:

Eagle's Nest Island is an undeveloped river island in the Mississippi River adjacent to the Piasa Creek Recreation area. It is in Jersey County, IL, in Township 6N, Range 11W, Section 25 and 31. Eagle's Nest Island supports a riparian bottomland forest community. IDNR now manages the area under a License for Fish & Wildlife Activities on Piasa and Eagle's Nest Islands Upper Mississippi River and Memorandum of Understanding between IDNR & USACE for UMRR Piasa & Eagle's Nest Island HREP. The proposed land classification change is from Vegetation Management area to Wildlife Management.

Prairie-Marsh Restoration Area at Riverlands Migratory Bird Sanctuary

The Prairie-Marsh Restoration Area consists of 1119 acres in St. Charles County, Missouri, located landside and south of Riverlands Way/Spur Dike at Mississippi River Mile 200.5 R – 203 and is a part of the Riverlands Migratory Bird Sanctuary (formerly known as the Environmental Demonstration Area). The area consists of a diverse prairie-marsh community and includes resident plant and animal populations, migratory waterbird habitats, and protection of endangered and threatened species. The current land classification is Vegetation Management and would remain as such. The area is closed to public use during refuge seasons, restricted to developed trails access during non-refuge seasons, and is currently closed to public hunting, trapping, and fishing year-round, in accordance with the Riverlands Migratory Bird Sanctuary (also known as the Melvin Price Locks and Dam Waterfowl Refuge).

The proposed change is not in how the land is classified, but in how the land is used/managed. The proposed land use change is that special managed deer hunts would be authorized within this area to control deer population size, reduce damage inflicted by deer to desirable plant species, and help minimize disease spread among white-tailed deer. Authorization will only occur if surveys indicate that deer density has exceeded ecological or biological carrying capacities. Capacities will be determined by USACE in coordination with Missouri Department

of Conservation (MDC) recommendations. Once coordinated with MDC, limited draw-only deer hunts would provide hunting opportunities for youth, mobility impaired,, veterans, and active-duty military personnel. All hunts will be conducted following MDC statewide hunting regulations. All special management deer hunts would be completed no later than 31 December.

Hunters selected through a limited draw would be required to have all required permits and licenses to access areas within the closed sanctuary to harvest deer to achieve the project management goals. Priority for the youth special management deer hunt would be given from youth living in areas identified in the Economic Justice Screening Tool. Methods of hunting may include either archery or firearm dependent on which special management deer hunt is occurring. Vehicle access would be restricted to existing infrastructure and would not require additional road/path building. Hunters would be positioned in temporary blinds placed by RPO staff and hunters would not be allowed to construct additional structures.

Illinois River

Kampsville Lock & Dam Access Area:

The Kampsville Lock and Dam Access Area is bisected by the Illinois River, immediately downstream of Kampsville, IL, in Township 9S, Range 2W, Sections 2, 11. The area includes the historic Kampsville Lock & Dam abutment site. The area is managed for public access purposes and offers recreational opportunities for wildlife observation, shoreline fishing and historic properties interpretation. For public safety, the area is closed to hunting and trapping. The site of the now abandoned Lock and Dam will be evaluated for its historical significance and potential inclusion on the *National Register of Historic Places*. The proposed land classification change is from Low Density Recreation to Environmentally Sensitive Area.

Stump Lake Wildlife Management Area:

The Stump Lake Wildlife Management Area (WMA) is located along the left descending bank of the Illinois River, adjacent to Pere Marquette State Park in Jersey County, IL. The site is in Township 7N, Range 13W, Sections 17, 20, 28, 29, 32, and 33 and in Township 6N, Range 13W, Sections 4, 5, 8, and 9. The area is managed for fish and wildlife enhancement purposes under a General Plan and Cooperative Agreement by IDNR. The Stump Lake Wildlife Management Area is part of a total managed acreage of 3,513, of which 2,891 acres are owned by the Corps and 622 acres are owned by the IDNR. This site contains 603 acres of water, 427 acres of aquatic vegetation, and 1,451 acres of bottomland forest. The water acreage is made up of six different lakes: Upper Stump, Lower Stump, Long Lake, Flat Lake, Deep Lake and Fowler Lake. The site is very popular for fishing, hunting and wildlife observation, with access from Long Lake, Dabbs Road and from Pere Marquette Harbor parking lot. The proposed land classification would be for 387 acres to change from Wildlife Management Area to Environmentally Sensitive Area.

Table 2. Proposed land classification actions.

Name	Former	Proposed	Acreage Change	State	County	River	Pool	River Mile
Pool 25 Missouri Islands	Unclassified	Vegetation Mgmt	49	MO	Lincoln	Mississippi	25	243-246
Ameren Power Plant Land Exchange	Industrial	Vegetation Mgmt	64.25 acres (disposal) 77 acres (acquisition)	IL	Jersey	Mississippi	26	208.6 - 209.8
Lincoln-Shields Recreation Area	MoDOT owned	Corps ownership / High Density Rec	~23	MO	St. Charles	Mississippi	26	202.5-203.1
Lincoln-Shields South Access Area	Low Density Rec	High Density Rec	2	MO	St. Charles	Mississippi	26	202.5
Mill Creek Access Area & Cottages	Low Density Rec	Vegetation Mgmt	1	IL	Jersey	Mississippi	26	210
Piasa Creek Rec Area	High Density Rec	Low Density Rec	26	IL	Jersey	Mississippi	26	209-209.4
Piasa Island Access Area & Recreational Cottages	Low Density Rec	Wildlife Mgmt	2	IL	Madison and Jersey	Mississippi	26	208.5
Piasa Island	Vegetative Mgmt	Wildlife Mgmt	170	IL	Madison and Jersey	Mississippi	26	208-209.5

Name	Former	Proposed	Acreage Change	State	County	River	Pool	River Mile
Prairie-Marsh Restoration Area	Vegetativ e Mgmt	Managed hunts	0	MO	St. Charles	Mississippi	26	200.5-203
Eagle's Nest Island	Vegetativ e Mgmt	Wildlife Mgmt	70	IL	Jersey	Mississippi	26	209.5- 210.7
Kampsville L&D Access Area	Low Density Rec	Environment ally Sensitive Area	15	IL	Calhoun and Green	Illinois	N/A	31.5-31.7
Stump Lake WMA	Wildlife Manage ment	Environment ally Sensitive Area	387	IL	Jersey	Illinois	N/A	7.3-13.2

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

3.1. Resources Not Evaluated in Detail

The PDT considered relevant environmental resources that would potentially be impacted by the proposed alternatives and eliminated resources from further evaluation that were either not in the area of potential effect or would not be impacted by any of the alternatives. These resources include:

- Topography, Geology, and Soils (would be unchanged from existing conditions in either alternative).
- Prime Farmlands (No prime or unique soils affected).
- Water Quality (would be unchanged from existing conditions in either alternative).
- Wetlands (No wetlands affected).
- Groundwater and Groundwater Quality (would not be affected by either alternative).
- Hydraulics and Hydrology (would not be affected by either alternative).
- Climate (would be unchanged from existing conditions in either alternative).
- Hazardous, Toxic, and Radioactive Waste (will be unchanged from existing conditions in either alternative).
- Invasive Species (Rivers Project would continue to manage for invasive species; the proposed land classification changes would not impact the status of invasive species in the affected areas.)
- Aquatic Habitat: No aquatic habitats would be impacted, conditions expected to remain similar to existing conditions in either alternative.
- Wild and Scenic Rivers (No designated wild and scenic rivers affected).

The PDT focused on information gathered from the study area and the area of potential effect.

3.2. Physical Resources

3.2.1. Land Use and Land Cover

Land use at the areas targeted for land classification changes vary from unclassified to Low/High Density Recreation, and one Wildlife Management area. Land classifications are summarized in **Table 1**. The land use changes discussed in this section include changes to how the land is managed. These land use changes are derived from changes to how the land is classified in the Rivers Project Master Plan and do not include physical changes to the land. Low Density Recreation describes an area with minimal infrastructure that mainly supports passive recreational activities (e.g. primitive camping, wildlife viewing, hiking, and some fishing and

hunting activities). In contrast, High Density Recreational areas are lands developed for intensive recreational activities including large campgrounds, commercial concessions, marinas, comprehensive resorts, and major boat ramps. These areas would have more infrastructure, buildings, and paved areas than Low Density Recreation areas. Wildlife Management Areas are lands designated for the stewardship and management of fish, wildlife, and their habitat. Land cover in the areas targeted for land classification changes include mowed right-of-way areas, oldfields, and forested areas. These areas would also have some developed land cover types like paved and gravel roads, buildings, and other impervious areas. The Stump Lake Wildlife Management Area is much less developed than the other areas. It is characterized by a mature and diverse bottomland hardwood forest. Regeneration of hardwood trees is evident, with some areas experiencing high tree mortality.

Alternative 1 – No Action (Future without Project Condition)

In this alternative, no changes to land classifications would be made. Land cover would remain similar to existing conditions. The proposed land classification change for the Melvin Price Lock & Dam and Stump Lake Wildlife Management Area are intended to protect important habitat identified in these areas. Without this change, the FWOP condition may result in adverse impact to these resources because Rivers Project would be limited in how they can protect the resource with its current classification. The current classifications do not allow for a diverse and effective land management strategy designed to enhance vegetation and wildlife habitat. Similarly, the proposed change for the Kampsville Lock & Dam Area is intended to protect the culturally significant dam structure. Without this protection, the FWOP condition may result in adverse impact to this cultural resource if tree root damage and excessive unregulated public use continue into the future.

Alternative 2 – Land Classification Changes Implemented

The proposed land classification changes would protect sensitive habitats and culturally significant resources identified in Section 2.2. The proposed changes from High to Low Density Recreation would bring the use of those areas more in line with their expected future usages allowing for a sustainable public resource into the future. The changes from Low Density Recreation to Vegetation Management would protect areas where recreation is no longer a sustainable use of those areas. Rivers Project would be able to implement land management strategies specifically designed to enhance natural vegetation and wildlife habitats. The land cover in the areas would not change from existing conditions, but the land classification changes would allow the existing land cover to remain consistent into the future.

The proposed change to allow special hunt at the Prairie-Marsh Restoration area would help manage this sensitive habitat from overgrazing.

3.2.2. Noise

Inadequately controlled noise presents a risk for adverse impact to humans. Noise can also disrupt the life histories of wildlife in the vicinity. Therefore, the Federal government has enacted several measures to control noise pollution. The Noise Control Act of 1972 established by statutory mandate a national policy “to promote an environment for all Americans free from

noise that jeopardizes their public health and welfare”. The 1990 Clean Air Act Amendments include Subchapter IV, relating to noise pollution. Section (c) of this subchapter IV requires that in any case where any Federal department or agency is carrying out or sponsoring any activity resulting in noise which the Administrator (of the Office of Noise Abatement and Control) determines amounts to a public nuisance or is otherwise objectionable, such department or agency shall consult with the Administrator to determine possible means of abating such noise.

Noise levels in the High Density Recreation areas would be the greatest, followed by Low Density Recreation. The vegetation and Wildlife Management Areas would have little artificial noise pollution, except during hunting season. The noise levels at the Melvin Price Lock & Dam would typically be quite high during normal operations. Many of the areas are along or within rivers. Any noise pollution would be contributed from river vessel traffic, boat motors, and the sounds of people recreating in the designated areas and would be expected to range from 60-70db, with hunting approaching 140db (**Figure 2**).

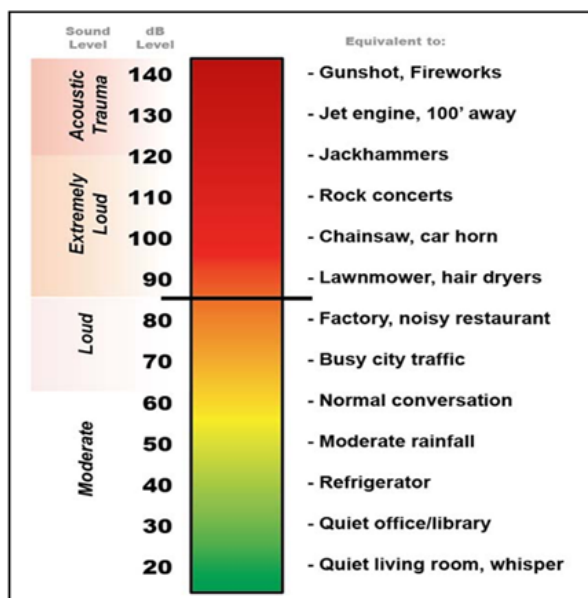


Figure 2. Examples of the sound level and decibel (dB) level of various sources.

Alternative 1 – No Action (Future without Project Condition)

Contributions to noise pollution would be expected to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

Where land classifications would change from High to Low Density Recreation or to Vegetation or Wildlife Management, contributions of noise pollution would be expected to be reduced. Youth rifle hunting at the Prairie Marsh Restoration Area would contribute temporary minor impacts in the form of gunfire noise and use of trucks and UTVs on site. These impacts would be minimal as the special managed deer hunts would only take place on two consecutive days out of the year and strictly limit the number of people participating.

3.2.3. Air Quality

The Clean Air Act (CAA) of 1963 requires the U.S. Environmental Protection Agency (USEPA) to designate National Ambient Air Quality Standards (NAAQS). The USEPA has identified standards for six criteria pollutants: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter (PM₁₀ = less than 10 microns; and PM_{2.5} = less than 2.5 microns in diameter), and sulfur dioxide. The USEPA identifies both primary and secondary NAAQS. Primary standards set limits to protect public health, including the health of “sensitive” populations, such as asthmatics, children, and the elderly; and secondary standards set limits to protect public welfare, including protection against decreased visibility, and damage to animals, crops, vegetation, or buildings. Locations that meet NAAQS are designated “attainment” areas and locations that fail to meet NAAQS are designated as “non-attainment” areas. St. Charles County, MO is currently in attainment. Calhoun, Greene, and Jersey Counties in IL are currently in attainment. Madison County, IL has been in non-attainment for 8-hour ozone since 2018 and for sulfur dioxide since 2016.

Alternative 1 – No Action (Future without Project Condition)

This alternative would result in no changes, adverse or beneficial to air quality in the affected counties. Air quality is expected to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented)

The land classifications would not contribute significantly to changes in attainment status in the affected counties. The special managed deer hunts at the Prairie Marsh Restoration Area are limited to two consecutive days per year, resulting in a *de minimus* contribution to air pollution. The vehicles used during hunting would contribute minor amounts of emissions during the two day hunt but would not be expected to create conditions that would change the attainment status of the county. Air quality is likely to remain similar to existing conditions. Any future changes in attainment status are unlikely to be correlated with the land classifications.

3.2.4. Green House Gas Emissions

The Council of Environmental Quality (CEQ), CEQ-2022-0005, on January 9, 2023 introduced the interim guidance on Greenhouse Gas (GHG) and how agencies are able to compute GHG and the social cost for their projects. USACE, in coordination with USACEHQ, developed a methodology to analyze the components for GHG and incorporate them within National Environmental Policy Act (NEPA) documents. The components that are analyzed within GHG are Carbon Dioxide (CO₂), Methane (CH₄), and Nitrous Oxide (N₂O). Primary sources of CO₂ can be natural sources like decomposition of organic material and anthropogenic sources like burning of fossil fuel (National Energy Technology Laboratory, 2024). For CH₄, emissions can come from a variety anthropogenic process including flora and fauna sources (Crutzen, Aselmann, & Seiler, 1986). For N₂O, majority of the point source revolves around agricultural processes: fertilization (University of California Sustainable Agriculture Research and Education Program, 2024). For GHG, CO₂ is the primary contributor to GHG and climate change, followed by CH₄ and N₂O (Environmental Protection Agency, 2024).

Within this evaluation, both the No Action and the Land Classification Change Alternatives were evaluated for GHG emission. The GHG emissions were calculated using the type and quantity of fossil fuels used for trucks and UTVs used to transport hunters into position. The social cost of greenhouse gas emissions (SC-GHG) were calculated for each alternative by summing the individual emissions from the major greenhouse gas pollutants CO₂, CH₄, and N₂O, and then multiplying by the social cost of each pollutant for the year in which they were generated using the tables from the Interagency Working Group on Social Cost of Greenhouse Gases (IWGSC) report as established by Executive Order 13990 to provide interim updated social costs values, with a 3% discount rate (Interagency Working Group on Social Cost of Greenhouse Gases, United States Government, 2021). Social cost (SC) was estimated using the below formula to translate the climate impact to the proposed metric of dollars.

$$SC - GHG = CO_2 * SC - CO_2 + CH_4 * SC - CH_4 + N_2O * SC - N_2O$$

Where:

$$\begin{aligned} SC - GHG &= \text{the social cost of greenhouse gas emissions in dollars} = \\ &= \text{total carbon dioxide emissions in metric tons } CO_2 \\ &= \text{total methane emissions in metric tons } CH_4 \\ &= \text{total nitrous oxide emissions in metric tons } N_2O \\ &= \text{social cost of carbon dioxide } SC - CO_2 \\ &= \text{social cost methane } SC - CH_4 \\ &= \text{social cost of nitrous oxide } SC - N_2O \end{aligned}$$

The GHG emission and the social costs were computed using NEAT version 1.1.

