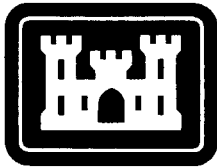


**Appendix A      Environmental Assessment and Draft Finding of No  
Significant Impact (FONSI)**



**US Army Corps  
of Engineers**  
Kansas City District

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## **U.S. Army Corps of Engineers - Kansas City District**

**NEPA Review  
Environmental Assessment & Finding of No Significant Impact**

# **WILSON LAKE MASTER PLAN, KANSAS RIVER BASIN SALINE RIVER**

**Russel and Lincoln Counties, Kansas**

**November 2020**



**DEPARTMENT OF THE ARMY**  
**KANSAS CITY DISTRICT, CORPS OF ENGINEERS**  
**600 FEDERAL BUILDING**  
**KANSAS CITY, MISSOURI 64106-2896**

# **Finding of No Significant Impact**

## **WILSON LAKE MASTER PLAN**

### **KANSAS RIVER BASIN**

#### **SALINE RIVER**

#### **NOVEMBER 2020**

#### **Summary**

The U.S. Army Corps of Engineers - Kansas City District (USACE) proposes to revise the Wilson Lake Master Plan. This revision would replace the Design Memorandum No. 12A, Master Plan for Wilson Lake dated November 1984. The Master Plan is the strategic land use management document that guides the comprehensive management and development of all project recreational, natural, and cultural resources throughout the life of the water resource project. The Master Plan guides the efficient and cost-effective management, development, and use of project lands. It is a vital tool for the responsible stewardship and sustainability of project resources for the benefit of present and future generations.

This revision brings the Master Plan in compliance with the current guidance for format and contents as outlined in Engineering Regulation/Engineer Pamphlet 1130-2-550, dated 30 January 2013.

## **Alternatives**

**Alternative 1 - “No-Action” Alternative:** Under the “No-Action” Alternative the current Master Plan dated November 1984 would remain in place. Management of the project lands and waters would remain unchanged.

**Alternative 2 - Acceptance of Revised Master Plan (Recommended Alternative):** This alternative is to accept the management plan as written. The proposed changes in this revision are minor terminology changes for land-use designations to be in compliance with Engineering Regulation/Engineer Pamphlet 1130-2-550 (DATED 30 January 2013). Proposed changes in facilities are detailed in Chapter 5 of the main Master Plan document, which includes such things as rehabilitation of campsites, rehabilitation/replacement of shower house facilities, upgrade of access roads, and erosion control measures.

## **Summary of Environmental Impacts**

The Recommended Alternative will help to modernize aging facilities and increase visitor safety. The Recommended Alternative would not likely adversely impact any federally listed threatened or endangered species or their habitat. There may be temporary localized impacts to water quality during construction of the campsite upgrades/rehabilitations. Construction of new shower house and/or wastewater treatment plant would also cause minor loss to wildlife habitat within the existing park footprint. There will likely be no impact to cultural or historic resources.

## **Mitigation Measures**

The Master Plan is programmatic in nature and references project needs only in a programmatic manner. Site specific actions and infrastructure projects will require individual site-specific analysis to determine if any mitigation may be warranted.

## **Public Availability**

Prior to a decision on whether to prepare an Environmental Impact Statement, the USACE is circulating a Notice of Availability (Notice) of the Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI), November 30, 2020, with a thirty-day comment period ending on December 30, 2020 to the public and resource agencies. The notice informs these individuals that the EA and Draft FONSI were available on the USACE webpage or that they could request a hard copy of the EA and Draft FONSI in order to provide comment.

**Conclusion**

After evaluating the anticipated environmental, economic, and social effects of the proposed activity, it is my determination that construction of the proposed emergency Master Plan update does not constitute a major federal action that would significantly affect the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

Date: \_\_\_\_\_

\_\_\_\_\_  
William C. Hannan, Jr.  
Colonel, Corps of Engineers  
District Commander

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## **1.0 Introduction**

The U.S. Army Corps of Engineers - Kansas City District (USACE), proposes to revise the Wilson Lake Master Plan. Revisions include changes to the land use category nomenclature and document content and format to meet current Master Plan Guidance (ER/EC 1130-2-550). The revision also includes an update of management objectives, management compartment boundary updates, list of current facility. This Environmental Assessment (EA) provides the necessary information to fully address the potential environmental impacts of the proposed project as required under the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S. Code [USC] 4321 et seq.); the President's Council of Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] 1500 – 1508); and USACE ER 200-2-2 (33 CFR 230) (USACE, 2008).

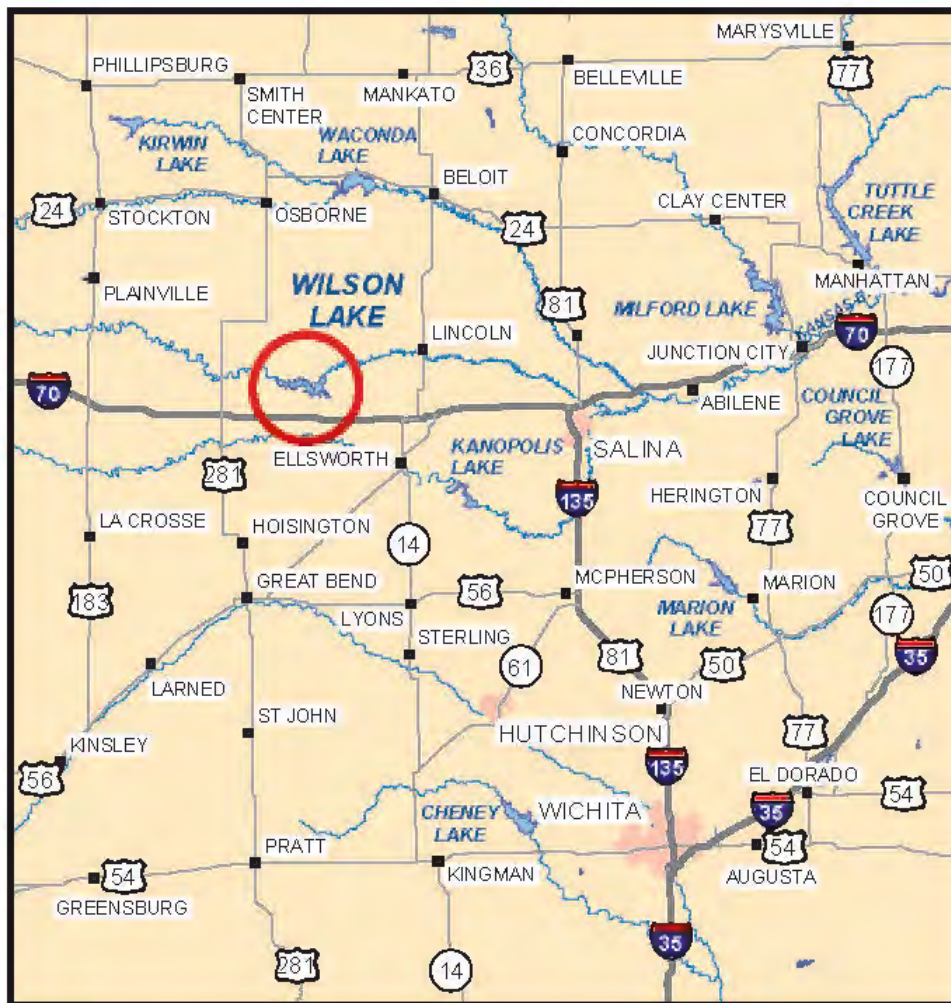
### **1.1 Purpose and Need for Action**

The purpose of this project is to revise the Master Plan to respond to current and projected future recreational needs and to meet the content and format of the most recent Master Plan regulation/guidance found in Engineering Regulation/Engineer Pamphlet 1130-2-550 (dated 30 January 2013).

The project is currently using a Master Plan dated from November 1984. The recreational trends and the population estimates detailed in that Master Plan are outdated and in need of revision.

### **1.2 Project Location**

Wilson Lake is located in Russell and Lincoln Counties in the central part of Kansas. It is approximately 60 miles west of Salina, 55 miles east of Hays and 50 miles north of Great Bend. Towns in the vicinity of the project include Sylvan Grove, Dorrance, Bunker Hill, and Lucas. Sylvan Grove is 6 miles northeast, Dorrance is about 9 miles south Bunker Hill is approximately 13 miles southwest, and Lucas is around 6.5 miles north of the dam. The area surrounding Wilson Lake is served by federal and state highways and a county road system. The dam crosses the Saline River at river mile 153.9.



**Figure 1. General Vicinity Map**

## 2.0 Recommended Plan and Alternatives

### 2.1 Alternative 1 - “No-Action” Alternative:

Under the “No-Action” Alternative the current Master Plan dated November 1984 would remain in place. Management of the project lands and waters would remain unchanged.

### 2.2 Alternative 2 – Accept Revised Master Plan (Recommended Alternative):



This alternative would accept the management plan as written. The proposed changes in this revision are minor terminology changes for land-use designations to be in compliance with Engineering Regulation/Engineer Pamphlet 1130-2-550 (DATED 30 January 2013). Proposed changes in facilities are detailed in Chapter 5 of the Master Plan document, which includes such things as rehabilitation of campsites, rehabilitation/replacement of facilities, road improvements, and erosion prevention along shoreline.

Unit # - Name	Proposed Action
Unit 1 – Wildlife Refuge	Expand public access by opening/improving 193rd Rd leading to wildlife refuge. A new parking lot and approximately 0.8 mile of road would be improved to allow better public/hunter access.
	Identify and improve infrastructure to expand grazing management opportunities to improve rangeland health and wildlife habitat.
Unit 2 – Public Use	Improve Road Access to Duvall Cove
Unit 3 – Rocktown Area	No developmental needs due to area being a registered natural area
Unit 4 – Lucas Park	Due to rising utility costs, sustainability projects including solar power, have been proposed to offset electric costs.
	Anticipating catastrophic culvert failure and full replacement on main park
Unit 5 – Spillway	N/A
Unit 6 – Sylvan Park	Install vault toilet in park to meet campground standards during times of water-borne facility failure.
Unit 7 – Public Use	N/A
Unit 8 – North Otoe	N/A
Unit 9 – Otoe State Park	Replace/update two shower buildings with modern ADA compliant facilities.
	Upgrade Coneflower, Yucca, and Sunflower campgrounds from primitive to 50 amp and water campsites.
	Upgrade Yarrow campground from 30 amp to 50-amp service

Unit # - Name	Proposed Action
Unit 10 – Hell Creek NRM	N/A
Unit 11 – Hell Creek State Park	Replace/update shower building with modern ADA compliant facility.
	Construct new permit office.
Unit 12 – One Horse Canyon/Deer Drive	Develop a viable water source for grazing lease to reduce erosion concerns due to cattle traffic.
Unit 13 – Minooka Park	Encourage expansion of Marshall Cove Dock Owner's Association. And further encourage licensing of Marshall Cove area to reduce O&M costs.
	Replace middle ramp floating dock with a "slide-in" courtesy dock.
	Extend existing wave retention riprap structures at East Boat Ramp.
	Utilize rip-rap and other management tools to eliminate erosion concerns.
	Due to rising utility costs, sustainability projects including solar power, have been proposed to offset electric costs.
	Convert interior asphalt camp loop roads to gravel due to budget concerns.
Unit 14 – Wildlife Management Area	N/A

### 3.0 Affected Environment

The project area is all the project lands owned and leased by USACE at the Wilson Lake project located in the Russell and Lincoln Counties, Kansas. Wilson Lake is comprised of 14 management compartments totaling approximately 21,808 acres.

