

# Appendix A Coordination

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

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1 COORDINATING AGENCIES

- U.S. Fish and Wildlife Service
- Illinois Department of Natural Resources

2 PLANNING CHARRETTE

A full report is available upon request. The Executive Summary is provided below.

The Yorkinut Slough Habitat Rehabilitation and Enhancement Project (HREP) is located on the right descending bank of the Illinois River between river miles 5 and 11, near the confluence of the Illinois and Mississippi Rivers. The study area is comprised of 2,350 acres, which includes wetland, early successional habitats, woodland, and floodplain forest within the Two Rivers National Wildlife Refuge. The role of the U.S. Army Corps of Engineers (USACE) on this study is to create a Feasibility Report with Integrated Environmental Assessment (EA), and to document the decision-making process for the proposed Upper Mississippi River Restoration (UMRR) HREP. The U.S. Fish and Wildlife Service (USFWS) serves as the federal project partner.

A Scoping Charrette was held virtually over six sessions in April and May 2020 to support the scoping of this study. The charrette was originally scheduled to be held in-person over 2.5 days with an additional half-day site visit, but social distancing measures put in place in response to the COVID-19 pandemic in Illinois and Missouri in March 2020 prevented this from happening. The six virtual sessions drew between 17 and 21 attendees per session from USACE, USFWS, and the Upper Mississippi River Basin Association. A participant from the Natural Resource Conservation Service (NRCS) and Illinois Department of Natural Resources (IDNR) was invited to attend but was not able to.

The charrette participants brainstormed and refined lists of problems, opportunities, objectives, constraints, and considerations for the study. They also provided feedback on a draft conceptual model created by the charrette facilitator, and provided input on resource significance and expected existing and future conditions at the site. Participants brainstormed measures that would address the problems identified, and developed alternatives including several measures in four small group discussions. Finally, participants documented uncertainties, risks, and assumptions relating to the study so far. These outputs are documented in this report.

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3 SHPO COORDINATION  
3.1 Letter to Illinois SHPO



REPLY TO  
ATTENTION OF:

**DEPARTMENT OF THE ARMY**  
ST. LOUIS DISTRICT CORPS OF ENGINEERS  
1222 SPRUCE STREET  
ST. LOUIS, MISSOURI 63103-2833

February 2, 2022

Engineering and Construction Division  
Curation and Archives Analysis Branch (ECZ)

**Subject:** Request to Initiate Consultation on Yorkinut Slough Study Area Habitat Rehabilitation and Enhancement Project, Calhoun County, Illinois

Jeffrey D. Kruchten  
State Historic Preservation Office – IDNR  
Attn: Review & Compliance  
One Natural Resources Way  
Springfield, Illinois 62702

Dear Mr. Kruchten:

The U.S. Army Corps of Engineers, St. Louis District (District), in partnership with U.S. Fish and Wildlife Services (USFWS) is engaging in a study to formulate alternatives to restore and improve the quality and diversity of emergent wetland, woodland, and forest resources within the Yorkinut Slough study area (Figure 1). Pursuant to Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36 CFR 800, the District would like to initiate consultation regarding the study.

The study with an integrated Environmental Assessment (EA) will evaluate and compare the benefits, costs, and impacts (positive or negative) of alternatives including the No Action Alternative. The study will also satisfy the requirement of the National Environmental Policy Act (NEPA) to evaluate the proposed federal action. The study is currently at the Tentatively Selected Plan (TSP) Milestone, which means that multiple alternatives have been developed and a TSP has been identified. This letter to initiate consultation is a requirement at this stage of the study.

The District reviewed four alternatives. The alternatives range between No Action and Maximum Action. The alternatives involve actions at a subset of locations identified in the Maximum Action alternative. The No Action would mean no federal action takes place and there would be no change from the current management direction or level of management intensity. Maximum Action includes reconfiguration of emergent wetland units to improve natural hydrologic conditions, the installment of water control structures, enhancing ridge and swale topography, raising berms and reconfiguring berms to make the slopes shallower, managing upland tributary inputs in Lower Swan Lake to reduce impacts to the Yorkinut Slough study area and Swan Lake, restoring drainage within forest stands on Six Mile Island to reduce flood stress impacts to

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forest resources, timber stand improvement activities, tree planting, and restoring a side channel on Six Mile Island.