Alternative 1 – No Action (Future without Project Condition)

In this alternative no actions would take place that would contribute GHG emissions:

Alternative 2 – Land Classification Changes Implemented)

The emissions were calculated using a volume of diesel and unleaded fuel based on the proposed duration and size of the special managed deer hunts. It is estimated that each annual hunt would require 5 gallons of both diesel and unleaded fuel, for a total of 50 gallons of each over the 10 year span of this Master Plan. This alternative would generate 0.95 metric tons of CO₂ (**Table 3**) and the social cost would total \$124 (**Table 4**).

Table 3. Total GHG Emissions (Metric Tons)

Emissions	CO ₂	CH ₄	N ₂ O
Total (metric tons)	0.95	0.00003945	0.00000789

Table 4. Total Social Costs of Greenhouse Gases (2024 Dollars)

Alternative	CO ₂	CH ₄	N ₂ O	Total
No-Action Alternative	\$0	\$0	\$0	\$0
Proposed Action	\$124	\$0	\$0	\$124

3.2.5. Clean Water Act Authorizations

Section 404 of the Clean Water Act assigns responsibility to the Secretary of the Army to administer a permit program to regulate the placement of dredged or fill material into waters of the United States. The placement of any dredged or fill material into waters of the United States below ordinary high-water elevation, or in wetlands adjacent to these waters, must be authorized by a Section 404 permit. Based upon review of the project activity the St. Louis District Regulatory Branch determined that this activity would not require a Regulatory Permit.

3.3. Biological Resources

3.3.1. Terrestrial Habitat

Existing terrestrial habitat in the areas is described below for each of the areas targeted for land classification changes.

Pool 25 Missouri Islands: The terrestrial habitat on the islands consists of riparian bottomland forest.

Ameren Power Plant (disposal tracts) Land Exchange with Mill Creek Area (acquisition tracts):

The acquisition area is densely forested and has no open field terrestrial habitats like oldfields and grassland. The area consists of a mixture of bottomland hardwood forest and mixed upland forest made up of boxelder, silver maple, cottonwood, sycamore, mixed oaks, and mixed hickories (100% forested).

Lincoln Shields Recreational Area: This area is in a rather highly developed part of the Mississippi River shoreline that includes many roads and other paved surfaces. However, the area does have some terrestrial habitat including rocky/sandy shoreline, oldfields, and bottomland forest. Some freshwater wetland is also present when hydrologic conditions allow.

Mill Creek Access Area and Cottages: This area is across the Mississippi River from the Ameren Power Plant area and share a similar terrestrial habitat in the undeveloped portions. It is densely forested in a riparian bottomland forest type. There are little to no open areas at this site aside from the grassy lawns of the recreation areas.

Piasa Island Area: The Piasa Island area is undeveloped. It is highly forested and characterized by river island habitats like riparian bottomland forest, but also has freshwater wetlands, shrub-scrub wetlands, and some mudflat shorelines. The area consists of developed area including grassy lawn surrounding the parking lot and boat ramps.

Piasa Creek Recreational Area: This area is downstream from the Mill Creek Area and the undeveloped portions are also characterized by dense riparian bottomland forest. There is little to no open areas.

Prairie-Marsh Restoration Area: The area would continue to be managed to provide a variety of natural wildlife habitat. Terrestrial habitat includes wet meadow, grassland, and old fields. Several plantings have been conducted across the area to promote the growth of prairie grasses and forbs. There is scattered woody vegetation in the form of shrubs and small trees.

Kampsville Lock & Dam Area: The site of the old Lock and Dam is now forested in a riparian bottomland forest type. The area just north of the old Lock and Dam is a mixture of oldfield and agricultural field before transitioning to the Village of Kampsville.

Stump Lake Wildlife Management Area: This area contains over 1450 acres of diverse bottomland forest. The northern area includes many hardmast species with evidence of regeneration but also high mortality. The east areas contain a diverse oak forest community comprised primarily of overcup oak (*Quercus lyrata*), some of which can be dated back to presettlement (1802) times. The south areas are mostly comprised of bottomland species like silver maple (*Acer saccharinum*), green ash (*Fraxinus pennsylvanica*), and black willow (*Salix nigra*) with scattered remnants of hardmast oak forest. The increase in high water events silting in forested areas and a higher water table has allowed an increase in shrub-scrub communities throughout the area that area primarily comprised of buttonbush (*Cephalanthus occidentalis*), swamp privet (*Forestiera acuminata*) and various willow (*Salix spp.*) species.

Alternative 1 – No Action (Future without Project Condition)

In this alternative, the status of terrestrial habitats in the project area are likely to remain similar to existing conditions. However, the Stump Lake Wildlife Management Area would not gain the added protection of the Environmentally Sensitive Area designation. However, terrestrial habitat in the area would still be managed in support of fish and wildlife resources.

Alternative 2 – Land Classification Changes Implemented)

The land classification changes would not increase or decrease the area of or the quality of terrestrial habitat in the project area. The areas would still be maintained properly to support both recreation (where applicable) and the natural environments present. The classification changes from Low Density Recreation to Vegetation/Wildlife Management would result in less recreation pressure to terrestrial habitats, however minor. The sensitive forest community at Stump Lake would be permanently benefitted by the proposed land classification change to Environmentally Sensitive Area. At the Prairie-Marsh Restoration Area, the proposed hunting would be initiated to reduce browsing pressure on the natural habitats, providing a substantial permanent benefit. The special managed deer hunts would allow the prairie vegetation restoration efforts to be more successful by reducing overgrazing pressure, resulting in permanent benefits to the terrestrial habitat in this area.

3.3.2. Bald Eagle

Although the bald eagle (*Haliaeetus leucocephalus*) was removed from the federal list of threatened and endangered species in 2007, it continues to be protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act (BGEPA). The BGEPA prohibits unregulated take of bald eagles, including disturbance (U.S. Fish & Wildlife Service, 2020). Bald eagles occur regularly in Illinois and Missouri as both migrants and breeders, with some populations of year-round residents along major rivers and reservoirs in either state.

Alternative 1 – No Action (Future without Project Condition)
Bald eagle status is likely to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented)

There would be no actions that would disturb bald eagle nests. The nearest bald eagle nests are further than 660 feet from the Prairie Marsh Restoration Area along the opposite bank of the Mississippi River. The status of bald eagle nests would remain similar to existing conditions. Alternative 2 would have no effect on bald eagles or their nests. In the event that bald eagle nests are found within 660 feet of the Prairie Marsh Restoration Area, the bald eagle protection guidelines would be implemented.

3.3.3. Migratory Birds

The Migratory Bird Treaty Act (MBTA) of 1918 provides protection for bird species native to North America. The project area is in the Mississippi Flyway, a bird migration route which follows the Mississippi River, the Missouri River, and the Lower Ohio River in the United States. The Illinois River is also encompassed in this flyway. A variety of migratory birds might occur in the project areas, some as migrants and some as breeders, depending on the time of year. Year-round residents would also be present. The IPaC report (Project Code: 2024-0088036) identified several species that may occur in the project area. Birds of prey including bald eagle and golden eagle may occur, but golden eagle breed outside of Illinois and Missouri. Many shorebirds were identified including American golden plover, Hudsonian godwit, lesser yellowlegs, pectoral sandpiper, ruddy turnstone, semipalmated sandpiper, short-billed dowitcher, and upland sandpiper. Grassland birds included bobolink, grasshopper sparrow, Henslow's sparrow, and prairie loggerhead shrike. Warbler species included Kentucky warbler and prothonotary warbler. Woodpecker species included the red-headed woodpecker. Other birds included on the list were the chimney swift, black-billed cuckoo, eastern whip-poor-will, king rail, rusty blackbird, and the wood thrush.

Alternative 1 – No Action (Future without Project Condition)
No actions would be taken that would disturb the life history of migratory birds. Migratory bird status is likely to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

The land classification changes are not a physical disturbance that would impact birds. The land use change to allow hunting at the Prairie Marsh Restoration Area would produce temporary minor noise disturbances during the hunting activities should rifles be selected as the hunting method. However, the hunting would only take place for two consecutive days out of any given year and would, on some years, be restricted to bow hunting, further reducing the level of disturbance. Migratory bird status is expected to remain similar to existing conditions.

3.4.Biological Assessment

Federally Threatened and Endangered Species

In compliance with Section 7(c) of the Endangered Species Act of 1973, as amended, an updated list of species and critical habitats potentially occurring in the vicinity of the proposed work areas was acquired from the USFWS Information for Planning and Conservation (IPaC) website at (<https://ecos.fws.gov/ipac/>) on 18 Oct 2024 (Project Code: 2024-0088036; 2025-0008272).; **Table 5**). There are no designated Critical Habitat locations in the project area. Habitat requirements and impacts of the proposed action are discussed for each listed species. The species included in the IPaC are: Gray Bat, Indiana Bat, Northern Long-eared Bat, Tricolored Bat, Spectaclecase, and Monarch Butterfly (**Table 5**).

Table 5. List of federally threatened and endangered species and habitat potentially occurring in the vicinity of the proposed project, acquired from the USFWS Information for Planning and Conservation (IPaC) website.

Common Name (Scientific Name)	Classification	Habitat
Gray Bat (<i>Myotis grisescens</i>)	Endangered	Roosts in caves and forages along streams and open water bodies.
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	Uses caves and mines for winter hibernacula; uses trees for summer roosting. Forages along small stream corridors with well-developed riparian woods and in upland forests.
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered	Similar to Indiana Bat, will use caves and mines for winter hibernacula; uses trees for summer roosting. Forages along large water bodies adjacent to forests.
Tricolored bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	In summer, roosts in structures, trees, cliffs, and caves. In winter, hibernates in caves.
Eastern Massasauga (<i>Sistrurus catenatus</i>)	Threatened	Wet prairies, marshes, fens, sedge meadows, peatlands, and low areas along rivers and lakes.
Pallid Sturgeon (<i>Scaphirhynchus albus</i>)	Endangered	Is a bottom-oriented, large river obligate fish inhabiting the Missouri and Mississippi rivers and some tributaries from Montana to Louisiana
Spectaclecase (<i>Cumberlandia monodonta</i>)	Endangered	Large rivers where they live in areas sheltered from the main force of the river current
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	Uses milkweed plants as a reproductive host. Found in open grassy areas with milkweed.

Western Regal Fritillary <i>Argynnis idalia occidentalis</i>	Proposed Threatened	Occurs in sand prairies, open sand savannah. Is closely associated with violets for larval feeding.
Decurrent False Aster (<i>Boltonia decurrens</i>)	Threatened	Found in riparian and wetland habitat; favors recently disturbed and seasonally flooded areas.
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	Threatened	Occurs in a wide variety of habitats, from mesic prairie to wetlands such as sedge meadows, marsh edges, even bogs.

3.4.1. Gray Bat

The endangered gray bat occurs in several Missouri counties where it inhabits caves during both summer and winter. With rare exceptions, gray bats sleep in caves year-round, a divergence from the behavior of the Indiana bat and northern long-eared bat. During the winter, they hibernate in deep, vertical caves (U.S. Fish & Wildlife Service, 2019). In the summer, they roost in caves which are scattered along rivers. Foraging occurs in a variety of common habitats that largely overlap with both the Indiana and northern long-eared bat, including in and around the tree canopy of floodplain, riparian, and upland forests. There are no caves or mines that would be impacted by the land classification changes.

Alternative 1 – No Action (Future without Project Condition)

No actions would be taken that would impact gray bats. Gray bat status would remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

The land classification changes are not physical in nature, so there are no direct or indirect impacts to evaluate that could adversely impact the species. Foraging habitat would not be reduced or fragmented from existing conditions. There would be no tree removal or other physical changes that could impact foraging or roosting bats. The vehicle and human traffic and potential gunfire from the special managed deer hunts at the Prairie Marsh Restoration Area would cause noise impacts. The St. Louis USACE District has made a “may affect not likely to adversely affect” (NLAA) determination for gray bat.

3.4.2. Indiana Bat

During late fall and winter, Indiana bats hibernate in caves and mines. During the spring and summer, Indiana bats roost in trees. Suitable roosting trees can be alive or dead, but all would have loose, exfoliating bark, holes, and other damage that can be used by a roosting bat. These damages allow bats to crawl inside and be sheltered from predators and weather. Indiana bat roost trees are typically at least 5 inches diameter at breast height (dbh) with suitable roosting characteristics (U.S. Fish & Wildlife Service, 2022). Preferred roost sites are in forest openings, at the forest edge, or where the overstory canopy allows some sunlight exposure to the roost tree, which is usually within 1 km (0.6 mi.) of water. Indiana bats forage for flying insects (particularly moths) in and around the tree canopy of floodplain, riparian, and upland forests. The most significant threat facing Indiana bat populations today is white-nose syndrome (WNS),

a fungal disease. Other major range wide threats to the Indiana bat include habitat loss/degradation, forest fragmentation, winter disturbance, and environmental contaminants.

Alternative 1 – No Action (Future without Project Condition)

No actions would be taken that would impact Indiana bats. Indiana bat status would remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

The land classification changes are not physical in nature, so there are no direct or indirect impacts to evaluate that could adversely impact the species. Foraging habitat would not be reduced or fragmented from existing conditions. There would be no tree removal or other physical changes that could impact foraging or roosting bats. The vehicle and human traffic and potential gunfire from the special managed deer hunts at the Prairie Marsh Restoration Area would cause noise impacts. The St. Louis USACE District has made a NLAA determination for Indiana bat.

3.4.3. Northern Long-eared Bat

The northern long-eared bat is sparsely found across much of the eastern and north central United States and spend winter hibernating in caves and mines. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Within hibernacula, they are found in small crevices or cracks. During summer, NLEB habitat includes a variety of forested habitats and adjacent non-forested habitats such as emergent wetland, edges of agricultural fields, old fields, pastures, fencerows, strips of riparian forest, and linear wooded corridors. Trees that would serve as potential roosts would be at least 3 inches dbh and have exfoliating bark, cracks, crevices and/or cavities (U.S. Fish & Wildlife Service, 2022). Suitable forested areas would be either dense or loose aggregations of trees, relatively unfragmented compared to areas that are highly-fragmented or that have been clear-cut. The NLEB is more likely to use a single tree with roosting characteristics if it is within 1000 feet of other forest. Human-made structures, like houses, barns, and bridges have also been observed to host roosting NLEBs. 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.

Alternative 1 – No Action (Future without Project Condition)

No actions would be taken that would impact northern long-eared bats. Northern long-eared bat status will remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

The land classification changes are not physical in nature, so there are no direct or indirect impacts to evaluate that could adversely impact the species. Foraging habitat would not be reduced or fragmented from existing conditions. There would be no tree removal or other physical changes that could impact foraging or roosting bats. The vehicle and human traffic and potential gunfire from the special managed deer hunts at the Prairie Marsh Restoration Area

would cause noise impacts. The St. Louis USACE District has made a NLAA determination for northern long-eared bat.

3.4.4. Tricolored Bat

Tricolored bats were formerly called Eastern Pipistrelle. Tricolored bats are usually found roosting singly, only sometimes in pair or clusters of up to a dozen individuals (Missouri Department of Conservation, 2022). In winter, tricolored bats hibernate in caves. They prefer caves that are humid and warm. In summer, they leave their hibernation caves and roost in trees amongst dead leaves, in crevices in cliffsides, and in human-made structures. They also sometimes roost in caves during summer. Tricolored bat forages for insects high in the air along forest edge and the boundary of streams or open bodies of water. Tricolored bats mate during spring, fall, and sometimes in the winter. Maternity colonies begin forming in mid-April and females bear 1 to 2 pups by late May to mid-July.

Alternative 1 – No Action (Future without Project Condition)

No actions would be taken that would impact tricolored bats. Tricolored bat status will remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

The land classification changes are not physical in nature, so there are no direct or indirect impacts to evaluate that could adversely impact the species. Foraging habitat would not be reduced or fragmented from existing conditions. There would be no tree removal or other physical changes that could impact foraging or roosting bats. No artificial or natural roosting structures would be disturbed or removed. The vehicle and human traffic and potential gunfire from the special managed deer hunts at the Prairie Marsh Restoration Area would cause noise impacts. The St. Louis USACE District has made a NLAA determination for tricolored bat.