Located in the Smokey Hills of north-central Kansas, Wilson Lake covers about 9,000 acres at multi-purpose pool. The dam was constructed for flood control in the Saline River Basin and was finished in 1964. The lake consists of one main arm and a smaller arm coming in near the dam; the Saline Arm that follows up the Saline River, and the Hell Creek Arm that follows the Hell Creek. With 100 miles of shoreline, Wilson Lake provides ample recreational opportunity such as fishing, boating, swimming,

tubing/water skiing, and jet skiing among other pursuits. Water quality of the lake is beneficial to the operating purposes of the project and did not exceed any of the Kansas state water quality standards for designated uses. Water quality at Wilson Lake improves as nutrients, herbicides and sediments are removed by settling, dilution, and biological processes as water moves from inflow streams to the dam.

The Wilson Lake project has five high-density recreation parks (Minooka Park, Lucas Park, Sylvan Park, Otoe State Park, and Hell Creek State Park) that contain 473 campsites, 507 picnic sites, 9 Boat ramps, four swimming areas, 14 playgrounds, 187 marina slips, and 6 trails covering 25.8 miles.

There are currently 74 private docks on the lake at designated zones around the lake. The docks are permitted via a shoreline-use permit. Given the current lake bathymetry and the surrounding topography and private ownership restricting access, the lake is currently at capacity for the number of docks without additional rezoning.

Much of the remaining fee land around the lake is managed as either low-density recreation or wildlife management lands. Kansas Department of Wildlife, Parks, and Tourism has a Fish and Wildlife License to manage approximately 6,749.3 acres to benefit wildlife. Most of this land's cover type is savanna, forest/woodland, grassland, and cropland cover types.

Appendix C of the Master Plan lists flora and fauna found in and around the Wilson Lake project lands. Species will vary in any particular area due to a number of factors such as cover type, topography, access to water, and available food sources. Lands licensed to Kansas Department of Wildlife, Parks, and Tourism are managed primarily for game species such as white-tailed deer, turkey, and upland bird species. However, other non-game species benefit as well from their management practices.

Fisheries habitat is managed by Kansas Department of Wildlife, Parks, and Tourism. Each year approximately 3-5 Georgia cubes are placed into the lake to provide loafing and escape cover for a variety of fish species.

The state and federally listed threatened and endangered species for Russell and Lincoln Counties can be found in Table 2.

<b>Table 2</b> <b>Federal and State listed Threatened and Endangered Species</b> <b>Russel and Lincoln Counties, Kansas</b>		
<b>Name</b>	<b>State Status</b>	<b>Federal Status</b>
Northern Long-Eared Bat ( <i>Myotis septentrionalis</i> )		Threatened
Whooping Crane ( <i>Grus americana</i> )	Endangered	Endangered
Snowy Plover ( <i>Charadrius alexandrinus</i> )	Threatened	
Eastern Spotted Skunk ( <i>Spilogale potiorius</i> )	Threatened	
Plains Minnow ( <i>Hybognathus placitus</i> )	Threatened	

The Northern Long-eared Bats use caves and mines as winter hibernacula. Northern Long-eared Bats also use trees with peeling bark, however they prefer a more upland habitat to roost and forage.

Approximately 4,702 acres of fee owned land (about 26%) has been professionally surveyed for archeological sites. A total of 326 cultural resource sites, all archeological sites, have been recorded on the fee-owned land. Of these 326 sites none are formally listed on the National Register of Historic Places (NRHP). However, 27 sites have been determined to be eligible for listing on the NRHP. Further investigations are required on another 102 sites to determine their NRHP eligibility. The remaining sites have been determined not eligible for the NRHP.

## **4.0 Environmental Consequences (Impacts)**

### **4.1 Water Quality**

Alternative 1 - “No-Action” Alternative: In the no-action alternative, the water quality would remain the same. The lake would likely continue to meet all use criteria.

Alternative 2 - Accept Revised Master Plan (Recommended Alternative): This alternative may result in potentially minor, temporary, construction-related adverse impacts to water quality resulting in increased turbidity and suspended sediments from the rehabilitation of the campsites/parking lots. These impacts would subside following construction. Minor long-term positive impacts to water quality would be anticipated from this alternative due to better range management and water availability for livestock. In addition, a positive impact from the upgrade of restroom facilities away from sewage treatment to vault toilets.

### **4.2 Wetlands and other Waters of the U.S.**

Alternative 1 - “No-Action” Alternative: The “No-Action” Alternative would likely result in placement of small amounts of fill (rip rap) in Waters of the U.S. as new areas of bank erosion arise. Each of these actions would need to undergo a Section 404/Section 10 analyses to determine if they meet permit criteria. It is likely that any such action would meet the requirements of a nationwide permit. It is anticipated that no wetlands would be impacted by this alternative.

Alternative 2 - Accept Revised Master Plan (Recommended Alternative): This alternative would have similar impacts as Alternative 1. In addition there is structural fill from the addition/upgrade of rip-rap for wave retention and erosion control; fill may be added below the ordinary high water mark (OHWM). A section 404 permitting analysis would need to be undertaken to make sure the project meets any applicable permitting conditions. It is not anticipated that this alternative would not have any impacts to wetlands.

### **4.3 Fish and Wildlife**

Alternative 1 - “No-Action” Alternative: Under the “No-Action” Alternative, no impacts to fish and wildlife would be expected. Kansas Department of Wildlife, Parks, and Tourism would continue to manage fish and wildlife resources on the over 6,749 acres that are

licensed to them as well as management of the fisheries in the lake. This is a long-term positive impact to fish and wildlife.

Alternative 2 - Accept Revised Master Plan (Recommended Alternative): Kansas Department of Wildlife, Parks, and Tourism would continue to manage fish and wildlife resources on the over 6,749 acres that are licensed to them as well as management of the fisheries in the lake. There may be minor short-term impacts to fish and wildlife for any of the proposed construction activities. These are within the high-density recreation areas already disturbed and fragmented from parking and other recreational features. There would be long-term beneficial impacts to wildlife from the better range management.

#### **4.4 Threatened or Endangered Species**

Alternative 1 - "No-Action" Alternative: The "No-action" Alternative would not likely affect any federally listed threatened or endangered species.

Alternative 2 - Accept Revised Master Plan (Recommended Alternative): The proposed projects are not likely to affect any threatened or endangered species or their designated critical habitat.

#### **4.5 Noise**

Alternative 1 - "No-Action" Alternative: The "No-action" Alternative would not result in any additional impact to noise. Noise would continue at current levels. Noise levels being the loudest during busy recreation times and then remaining relatively quiet during times of low to no recreation.

Alternative 2 - Accept Revised Master Plan (Recommended Alternative): There may be brief localized impacts to noise associated with any of the proposed construction within the plan. However, once construction was complete it is anticipated that noise would return to preconstruction levels.

#### **4.6 Health and Safety**

Alternative 1 - "No-Action" Alternative: The "No-Action" Alternative would result in aging infrastructure such as shower houses, etc. not being replaced. This could pose a health risk from treatment plants not keeping up with state standards.

Alternative 2 - Accept Revised Master Plan (Recommended Alternative): The Recommended Plan may cause short term impacts to health and safety from construction related activities. However, improvements to infrastructure should result in a long-term beneficial impact to health and safety.

#### **4.7 Economics**

Alternative 1 - "No-Action" Alternative: Under the No-Action alternative the economic effects would remain largely unchanged. The number of visitors would be at least partially driven by the economy. During times of good economic growth visitation should rise as people have more disposable income. During times of recession, visitation should drop as people cut back on vacation and luxury goods such as boats and RV's.

Alternative 2 - Accept Revised Master Plan (Recommended Alternative): This alternative would have a net economic benefit over the no-action alternative. As facilities are upgraded, such as creating more spacious camping pads and the larger 50-amp electrical service, campgrounds will be able to attract larger RV's and there should be an increase in visitation. This would bring an increase in the local economy.

#### **4.8 Cultural Resources**

Alternative 1 - "No-Action" Alternative: Under the no-action alternative there would likely be no impact to cultural resources.

Alternative 2 - Accept Revised Master Plan (Recommended Alternative): For any project that may involve ground clearance, plans would be developed. A qualified archaeologist would review the plans and site area to determine if they would impact cultural resources. There would also be coordination with the State Historic Preservation Officer (SHPO) as well as any applicable Tribal Historic Preservation Officer(s) (THPO).

#### **5.0 Conclusion**

The Recommended Plan would not likely result in any impacts to federally listed threatened or endangered species or their designated critical habitat. Water quality, fish and wildlife, and noise levels would be temporarily disturbed by the proposed construction activity. The proposed action would have no impact to sites listed on or eligible for inclusion on the National Register of Historic Places. The project would have a minor long-term benefit to health and safety. Of the two alternatives considered, the Recommended Plan is consistent with current regulations and the protection of the human environment.

## **6.0 Coordination and Comments**

The draft EA and FONSI was e-mailed to individuals, agencies, and businesses contained on the USACE Regulatory public notice list. It was also available on the USACE Regulatory webpage at:

<http://www.nwk.usace.army.mil/Media/PublicNotices.aspx>.

**Hard copies are available upon request.**



## 7.0 Agency Compliance with Other Environmental Laws

Compliance with other environmental laws is listed below.

### **Federal Policy Compliance**

Archeological Resources Protection Act, 16 U.S.C. 470, et seq.	Not Applicable
Clean Air Act, as amended, 42 U.S. C. 7401-7671g, et seq.	Full Compliance
Clean Water Act (Federal Water Pollution Control Act), 33 U.S.C. 1251, et seq. Full Compliance	
Coastal Zone Management Act, 16 U.S.C. 1451, et seq.	Not Applicable
Endangered Species Act, 16 U.S.C. 1531, et seq.	Full Compliance
Estuary Protection Act, 16 U.S.C. 1221, et seq.	Not Applicable
Federal Water Project Recreation Act, 16 U.S.C. 4601-12, et seq.	Full Compliance
Fish and Wildlife Coordination Act, 16 U.S.C. 661, et seq.	Full Compliance
Land and Water Conservation Fund Act, 16 U.S.C. 4601-4, et seq.	Not Applicable
Marine Protection Research and Sanctuary Act, 33 U.S.C. 1401, et seq. Not Applicable	
National Environmental Policy Act, 42 U.S.C. 4321, et seq.	Full Compliance
National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470a, et seq. Full Compliance	
Rivers and Harbors Act, 33 U.S.C. 403, et seq.	Full Compliance
Watershed Protection and Flood Prevention Act, 16 U.S.C. 1001, et seq. Full Compliance	
Wild and Scenic River Act, 16 U.S.C. 1271, et seq.	Not Applicable

Farmland Protection Policy Act, 7 U.S.C. 4201, et seq. Compliance	Full
Protection & Enhancement of the Cultural Environment (Executive Order 11593) Full Compliance	
Floodplain Management (Executive Order 11988)	Full Compliance
Protection of Wetlands (Executive Order 11990)	Full Compliance
Environmental Justice (Executive Order 12898)	Full Compliance

**NOTES:**

- a. Full compliance. Having met all requirements of the statute for the current stage of planning (either
- b. Partial compliance. Not having met some of the requirements that normally are met in the current stage of planning.
- c. Noncompliance. Violation of a requirement of the statute.
- d. Not applicable. No requirements for the statute required; compliance for the current stage of planning.

## **8.0 References**

- CEQ. 2020. Regulations for Implementing the Procedural Provisions of NEPA, 40 CFR Parts 1500-1508, in accordance with 40 CFR 1507.3.
- FCA. 1941. Flood Control Act of 1941, 33 U.S.C. 701n, as amended (commonly referred to as Public Law 84-99, Flood Control and Coastal Emergencies Act).
- USACE. 2008. Procedures for Implementing the National Environmental Policy Act. Engineer Regulations (ER) 200-2-2. 33 CFR 230.