Based upon the analysis of the four alternatives, the TSP will include:

- Berm construction and associated earthwork (approximately 12 acres)
- Berm enhancement and associated earthwork (approximately 8 acres)
- Berm deconstruction and associated earthwork (approximately 21 acres)
- Remove 7 water control structures
- Install 11 water control structures
- Install 2 well pumps
- Well pump pipe installation (approximately 5400 ft.)
- Install 1 pump station
- Excavate 27 acres of channel
- Remove 13 acres of channel
- Excavate/re-grade acres of emergent wetlands (included in channel excavation acreage)
- Reforestation (approximately 215 acres)
- Clearing and grubbing (approximately 5 acres)
- Timber stand improvement (approximately 943 acres)

Figures 2a and 2b show the 380 acres of direct impact of the TSP, which has been established as the area of potential effect (APE). The District will be conducting a geomorphological survey of the APE and areas determined to have a high potential for cultural resources will have a Section 106 cultural resource survey completed. Results of the survey and the District's recommendations will be provided to your office.

The District is presently aware of three previously identified archaeological sites within the southern portion of the APE (Figure 3). Site 11C152 was an Early Woodland to Protohistoric site that was determined to be eligible to the National Register of Historic Places (NRHP). The site underwent Phase III mitigation in 2010 and is presently considered completely mitigated by the Illinois State Historic Preservation Office (SHPO). Site 11C159 was identified as possibly Middle Archaic lithic scatter and 19<sup>th</sup> century historic ceramic scatter. The SHPO has determined it ineligible to the NRHP. Finally, site 11C388 is a prehistoric lithic scatter. This site has not been evaluated for NRHP eligibility. All three sites will be investigated to determine if there is evidence of their presence remaining within the APE. All cultural resources identified during the Phase I cultural resource survey will be evaluated for their eligibility to the NRHP.

Given this information, the District would like to initiate consultation regarding the APE of this project. If you have any questions pertaining to this project, please contact Meredith Hawkins Trautt (Archaeologist and Tribal Liaison) at [Meredith.M.Trautt@usace.army.mil](mailto:Meredith.M.Trautt@usace.army.mil) or call (314) 925-5031.

Sincerely,

RIORDAN.JENNIFER.L.122891  
ER.L.1228919086

Jennifer L. Riordan  
Chief, Curation and Archives  
Analysis Branch

Digitally signed by  
RIORDAN.JENNIFER.L.122891  
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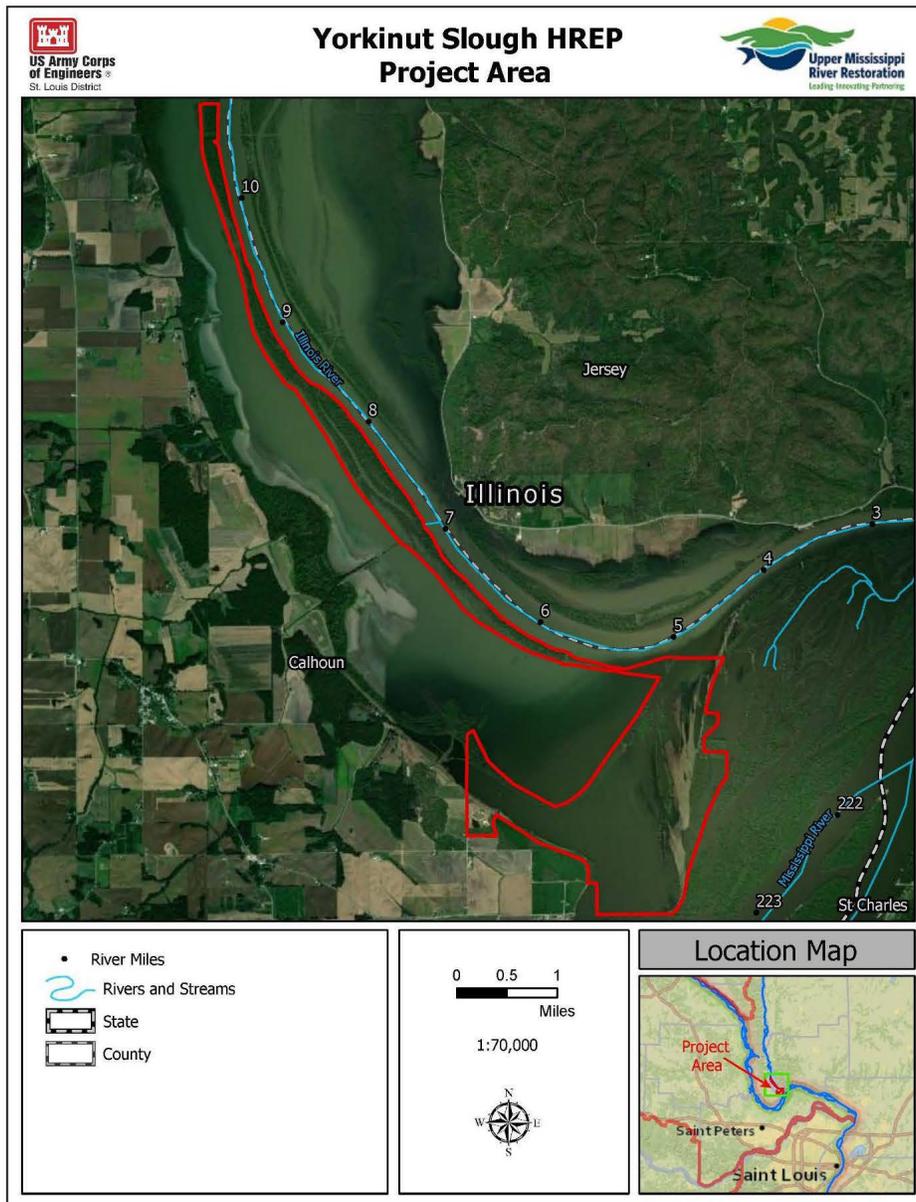