3.4.5. Eastern Massasauga

Eastern massasaugas are small snakes with thick bodies, heart-shaped heads, and vertical pupils. They are associated with wet prairies, wetlands, and the wetter areas in riparian corridors. They are also known to use adjacent uplands during part of the year. During hibernation, eastern massasaugas use a variety of micro-habitats including crayfish burrows, under logs, in-between tree roots, or in small mammal burrows. Unlike other rattlesnakes, massasaugas hibernate alone (U.S. Fish & Wildlife Service, 2016). Habitat loss and habitat fragmentation are the leading concerns for eastern massasauga. Fragmentation is a concern because the snakes do not travel long distances between habitats, so barriers to movement between wetlands and uplands disrupts their life-history needs. Lack of education about the importance of these snakes is also a concern, as many people find snakes frightening and do not know of their conservation value.

Alternative 1 – No Action (Future without Project Condition)

Maintaining the current land classification would not adversely impact eastern massasauga. Eastern massasauga status is likely to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

The land classification changes are not physical in nature, so impacts to eastern massasauga would be limited. Massasauga hibernation habitat would not be impacted. Habitats used during the active part of the year would not be disturbed or fragmented. The special managed deer hunts at the Prairie Marsh Restoration Area would take place in the non-active season. The trucks would use established access routes, but the UTVs may traverse undeveloped ground where snakes may have burrows. The USACE St. Louis District has made a NLAA determination for eastern massasauga.

3.4.6. Pallid Sturgeon

Pallid sturgeon are a bottom-oriented, large river obligate fish inhabiting the Missouri and Mississippi rivers and some tributaries from Montana to Louisiana (Kallemeyn, 1983). Pallid sturgeon are adapted to large rivers with extensive micro-habitat diversity in the form of braided channels, irregular flows, seasonal flood cycles. In addition to the main channel, they use waters in the river floodplains including backwaters, chutes, and sloughs. Pallid sturgeon have been documented over a variety of available substrates but are often associated with sandy and fine bottom materials (Bramblett & White, 2001). It is suspected that sand and gravel bars and the mouths of major tributaries may be utilized for spawning. This species feeds on aquatic invertebrates and small fish. Spawning appears to occur between March and July, with lower latitude fish spawning earlier than those in the northern portion of the range. Spawning appears to occur over firm substrates, in deeper water, with relatively fast, turbulent flows, and is driven by several environmental stimuli including flow, water temperature, and day length (Wildhaber, et al., 2007).

Alternative 1 – No Action (Future without Project Condition)

Maintaining the current land classification would not impact pallid sturgeon and their status is likely to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

No actions would be taken that would directly or indirectly impact aquatic habitats such as dredging, sedimentation pollution, or fill placement in the river. The special managed deer hunts on the Prairie Marsh Restoration Area would take place in upland areas and would use existing access. There would not be any vector for sedimentation to indirectly impact pallid sturgeon. Therefore, the St. Louis District has made a “no effect” determination for pallid sturgeon.

3.4.7. Spectaclecase

The Spectaclecase is a large mussel that can grow up to 9 inches in length. The shape of the shell is elongated, sometimes curved, and somewhat inflated, hence its name (U.S. Fish & Wildlife Service, 2019). Spectaclecase are found in large rivers in segments that are sheltered from the main current where they cluster in firm mud beneath rock slabs, boulders, and in-between tree roots. There are a variety of conservation concerns for the species, including small population size, sedimentation, pollution, channelization of rivers, and the invasive Zebra Mussel. Conservation efforts for this species include preventing the spread of invasive species

and conducting monitoring and research on existing populations. There are six mussel beds in the channel separating Gilbert Island from the Missouri bank of the Mississippi River. These mussel beds may include Spectaclecase, but there is no data on the species composition of the beds.

Alternative 1 – No Action (Future without Project Condition)

Maintaining the current land classification would not impact spectaclecase. Their status is likely to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

No actions would be taken that would directly impact aquatic habitats such as dredging or fill placement in the river. There would also be no indirect impacts like sedimentation pollution entering the stream. The hunts would take place in upland areas and would use existing access. There would not be any vector for sedimentation to indirectly impact spectaclecase mussel. The St. Louis District has made a “no effect” determination for spectaclecase mussel.

3.4.8. Decurrent False Aster

The decurrent false aster is presently known from scattered localities on the floodplains of the Illinois River and Mississippi River from its confluence with the Missouri River south to Madison County, Illinois. Decurrent false aster grows in wetlands, on the borders of marshes and lakes, and on the margins of bottomland oxbows and sloughs. Historically, this plant was found in wet prairies, marshes, and along the shores of some rivers and lakes. The species favors recently disturbed areas and flooding may play a role in maintaining its habitat. Current habitats include riverbanks, old fields, roadsides, mudflats and lake shores. It relies on periodic flooding to scour away other plants that compete for the same habitat (U.S. Fish & Wildlife Service, 2019). The typical flowering season for decurrent false aster is from August through October. In Missouri, decurrent false aster distribution is currently restricted to the Mississippi River floodplain from the Illinois River southward. Current populations are fewer and more isolated than in historical times. Presently it is only known to occur in St. Charles County, MO.

Alternative 1 – No Action (Future without Project Condition)

Maintaining the current land classification would not impact decurrent false aster. Its status is likely to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

The land classification changes are not physical in nature, so impacts resulting from those changes would be limited. The special managed deer hunts at the Prairie Marsh Restoration Area would take place in the winter, after the growing season and after the plants have dropped seed and died off. The proposed actions would not impact decurrent false aster and its status in the project area is likely to remain similar to existing conditions. The St. Louis District has made a “no effect” determination for decurrent false aster.

3.4.9. Eastern Prairie Fringed Orchid

Eastern prairie fringed orchid is between 8-40 inches tall with an upright leafy stem terminating in a flower cluster with white, fringed petals from which the flower gets its name (U.S. Fish & Wildlife Service, 2005). This orchid occurs in wet prairie, wetlands, sedge meadows, marsh edges, and bogs. It grows best in areas with full sun that do not have woody encroachment that could shade out the orchid. In order for the seedlings to become established, a symbiotic relationship between the seed and soil fungi is necessary. It is pollinated by nocturnal hawk moths. Habitat loss is the primary cause of population declines, and, accordingly, conservation efforts focus on protecting areas where the orchid is known to occur.

Alternative 1 – No Action (Future without Project Condition)

Maintaining the current land classification would not impact eastern prairie fringed orchid and its status is likely to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

Eastern prairie fringed orchid does not occur in any of the eight areas. Its status is likely to remain similar to existing conditions under this alternative. The St. Louis District has made a “no effect” determination for eastern prairie fringed orchid.

3.4.10. Western Regal Fritillary

This butterfly occurs in prairie habitat, especially sand prairies and open sand savannah. Is also known to occur in dry, sandy habitats, prairie restoration areas, and remnant prairie. Requires violets for larval feeding and is closely associated with populations of violets. Adults require nectar plants for feeding and tall prairie grasses and scattered shrubs for resting. Avoids forested areas and open areas that do not support prairie grasses. Adults rarely use forested areas or areas that lack prairie grasses. Most individuals spend their entire lifecycle within a few miles of the patches of violets where females lay their eggs (Moorehouse, 2022).

Alternative 1 – No Action (Future without Project Condition)

Maintaining the current land classification would not impact the western regal fritillary and its status is likely to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

The proposed land classification changes would not disturb adults or destroy host violet plants. The special managed deer hunts at the Prairie Marsh Restoration Area would take place in the winter when butterflies would not occur on the area. The St. Louis District has made a NLAA determination for the western regal fritillary.

3.4.11. Monarch Butterfly

The monarch butterfly is a large orange butterfly that is a candidate for listing on the Endangered Species List. Monarch populations of eastern North America have declined 90%. Much of the monarch butterfly’s life is spent migrating between Canada, Mexico, and the U.S. Monarchs do not overwinter in Missouri (U.S. Fish & Wildlife Service, 2021). The monarch occurs in a variety of habitats where it searches for its host plant, milkweed. Of the over 100

species of milkweed that exist in North America, only about one fourth of them are known to be important host plants for monarch butterflies. The main monarch host plant is common milkweed (*Asclepias syriaca*) (Kaul & Wilsey, 2019). Other common hosts include swamp milkweed (*Asclepias incarnata*), butterflyweed (*Asclepias tuberosa*), whorled milkweed (*Asclepias verticillata*), and poke milkweed (*Asclepias exaltata*) (U.S. Fish & Wildlife Service, 2021). Three factors appear most important to explain the decline of monarchs: loss of milkweed breeding habitat, logging at overwintering sites, and climate change and extreme weather. In addition, natural enemies such as diseases, predators, and parasites, as well as insecticides used in agricultural areas may also contribute to the decline. The project area is likely to have some milkweed in the wetland areas and in more wet areas of the open fields.

Alternative 1 – No Action (Future without Project Condition)

Maintaining the current land classification would not impact monarch butterfly. Monarch butterfly status is likely to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

The proposed land use classification changes would not disturb migrating adults or destroy host milkweed plants. The special managed deer hunts at the Prairie Marsh Restoration area would take place in winter when monarchs would not be present and outside of the growing season for host milkweed. The St. Louis District has made a “not likely to jeopardize the continued existence” determination for the monarch butterfly.

3.4.12. Missouri Department of Conservation (MDC) Coordination

On 9 July 2024, an automated Heritage Review Report was obtained from the MDC website for the Lincoln-Shields Recreation Area and Access. On 22 August 2024, a report was obtained for the Pool 25 Missouri Islands. On 18 October 2024, a report was obtained for the Prairie-Marsh Restoration Area. The purpose of the report is to identify state-listed resources potentially occurring in the project area. The report recommended further coordination, which will be held during the Public Review period for the EA.

Alternative 1 – No Action (Future without Project Condition)

The status of state listed species and protected areas would remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

The land classification changes would not impact the status of state-listed species and resources in the project area. The special managed deer hunts at the Prairie Marsh Restoration area would contribute minor temporary impacts in the form of gunfire noise and truck/UTV traffic use during the two-day hunts. The special managed deer hunts would take place in the winter months and would be restricted to only a few individuals over a two-day period per year. Access would be from existing roads and pathways. The status of state-listed resources would remain similar to existing conditions.

3.4.13. Illinois Department of Natural Resources (IDNR) Consultation

On 10 May 2024, the Illinois EcoCAT tool (<https://dnr2.illinois.gov/EcoPublic/>) was used to determine the state listed resources in the Kampsville Lock & Dam and Piasa and Eagle's Nest Island areas. The Kampsville L&D area had IDNR # 2414764 and found no records of state listed species, natural area sites, nature preserves, or other protected resources. This terminated consultation on this area. The Piasa and Eagle's Nest Island EcoCAT report had IDNR # 2414767. This report identified four species as potentially occurring in the area: gray bat, Indiana bat, northern long-eared bat, and butterfly mussel. IDNR responded on 13 May 2024 to conclude that adverse impacts are unlikely and terminated consultation.

Alternative 1 – No Action (Future without Project Condition)

The status of state listed species and protected areas would remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

Impacts to the bat species were covered in Section 3.3. The work would have no effect on butterfly mussel. No direct impacts to aquatic habitats like fill placement and dredging would take place. There would be no sedimentation pollution that could indirectly impact butterfly mussels. The special managed deer hunts at the Prairie Marsh Restoration area would contribute minor temporary impacts in the form of gunfire noise and truck/UTV traffic use during the two-day hunts. The special managed deer hunts would take place in the winter months and would be restricted to only a few individuals over a two-day period per year. Access would be from existing roads and pathways. No physical changes would take place that would disturb, remove, or fragment existing habitat. No resources identified by IDNR would be impacted by this alternative.

3.5.Social and Economic Resources

3.5.1. Aesthetics

The aesthetics of the eight areas are generally characterized by the natural habitats found at each site. Forests, grasslands, wetlands, and the adjacent big river (e.g. Mississippi/Illinois River) provide scenic appeal. These areas would also have some infrastructure to accommodate recreational use, which may detract slightly from aesthetics.

Alternative 1 – No Action (Future without Project Condition)

The areas would continue to be managed and maintained by land managers according to the federal standard. The aesthetics of the area are likely to remain similar to existing conditions.

Alternative 2 – Land Classification Changes Implemented

The lowering of the recreational use from High to Low Density may provide a benefit to aesthetics by reducing the motor vehicle and boat traffic at the sites. In this way, the aesthetic appeal of the site may be benefitted by this alternative.

3.5.2. Recreation

Recreational activities on the eight areas vary from High to Low Density Recreation. The Wildlife Management and Vegetation Management areas still support some passive recreational activities, limited to walking/hiking paths. The High Density areas allow for a wide variety of recreational uses and have the buildings, roads, and other infrastructure to support these uses. Activities supported by the High Density areas include boating, horseback riding, larger campgrounds with running water and electricity, RV and other motor vehicle use. Commercial concessions are also available at many of these areas. In contrast, the Low Density areas have much less infrastructure, and support fewer, more passive recreational uses. Activities supported by the low-density recreation areas include primitive camping, wildlife viewing, fishing, and hunting.

Pool 25 Missouri Islands: These areas will continue to support regulated hunting and trapping.
The Ameren Power Plant Area: does not support recreation, but the new Mill Creek Area acquired in the land exchange might have hunting or some type of recreational activities allowed in the future.

Lincoln-Shields Recreation Area: is open to public access and is popular for fishing, wildlife viewing, picnicking, boat launching, and hiking/biking trail usage. Facilities include an asphalt parking lot, shoreline revetment, two-way asphalt entrance roadway, connecting bike trail link, handicapped accessible vault toilet, former piers of the old Lock & Dam 26, ten picnic table sites with concrete pads and grills, 24'x36' pavilion, two 1,000-gallon pit toilets and storage room (constructed in 2010), one concrete boat ramp, civil war monument, a solar light, one bench, and three access control gates.

The Mill Creek Access Area: includes no public access infrastructure, but the empty cottage lots do provide public access to the Piasa and Mill Creek shorelines for fishing and wildlife viewing.

The Piasa Creek Recreation Area: Facilities at this area include an entrance road, a paved parking lot for cars and trailers, four lane concrete boat ramp, four picnic sites, a vault toilet building and dusk to dawn security lights.

Piasa Creek Island: The area has no infrastructure to support public access but is open to regulated hunting and trapping.

Prairie-Marsh Restoration Area: Recreational opportunities include public educational interpretation of natural habitats that demonstrate the significance of environmental management, public access with pedestrian trails, wildlife viewing, and educational and research opportunities of wetland and marsh habitats.

Kampsville Lock & Dam Area: is managed for public access purposes and offers recreational opportunities for wildlife observation, shoreline fishing and historic properties interpretation. No public water access is present at this time. For public safety, the area is closed to hunting and trapping.

Stump Lake Wildlife Management Area: The site is very popular for fishing, hunting and wildlife observation, with access from Long Lake, Dabbs Road and from Pere Marquette Harbor parking lot.

Alternative 1 – No Action (Future without Project Condition)

The current recreational uses would continue. Recreation would not be affected by the No Action alternative.

Alternative 2 – Land Classification Changes Implemented

Recreational opportunities would continue in the areas that change to Low Density but would be limited to the types of activities supported by that designation. Passive (little to no infrastructure) public use would still be allowed in the Wildlife and Vegetation Management areas. Public use would be very specifically managed in the areas designated as environmentally sensitive. The hunting opportunities proposed for the Prairie-Marsh Restoration area would provide new and different recreational opportunities that are not available currently but would be restricted to qualified individuals from among mobility impaired, youth, veterans, and active-duty military personnel. In Alternative 2, the recreational use of the areas would come into line with the future plans for each area and other areas in Rivers Project would continue to support recreation. However, the reductions in recreational density could be considered a minor impact to recreation.

3.5.3. Cultural Resources

The only known cultural resource that in the areas proposed to be reclassified is the historic Kampsville Lock & Dam structure. While this structure is not on the National Register of Historic Places, it is likely to be eligible. The Kampsville Lock & Dam was constructed by the federal government between 1880-1883. The lock walls were constructed from limestone and spanned the Illinois River just south of what is now the Village of Kampsville in Calhoun County, Illinois. The site includes outbuilding associated with the operation of the locks and lock walls. Since the decommissioning of the locks and dam in 1938, the site has filled in with river sediments, and the historic structures are partially buried (Mckinnon, 2024).

Alternative 1 – No Action (Future without Project Condition)

The condition of cultural resources would remain similar to existing conditions. Without some special protections granted by the proposed land use classification change at the historic Kampsville Lock & Dam, this cultural resource may be minorly impacted. Even passive recreational usage includes people walking on the structure and there is a small risk of potential vandalism. The area managers, however, would continue to protect the structure.

Alternative 2 – Land Classification Changes Implemented

Under the proposed action the land classification changes would be implemented. This action has no potential to cause effect to cultural resources, as no ground disturbing activity is directly associated with this activity. The culturally significant Kampsville Lock and Dam structure would be better protected if the land use classification change is made. It is likely that any unknown cultural resources would also be permanently benefitted by this alternative. Any management actions involving earth moving activity resulting by the change in the classifications would be individually evaluated under Section 106 of the NHPA prior to implementation.