## **9.0 List of Preparers**

This draft EA and draft FONSI were prepared by Mr. Curtis Hoagland, Environmental Resources Specialist, with cultural resource assistance provided by Mr. Gina Powell, Archeologist. The address of the preparers is: U.S. Army Corps of Engineers, Kansas City, District; PMP-R, Room 529, 601 E. 12<sup>th</sup> Street, Kansas City, Missouri 64106.

## Appendix B      Maps



# WILSON LAKE LAND MANAGEMENT

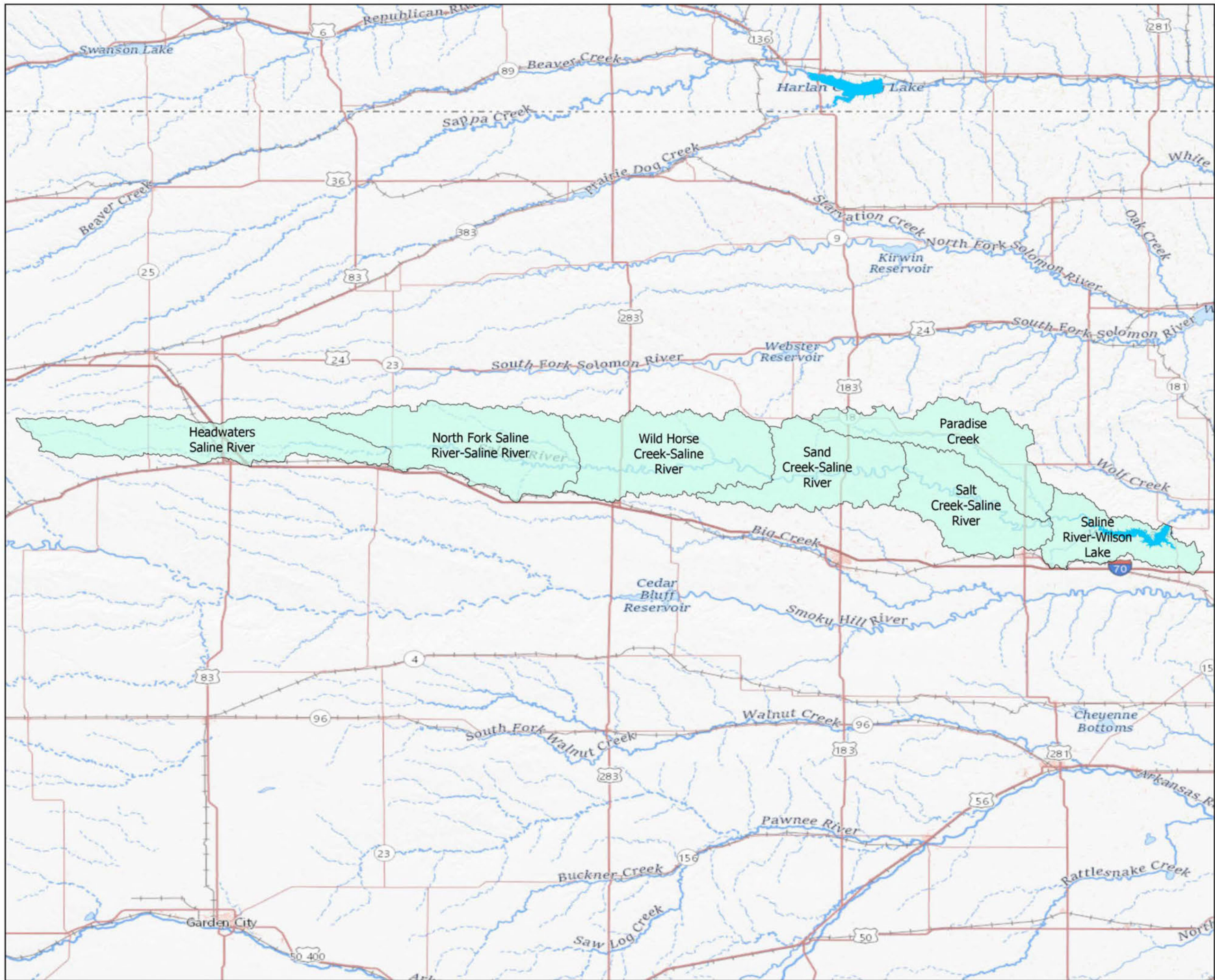
## Compartment Classification

- ▬ High Density Recreation
- ▬ MRM: Future/Inactive Recreation Areas
- ▬ MRM: Low Density Recreation
- ▬ MRM: Vegetative Management
- ▬ MRM: Wildlife Management
- ▬ Mitigation
- ▬ Project Operations

Compartment	Area Name	Classification	Area
1	Wildlife Area (KDWP)	MRM: Wildlife Management	2547.8
2	Public Hunting (USACE)	MRM: Low Density Recreation	628.1
3	Mitigation	Mitigation	419.7
4	Lucas Park	High Density Recreation	1085.2
5	Project Operations	Project Operations	666.7
6	Bryan Park	High Density Recreation	41.5
7	Wildlife Area (KDWP)	MRM: Wildlife Management	426.8
8	Public Hunting (USACE)	MRM: Low Density Recreation	219.4
9	Wilson State Park - Dtoe Area	High Density Recreation	101.3
10	Public Hunting (USACE)	MRM: Low Density Recreation	239.5
11	Wilson State Park - Hall Creek Area	High Density Recreation	782.7
12	Public Hunting (USACE)	MRM: Low Density Recreation	580.5
13	Minooka Park	High Density Recreation	1020.2
14	Wildlife Area (KDWP)	MRM: Wildlife Management	3777.8

0 1/2 1 2 3 4 Miles





Watershed Units	
Name	Acres
Sand Creek-Saline River	163328
North Fork Saline River-Saline River	229526
Salt Creek-Saline River	149625
Headwaters Saline River	187548
Wild Horse Creek-Saline River	231489
Paradise Creek	159464
Saline River-Wilson Lake	107867



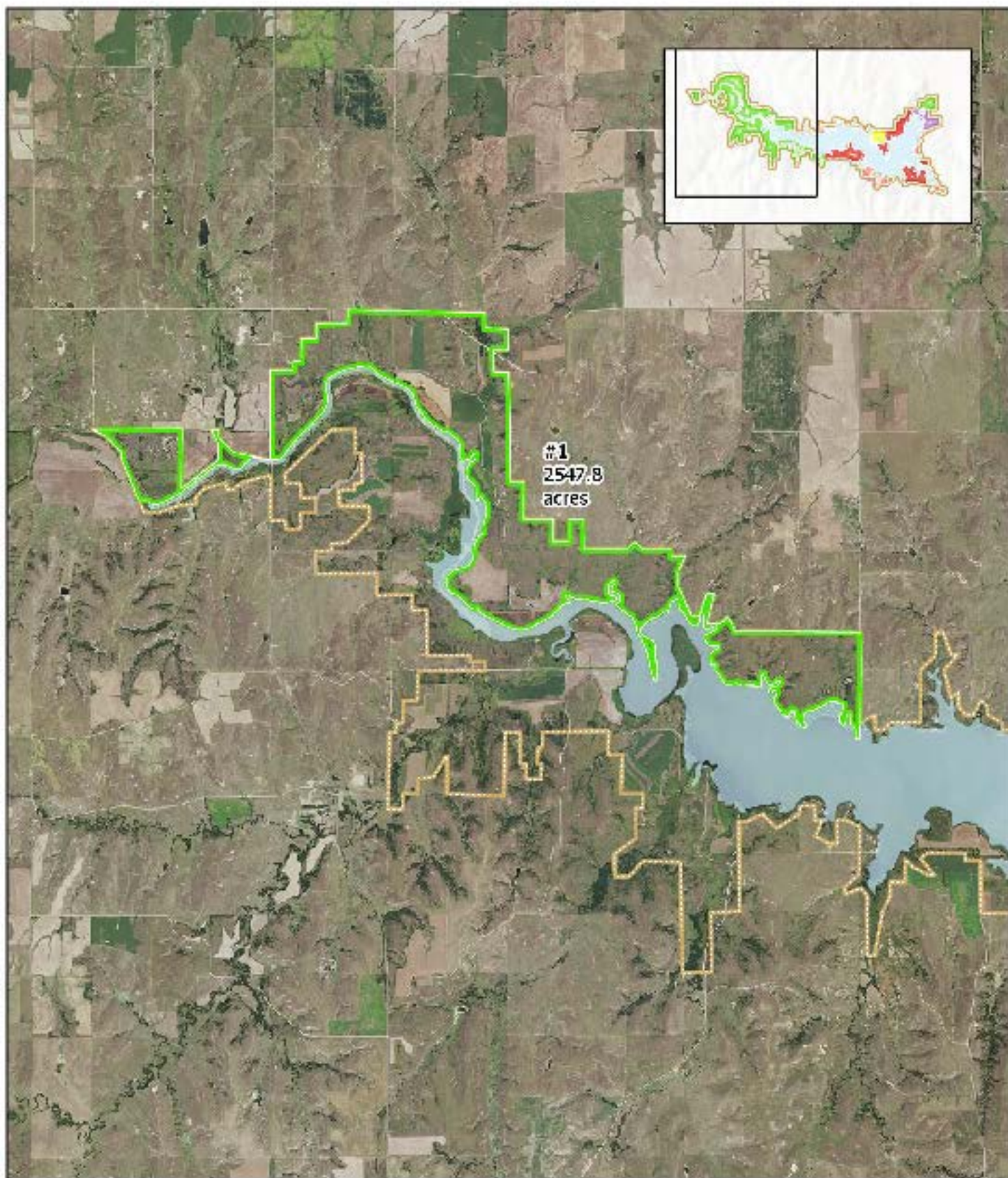
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Miles



U.S. Army Corps of Engineers  
Kansas City District



Wilson Lake Master Plan  
Watershed Units  
(HUC10)