3.5.4. Tribal Resources

The St. Louis District consults with 25 tribes that have an interest in the project area.

Alternative 1 – No Action (Future without Project Condition)

No actions would be taken that would disturb existing known or unknown sacred sites.

Alternative 2 – Land Classification Changes Implemented

Under the proposed action the land classification changes would be implemented. This action has no potential to cause effect to tribal resources, as no ground disturbing activity is directly associated with this activity. It is likely that any unknown tribal resources would also be permanently benefitted by this alternative. Any management actions involving earth moving activity resulting by the change in the classifications would be individually evaluated under Section 106 of the NHPA prior to implementation.

3.5.5. Environmental Justice

“Environmental Justice” means the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment so that people:

- are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and
- have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices (USACE, 2024).

Environmental Justice analysis was developed following the requirements of: Executive Order 12898 ("Federal Actions to Address Environmental Justice in Minority Population and Low-Income Populations," 1994); Executive Order 14008 - Tackling the Climate Crisis at Home and Abroad, 27 January 2021; and EO 14096 – Revitalizing Our Nation’s Commitment to Environmental Justice for All, 21 April 2023.

In January of 2021, President Biden issued Executive Order 14008. The order directed the Council on Environmental Quality (CEQ) to develop a new tool. This tool is called the Climate and Economic Justice Screening Tool. The tool has an interactive map and uses datasets that are indicators of burdens in eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development. The tool uses this information to identify communities that are experiencing these burdens. Such communities are considered a communities with EJ concerns because they are overburdened and underserved.

The Climate and Economic Justice Screening tool was used to determine if any of the eight areas are in a tract that is considered a community with EJ concerns (i.e. meets a burden threshold or at least one associated socioeconomic threshold).

- The Pool 25 Missouri Islands are in Tract #: 29113810400 which is considered a community with EJ concerns. It meets the following thresholds: expected population loss rate, projected flood risk, transportation barriers, and low income.
- The Ameren Plant Area, Mill Creek Area, Piasa Recreation Area, and one of the two cabins on Piasa Island are all located in Tract # 17083010300. This tract is not identified as a community with EJ concerns.
- The second cabin on Piasa Island is in Tract # 17119402722, which is not a community with EJ concerns.
- The Lincoln-Shields Recreation Area is in Tract # 29183310100 which is not a community with EJ concerns.
- The Kampsville Lock and Dam area on the right descending bank is in Tract # 17013951200, which is a community with EJ concerns. It meets the following thresholds: expected population loss rate, projected flood risk, energy cost, transportation barriers, wastewater discharge, and low income.
- In contrast, the left descending bank area is in Tract # 17061973800 which is not a community with EJ concerns.
- Finally, the Stump Lake Wildlife Management Area is in Tract # 17083010500, which is not a community with EJ concerns.

Alternative 1 – No Action (Future without Project Condition)

The No Action Alternative would not result in disproportionate and adverse impacts to communities with EJ concerns.

Alternative 2 – Land Classification Changes Implemented

The Kampsville Lock and Dam Area on the right descending bank was within a community with EJ concerns. However, the proposed land use change would not adversely impact this community in any way. The Pool 25 Missouri Islands are also within a community with EJ concerns tract but are undeveloped wilderness islands that do not support any infrastructure or permanent residents. Public access to the islands for recreation would remain unchanged in this alternative. The proposed special managed deer hunts at the Prairie Marsh Restoration Area would be highly inclusive, with the goal of selecting hunters from among mobility impaired, youth, veterans, and active-duty military personnel. Overall, Environmental Justice concerns would remain similar to existing conditions.

4.0. CUMULATIVE IMPACTS

Cumulative impacts are defined as those impacts that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes the actions. Cumulative impacts are not caused by a single project but include the effects of a particular project in conjunction with other projects (past, present, and future) on the resource. Cumulative effects are studied to enable the public, decision-makers, and project proponents to consider the “big picture” effects of a given project on the community and the environment. In a broad sense, all impacts on affected resources are probably cumulative; however, the role of the analyst is to narrow the focus of the cumulative impacts analysis to important issues of national, regional, and local significance (CEQ, 1997).

4.1. Step 1: Identify Potentially Affected Resources

In this step, each resource affected by the action alternatives are identified. Resources were not assessed for cumulative impacts if the analysis in the Affected Environment and Environmental Impacts Chapter determined there would be no adverse impact to that resource from the Alternative 2. Resources that would be affected by Alternative 2 include biological and social resources. Potentially affected biological resources include terrestrial habitat and the federally-listed and state-listed threatened & endangered species listed in the IPaC report. Potentially affected social/economic resources include recreation.

4.2. Step 2: Establish Boundaries (Geographic and Temporal)

In identifying past, present, and reasonably foreseeable actions to consider in the cumulative impact analysis, affected resource-specific spatial and temporal boundaries were identified. The spatial boundary is where impacts to the affected resource could occur from the action alternatives and therefore where past, present, and reasonably foreseeable future actions could contribute to cumulative impacts to the affected resource. This boundary is defined by the affected resource and may be a different size than the project area. The spatial boundary includes the eight areas identified in Section 2.2.

The temporal boundary describes how far into the past and forward into the future actions should be considered in the impact analysis. The temporal boundary is guided by CEQ guidance on considering past action and a rule of reason for identifying future actions. For each resource topic, the geographic and temporal boundaries were identified. For all resource topics, the consideration of past actions is reflected in the existing condition. A default future temporal boundary of 50 years from the baseline condition was used as an initial timeframe; however, the impacts are based on their likelihood of occurring and whether they can be reasonably predicted.

4.3. Step 3: Identify the Cumulative Action Scenario

In this step, past, present, and reasonably foreseeable future actions to be included in the impact analysis for each specific affected resource were identified. These actions fall within the spatial and temporal boundaries established in Step 2. Rivers Project has provided recreational

opportunities and managed for fish and wildlife in the past, does currently, and the Master Plan outlines future plans to support these needs. It is likely that, in the future, Rivers Project would continue to support recreation and provide stewardship of the natural areas in the Project. This would include invasive species control. The recreation and natural areas operated by the state of Illinois and Missouri and other federal lands operated by the Forest Service and the National State Parks System would also continue to operation around Rivers Project. Private commercial recreation areas have existed and would continue to exist in some form in the future as well. However, it is likely that both the quantity and quality of terrestrial habitat on private lands would diminish over time as land is developed for residential, commercial, and industrial uses. Terrestrial habitat on state and federally owned land is unlikely to reduce in area, but some additional parks may be added over time.

4.4. Step 4: Analyze Cumulative Impacts

For each resource, the actions identified in Step 3 are analyzed in combination with the impacts of the action alternatives being evaluated. This analysis describes the overall cumulative impact related to each resource and the contribution to this cumulative impact of each alternative being evaluated.

The proposed land classification changes would provide permanent benefits by reducing recreation pressure and, in some cases, further protecting areas by establishing Environmentally Sensitive Areas. These actions would not contribute to cumulative adverse impacts to terrestrial habitat nor ESA species.

While the proposed land classifications would provide future benefit to terrestrial habitat and ESA species, these changes would reduce recreational opportunities within Rivers Project. However, with the exception of the Environmentally Sensitive Areas, some amount of recreation on these areas would still be supported. Also, there would still be recreational opportunities at other Rivers Project areas and at other public areas managed by the state and federal government.

None of the alternatives were determined to significantly adversely impact the resources discussed.

5.0. COMPLIANCE WITH ENVIRONMENTAL POLICY

The relationship of the Tentatively selected Plan to environmental requirements, environmental acts, and /or executive orders is shown in **Table 6**.

Table 6. Relationship of the Tentatively selected Plan to environmental requirements, environmental acts, and/or executive orders.

Environmental Requirement	Compliance
American Indian Religious Freedom Act, as amended, 42 USC § 1996	FC
Bald Eagle Protection Act, 42 USC 4151-4157	PC
Clean Air Act, 42 USC 7401-7542	FC
Clean Water Act, 33 USC 1251-1375	FC
Comprehensive Environmental Response, Compensation, and Liability Act, (HTRW) 42 USC 9601-9675	FC
Endangered Species Act, 16 USC 1531-1543	PC
Farmland Protection Policy Act, 7 (Prime Farmland) USC 4201-4208	FC
Fish and Wildlife Coordination Act, 16 USC 661-666c	FC
Food Security Act of 1985 (Swampbuster), 7 USC varies	FC
Land and Water Conservation Fund Act, (Recreation) 16 USC 460d-4601	FC
Migratory Bird Treaty Act of 1918, as amended, 16 USC § 703, et seq.	PC
National Environmental Policy Act of 1969, 42 USC 4321-4347	PC ¹
National Historic Preservation Act, 16 USC 470 et seq.	FC
Noise Control Act of 1972, 42 USC 4901-4918	FC
Resource, Conservation, and Rehabilitation Act, (Solid Waste) 42 USC 6901-6987	FC
Rivers and Harbors Appropriation Act, (Sec. 10) 33 USC 401-413	FC
Water Resources Development Acts of 1986 and 1990 (Sec 906 – Mitigation; Sec 307 - No Net Loss - Wetlands)	FC
Floodplain Management (EO 11988 as amended by EO 12148)	FC
Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, EO 12898, February 11, 1994, as amended, and supplemented by EO 14096	FC
Federal Compliance with Pollution Control Standards (EO 12088)	FC
Invasive Species, EO 13112, February 3, 1999, as amended	FC

Protection and Enhancement of Environmental Quality (EIS Preparation) (EO 11991)	FC
Protection and Enhancement of the Cultural Environment (Register Nomination) (EO 11593)	FC
Protection of Wetlands (EO 11990 as amended by EO 12608)	FC

FC = Full Compliance, PC¹ = full compliance will be achieved upon signing of the NEPA document.

6.0 COORDINATION AND PUBLIC REVIEW

Notification of the DRAFT Environmental Assessment and unsigned Finding of No Significant Impact was sent to relevant officials, agencies, organizations, and individuals for review and comment. Additionally, an electronic copy of the EA was available on the St. Louis District's website during the 30-day public review period beginning on 6 Jan 2025 at the following url:

<https://www.mvs.usace.army.mil/Portals/54/docs/pm/Reports/EA/2024RPOMasterPlanEA.pdf>

Please note that the Finding of No Significant Impact was unsigned during the public review period. These documents would be signed into effect only after having carefully considered comments received as a result of the 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.

7.0 ENVIRONMENTAL ASSESSMENT PREPARERS

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10.0 FINDING OF NO SIGNIFICANT IMPACT

**Rivers Project Master Plan Update
Land Classification / Reclassification**

U.S. Army Corps of Engineers

Rivers Project

St. Charles County, Missouri

Calhoun, Green, Madison, and Jersey Counties, Illinois

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 Draft 2024 Rivers Project Master Plan Update.

USACE is proposing to implement land classification changes for Rivers Project lands as identified in the Draft Master Plan update; as well as to assign land classifications to recently acquired land parcels not covered by the 2015 Master Plan. The land classification changes and initial land classifications would take effect at the time the updated Master Plan is approved. Approximately 25 acres would be reclassified as High Density Recreation, with 23 of those 25 acres being a new classification from land acquired from MODOT. Approximately 26 acres will be reclassified as Low Density Recreation. These recreation areas are those lands developed to provide for the recreational activities of the visiting public. Approximately 147 acres would be reclassified 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. Approximately 242 acres are being reclassified as Wildlife Management. Wildlife Management lands are designated for stewardship of fish and wildlife resources. Finally, approximately 402 acres will be reclassified as 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. In addition, the Rivers Project proposes to conduct special managed deer hunts at the Prairie Marsh Restoration Area located within the Riverlands Migratory Bird Sanctuary. Special managed deer hunts are proposed to control deer population size, reduce damage inflicted by deer to desirable plant species, and help minimize disease spread among white-tailed deer. These limited draw-only deer hunts would provide hunting opportunities for mobility impaired, youth, veterans, and active-duty military personnel. A maximum of five hunters may/would be allowed on two consecutive days once per year during the hunting season, but before 1 Jan. Methods of hunting may include either bow hunting or rifle hunting.

Table 7. Summary of proposed Land Classification changes.

Name	Former	Proposed	Acreage Change	River	River Mile
Pool 25 Missouri Islands	Unclassified	Vegetation Mgmt	49	Mississippi	243-246
Ameren Power Plant Land Exchange	Industrial	Vegetation Mgmt	77	Mississippi	208.6 - 209.8
Lincoln-Shields Recreation Area	MoDOT owned	Corps ownership / High Density Rec	~23	Mississippi	202.5-203.1
Lincoln-Shields South Access Area	Low Density Rec	High Density Rec	2	Mississippi	202.5
Mill Creek Access Area & Cottages	Low Density Rec	Vegetation Mgmt	1	Mississippi	210
Piasa Creek Rec Area	High Density Rec	Low Density Rec	26	Mississippi	209-209.4
Piasa Island Access Area & Recreational Cottages	Low Density Rec	Wildlife Mgmt	2	Mississippi	208.5
Piasa Island	Vegetative Mgmt	Wildlife Mgmt	170	Mississippi	208-209.5
Prairie-Marsh Restoration Area	Vegetative Mgmt	Managed hunts	0	Mississippi	200.5-203
Eagle's Nest Island	Vegetative Mgmt	Wildlife Mgmt	70	Mississippi	209.5-210.7
Kampsville L&D Access Area	Low Density Rec	Environment ally Sensitive Area	15	Illinois	31.5-31.7
Stump Lake WMA	Wildlife Management	Environment ally Sensitive Area	387	Illinois	7.3-13.2

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 Action would greatly facilitate the recreation mission of Rivers Project, increase safety, and promote efficient land management.
 - b. The Proposed Action would not adversely impact the physical environment (e.g., topography; geology; soils, land cover; water quality; air quality; hydrological conditions, nor would it contribute to climate change).
 - c. The project would not significantly adversely impact the socioeconomic environment (e.g., recreation, aesthetics, noise, or demographics). However, In Alternative 2, the recreational use of the areas would come into line with the future plans for each area and other areas in Rivers Project would continue to support recreation. However, the reduction in recreational density could be considered a minor impact to recreation.
 - d. No disproportionate and adverse human health or environmental impacts on communities with Environmental Justice concerns would occur (Environmental Justice).
 - e. No significant adverse impacts are anticipated to biological resources, including wetlands, bottomland hardwood forests, or fish and wildlife resources.
 - f. The proposed work 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 adverse climate change impacts are anticipated.
 - i. No significant adverse cumulative impacts are anticipated.
4. Based on the disclosure of the Proposed Action's impacts contained within the Environmental Assessment, no significant impacts to the environment are anticipated. The Proposed Action has 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 Rivers Project Master Plan land classification / reclassification action as identified in this Environmental Assessment.

Date

Andy J. Pannier
Colonel, U.S. Army
District Commander

Appendix to the Environmental Assessment



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Southern Illinois Sub-Office

Southern Illinois Sub-office

8588 Route 148

Marion, IL 62959-5822

Phone: (618) 998-5945

Email Address: Marion@fws.gov

<https://www.fws.gov/office/illinois-iowa-ecological-services>



In Reply Refer To:

10/18/2024 20:07:01 UTC

Project Code: 2024-0088036

Project Name: Rivers Project Office Master Plan Update Environmental Assessment

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

To Whom It May Concern:

The attached species list identifies federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat, if present, within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation. If you determine that other federally protected species not listed in this Official Species List are present in your action area, you are still responsible to analyze your potential effects to those species and consult with the U.S. Fish and Wildlife Service if consultation is required.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) **the accuracy of this species list should be verified after 90 days**. This verification can be completed formally or informally. You may verify the list by visiting the Information for Planning and Consultation (IPaC) website <https://ipac.ecosphere.fws.gov> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list.

Section 7 Consultation

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the U.S. Fish and Wildlife Service

(Service) if they determine their project “may affect” listed species or designated critical habitat. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action may affect endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service to make “no effect” determinations. If you determine that your proposed action will have no effect on threatened or endangered species or their respective designated critical habitat, you do not need to seek concurrence with the Service.

Note: For some species or projects, IPaC will present you with *Determination Keys*. You may be able to use one or more Determination Keys to conclude consultation on your action for species covered by those keys.

Technical Assistance for Listed Species

1. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain information on the species life history, species status, current range, and other documents by selecting the species from the thumbnails or list view and visiting the species profile page.???????

No Effect Determinations for Listed Species

1. If there are *no* species or designated critical habitats on the Endangered Species portion of the species list: conclude "no species and no critical habitat present" and document your finding in your project records. No consultation under ESA section 7(a)(2) is required if the action would result in no effects to listed species or critical habitat. Maintain a copy of this letter and IPaC official species list for your records.
2. If any species or designated critical habitat are listed as potentially present in the **action area** of the proposed project the project proponents are responsible for determining if the proposed action will have "no effect" on any federally listed species or critical habitat. No effect, with respect to species, means that no individuals of a species will be exposed to any consequence of a federal action or that they will not respond to such exposure.
3. If the species habitat is not present within the action area or current data (surveys) for the species in the action area are negative: conclude "no species habitat or species present" and document your finding in your project records. For example, if the project area is located entirely within a "developed area" (an area that is already graveled/paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping, is located within an existing maintained facility yard, or is in cultivated cropland conclude no species habitat present. Be careful when assessing actions that affect: 1) rights-of-ways that contains natural or semi-natural vegetation despite periodic mowing or other management; structures that have been known to support listed species (example: bridges), and 2) surface water or groundwater. Several species inhabit rights-of-ways, and you should carefully consider effects to surface water or groundwater, which often extend outside of a project's immediate footprint.
4. Adequacy of Information & Surveys - Agencies may base their determinations on the best evidence that is available or can be developed during consultation. Agencies must give the benefit of any doubt to the species when there are any inadequacies in the information. Inadequacies may include uncertainty in any step of the analysis. To provide adequate information on which to base a determination, it may be appropriate to conduct surveys to determine whether listed species or their habitats are present in the action area. Please contact our office for more information or see the survey guidelines that the Service has made available in IPaC.

May Effect Determinations for Listed Species

1. If the species habitat is present within the action area and survey data is unavailable or inconclusive: assume the species is present or plan and implement surveys and interpret results in coordination with our office. If assuming species present or surveys for the species are positive continue with the may affect determination process. May affect, with respect to a species, is the appropriate conclusion when a species might be exposed to a consequence of a federal action and could respond to that exposure. For critical habitat, 'may affect' is the appropriate conclusion if the action area overlaps with mapped areas of critical habitat and an essential physical or biological feature may be exposed to a consequence of a federal action and could change in response to that exposure.
2. Identify stressors or effects to the species and to the essential physical and biological features of critical habitat that overlaps with the action area. Consider all consequences of the action and assess the potential for each life stage of the species that occurs in the action area to be exposed to the stressors. Deconstruct the action into its component parts to be sure that you do not miss any part of the action that could cause effects to the species or physical and biological features of critical habitat. Stressors that affect species' resources may have consequences even if the species is not present when the project is implemented.
3. If no listed or proposed species will be exposed to stressors caused by the action, a 'no effect' determination may be appropriate – be sure to separately assess effects to critical habitat, if any overlaps with the action area. If you determined that the proposed action or other activities that are caused by the proposed action may affect a species or critical habitat, the next step is to describe the manner in which they will respond or be altered. Specifically, to assess whether the species/critical habitat is "not likely to be adversely affected" or "likely to be adversely affected."
4. Determine how the habitat or the resource will respond to the proposed action (for example, changes in habitat quality, quantity, availability, or distribution), and assess how the species is expected to respond to the effects to its habitat or other resources. Critical habitat analyses focus on how the proposed action will affect the physical and biological features of the critical habitat in the action area. If there will be only beneficial effects or the effects of the action are expected to be insignificant or discountable, conclude "may affect, not likely to adversely affect" and submit your finding and supporting rationale to our office and request concurrence.
5. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, check IPaC for species-specific Section 7 guidance and conservation measures to determine whether there are any measures that may be implemented to avoid or minimize the negative effects. If you modify your proposed action to include conservation measures, assess how inclusion of those measures will likely change the effects of the action. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, contact our office for assistance.
6. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

For additional information on completing Section 7 Consultation including a Glossary of Terms used in the Section 7 Process, information requirements for completing Section 7, and example letters visit the Midwest Region Section 7 Consultations website at: <https://www.fws.gov/library/collections/midwest-region-section-7-consultations>.

You may find more specific information on completing Section 7 on communication towers and transmission lines on the following websites:

- Incidental Take Beneficial Practices: Power Lines - <https://www.fws.gov/story/incidental-take-beneficial-practices-power-lines>
- Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. - <https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation>

Tricolored Bat Update

On September 14, 2022, the Service published a proposal in the Federal Register to list the tricolored bat (*Perimyotis subflavus*) as endangered under the Endangered Species Act (ESA). The Service has up to 12-months from the date the proposal published to make a final determination, either to list the tricolored bat under the Act or to withdraw the proposal. The Service determined the bat faces extinction primarily due to the rangewide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across North America. Because tricolored bat populations have been greatly reduced due to WNS, surviving bat populations are now more vulnerable to other stressors such as human disturbance and habitat loss. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective (typically 30 days after publication of the final rule in the Federal Register), the prohibitions against jeopardizing its continued existence and “take” will apply. Therefore, if your future or existing project has the potential to adversely affect tricolored bats after the potential new listing goes into effect, we recommend that the effects of the project on tricolored bat and their habitat be analyzed to determine whether authorization under ESA section 7 or 10 is necessary. Projects with an existing section 7 biological opinion may require reinitiation of consultation, and projects with an existing section 10 incidental take permit may require an amendment to provide uninterrupted authorization for covered activities. Contact our office for assistance.

Bald and Golden Eagles

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, please contact our office for further coordination. For more information on permits and other eagle information visit our website <https://www.fws.gov/library/collections/bald-and-golden-eagle-management>.

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Note: IPaC has provided all available attachments because this project is in multiple field office jurisdictions.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Southern Illinois Sub-Office

Southern Illinois Sub-office
8588 Route 148
Marion, IL 62959-5822
(618) 998-5945

This project's location is within the jurisdiction of multiple offices. However, only one species list document will be provided for all offices. The species and critical habitats in this document reflect the aggregation of those that fall in each of the affiliated office's jurisdiction. Other offices affiliated with the project:

Missouri Ecological Services Field Office

101 Park Deville Drive
Suite A
Columbia, MO 65203-0057
(573) 234-2132

PROJECT SUMMARY

Project Code: 2024-0088036

Project Name: Rivers Project Office Master Plan Update Environmental Assessment

Project Type: Provide Technical Assistance

Project Description: The USACE Rivers Project Office is updating the Master Plan. An EA is being prepared for this action and it includes only land use classification changes. There will be minor amounts of tree clearing and the demolition of some small cabins, but otherwise only land use classification changes.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.029024,-90.56338068131328,14z>



Counties: Illinois and Missouri

ENDANGERED SPECIES ACT SPECIES

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/C3QBJM6TZNAA5BXDS5T5QVWYZY/documents/generated/7280.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/C3QBJM6TZNAA5BXDS5T5QVWYZY/documents/generated/7280.pdf	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2202	Threatened

FISHES

NAME	STATUS
Pallid Sturgeon <i>Scaphirhynchus albus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7162	Endangered

CLAMS

NAME	STATUS
Spectaclecase (mussel) <i>Cumberlandia monodonta</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7867	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Western Regal Fritillary <i>Argynnis idalia occidentalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/12017	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Decurrent False Aster <i>Boltonia decurrens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7705	Threatened
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

The following FWS National Wildlife Refuge Lands and Fish Hatcheries lie fully or partially within your project area:

FACILITY NAME	ACRES
MISSISSIPPI RIVER WILDLIFE MANAGEMENT AREA https://www.fws.gov/our-facilities?keywords=%5C%22MISSISSIPPI+RIVER+WILDLIFE+MANAGEMENT+AREA%5C%22	15,743.786

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Cerulean Warbler <i>Setophaga cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 21 to Jul 20
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Grasshopper Sparrow <i>Ammodramus savannarum perpallidus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20

NAME	BREEDING SEASON
Henslow's Sparrow <i>Centronyx henslowii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds May 1 to Aug 31
Hudsonian Godwit <i>Limosa haemastica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9482	Breeds elsewhere
Kentucky Warbler <i>Geothlypis formosa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
King Rail <i>Rallus elegans</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8936	Breeds May 1 to Sep 5
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Prairie Loggerhead Shrike <i>Lanius ludovicianus excubitorides</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8833	Breeds Feb 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Ruddy Turnstone <i>Arenaria interpres morinella</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10633	Breeds elsewhere

NAME	BREEDING SEASON
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Semipalmated Sandpiper <i>Calidris pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9603	Breeds elsewhere
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Upland Sandpiper <i>Bartramia longicauda</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9294	Breeds May 1 to Aug 31
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A
- PSS1A
- PSS1F
- PFO1C
- PFO1/EM1A
- PFO1Ah
- PFO1Ch
- PSS1Fh
- PSS1Ch

FRESHWATER POND

- PUBFx
- PABGx
- PUBG

LAKE

- L2ABGh
- L2USAh
- L1UBHh
- L2UBGh

FRESHWATER EMERGENT WETLAND

- PEM1Fx
- PEM1/SS1Ch
- PEM1C
- PEM1Ch
- PEM1Fh
- PEM1A
- PEM1Ah

RIVERINE

- R4SBC
- R2UBHx
- R5UBH
- R5UBFx
- R2UBH

IPAC USER CONTACT INFORMATION

Agency: Army Corps of Engineers
Name: Evan Hill
Address: 1222 Spruce St
City: St. Louis
State: MO
Zip: 63103
Email: evan.b.hill@usace.army.mil
Phone: 3149255004



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Missouri Ecological Services Field Office
101 Park Deville Drive
Suite A
Columbia, MO 65203-0057
Phone: (573) 234-2132 Fax: (573) 234-2181

In Reply Refer To:

10/18/2024 20:03:43 UTC

Project Code: 2025-0008272

Project Name: Rivers Project Office Master Plant Update - Prairie-Marsh Restoration Area

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

To Whom It May Concern:

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

Threatened and Endangered Species

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

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. **Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days.** The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance

Refer to the Midwest Region [S7 Technical Assistance](#) website for step-by-step instructions for making species determinations and for specific guidance on the following types of projects:

projects in developed areas, HUD, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

Federally Listed Bat Species

Indiana bats, gray bats, and northern long-eared bats occur throughout Missouri and the information below may help in determining if your project may affect these species.

Gray bats - Gray bats roost in caves or mines year-round and use water features and forested riparian corridors for foraging and travel. If your project will impact caves, mines, associated riparian areas, or will involve tree removal around these features – particularly within stream corridors, riparian areas, or associated upland woodlots –gray bats could be affected.

Indiana and northern long-eared bats - These species hibernate in caves or mines only during the winter. In Missouri the hibernation season is considered to be November 1 to March 31. During the active season in Missouri (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥ 5 inches diameter at breast height (dbh) for Indiana bat, and ≥ 3 inches dbh for northern long-eared bat, that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Tree species often include, but are not limited to, shellbark or shagbark hickory, white oak, cottonwood, and maple. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, Indiana bats or northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas;
- Trees found in highly-developed urban areas (e.g., street trees, downtown areas);
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees; and
- A stand of eastern red cedar shrubby vegetation with no potential roost trees.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example ["No Effect" document](#) also can be found on the S7 Technical Assistance website.

2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see #3 below) – then project proponents can conclude the proposed activities **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) through the Species website.
3. If IPaC returns a result that one or more federally listed bat species (Indiana bat, northern long-eared bat, or gray bat) are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** these bat species **IF** one or more of the following activities are proposed:
 - a. Clearing or disturbing suitable roosting habitat, as defined above, at any time of year;
 - b. Any activity in or near the entrance to a cave or mine;
 - c. Mining, deep excavation, or underground work within 0.25 miles of a cave or mine;
 - d. Construction of one or more wind turbines; or
 - e. Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on listed bat species. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example ["No Effect" document](#) also can be found on the S7 Technical Assistance website.

If any of the above activities are proposed in areas where one or more bat species may be present, project proponents can conclude the proposed activities **may affect** one or more bat species. We recommend coordinating with the Service as early as possible during project planning. If your project will involve removal of over 5 acres of suitable forest or woodland habitat, we recommend you complete a Summer Habitat Assessment prior to contacting our office to expedite the consultation process. The Summer Habitat Assessment Form is available in Appendix A of the most recent version of the [Range-wide Indiana Bat Summer Survey Guidelines](#).

Other Trust Resources and Activities

Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA

to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

Next Steps

Should you determine that project activities **may affect** any federally listed species or trust resources described herein, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

If you have not already done so, please contact the Missouri Department of Conservation (Policy Coordination, P. O. Box 180, Jefferson City, MO 65102) for information concerning Missouri Natural Communities and Species of Conservation Concern.

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

John Weber

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Missouri Ecological Services Field Office

101 Park Deville Drive

Suite A

Columbia, MO 65203-0057

(573) 234-2132

PROJECT SUMMARY

Project Code: 2025-0008272

Project Name: Rivers Project Office Master Plant Update - Prairie-Marsh Restoration Area

Project Type: Provide Technical Assistance

Project Description: Adding an area to the Rivers Project Office Master Plant Update.

Project Code: 2024-0088036

Land Use classification change from Vegetation Management to Wildlife Management. The proposed land classification change is that special hunts will be allowed on occasion.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.865107050000006,-90.18750174588308,14z>



Counties: St. Charles County, Missouri

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/GKGTMXWZZZBKVHJ6WMVTNEP4VM/documents/generated/7280.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/GKGTMXWZZZBKVHJ6WMVTNEP4VM/documents/generated/7280.pdf	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

CLAMS

NAME	STATUS
Spectaclecase (mussel) <i>Cumberlandia monodonta</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7867	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Decurrent False Aster <i>Boltonia decurrens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7705	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Army Corps of Engineers
Name: Evan Hill
Address: 1222 Spruce St
City: St. Louis
State: MO
Zip: 63103
Email: evan.b.hill@usace.army.mil
Phone: 3149255004



Missouri Department of Conservation

Missouri Department of Conservation's Mission is to protect and manage the forest, fish, and wildlife resources of the state and to facilitate and provide opportunities for all citizens to use, enjoy and learn about these resources.

Natural Heritage Review Level Three Report: Species Listed Under the Federal Endangered Species Act

There are records of species listed under the Federal Endangered Species Act, and possibly also records for species listed Endangered by the state, or Missouri Species and/or Natural Communities of Conservation Concern within or near the the defined Project Area. Please contact the U.S. Fish and Wildlife Service and the Missouri Department of Conservation for further coordination.

Foreword: Thank you for accessing the Missouri Natural Heritage Review Website developed by the Missouri Department of Conservation with assistance from the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, Missouri Department of Transportation and NatureServe. The purpose of this report is to provide information to federal, state and local agencies, organizations, municipalities, corporations, and consultants regarding sensitive fish, wildlife, plants, natural communities, and habitats to assist in planning, designing, and permitting stages of projects.

PROJECT INFORMATION

Project Name and ID Number: Lincoln-Shields Recreation Area Land Classification Change #14760

Project Description: The area is immediately west of the US 67 Clark Bridge in St. Charles County, MO in Township 48N, Range 7E, Section 36. Following the elevation of the Highway 67 Southbound lanes, this area's size was adjusted to account for a boundary line agreement with MODOT. The change for this area is in ownership between MoDOT & Corps. All Corps lands referenced in this boundary line agreement will be classified as High-Density Recreation. There may be some amount of hazard tree removal at the recreation area as part of regular operations and maintenance.