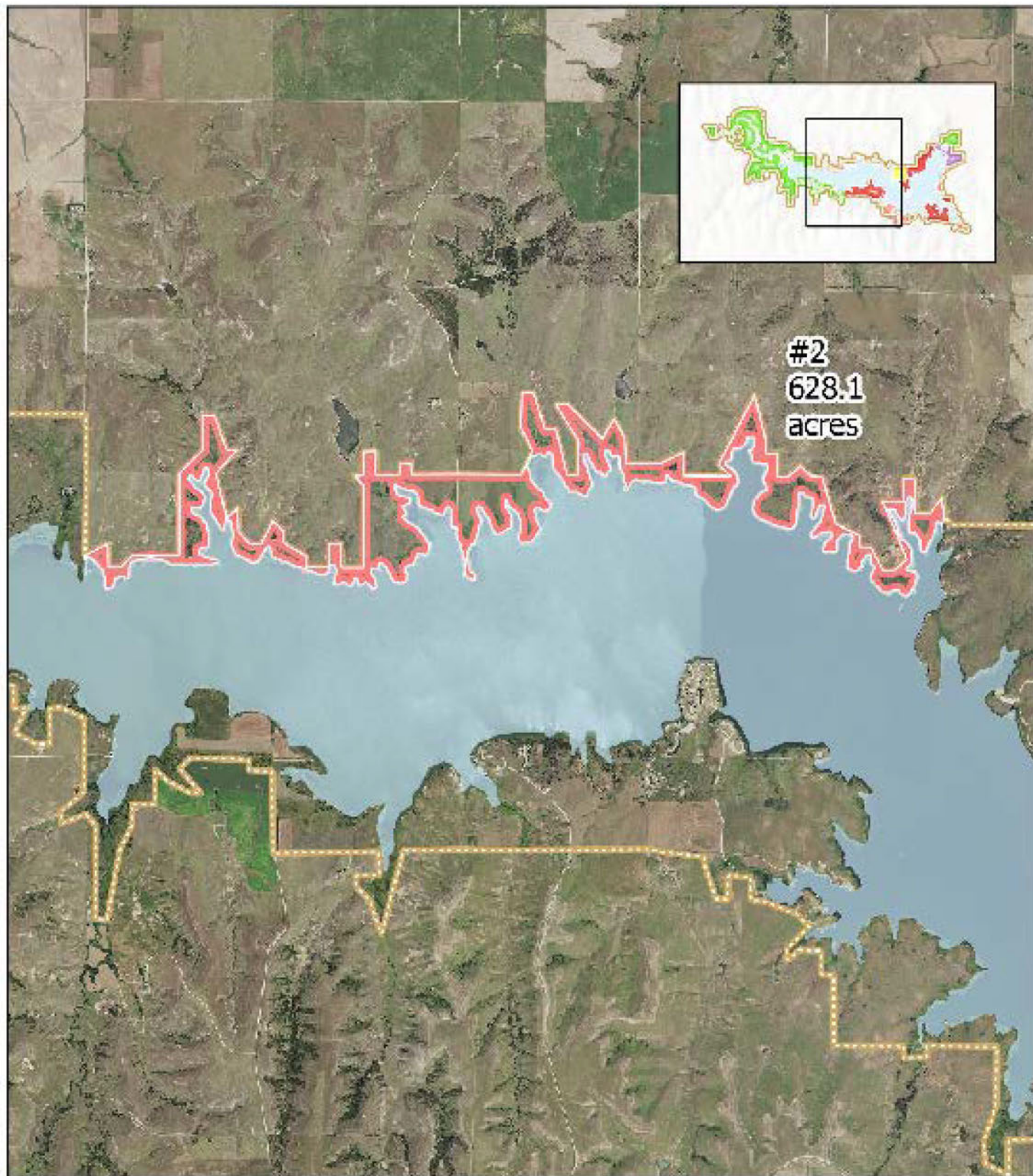
0 1/2 1 2 Miles



-  MRM: Wildlife Management
-  Corps Boundary

**Wilson Lake  
Compartment #1  
Kansas Department of Wildlife,  
Parks & Tourism  
Wildlife Area**





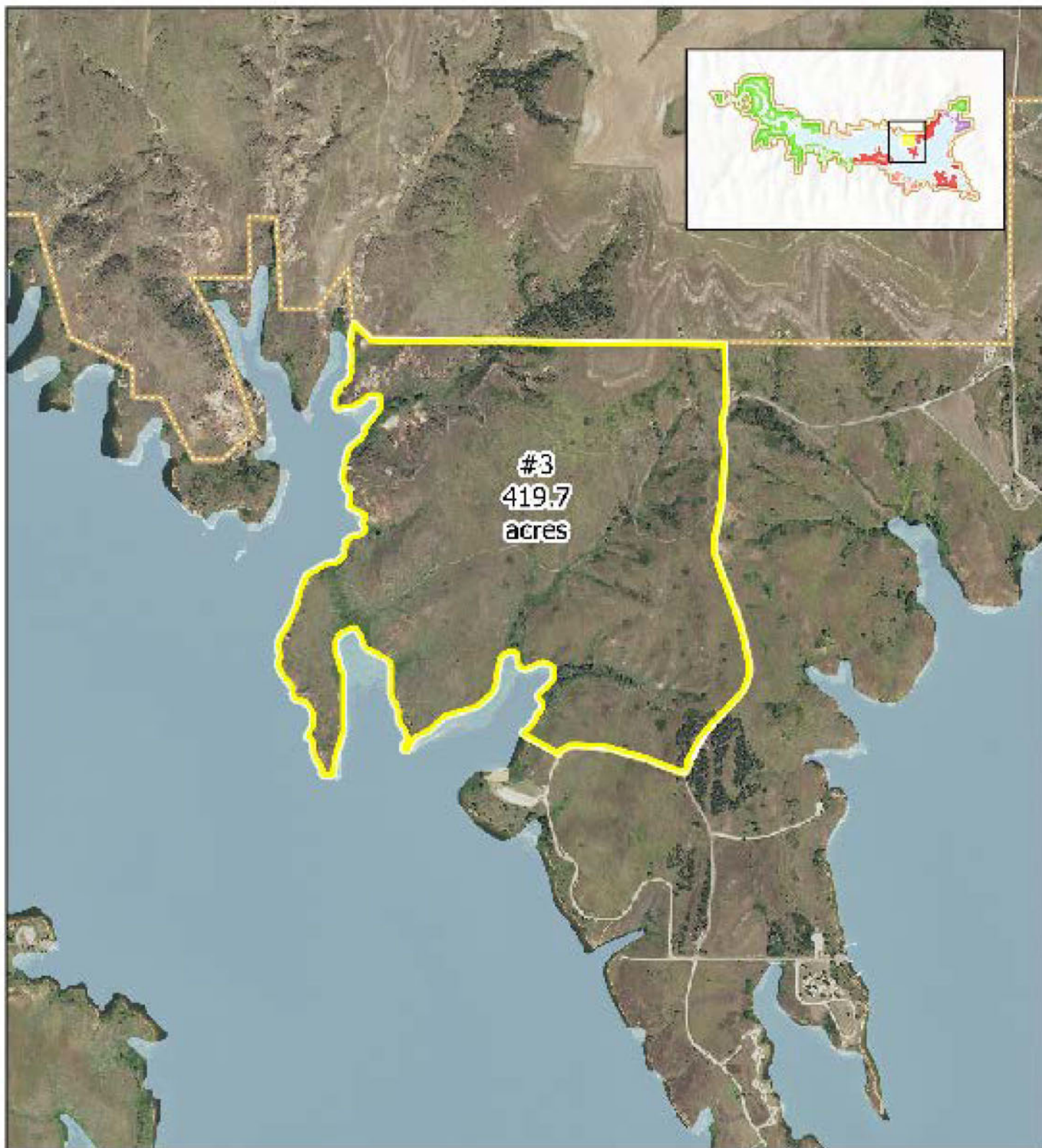
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- MRM: Low Density Recreation
- Corps Boundary