Project Type: Recreation, Other

Contact Person: Evan Hill

Contact Information: evan.b.hill@usace.army.mil or 5739255004

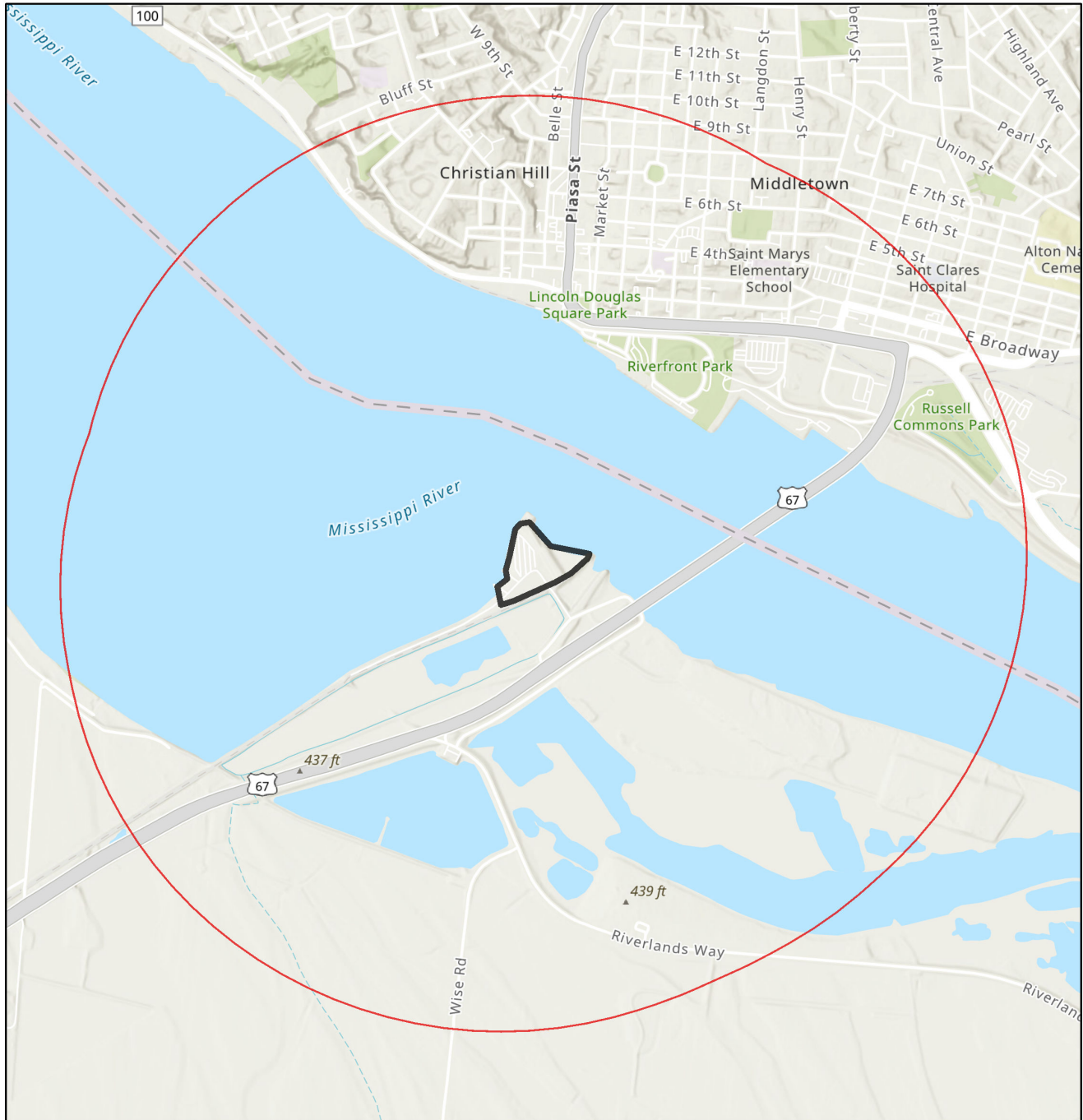
Disclaimer: This NATURAL HERITAGE REVIEW REPORT identifies if a species or natural community tracked by the Natural Heritage Program is known to occur within or near the project area submitted, and shares recommendations to avoid or minimize project impacts to sensitive species or natural habitats. Incorporating information from the Natural Heritage Program into project plans is an important step in reducing impacts to Missouri's sensitive natural resources. If an occurrence record is present, or the proposed project might affect federally listed species, the user must contact the Department of Conservation or U.S. Fish and Wildlife Service for more information.

This Natural Heritage Review Report is not a site clearance letter for the project. Rather, it identifies public lands and records of sensitive resources located close to and/or potentially affected by the proposed project. If project plans or location change, this report may no longer be valid. Because land use conditions change and animals move, the existence of an occurrence record does not mean the species/habitat is still present. Therefore, reports include information about records near but not necessarily on the project site. Lack of an occurrence record does not mean that a sensitive species or natural community is not present on or near the project area. On-site verification is the responsibility of the project. However, the Natural Heritage Program is only one reference that should be used to evaluate potential adverse project impacts and additional information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Reviewing current landscape and habitat information, and species' biological characteristics would additionally ensure that Missouri Species of Conservation Concern are appropriately identified and addressed in planning efforts.

U.S. Fish and Wildlife Service – Endangered Species Act (ESA) Coordination: Lack of a Natural Heritage Program occurrence record for federally listed species in your project area does not mean the species is not present, as the area may never have been surveyed. Presence of a Natural Heritage Program occurrence record does not mean the project will result in negative impacts. This report does not fulfill Endangered Species Act consultation with the U.S. Fish and Wildlife Service (USFWS) for listed species. Direct contact with the USFWS may be necessary to complete consultation and it is required for actions with a federal connection, such as federal funding or a federal permit; direct contact is also required if ESA concurrence is necessary. Visit [IPaC: Home \(fws.gov\)](https://www.fws.gov/ipac) to initiate USFWS Information for Planning and Conservation (IPaC) consultation. Contact the Columbia Missouri Ecological Field Services Office (573-234-2132, or by mail at 101 Park Deville Drive, Suite A, Columbia, MO 65203) for more information.

Transportation Projects: If the project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or visit [Home Page | Missouri Department of Transportation \(modot.org\)](https://www.modot.org) for additional information on recommendations.

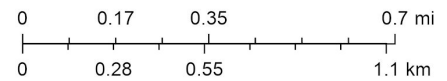
Lincoln-Shields Recreation Area Land Classification Change



July 9, 2024

1:20,780

- Buffered Project Boundary
- Project Boundary



Esri, NASA, NGA, USGS, FEMA, Metro East Park and Rec District, Missouri Dept. of Conservation, Missouri DNR, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Species or Communities of Conservation Concern within the Area:

There are records of species listed under the Federal Endangered Species Act, and possibly also records for species listed Endangered by the state, or Missouri Species and/or Natural Communities of Conservation Concern within or near the defined Project Area. Please contact the U.S. Fish and Wildlife Service and the Missouri Department of Conservation for further coordination.

Email (preferred): NaturalHeritageReview@mdc.mo.gov
MDC Natural Heritage Review
Science Branch
P.O. Box 180
Jefferson City, MO
65102-0180
Phone: 573-522-4115 ext. 3182

U.S. Fish and Wildlife Service
Ecological Service
101 Park Deville Drive
Suite A
Columbia, MO
65203-0007
Phone: 573-234-2132

Other Special Search Results:

The project occurs on or near public land, Upper Mississippi CA, please contact MDC.

Project Type Recommendations:

Recreation: Other Construction should be managed to minimize erosion and sedimentation/runoff to nearby streams and lakes, including adherence to any Clean Water Act permit conditions. Project design should include stormwater management elements that assure storm discharge rates to streams for heavy rain events will not increase from present levels. Revegetate disturbed areas to minimize erosion using native plant species compatible with the local landscape and wildlife needs. Annual ryegrass may be combined with native perennials for quicker green-up. Avoid aggressive exotic perennials such as crownvetch and sericea lespedeza. Please see [Best Management Practices for Construction and Development Projects Affecting Missouri Rivers and Streams \(mo.gov\)](#).

Project Location and/or Species Recommendations:

Endangered Species Act Coordination - If this project has the potential to alter habitat (e.g. tree removal, projects in karst habitat) or cause direct mortality of bats, please coordinate directly with U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132 Ext. 100 for Ecological Services) for further coordination under the Endangered Species Act. Indiana bats (*Myotis sodalis*, federal- and state-listed endangered) and Northern long-eared bats (*Myotis septentrionalis*, federal-listed threatened) may occur near the project area. Both of these species of bats hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in wooded areas, often riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana bats or Northern long-eared bats, especially from September to April.

Bald Eagle: The project location submitted and evaluated is within the geographic range of nesting Bald Eagles in Missouri. Bald Eagles (*Haliaeetus leucocephalus*) may nest near streams or water bodies in the project area. Nests are large and fairly easy to identify. Adults begin nesting activity in late December and January and young birds leave the nest in late spring to early summer. While no longer listed as endangered, eagles continue to be protected by the federal government under the Bald and Golden Eagle Protection Act. Work managers should be alert for nesting areas within 1500 meters of project activities, and follow federal guidelines at: [Do I need an eagle take permit? | U.S. Fish & Wildlife Service \(fws.gov\)](#) if eagle nests are seen.

Decurrent False Aster (*Boltonia decurrens*, federal-listed threatened and state-listed endangered) may occur in this area. Decurrent False Aster is a head floodplain species that grows in wetlands and on the borders of marshes, lakes, oxbows, and sloughs. It also may be found in old fields, roadsides, agricultural fields, and on levees. It favors sites characterized by moist soil and regular disturbance, preferably periodic flooding, which maintains open areas with high light levels. Today it is found in areas where succession is prevented, and sunlight is allowed to reach the seedlings. It is a perennial plant that blooms from August through October. Please see [Best Management Practices for Construction and Development Projects Decurrent False Aster \(mo.gov\)](#).

Karst: This county has known karst geologic features (e.g., caves, springs, and sinkholes, all characterized by subterranean water movement). Few karst features are recorded in Natural Heritage records, and ones not noted here may be encountered at the project site or affected by the project. Cave fauna (many of which are Species of Conservation Concern) are influenced by changes to water quality; please check your project site for any karst features and make every effort to protect groundwater in the project area. Additional information and specific recommendations are available at [Management Recommendations for Construction and Development Projects Affecting Missouri Karst Habitat \(mo.gov\)](#).

Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment. Please inspect and clean equipment thoroughly before moving between project sites. See [Managing Invasive Species in Your Community | Missouri Department of Conservation \(mo.gov\)](#) for more information.

- Remove any mud, soil, trash, plants or animals from equipment before leaving any water body or work area.
- Drain water from boats and machinery that have operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
- When possible, wash and rinse equipment thoroughly with hard spray or HOT water (>140° F, typically available at do-it-yourself car wash sites), and dry in the hot sun before using again.

Streams and Wetlands – Clean Water Act Permits: Streams and wetlands in the project area should be protected from activities that degrade habitat conditions. For example, soil erosion, water pollution, placement of fill, dredging, in-stream activities, and riparian corridor removal, can modify or diminish aquatic habitats. Streams and wetlands may be protected under the Clean Water Act and require a permit for any activities that result in fill or other modifications to the site. Conditions provided within the U.S. Army Corps of Engineers (USACE) Clean Water Act Section 404 permit ([Kansas City District Regulatory Branch \(army.mil\)](#)) and the Missouri Department of Natural Resources (DNR) issued Clean Water Act Section 401 Water Quality Certification ([Section 401 Water Quality Certification | Missouri Department of Natural Resources \(mo.gov\)](#)), if required, should help minimize impacts to the aquatic organisms and aquatic habitat within the area. Depending on your project type, additional permits may be required by the Missouri Department of Natural Resources, such as permits for stormwater, wastewater treatment facilities, and confined animal feeding operations. Visit [Wastewater Permits | Missouri Department of Natural Resources \(mo.gov\)](#) for more information on DNR permits. Visit both the USACE and DNR for more information on Clean Water Act permitting.

For further coordination with the Missouri Department of Conservation and the U.S. Fish and Wildlife Services, please see the contact information below:

Email (preferred): NaturalHeritageReview@mdc.mo.gov
MDC Natural Heritage Review
Science Branch
P.O. Box 180
Jefferson City, MO
65102-0180
Phone: 573-522-4115 ext. 3182

U.S. Fish and Wildlife Service
Ecological Service
101 Park Deville Drive
Suite A
Columbia, MO
65203-0007
Phone: 573-234-2132

Miscellaneous Information

FEDERAL Concerns are species/habitats protected under the Federal Endangered Species Act and that have been known near enough to the project site to warrant consideration. For these, project managers must contact the U.S. Fish and Wildlife Service Ecological Services (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132; Fax 573-234-2181) for consultation.

STATE Concerns are species/habitats known to exist near enough to the project site to warrant concern and that are protected under the Wildlife Code of Missouri (RSMo 3 CSR 10). "State Endangered Status" is determined by the Missouri Conservation Commission under constitutional authority, with requirements expressed in the Missouri Wildlife Code, rule 3CSR 10-4.111. Species tracked by the Natural Heritage Program have a "State Rank" which is a numeric rank of relative rarity. Species tracked by this program and all native Missouri wildlife are protected under rule 3CSR 10-4.110 General Provisions of the Wildlife Code.

See [Missouri Species and Communities of Conservation Concern Checklist \(mo.gov\)](#) for a complete list of species and communities of conservation concern. Detailed information about the animals and some plants mentioned may be accessed at [Mofwis Search Results](#). Please contact the Missouri Department of Conservation to request printed copies of any materials linked in this document.



Missouri Department of Conservation

Missouri Department of Conservation's Mission is to protect and manage the forest, fish, and wildlife resources of the state and to facilitate and provide opportunities for all citizens to use, enjoy and learn about these resources.

Natural Heritage Review Level Three Report: Species Listed Under the Federal Endangered Species Act

There are records of species listed under the Federal Endangered Species Act, and possibly also records for species listed Endangered by the state, or Missouri Species and/or Natural Communities of Conservation Concern within or near the the defined Project Area. Please contact the U.S. Fish and Wildlife Service and the Missouri Department of Conservation for further coordination.

Foreword: Thank you for accessing the Missouri Natural Heritage Review Website developed by the Missouri Department of Conservation with assistance from the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, Missouri Department of Transportation and NatureServe. The purpose of this report is to provide information to federal, state and local agencies, organizations, municipalities, corporations, and consultants regarding sensitive fish, wildlife, plants, natural communities, and habitats to assist in planning, designing, and permitting stages of projects.

PROJECT INFORMATION

Project Name and ID Number: RPO Master Plan Update EA #15088

Project Description: An Environmental Assessment is being prepared to document impacts from land use classification changes on USACE River Project lands. There will be no soil disturbance or fill added to any areas. Hazard tree removal would take place throughout River Project lands. This particular coordination request concerns the Pool 25 Missouri Islands area, which consists of two islands along the right descending bank of the Mississippi River that were previously not identified as USACE lands. The upstream island is 33 acres in size at river mile 246. The downstream island is 16 acres in size a river mile 244. Both are located adjacent to Lock & Dam 25 Saddle Dam. The islands are a mixture of a natural riparian bottomland forest. They are open to regulated hunting and trapping in accordance with the Missouri Wildlife Code. Forest Inventory work is planned for these islands, but no future development is currently planned. The land use classification change is from unclassified to vegetation management.

Project Type: Recreation, Other

Contact Person: Evan Hill

Contact Information: evan.b.hill@usace.army.mil or 5739255004

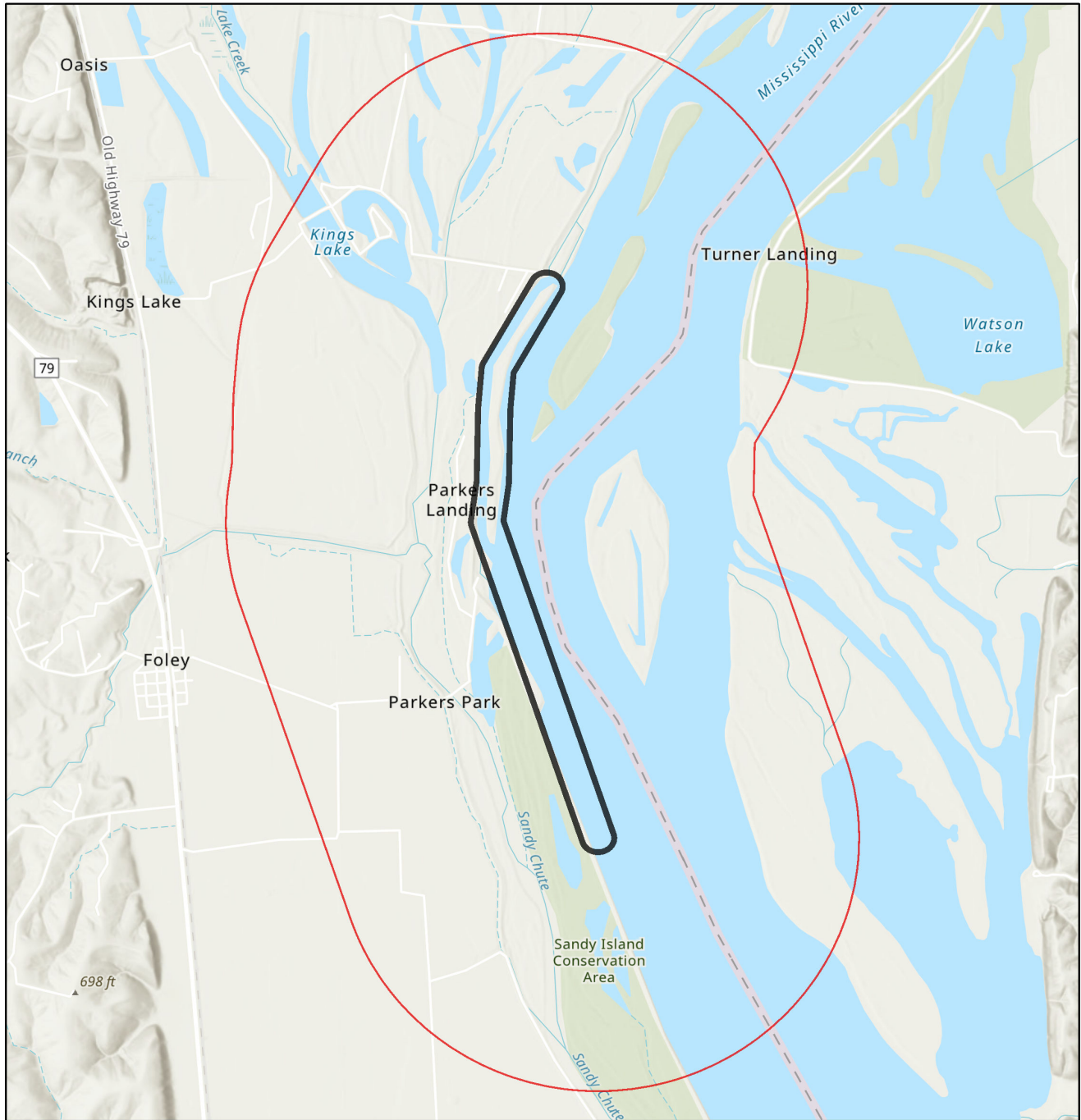
Disclaimer: This NATURAL HERITAGE REVIEW REPORT identifies if a species or natural community tracked by the Natural Heritage Program is known to occur within or near the project area submitted, and shares recommendations to avoid or minimize project impacts to sensitive species or natural habitats. Incorporating information from the Natural Heritage Program into project plans is an important step in reducing impacts to Missouri's sensitive natural resources. If an occurrence record is present, or the proposed project might affect federally listed species, the user must contact the Department of Conservation or U.S. Fish and Wildlife Service for more information.