**Wilson Lake  
Compartment #2  
Corps Managed  
Public Hunting**





0  $\frac{1}{2}$  1 Miles

 Mitigation  
 Corps Boundary



**Wilson Lake  
Compartment #3  
Corps Managed  
Lucas Park -  
Rocktown Natural Area**





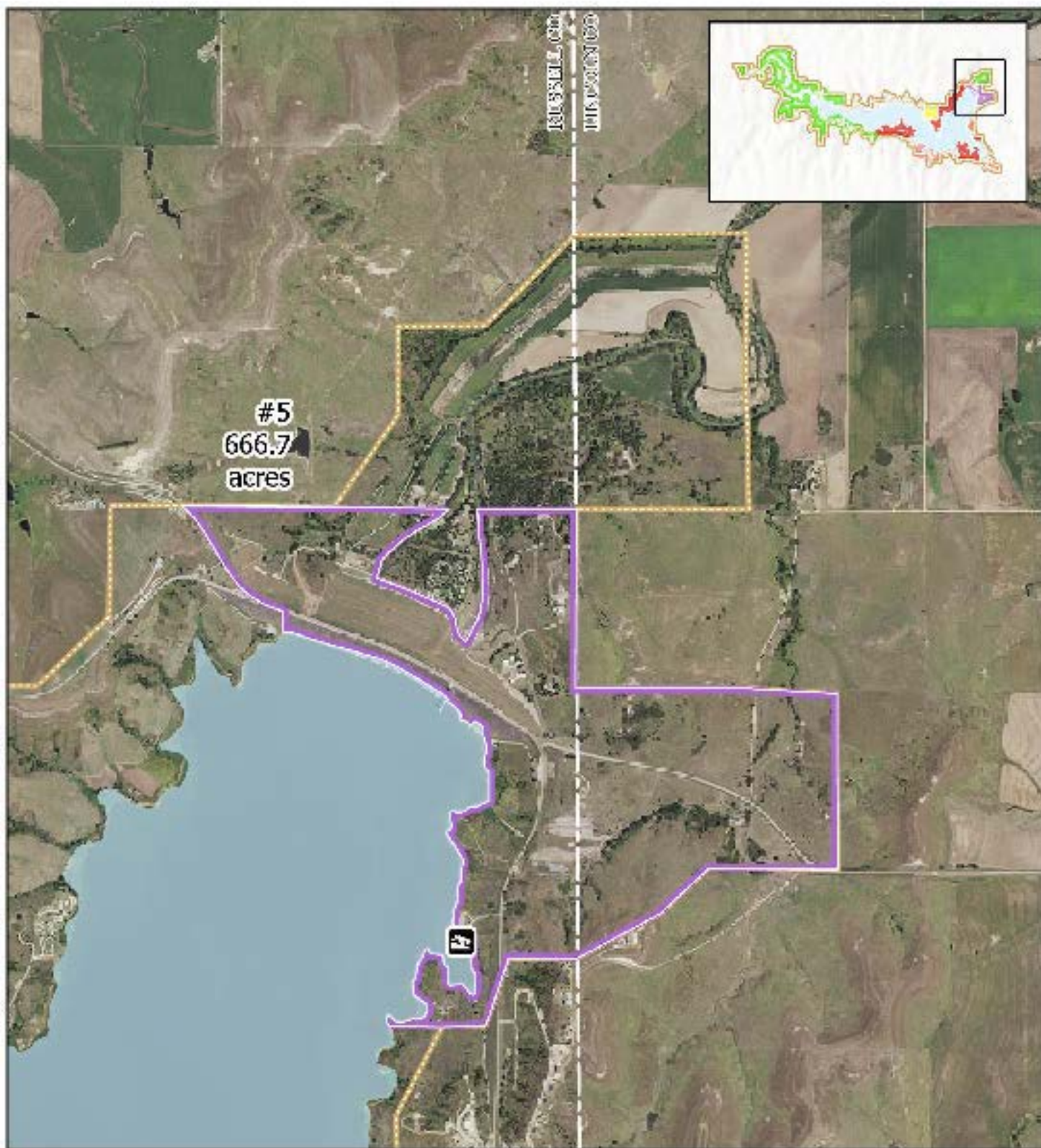
0 1/2 1 Miles

- High Density Recreation
- Corps Boundary



Wilson Lake  
Compartment #4  
Corps Managed  
Lucas Park





0 1/4 1/2 1 Miles





- Project Operations
- Corps Boundary

Wilson Lake  
Compartment #5  
Project Operations





0 500 1,000  
Feet

-  High Density Recreation
-  Corps Boundary



**Wilson Lake  
Compartment #6  
Corps Managed  
Sylvan Park**





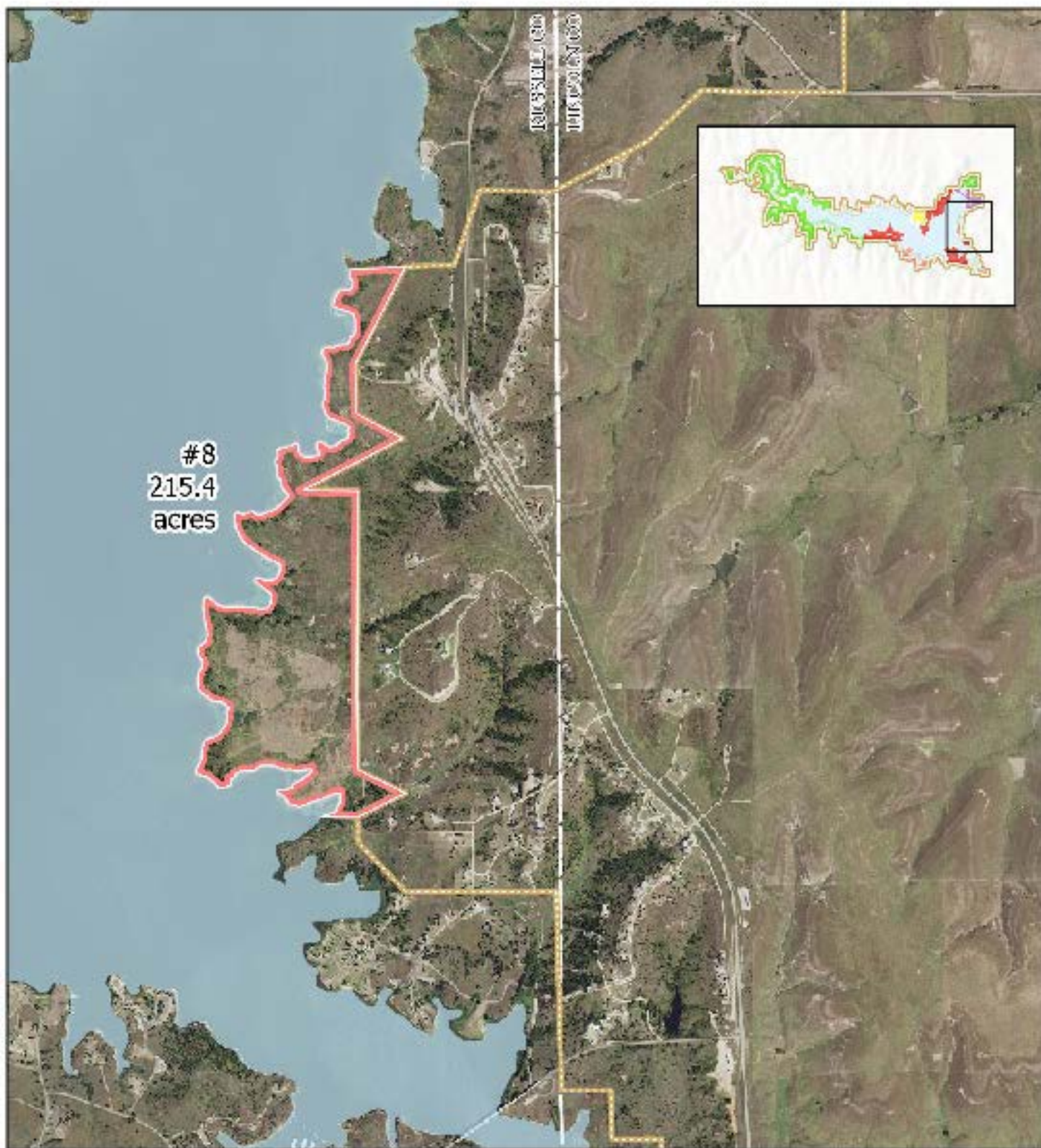
0 500 1,000 2,000  
Feet

- MRM: Wildlife Management
- Corps Boundary



**Wilson Lake  
Compartment #7  
Kansas Department of Wildlife,  
Parks & Tourism  
Wildlife Area**





0      ½      1  
Miles

- MRM: Low Density Recreation
- Corps Boundary



**Wilson Lake  
Compartment #8  
Corps Managed  
Open Hunting**





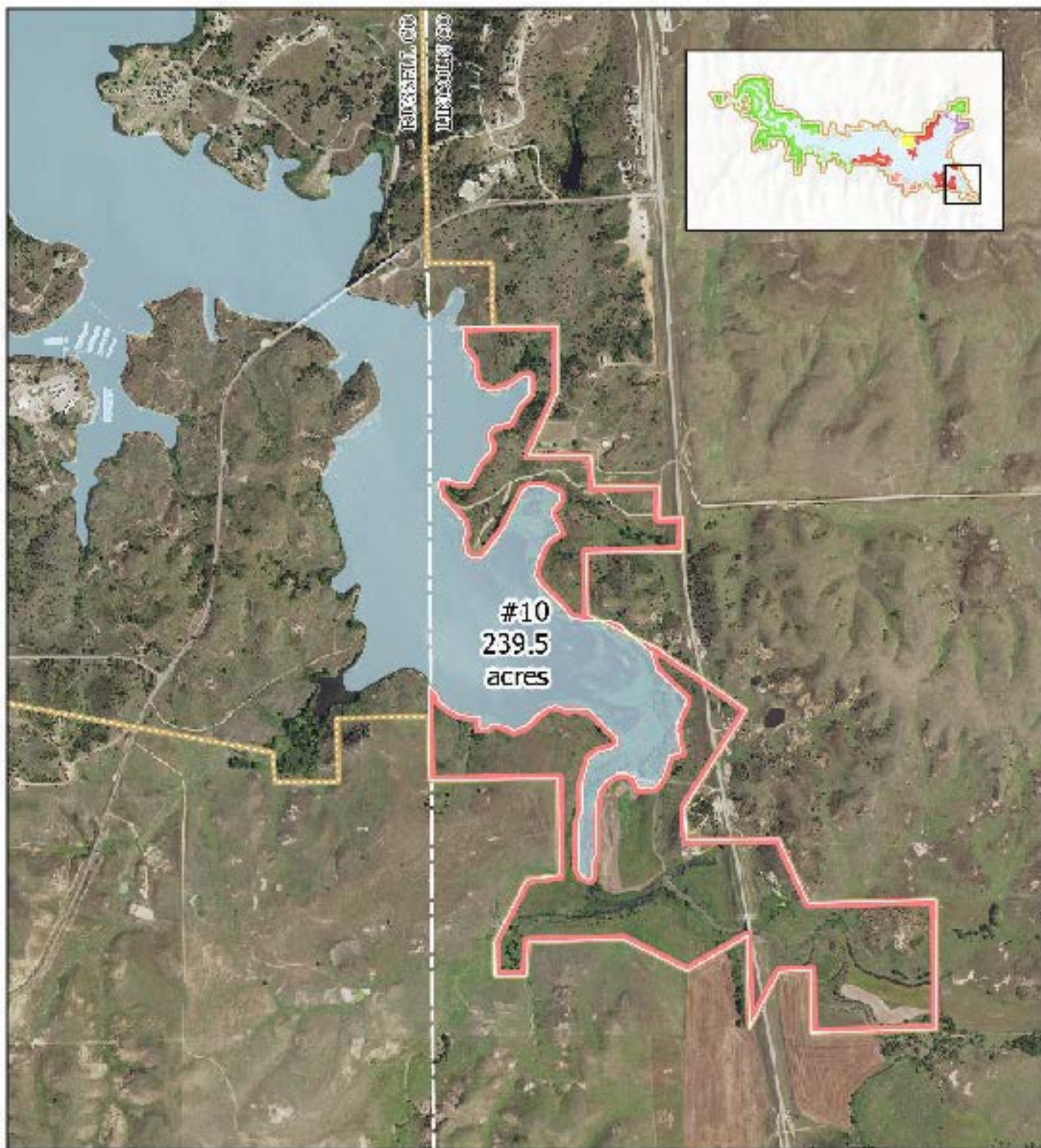
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Feet

- High Density Recreation
- Corps Boundary



Wilson Lake  
Compartment #9  
Wilson State Park  
Otoe Area





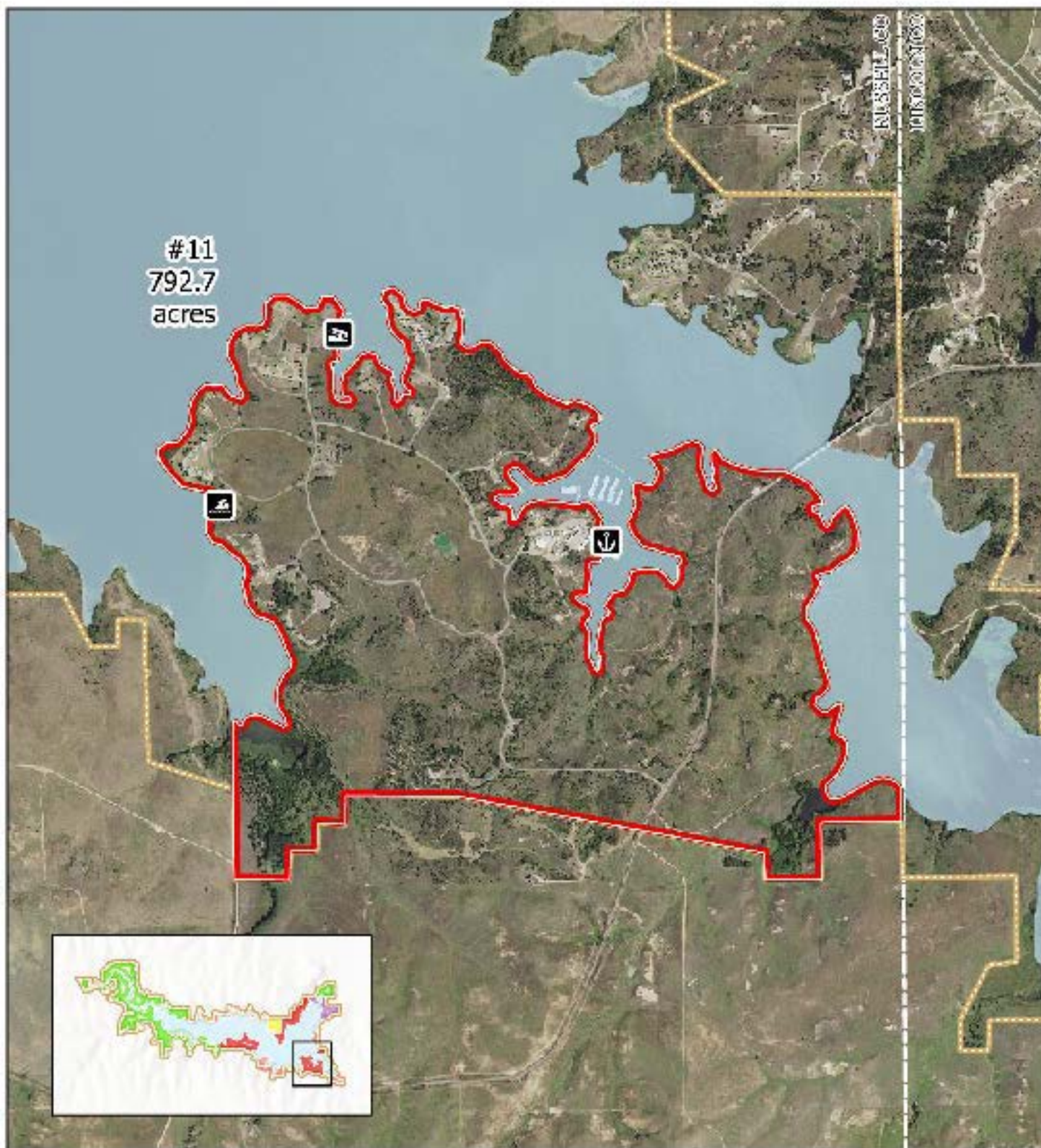
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Feet