This Natural Heritage Review Report is not a site clearance letter for the project. Rather, it identifies public lands and records of sensitive resources located close to and/or potentially affected by the proposed project. If project plans or location change, this report may no longer be valid. Because land use conditions change and animals move, the existence of an occurrence record does not mean the species/habitat is still present. Therefore, reports include information about records near but not necessarily on the project site. Lack of an occurrence record does not mean that a sensitive species or natural community is not present on or near the project area. On-site verification is the responsibility of the project. However, the Natural Heritage Program is only one reference that should be used to evaluate potential adverse project impacts and additional information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Reviewing current landscape and habitat information, and species' biological characteristics would additionally ensure that Missouri Species of Conservation Concern are appropriately identified and addressed in planning efforts.

U.S. Fish and Wildlife Service – Endangered Species Act (ESA) Coordination: Lack of a Natural Heritage Program occurrence record for federally listed species in your project area does not mean the species is not present, as the area may never have been surveyed. Presence of a Natural Heritage Program occurrence record does not mean the project will result in negative impacts. This report does not fulfill Endangered Species Act consultation with the U.S. Fish and Wildlife Service (USFWS) for listed species. Direct contact with the USFWS may be necessary to complete consultation and it is required for actions with a federal connection, such as federal funding or a federal permit; direct contact is also required if ESA concurrence is necessary. Visit [IPaC: Home \(fws.gov\)](https://www.fws.gov/ipac) to initiate USFWS Information for Planning and Conservation (IPaC) consultation. Contact the Columbia Missouri Ecological Field Services Office (573-234-2132, or by mail at 101 Park Deville Drive, Suite A, Columbia, MO 65203) for more information.



Transportation Projects: If the project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or visit [Home Page | Missouri Department of Transportation \(modot.org\)](https://www.modot.org) for additional information on recommendations.

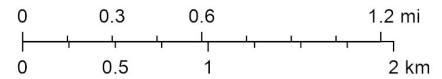
RPO Master Plan Update EA



August 22, 2024

1:37,018

-  Buffered Project Boundary
-  Project Boundary



Esri, NASA, NGA, USGS, Missouri Dept. of Conservation, Missouri DNR, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Species or Communities of Conservation Concern within the Area:

There are records of species listed under the Federal Endangered Species Act, and possibly also records for species listed Endangered by the state, or Missouri Species and/or Natural Communities of Conservation Concern within or near the defined Project Area. Please contact the U.S. Fish and Wildlife Service and the Missouri Department of Conservation for further coordination.

Email (preferred): NaturalHeritageReview@mdc.mo.gov
MDC Natural Heritage Review
Science Branch
P.O. Box 180
Jefferson City, MO
65102-0180
Phone: 573-522-4115 ext. 3182

U.S. Fish and Wildlife Service
Ecological Service
101 Park Deville Drive
Suite A
Columbia, MO
65203-0007
Phone: 573-234-2132

Other Special Search Results:

The project occurs on or near public land, Sandy Island CA, Upper Mississippi CA, please contact MDC.

Project Type Recommendations:

Recreation: Other Construction should be managed to minimize erosion and sedimentation/runoff to nearby streams and lakes, including adherence to any Clean Water Act permit conditions. Project design should include stormwater management elements that assure storm discharge rates to streams for heavy rain events will not increase from present levels. Revegetate disturbed areas to minimize erosion using native plant species compatible with the local landscape and wildlife needs. Annual ryegrass may be combined with native perennials for quicker green-up. Avoid aggressive exotic perennials such as crownvetch and sericea lespedeza. Please see [Best Management Practices for Construction and Development Projects Affecting Missouri Rivers and Streams \(mo.gov\)](#).

Project Location and/or Species Recommendations:

Endangered Species Act Coordination - If this project has the potential to alter habitat (e.g. tree removal, projects in karst habitat) or cause direct mortality of bats, please coordinate directly with U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132 Ext. 100 for Ecological Services) for further coordination under the Endangered Species Act. Indiana bats (*Myotis sodalis*, federal- and state-listed endangered) and Northern long-eared bats (*Myotis septentrionalis*, federal-listed threatened) may occur near the project area. Both of these species of bats hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in wooded areas, often riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana bats or Northern long-eared bats, especially from September to April.

The project site submitted and evaluated is on or near Sensitive Aquatic Species Waters Mississippi River, an important stream for freshwater mussel and amphibian populations. These streams were so designated because they have highly diverse mussel communities and mussel and amphibian species identified as Species of Conservation Concern. These streams are important to maintaining, restoring, or avoiding future listing of Species of Conservation Concern. Impacts to these aquatic species and habitats can be reduced by avoiding or minimizing activities that disturb the stream substrate, including rock placement, dredging, trenching, and wetted gravel bar disturbance; and avoid introducing heavy sediment loads, chemical or organic pollutants. These streams also are included as a Missouri Nationwide Permit Regional Condition that must be considered if working under a Clean Water Act Section 404 Permit issued by the U.S. Army Corps of Engineers ([Kansas City District > Missions > Regulatory Branch > Nation Wide Permits \(army.mil\)](#)). A list of all streams designated under this Condition is available at [Missouri Regional Condition 5 Sensitive Aquatic Species Waters for 2021 NWP \(army.mil\)](#).

Bald Eagle: The project location submitted and evaluated is within the geographic range of nesting Bald Eagles in Missouri. Bald Eagles (*Haliaeetus leucocephalus*) may nest near streams or water bodies in the project area. Nests are large and fairly easy to identify. Adults begin nesting activity in late December and January and young birds leave the nest in late spring to early summer. While no longer listed as endangered, eagles continue to be protected by the federal government under the Bald and Golden Eagle Protection Act. Work managers should be alert for nesting areas within 1500 meters of project activities, and follow federal guidelines at: [Do I need an eagle take permit? | U.S. Fish & Wildlife Service \(fws.gov\)](#) if eagle nests are seen.

Karst: This county has known karst geologic features (e.g., caves, springs, and sinkholes, all characterized by subterranean water movement). Few karst features are recorded in Natural Heritage records, and ones not noted here may be encountered at the project site or affected by the project. Cave fauna (many of which are Species of Conservation Concern) are influenced by changes to water quality; please check your project site for any karst features and make every effort to protect groundwater in the project area. Additional information and specific recommendations are available at [Management Recommendations for Construction and Development Projects Affecting Missouri Karst Habitat \(mo.gov\)](#).

Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment. Please inspect and clean equipment thoroughly before moving between project sites. See [Managing Invasive Species in Your Community | Missouri Department of Conservation \(mo.gov\)](#) for more information.

- Remove any mud, soil, trash, plants or animals from equipment before leaving any water body or work area.
- Drain water from boats and machinery that have operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
- When possible, wash and rinse equipment thoroughly with hard spray or HOT water (>140° F, typically available at do-it-yourself car wash sites), and dry in the hot sun before using again.

Streams and Wetlands – Clean Water Act Permits: Streams and wetlands in the project area should be protected from activities that degrade habitat conditions. For example, soil erosion, water pollution, placement of fill, dredging, in-stream activities, and riparian corridor removal, can modify or diminish aquatic habitats. Streams and wetlands may be protected under the Clean Water Act and require a permit for any activities that result in fill or other modifications to the site. Conditions provided within the U.S. Army Corps of Engineers (USACE) Clean Water Act Section 404 permit ([Kansas City District Regulatory Branch \(army.mil\)](#)) and the Missouri Department of Natural Resources (DNR) issued Clean Water Act Section 401 Water Quality Certification ([Section 401 Water Quality Certification | Missouri Department of Natural Resources \(mo.gov\)](#)), if required, should help minimize impacts to the aquatic organisms and aquatic habitat within the area. Depending on your project type, additional permits may be required by the Missouri Department of Natural Resources, such as permits for stormwater, wastewater treatment facilities, and confined animal feeding operations. Visit [Wastewater Permits | Missouri Department of Natural Resources \(mo.gov\)](#) for more information on DNR permits. Visit both the USACE and DNR for more information on Clean Water Act permitting.

For further coordination with the Missouri Department of Conservation and the U.S. Fish and Wildlife Services, please see the contact information below:

Email (preferred): NaturalHeritageReview@mdc.mo.gov
MDC Natural Heritage Review
Science Branch
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65102-0180
Phone: 573-522-4115 ext. 3182

U.S. Fish and Wildlife Service
Ecological Service
101 Park Deville Drive
Suite A
Columbia, MO
65203-0007
Phone: 573-234-2132

Miscellaneous Information

FEDERAL Concerns are species/habitats protected under the Federal Endangered Species Act and that have been known near enough to the project site to warrant consideration. For these, project managers must contact the U.S. Fish and Wildlife Service Ecological Services (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132; Fax 573-234-2181) for consultation.

STATE Concerns are species/habitats known to exist near enough to the project site to warrant concern and that are protected under the Wildlife Code of Missouri (RSMo 3 CSR 10). "State Endangered Status" is determined by the Missouri Conservation Commission under constitutional authority, with requirements expressed in the Missouri Wildlife Code, rule 3CSR 10-4.111. Species tracked by the Natural Heritage Program have a "State Rank" which is a numeric rank of relative rarity. Species tracked by this program and all native Missouri wildlife are protected under rule 3CSR 10-4.110 General Provisions of the Wildlife Code.

See [Missouri Species and Communities of Conservation Concern Checklist \(mo.gov\)](#) for a complete list of species and communities of conservation concern. Detailed information about the animals and some plants mentioned may be accessed at [Mofwis Search Results](#). Please contact the Missouri Department of Conservation to request printed copies of any materials linked in this document.



Missouri Department of Conservation

Missouri Department of Conservation's Mission is to protect and manage the forest, fish, and wildlife resources of the state and to facilitate and provide opportunities for all citizens to use, enjoy and learn about these resources.

Natural Heritage Review Level Three Report: Species Listed Under the Federal Endangered Species Act

There are records of species listed under the Federal Endangered Species Act, and possibly also records for species listed Endangered by the state, or Missouri Species and/or Natural Communities of Conservation Concern within or near the the defined Project Area. Please contact the U.S. Fish and Wildlife Service and the Missouri Department of Conservation for further coordination.

Foreword: Thank you for accessing the Missouri Natural Heritage Review Website developed by the Missouri Department of Conservation with assistance from the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, Missouri Department of Transportation and NatureServe. The purpose of this report is to provide information to federal, state and local agencies, organizations, municipalities, corporations, and consultants regarding sensitive fish, wildlife, plants, natural communities, and habitats to assist in planning, designing, and permitting stages of projects.

PROJECT INFORMATION

Project Name and ID Number: Riverlands Prairie-Marsh Restoration Area Land Classification Change #15447

Project Description: The land use classification for this area will be changed from vegetation management to wildlife management. Special hunts will be allowed within the area, as needed to reduce browsing pressure. This land classification change is part of the 2024 River Project Office Master Plan Update.

Project Type: Recreation, Other

Contact Person: Evan Hill

Contact Information: evan.b.hill@usace.army.mil or 5739255004

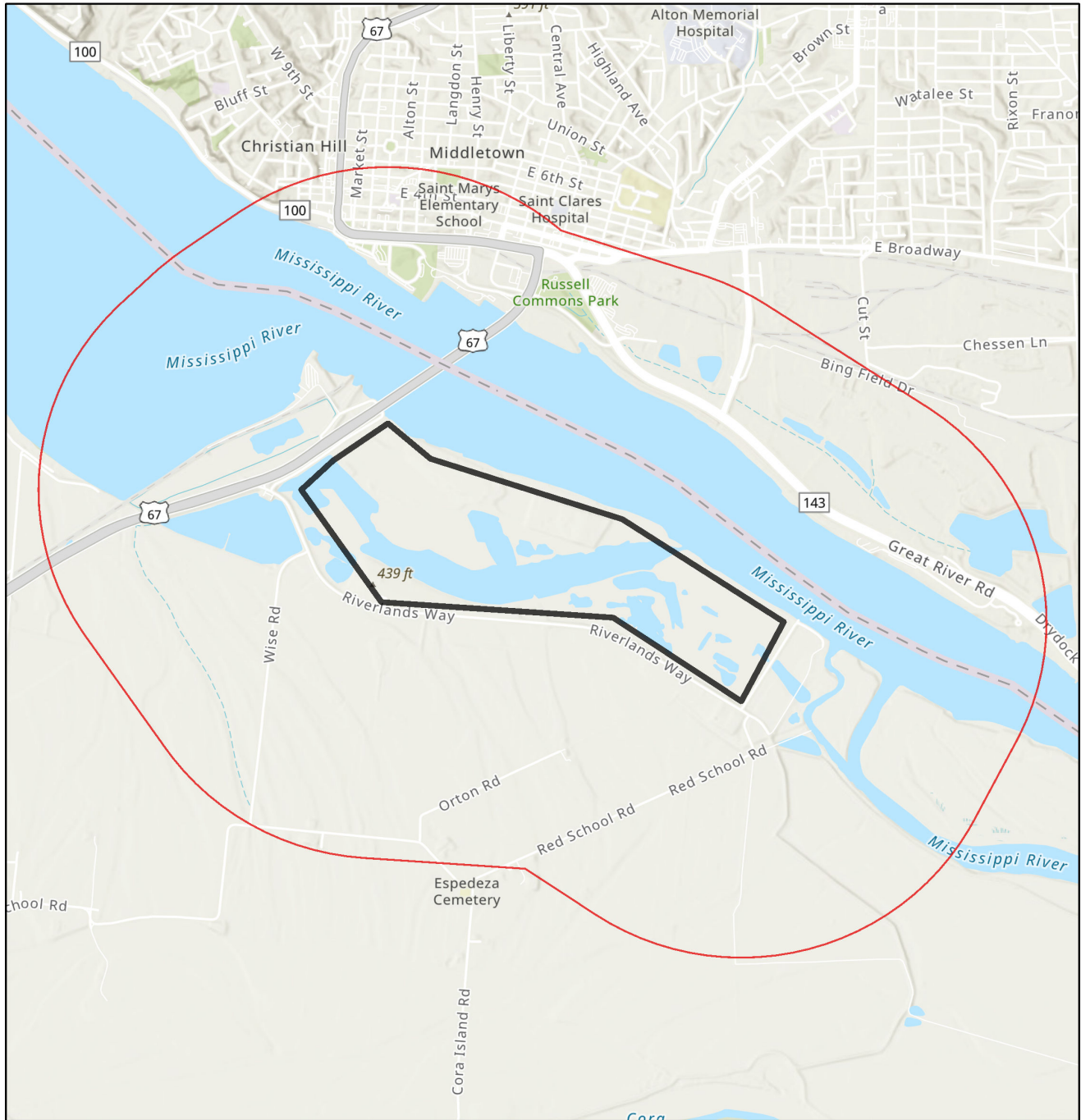
Disclaimer: This NATURAL HERITAGE REVIEW REPORT identifies if a species or natural community tracked by the Natural Heritage Program is known to occur within or near the project area submitted, and shares recommendations to avoid or minimize project impacts to sensitive species or natural habitats. Incorporating information from the Natural Heritage Program into project plans is an important step in reducing impacts to Missouri's sensitive natural resources. If an occurrence record is present, or the proposed project might affect federally listed species, the user must contact the Department of Conservation or U.S. Fish and Wildlife Service for more information.