- MRM: Low Density Recreation
- Corps Boundary





**Wilson Lake  
Compartment #10  
Corps Managed  
Open Hunting**





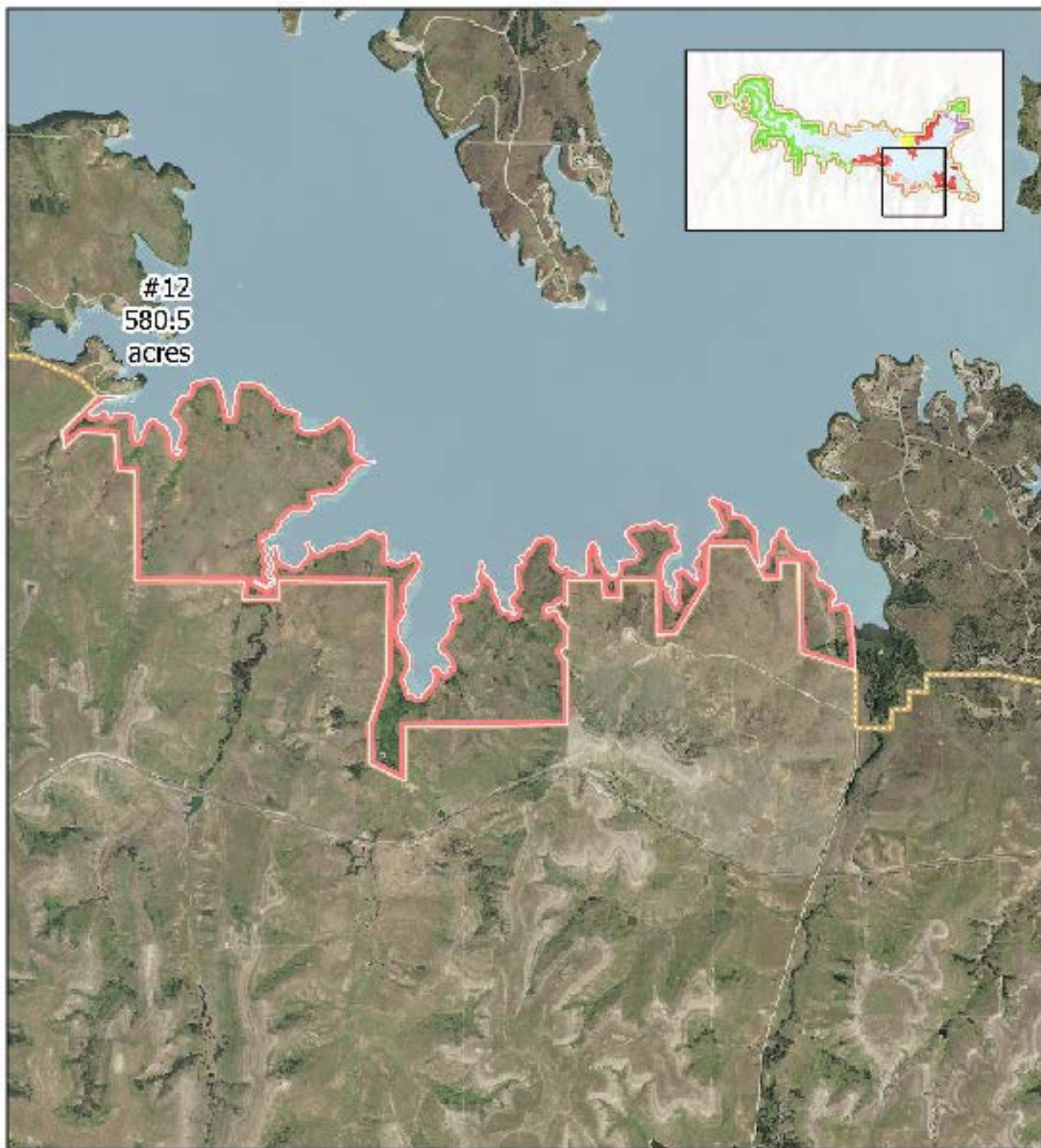
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Feet

 High Density Recreation  
 Corps Boundary



**Wilson Lake  
Compartment #11  
Wilson State Park  
Hell Creek Area**





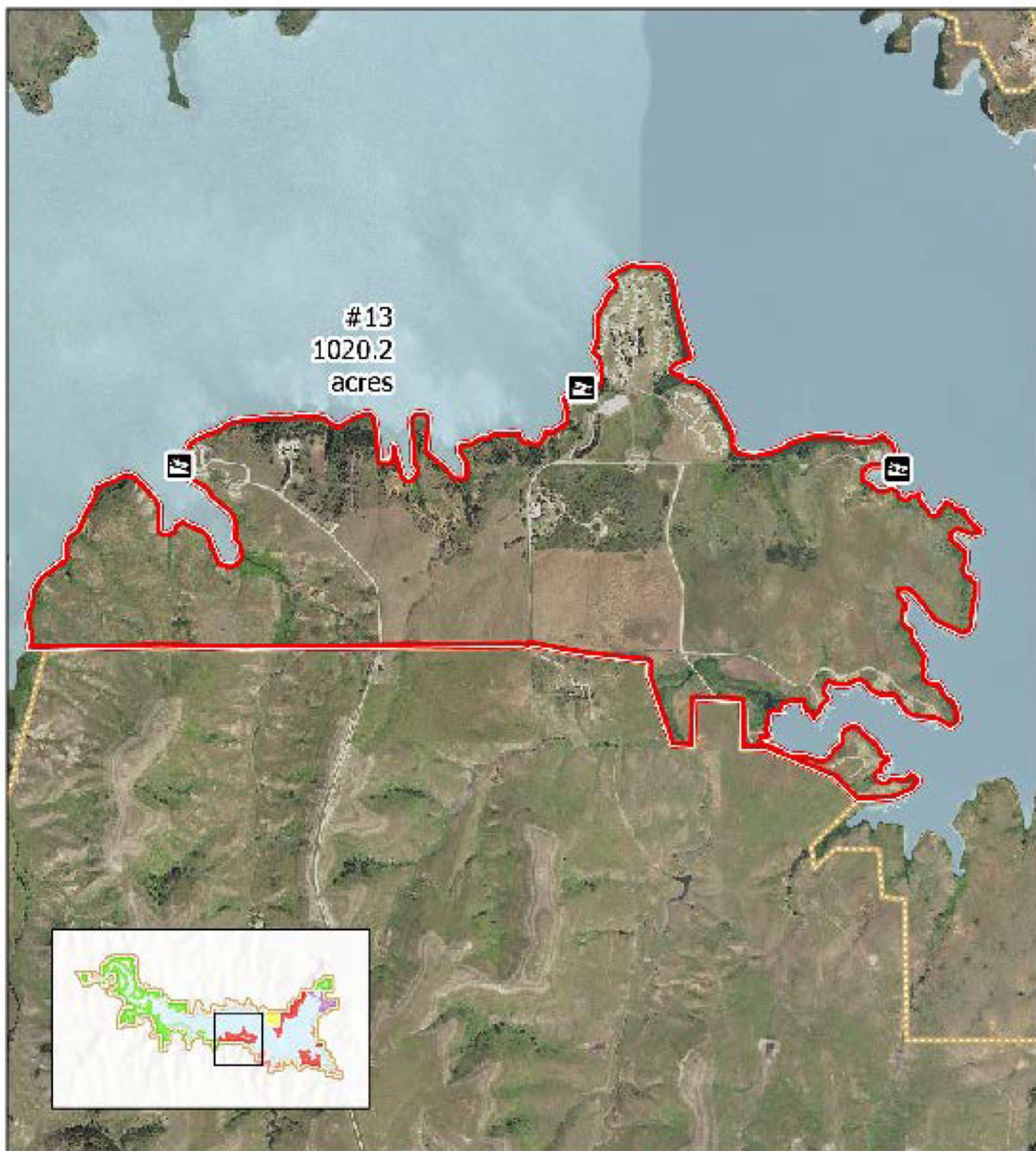
0 2,000 4,000  
Feet

- MRM: Low Density Recreation
- Corps Boundary



**Wilson Lake  
Compartment #12  
Corps Managed  
Open Hunting**





#13  
1020.2  
acres



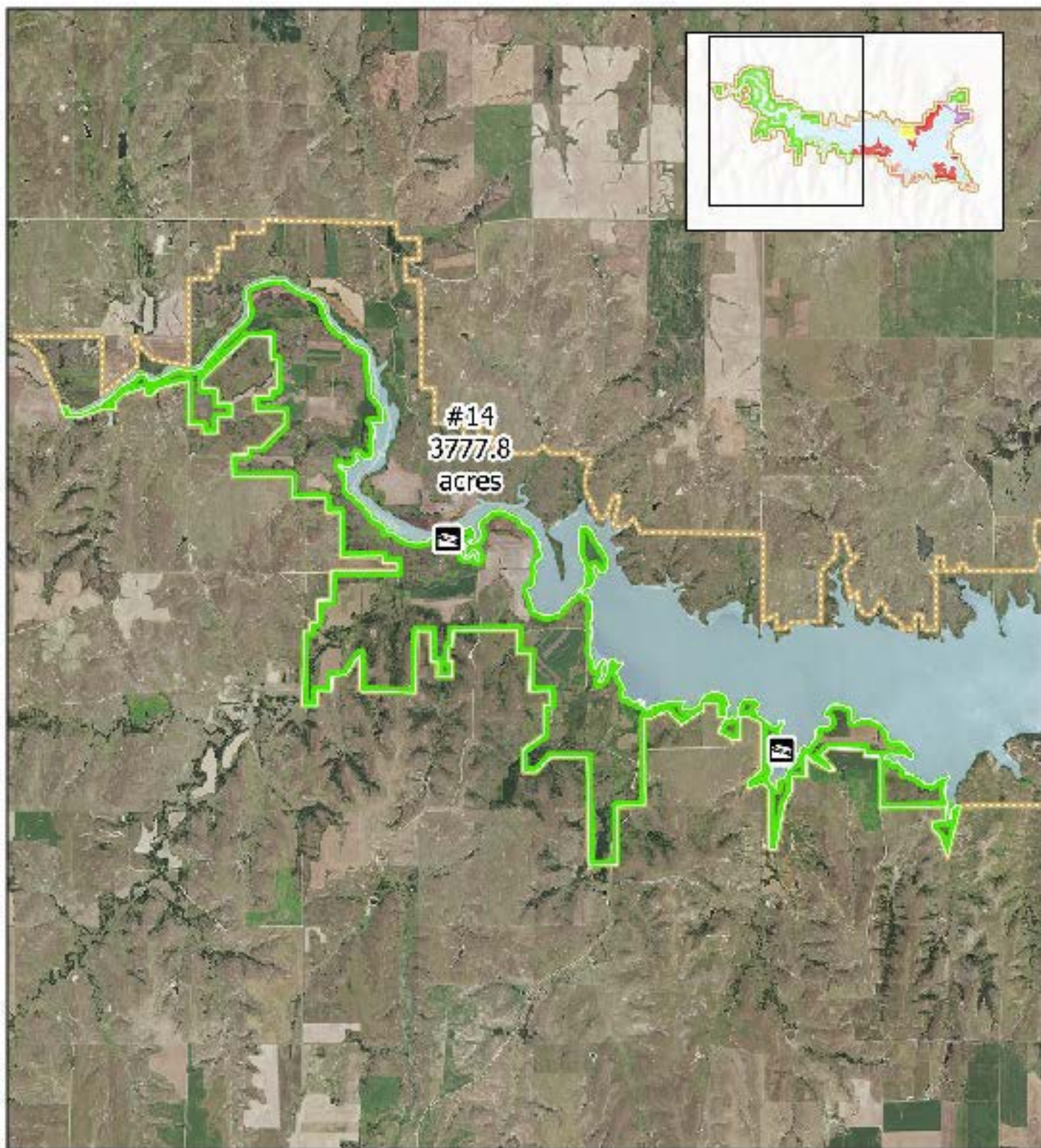
0 2,000 4,000  
Feet

- High Density Recreation
- Corps Boundary



Wilson Lake  
Compartment #13  
Corps Managed  
Minooka Park





0 1 2  
Miles

MRM: Wildlife Management  
Corps Boundary



**Wilson Lake  
Compartment #14  
Kansas Department of Wildlife,  
Parks & Tourism  
Wildlife Area**

## Appendix C Flora and Fauna

### Fish of Wilson Lake and Tributaries

bigmouth buffalo	<i>Ictiobus cyprinellus</i>	common
black bullhead	<i>Ictalurus melas</i>	uncommon
blue catfish	<i>Ictalurus furcatus</i>	common
bluegill	<i>Lepomis macrochirus</i>	common
bluntnose minnow	<i>Pimephales notatus</i>	uncommon
bullhead minnow	<i>Pimephales vigilax</i>	uncommon
central stoneroller	<i>Campostoma anomalum</i>	uncommon
channel catfish	<i>Ictalurus punctatus</i>	common
common carp	<i>Cyprinus carpio</i>	common
creek chub	<i>Semotilus atromaculatus</i>	uncommon
fathead minnow	<i>Pimephales promelas</i>	uncommon
flathead catfish	<i>Pylodictis olivaris</i>	common
freshwater drum	<i>Aplodinotus grunniens</i>	common
gizzard shad	<i>Dorosoma cepedianum</i>	common
golden shiner	<i>Notemigonus crysoleucas</i>	uncommon
green sunfish	<i>Lepomis cyanellus</i>	common
largemouth bass	<i>Micropterus salmoides</i>	common
northern plains killifish	<i>Micropterus salmoides</i>	uncommon
orangespotted sunfish	<i>Lepomis humilis</i>	uncommon
orangethroat darter	<i>Etheostoma spectabile</i>	uncommon
ozark logperch	<i>Percina fulvitaenia</i>	uncommon
red shiner	<i>Cyprinella lutrensis</i>	common
redeer sunfish	<i>Lepomis microlophus</i>	uncommon
river carpsucker	<i>Carpionodes carpio</i>	common
sand shiner	<i>Notropis stramineus</i>	uncommon
smallmouth bass	<i>Micropterus dolomieu</i>	common
smallmouth buffalo	<i>Ictiobus bubalus</i>	common
striped bass	<i>Morone saxatilis</i>	common
suckermouth minnow	<i>Phenacobius mirabilis</i>	uncommon
walleye	<i>Stizostedion vitreum vitreum</i>	common
western mosquitofish	<i>Gambusia affinis</i>	uncommon
white bass	<i>Morone chrysops</i>	common
white perch	<i>Morone americana</i>	common
white sucker	<i>Catostomus commersonii</i>	uncommon
yellow bullhead	<i>Ictalurus natalis</i>	uncommon
white bass x striped bass hybrid	<i>Morone chrysops</i> x <i>Morone saxatilis</i>	uncommon



## Mammals of Wilson Lake and Surrounding Area

Virginia Opossum	<i>Didelphis marsupialis</i>
Nine-banded Armadillo	<i>Dasypus novemcinctus</i>
Elliot's Short-tailed Shrew	<i>Blarina hylophaga</i>
Least Shrew	<i>Cryptotis parva</i>
Eastern Mole	<i>Scalopus Aquaticus</i>
Big Brown Bat	<i>Eptesicus fuscus</i>
Red Bat	<i>Lasiurus borealis</i>
Hoary Bat	<i>Lasiurus cinereus</i>
Little Brown	<i>Myotis lucifugus</i>
Evening Bat	<i>Nycticeius humeralis</i>
Coyote	<i>Canis latrans</i>
Red Fox	<i>Vulpes vulpes</i>
Long-tailed Weasel	<i>Mustela frenata</i>
Least Weasel	<i>Mustela nivalis</i>
Mink	<i>Mustela vison</i>
Badger	<i>Taxidea taxus</i>
Spotted Skunk	<i>Spilogale putorius</i>
Striped Skunk	<i>Mephitis mephitis</i>
Raccoon	<i>Procyon lotor</i>
Bobcat	<i>Lynx rufus</i>
Mule Deer	<i>Odocoileus hemionus</i>
White-tailed Deer	<i>Odocoileus virginianus</i>
Thirteen-lined Ground Squirrel	<i>Citellus tridencemlineatus</i>
Black-tailed Prairie Dog	<i>Cynomys ludovicianus</i>
Eastern Fox Squirrel	<i>Sciurus niger</i>
Plains Pocket Gopher	<i>Geomys bursarius</i>
Plains Pocket Mouse	<i>Perognathus flavescens</i>
Hispid Pocket Mouse	<i>Chaetodipus hispidus</i>
Ord's Kangaroo Rat	<i>Dipodomys ordii</i>
Beaver	<i>Castor canadensis</i>
Western Harvest Mouse	<i>Reithrodontomys megalotis</i>
Plains Harvest Mouse	<i>Reithrodontomys montanus</i>
White-footed Mouse	<i>Peromyscus leucopus</i>
Deer Mouse	<i>Peromyscus maniculatus</i>
Northern Grasshopper Mouse	<i>Onychomys leucogaster</i>
Hispid Cotton Rat	<i>Sigmodon hispidus</i>
Eastern Woodrat	<i>Neotoma floridana</i>
Prairie Vole	<i>Microtus ochrogaster</i>
Southern Bog Lemming	<i>Synaptomys cooperi</i>
Muskrat	<i>Ondatra zibethica</i>
House Mouse	<i>Mus musculus</i>
Norway Rat	<i>Tarrus norvegicus</i>
Eastern Cottontail	<i>Sylvilagus floridanus</i>
Black-tailed Jackrabbit	<i>Lepus californicus</i>

## Reptiles & Amphibians of Wilson Lake and Surrounding Area

Snapping Turtle	<i>Chelydra serpentina</i>
Yellow Mud Turtle	<i>Kinosternon flavescens</i>
Painted Turtle	<i>Chrysemys picta</i>
Slider	<i>Trachemys scripta</i>
Spiny Softshell	<i>Apalone spinifera</i>
Great Plains Skink	<i>Eumeces obsoletus</i>
Six-lined Racerunner	<i>Cnemidophorus sexlineatus</i>
Eastern Racer	<i>Coluber constrictor</i>
Gopher Snake	<i>Pituophis catenifer</i>
Prairie Kingsnake	<i>Lampropeltis calligaster</i>
Common Kingsnake	<i>Lampropeltis getula</i>
Plains Gartersnake	<i>Thamnophis radix</i>
Common Gartersnake	<i>Thamnophis sirtalis</i>
Lined Snake	<i>Tropidoclonion lineatum</i>
Graham's Crayfish Snake	<i>Regina grahamii</i>
Diamondback Watersnake	<i>Nerodia rhombifer</i>
Northern Watersnake	<i>Nerodia sipedon</i>
Texas Brown Snake	<i>Storeria dekayi</i>
Massasauga	<i>Sistrurus catenatus</i>
Western Rattlesnake	<i>Crotalus viridis</i>
Barred Tiger Salamander	<i>Ambystoma mavortium</i>
Plains Spadefoot	<i>Spea bombifrons</i>
Great Plains Toad	<i>Bufo cognatus</i>
Woodhouse's Toad	<i>Bufo woodhousii</i>
Northern Cricket Frog	<i>Acris crepitans</i>
Western Chorus Frog	<i>Pseudacris triseriata</i>
Plains Leopard Frog	<i>Rana blairi</i>
Bullfrog	<i>Rana catesbeiana</i>

### Birds of Wilson Lake and Surrounding Area Checklist

<input type="checkbox"/> Canada Goose	<input type="checkbox"/> Mourning Dove
<input type="checkbox"/> Wood Duck	<input type="checkbox"/> Yellow-billed Cuckoo
<input type="checkbox"/> Gadwall	<input type="checkbox"/> Eastern Screech-Owl
<input type="checkbox"/> Mallard	<input type="checkbox"/> Great Horned Owl
<input type="checkbox"/> Common Goldeneye	<input type="checkbox"/> Chuck-will's-widow
<input type="checkbox"/> Hooded Merganser	<input type="checkbox"/> Chimney Swift
<input type="checkbox"/> Northern Bobwhite	<input type="checkbox"/> Ruby-throated Hummingbird
<input type="checkbox"/> Wild Turkey	<input type="checkbox"/> Belted Kingfisher
<input type="checkbox"/> Common Loon	<input type="checkbox"/> Red-headed Woodpecker
<input type="checkbox"/> Pied-billed Grebe	<input type="checkbox"/> Red-bellied Woodpecker
<input type="checkbox"/> Horned Grebe	<input type="checkbox"/> Yellow-bellied Sapsucker
<input type="checkbox"/> American White Pelican	<input type="checkbox"/> Downy Woodpecker
<input type="checkbox"/> Great Blue Heron	<input type="checkbox"/> Hairy Woodpecker
<input type="checkbox"/> Green Heron	<input type="checkbox"/> Northern Flicker
<input type="checkbox"/> Black Vulture	<input type="checkbox"/> Pileated Woodpecker
<input type="checkbox"/> Turkey Vulture	<input type="checkbox"/> Eastern Wood-Pewee
<input type="checkbox"/> Osprey	<input type="checkbox"/> Acadian Flycatcher
<input type="checkbox"/> Bald Eagle	<input type="checkbox"/> Least Flycatcher
<input type="checkbox"/> Red-shouldered Hawk	<input type="checkbox"/> Eastern Phoebe
<input type="checkbox"/> Broad-winged Hawk	<input type="checkbox"/> Great Crested Flycatcher
<input type="checkbox"/> Red-tailed Hawk	<input type="checkbox"/> Eastern Kingbird
<input type="checkbox"/> American Coot	<input type="checkbox"/> Yellow-throated Vireo
<input type="checkbox"/> Killdeer	<input type="checkbox"/> Warbling Vireo
<input type="checkbox"/> Long-billed Dowitcher	<input type="checkbox"/> Red-eyed Vireo
<input type="checkbox"/> American Woodcock	<input type="checkbox"/> Blue Jay
<input type="checkbox"/> Bonaparte's Gull	<input type="checkbox"/> American Crow
<input type="checkbox"/> Ring-billed Gull	<input type="checkbox"/> Purple Martin
<input type="checkbox"/> Tree Swallow	<input type="checkbox"/> Magnolia Warbler
<input type="checkbox"/> Northern Rough-winged Swallow	<input type="checkbox"/> Blackpoll Warbler
<input type="checkbox"/> Cliff Swallow	<input type="checkbox"/> Yellow-rumped Warbler
<input type="checkbox"/> Barn Swallow	<input type="checkbox"/> Yellow-throated Warbler
<input type="checkbox"/> Carolina Chickadee	<input type="checkbox"/> Eastern Towhee
<input type="checkbox"/> Black-capped Chickadee	<input type="checkbox"/> Chipping Sparrow
<input type="checkbox"/> Tufted Titmouse	<input type="checkbox"/> Clay-colored Sparrow
<input type="checkbox"/> White-breasted Nuthatch	<input type="checkbox"/> Field Sparrow
<input type="checkbox"/> Brown Creeper	<input type="checkbox"/> Lark Sparrow
<input type="checkbox"/> Carolina Wren	<input type="checkbox"/> Song Sparrow
<input type="checkbox"/> Blue-gray Gnatcatcher	<input type="checkbox"/> Dark-eyed Junco
<input type="checkbox"/> Eastern Bluebird	<input type="checkbox"/> Summer Tanager
<input type="checkbox"/> Swainson's Thrush	<input type="checkbox"/> Scarlet Tanager
<input type="checkbox"/> American Robin	<input type="checkbox"/> Northern Cardinal
<input type="checkbox"/> Gray Catbird	<input type="checkbox"/> Rose-breasted Grosbeak
<input type="checkbox"/> Northern Mockingbird	<input type="checkbox"/> Blue Grosbeak
<input type="checkbox"/> Brown Thrasher	<input type="checkbox"/> Indigo Bunting



\_\_\_\_\_ European Starling  
\_\_\_\_\_ Cedar Waxwing  
\_\_\_\_\_ Black-and-white Warbler  
\_\_\_\_\_ Prothonotary Warbler  
\_\_\_\_\_ Nashville Warbler  
\_\_\_\_\_ Kentucky Warbler  
\_\_\_\_\_ Common Yellowthroat  
\_\_\_\_\_ Hooded Warbler  
\_\_\_\_\_ Cape May Warbler  
\_\_\_\_\_ Northern Parula