This Natural Heritage Review Report is not a site clearance letter for the project. Rather, it identifies public lands and records of sensitive resources located close to and/or potentially affected by the proposed project. If project plans or location change, this report may no longer be valid. Because land use conditions change and animals move, the existence of an occurrence record does not mean the species/habitat is still present. Therefore, reports include information about records near but not necessarily on the project site. Lack of an occurrence record does not mean that a sensitive species or natural community is not present on or near the project area. On-site verification is the responsibility of the project. However, the Natural Heritage Program is only one reference that should be used to evaluate potential adverse project impacts and additional information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Reviewing current landscape and habitat information, and species' biological characteristics would additionally ensure that Missouri Species of Conservation Concern are appropriately identified and addressed in planning efforts.

U.S. Fish and Wildlife Service – Endangered Species Act (ESA) Coordination: Lack of a Natural Heritage Program occurrence record for federally listed species in your project area does not mean the species is not present, as the area may never have been surveyed. Presence of a Natural Heritage Program occurrence record does not mean the project will result in negative impacts. This report does not fulfill Endangered Species Act consultation with the U.S. Fish and Wildlife Service (USFWS) for listed species. Direct contact with the USFWS may be necessary to complete consultation and it is required for actions with a federal connection, such as federal funding or a federal permit; direct contact is also required if ESA concurrence is necessary. Visit [IPaC: Home \(fws.gov\)](https://www.fws.gov/ipac) to initiate USFWS Information for Planning and Conservation (IPaC) consultation. Contact the Columbia Missouri Ecological Field Services Office (573-234-2132, or by mail at 101 Park Deville Drive, Suite A, Columbia, MO 65203) for more information.

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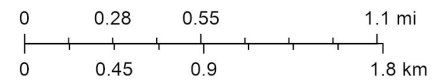
Riverlands Prairie-Marsh Restoration Area Land Classification Change



October 18, 2024

1:34,509

- Buffered Project Boundary
- Project Boundary



Esri, NASA, NGA, USGS, FEMA, Metro East Park and Rec District, Missouri Dept. of Conservation, Missouri DNR, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Species or Communities of Conservation Concern within the Area:

There are records of species listed under the Federal Endangered Species Act, and possibly also records for species listed Endangered by the state, or Missouri Species and/or Natural Communities of Conservation Concern within or near the defined Project Area. Please contact the U.S. Fish and Wildlife Service and the Missouri Department of Conservation for further coordination.

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MDC Natural Heritage Review
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Jefferson City, MO
65102-0180
Phone: 573-522-4115 ext. 3182

U.S. Fish and Wildlife Service
Ecological Service
101 Park Deville Drive
Suite A
Columbia, MO
65203-0007
Phone: 573-234-2132

Other Special Search Results:

The project occurs on or near public land, Upper Mississippi CA, please contact MDC.

Project Type Recommendations:

Recreation: Other Construction should be managed to minimize erosion and sedimentation/runoff to nearby streams and lakes, including adherence to any Clean Water Act permit conditions. Project design should include stormwater management elements that assure storm discharge rates to streams for heavy rain events will not increase from present levels. Revegetate disturbed areas to minimize erosion using native plant species compatible with the local landscape and wildlife needs. Annual ryegrass may be combined with native perennials for quicker green-up. Avoid aggressive exotic perennials such as crownvetch and sericea lespedeza. Please see [Best Management Practices for Construction and Development Projects Affecting Missouri Rivers and Streams \(mo.gov\)](#).

Project Location and/or Species Recommendations:

Endangered Species Act Coordination - If this project has the potential to alter habitat (e.g. tree removal, projects in karst habitat) or cause direct mortality of bats, please coordinate directly with U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132 Ext. 100 for Ecological Services) for further coordination under the Endangered Species Act. Indiana bats (*Myotis sodalis*, federal- and state-listed endangered) and Northern long-eared bats (*Myotis septentrionalis*, federal-listed threatened) may occur near the project area. Both of these species of bats hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in wooded areas, often riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana bats or Northern long-eared bats, especially from September to April.

Bald Eagle: The project location submitted and evaluated is within the geographic range of nesting Bald Eagles in Missouri. Bald Eagles (*Haliaeetus leucocephalus*) may nest near streams or water bodies in the project area. Nests are large and fairly easy to identify. Adults begin nesting activity in late December and January and young birds leave the nest in late spring to early summer. While no longer listed as endangered, eagles continue to be protected by the federal government under the Bald and Golden Eagle Protection Act. Work managers should be alert for nesting areas within 1500 meters of project activities, and follow federal guidelines at: [Do I need an eagle take permit? | U.S. Fish & Wildlife Service \(fws.gov\)](#) if eagle nests are seen.

Decurrent False Aster (*Boltonia decurrens*, federal-listed threatened and state-listed endangered) may occur in this area. Decurrent False Aster is a head floodplain species that grows in wetlands and on the borders of marshes, lakes, oxbows, and sloughs. It also may be found in old fields, roadsides, agricultural fields, and on levees. It favors sites characterized by moist soil and regular disturbance, preferably periodic flooding, which maintains open areas with high light levels. Today it is found in areas where succession is prevented, and sunlight is allowed to reach the seedlings. It is a perennial plant that blooms from August through October. Please see [Best Management Practices for Construction and Development Projects Decurrent False Aster \(mo.gov\)](#).

Karst: This county has known karst geologic features (e.g., caves, springs, and sinkholes, all characterized by subterranean water movement). Few karst features are recorded in Natural Heritage records, and ones not noted here may be encountered at the project site or affected by the project. Cave fauna (many of which are Species of Conservation Concern) are influenced by changes to water quality; please check your project site for any karst features and make every effort to protect groundwater in the project area. Additional information and specific recommendations are available at [Management Recommendations for Construction and Development Projects Affecting Missouri Karst Habitat \(mo.gov\)](#).

Pallid Sturgeon: The project location submitted and evaluated is located within or adjacent to the Mississippi or Missouri rivers. Pallid Sturgeons (*Scaphirhynchus albus*, federal- and state-listed endangered) are big river fish that range widely in the Mississippi and Missouri River system (including parts of some major tributaries). Any project that modifies big river habitat or impacts water quality should consider the possible impact to pallid sturgeon populations. See [Pallid Sturgeon Best Management Practices \(mo.gov\)](#) for Best Management Practices. Additional coordination with the U.S. Fish and Wildlife Service under the Endangered Species Act may be necessary (U.S. Fish and Wildlife Service, Ecological Services, 101 Park DeVille Drive, Suite A, Columbia, Missouri 65203-0007; phone 573-234-2132.)

Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment. Please inspect and clean equipment thoroughly before moving between project sites. See [Managing Invasive Species in Your Community | Missouri Department of Conservation \(mo.gov\)](#) for more information.

- Remove any mud, soil, trash, plants or animals from equipment before leaving any water body or work area.
- Drain water from boats and machinery that have operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
- When possible, wash and rinse equipment thoroughly with hard spray or HOT water (>140° F, typically available at do-it-yourself car wash sites), and dry in the hot sun before using again.

Streams and Wetlands – Clean Water Act Permits: Streams and wetlands in the project area should be protected from activities that degrade habitat conditions. For example, soil erosion, water pollution, placement of fill, dredging, in-stream activities, and riparian corridor removal, can modify or diminish aquatic habitats. Streams and wetlands may be protected under the Clean Water Act and require a permit for any activities that result in fill or other modifications to the site. Conditions provided within the U.S. Army Corps of Engineers (USACE) Clean Water Act Section 404 permit ([Kansas City District Regulatory Branch \(army.mil\)](#)) and the Missouri Department of Natural Resources (DNR) issued Clean Water Act Section 401 Water Quality Certification ([Section 401 Water Quality Certification | Missouri Department of Natural Resources \(mo.gov\)](#)), if required, should help minimize impacts to the aquatic organisms and aquatic habitat within the area. Depending on your project type, additional permits may be required by the Missouri Department of Natural Resources, such as permits for stormwater, wastewater treatment facilities, and confined animal feeding operations. Visit [Wastewater Permits | Missouri Department of Natural Resources \(mo.gov\)](#) for more information on DNR permits. Visit both the USACE and DNR for more information on Clean Water Act permitting.

For further coordination with the Missouri Department of Conservation and the U.S. Fish and Wildlife Services, please see the contact information below:

Email (preferred): NaturalHeritageReview@mdc.mo.gov
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Miscellaneous Information

FEDERAL Concerns are species/habitats protected under the Federal Endangered Species Act and that have been known near enough to the project site to warrant consideration. For these, project managers must contact the U.S. Fish and Wildlife Service Ecological Services (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132; Fax 573-234-2181) for consultation.

STATE Concerns are species/habitats known to exist near enough to the project site to warrant concern and that are protected under the Wildlife Code of Missouri (RSMo 3 CSR 10). "State Endangered Status" is determined by the Missouri Conservation Commission under constitutional authority, with requirements expressed in the Missouri Wildlife Code, rule 3CSR 10-4.111. Species tracked by the Natural Heritage Program have a "State Rank" which is a numeric rank of relative rarity. Species tracked by this program and all native Missouri wildlife are protected under rule 3CSR 10-4.110 General Provisions of the Wildlife Code.

See [Missouri Species and Communities of Conservation Concern Checklist \(mo.gov\)](#) for a complete list of species and communities of conservation concern. Detailed information about the animals and some plants mentioned may be accessed at [Mofwis Search Results](#). Please contact the Missouri Department of Conservation to request printed copies of any materials linked in this document.

Applicant: Army Corps of Engineers
Contact: Evan Hill
Address: 1222 Spruce St
St. Louis, MO 63116

IDNR Project Number: 2414764
Date: 05/10/2024

Project: Rivers Project Office Master Plan Update
Address: 301 Riverlands Way, West Alton

Description: The St. Louis District is preparing an Environmental Assessment for the proposed updates to the Rivers Project Office Master Plan. The specific actions covered in the EA include land use classification changes. The only physical actions include some minor tree clearing at the old Kampsville Lock and Dam area and the removal of two cabins on Piasa Island. Tree clearing would take place in the winter months as a forest bat conservation measure.

Natural Resource Review Results

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

Consultation is terminated. This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Termination does not imply IDNR's authorization or endorsement.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Calhoun

Township, Range, Section:

9S, 2W, 2
9S, 2W, 11



IL Department of Natural Resources

Contact

Bradley Hayes
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction

U.S. Army Corps of Engineers

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

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Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

Applicant: Army Corps of Engineers
Contact: Evan Hill
Address: 1222 Spruce St
St. Louis, MO 63116

IDNR Project Number: 2414767
Date: 05/10/2024

Project: Rivers Project Office Master Plan Update Piasa Island Area
Address: 301 Riverlands Way, West Alton

Description: The St. Louis District is preparing an Environmental Assessment for the proposed updates

to the Rivers Project Office Master Plan. The specific actions covered in the EA include land use classification changes. The only physical actions include some minor tree clearing at the old Kampsville Lock and Dam area and the removal of two cabins on Piasa Island. Tree clearing would take place in the winter months as a forest bat conservation measure.

This consultation request is for the piasa island cabin removal. The first request (Ecocat #2414764) was for the tree removal at Kampsville L&D area.

Natural Resource Review Results

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Butterfly (*Ellipsaria lineolata*)
Gray Bat (*Myotis grisescens*)
Indiana Bat (*Myotis sodalis*)
Indiana Bat (*Myotis sodalis*)
Northern Long-Eared Myotis (*Myotis septentrionalis*)

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Jersey

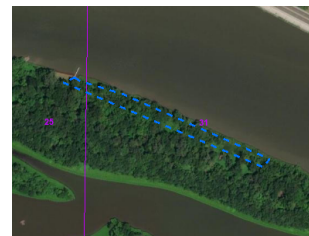
County: Madison

Township, Range, Section:

6N, 11W, 25

Township, Range, Section:

6N, 10W, 31



**IL Department of Natural Resources
Contact**

Bradley Hayes
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction

U.S. Army Corps of Engineers

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

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Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

JB Pritzker, Governor

Natalie Phelps Finnie, Director

May 13, 2024

Evan Hill
Army Corps of Engineers
1222 Spruce St
St. Louis, MO 63116

RE: Rivers Project Office Master Plan Update Piasa Island Area
Project Number(s): 2414767
County: Jersey, Madison

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Grant Gebhards
Division of Ecosystems and Environment
217-785-5500

Applicant: U.S. Army Corps of Engineers
Contact: Evan Hill
Address: 1222 Spruce St
St. Louis, MO 63103

IDNR Project Number: 2505918
Date: 11/06/2024

Project: Rivers Project Office Master Plan Update Continued
Address: 301 Riverlands Way, West Alton

Description: The St. Louis District is preparing an Environmental Assessment for the proposed update to the Rivers Project Office Master Plan. The specific actions covered in the EA include land use classification changes. The EA has been reevaluated, and it would not include any physical elements such as tree removal or structure removal. The proposed changes consist solely of land classification changes (i.e. a desktop exercise).

We need an EcoCAT and coordination on three more areas: Stump Lake Wildlife Management Area, Mill Creek Access Area, and Ameren Missouri Portage Des Sioux Power Plant Land Exchange Area. The Ameren Missouri Portage des Sioux Power Plant Area (formerly Ameren-Union Electric) is located along Highway 94 in St. Charles County, Missouri. This area includes a facility managed as a coal fired electric generating plant and terminal and staging area under an industrial/commercial lease. Federal land to be exchanged consists of approximately 64.25 acres (disposal tracts) of land leased from Corps by Union Electric Company DBA Ameren Missouri for the Portage Des Sioux Power Plant. Non-Federal land to be exchanged consists of approximately 77 acres (acquisition tracts) of land owned by Union Electric Company DBA Ameren Missouri located along Lockhaven Road in Jersey County, IL in Township 6N, Range 11W, Section 23. Both the disposal tracts and the acquisition tracts are within the boundaries of River Project area of responsibility. The land classification change to the acquisition tracts is from no classification to vegetation management.

The Mill Creek Access Area is located along Shady Oak Ln in Jersey County, IL in Township 6N, Range 11W, Section 23. The site is along the right descending bank of Piasa Creek just downstream of the confluence of Piasa Creek and Mill Creek. No public access facilities are developed at this time. The area is managed for public and private access purposes and includes the Mill Creek Recreational Cottages Subdivision, which was originally platted with 37 lots, a single 10.14

Natural Resource Review Results

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Principia Hill Prairies East INAI Site
Principia Hill Prairies - East Natural Heritage Landmark
Butterfly (*Ellipsaria lineolata*)
Gray Bat (*Myotis grisescens*)
Indiana Bat (*Myotis sodalis*)
Indiana Bat (*Myotis sodalis*)
Indiana Bat (*Myotis sodalis*)
Northern Long-Eared Myotis (*Myotis septentrionalis*)
Timber Rattlesnake (*Crotalus horridus*)

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Jersey

Township, Range, Section:

6N, 11W, 23

6N, 11W, 24

6N, 11W, 25

6N, 11W, 26



**IL Department of Natural Resources
Contact**

Alex Davis

217-785-5500

Division of Ecosystems & Environment

Government Jurisdiction

U.S. Army Corps of Engineers

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

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Applicant: U.S. Army Corps of Engineers
Contact: Evan Hill
Address: 1222 Spruce St
St. Louis, MO 63103

IDNR Project Number: 2505920
Date: 11/06/2024

Project: Rivers Project Office Master Plan Update Continued
Address: 301 Riverlands Way, West Alton

Description: The St. Louis District is preparing an Environmental Assessment for the proposed update to the Rivers Project Office Master Plan. The specific actions covered in the EA include land use classification changes. The EA has been reevaluated, and it would not include any physical elements such as tree removal or structure removal. The proposed changes consist solely of land classification changes (i.e. a desktop exercise).

The Stump Lake Wildlife Management Area is located along the left descending bank of the Illinois River, adjacent to Pere Marquette State Park in Jersey County, IL. The site is in Township 7N, Range 13W, Sections 17, 20, 28, 29, 32, and 33 and in Township 6N, Range 13W, Sections 4, 5, 8, and 9. The area is managed for fish and wildlife enhancement purposes under a General Plan and Cooperative Agreement by IDNR. The proposed land use classification would be for 387 acres to change from Wildlife Management Area to Environmentally Sensitive Area.

Natural Resource Review Results

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Jersey115 INAI Site
Mcadams Peak Hill Prairie INAI Site
St. Andrew Ridge Woods INAI Site
Mcadams Peak Land And Water Reserve
Pere Marquette Nature Preserve
Indiana Bat (*Myotis sodalis*)
Indiana Bat (*Myotis sodalis*)
Northern Long-Eared Myotis (*Myotis septentrionalis*)
Timber Rattlesnake (*Crotalus horridus*)

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Jersey

Township, Range, Section:

6N, 13W, 4
6N, 13W, 5
6N, 13W, 8
6N, 13W, 9
7N, 13W, 32
7N, 13W, 33



IL Department of Natural Resources
Contact
Alex Davis
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
U.S. Army Corps of Engineers

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