\_\_\_\_\_ Red-winged Blackbird  
\_\_\_\_\_ Common Grackle  
\_\_\_\_\_ Brown-headed Cowbird  
\_\_\_\_\_ Orchard Oriole  
\_\_\_\_\_ Baltimore Oriole  
\_\_\_\_\_ House Finch  
\_\_\_\_\_ Purple Finch  
\_\_\_\_\_ American Goldfinch  
\_\_\_\_\_ House Sparrow

## Partial List of Vascular Plants

Western wheatgrass  
Fraser's onion  
Western ragweed  
Giant ragweed  
Lead plant  
Big bluestem  
Sandhill Bluestem  
Silver bluestem  
Little bluestem  
Blue funnel lily  
White prickly poppy  
Green sage  
Narrow-leaved milkweed  
Heath aster  
Fendler's aster  
Side-oats grama  
Blue grama  
Hairy grama  
Japanese brome  
Buffalograss  
Prairie sandreed  
Low poppy mallow  
Downy painted-cup  
Hackberry  
Wavyleaf thistle  
Fremont's clematis  
Horseweed fleabane  
Nipple cactus  
Texas croton  
Buffalo gourd  
White prairie clover  
Plume dalea  
Purple prairie clover  
Illinois bundleflower  
Black Sampson  
Russian olive  
Canada wildrye  
Sand lovegrass  
Annual eriogonum  
Western wallflower  
Snow-on-the mountain  
Green ash  
Indian blanket  
Small-flowered gaura

Agropyron smithii  
Allium perdulce  
Ambrosia psilostachya  
Ambrosia trifida  
Amorpha canescens  
Andropogon gerardii  
Andropogon hallii  
\* Andropogon saccharoides  
Andropogon scoparius  
Androstephium coeruleum  
Argemone polyanthemus  
Artemesia dracunculoides  
Asclepias stenophylla  
Aster ericoides  
Aster fendleri  
Bouteloua curtipendula  
Bouteloua gracilis  
Bouteloua hirsuta  
\* Bromus japonicus  
Buchloe dactyloides  
Calamovilfa longifolia  
Callirhoe involucrate  
Castilleja sessiliflora  
Celtis occidentalis  
Cirsium undulatum  
Clematis fremontii  
\* Conyza canadensis  
Coryphantha vivipara  
Croton texensis  
Cucurbita foetidissima  
Dalea candida  
Dalea enneandra  
Dalea pupurea  
Desmanthus illinoensis  
Echinacea angustifolia  
\* Elaeagnus angustifolia  
Elymus canadensis  
Eragrostis trichodes  
Eriogonum annuum  
Erysimum asperum  
Euphorbia marginata  
Fraxinus pennsylvanica  
Gaillardia pulchella  
Gaura parviflora

Perennial broomweed  
Cutleaf ironplant  
Narrowleaf bluet  
Prairie sunflower  
Heterotheca  
Bitterweed  
Bush morning-glory  
Eastern red cedar  
Kochia  
False boneset  
Button blazing star  
Blazing star  
Carrotleaf lomatium  
Sand lily  
White mulberry  
Plains muhly  
Common prickly pear  
Switchgrass  
White penstemon  
Buckley's penstemon  
White polygala  
Clammy weed  
Cottonwood  
Scurfpea  
Bur oak  
Columnar prairie coneflower  
Aromatic sumac  
Black willow  
Russian thistle  
Pitcher's salvia  
Sensitive brier  
Resinous skullcap  
Yellow foxtail  
Compass plant  
Giant Goldenrod  
Goldenrod  
Stiff goldenrod  
Indiangrass  
Alkali sacaton  
Sand dropseed  
Flax-leaved stenosisiphon  
Rock-pink fameflower  
Salt cedar  
Rayless thelesperma  
Prairie spiderwort  
Meadow salsify

Gutierrezia sarothrae  
Haplopappus spinulosus  
Hedyotis nigricans  
Helianthus petiolaris  
Heterotheca stenophylla  
Hymenoxys acaulis  
Ipomea leptophylla  
Juniperus virginiana  
Kochia scoparia  
Kuhnia eupatorioides  
Liatris glabrata  
Liatris punctata  
Lomatium foeniculaceum  
Mentzelia nuda  
Morus alba  
Muhlenbergia cuspidata  
Opuntia macrorhiza  
Panicum virgatum  
Penstemon albidus  
Penstemon buckleyi  
Polygala alba  
Polanisia dodecandra  
Populus deltoides  
Psoralea tenuiflora  
Quercus macrocarpa  
Ratibida columnifera  
Rhus aromatica  
Salix nigra  
Salsola iberica  
Salvia pitcher  
Schranksia nuttallii  
Scutellaria resinosa  
Setaria glauca  
Silphium laciniatum  
Solidago gigantea  
Solidago mollis  
Solidago rigida  
Sorghastrum nutans  
Sporobolus airoides  
Sporobolus asper  
Stenosiphon linifolius  
Talinum calycinum  
\* Tamarix gallica  
Thelesperma megapotamicum  
Tradescantia occidentalis  
\* Tragopogon dubius

Common cattail  
Siberian elm  
Dakota verbena  
Hoary vervain  
Small soapweed

*Typha latifolia*  
\* *Ulmus pumila*  
*Verbena bipinnatifida*  
*Verbena stricta*  
*Yucca glauca*

\* Introduced Species



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Kansas Ecological Services Field Office  
2609 Anderson Avenue  
Manhattan, KS 66502-2801  
Phone: (785) 539-3474 Fax: (785) 539-8567



In Reply Refer To:  
Consultation Code: 06E21000-2019-SLI-0518  
Event Code: 06E21000-2020-E-01735  
Project Name: Wilson Lake Master Plan Revision

April 17, 2020

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

### To Whom It May Concern:

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

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

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

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

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

[https://www.fws.gov/endangered/esa-library/pdf/esa\\_section7\\_handbook.pdf](https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf)

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

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <https://www.fws.gov/birds/management/project-assessment-tools-and-guidance.php>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - 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:

**Kansas Ecological Services Field Office**

2609 Anderson Avenue

Manhattan, KS 66502-2801

(785) 539-3474

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## Project Summary

Consultation Code: 06E21000-2019-SLI-0518

Event Code: 06E21000-2020-E-01735

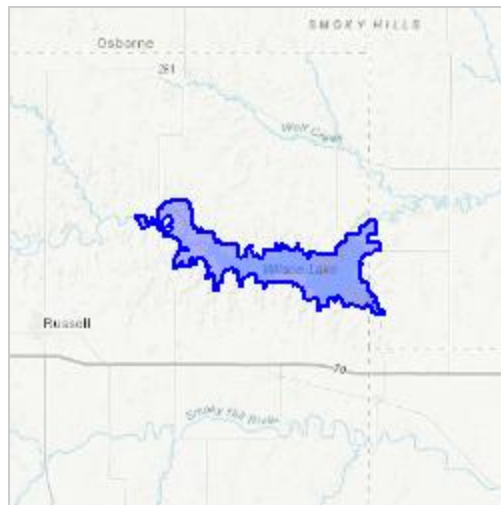
Project Name: Wilson Lake Master Plan Revision

Project Type: LAND - MANAGEMENT PLANS

Project Description: Update of the plan that guides overall land use on all Fee Property at and surrounding Wilson Lake. The update of this Plan will take approximately a year to complete the planning and report preparation. As part of this process an EA/FONSI will be prepared for any actions identified in the plan, none are being proposed at this time.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.95087591315778N98.58238127222441W>



Counties: Lincoln, KS | Russell, KS



## Endangered Species Act Species

There is a total of 2 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 Fisheries<sup>1</sup>, 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
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Birds

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: Wherever found, except where listed as an experimental population There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a>	Endangered

## Critical habitats

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

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# 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.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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# Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

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

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birds and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

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

NAME	BREEDING SEASON
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> 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. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Oct 15 to Jul 31

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NAME	BREEDING SEASON
<b>Golden Eagle <i>Aquila chrysaetos</i></b> 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. <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a>	Breeds Jan 1 to Aug 31
<b>Harris's Sparrow <i>Zonotrichia querula</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
<b>Hudsonian Godwit <i>Limosa haemastica</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
<b>Lark Bunting <i>Calamospiza melanocorys</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 10 to Aug 15
<b>Lesser Yellowlegs <i>Tringa flavipes</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
<b>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
<b>Semipalmated Sandpiper <i>Calidris pusilla</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
<b>Willet <i>Tringa semipalmata</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

## 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 and understand the FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

### **Breeding Season (■)**

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### **Survey Effort (|)**

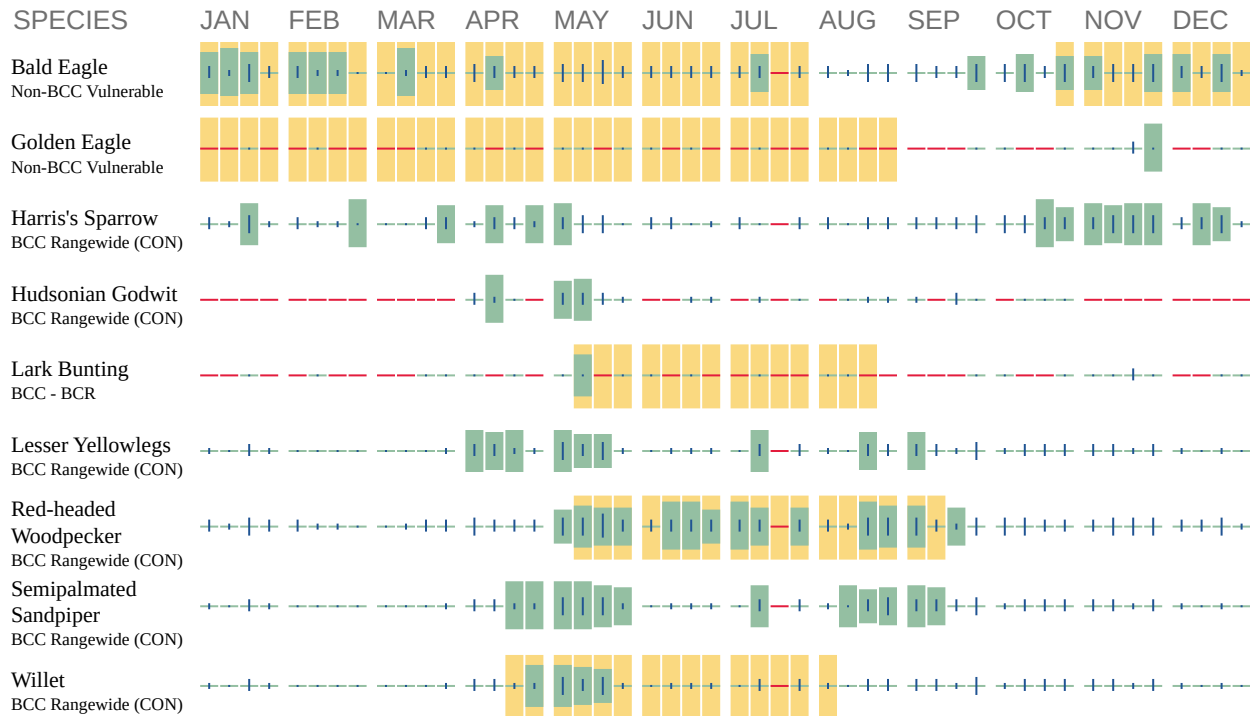
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

### **No Data (—)**

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

### **Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

## Migratory Birds FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.



**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
  2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
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3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell

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me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

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# 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 POND

- [Palustrine](#)

## LAKE

- [Lacustrine](#)

## RIVERINE

- [Riverine](#)
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