Figure 1. General location of Yorkinut study area.

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Yorkinut Slough HREP*



Figure 2a. Map showing northern portion of the Yorkinut APE.

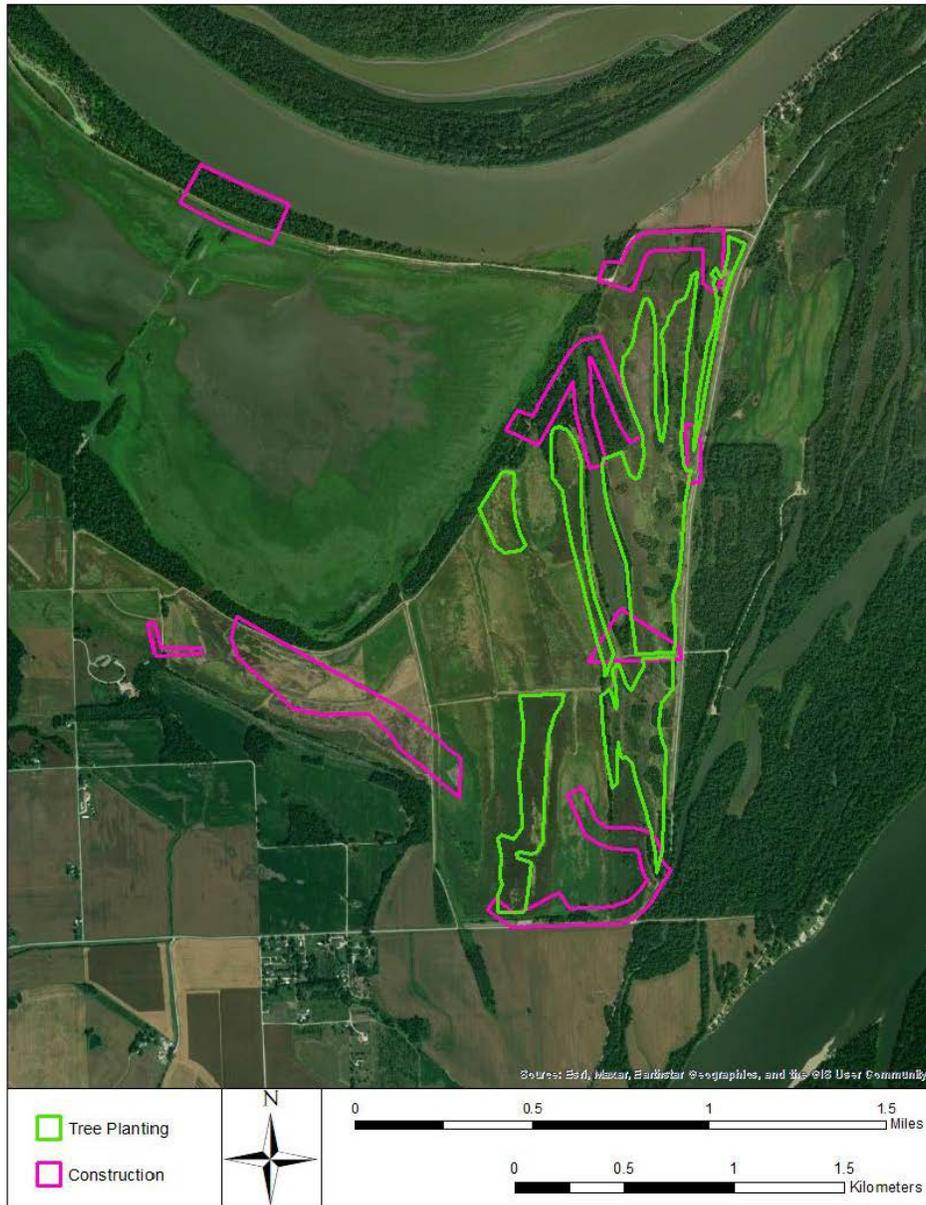


Figure 2b. Southern portion of the Yorkinut APE.

### Yorkinut Slough HREP Previously Identified Sites

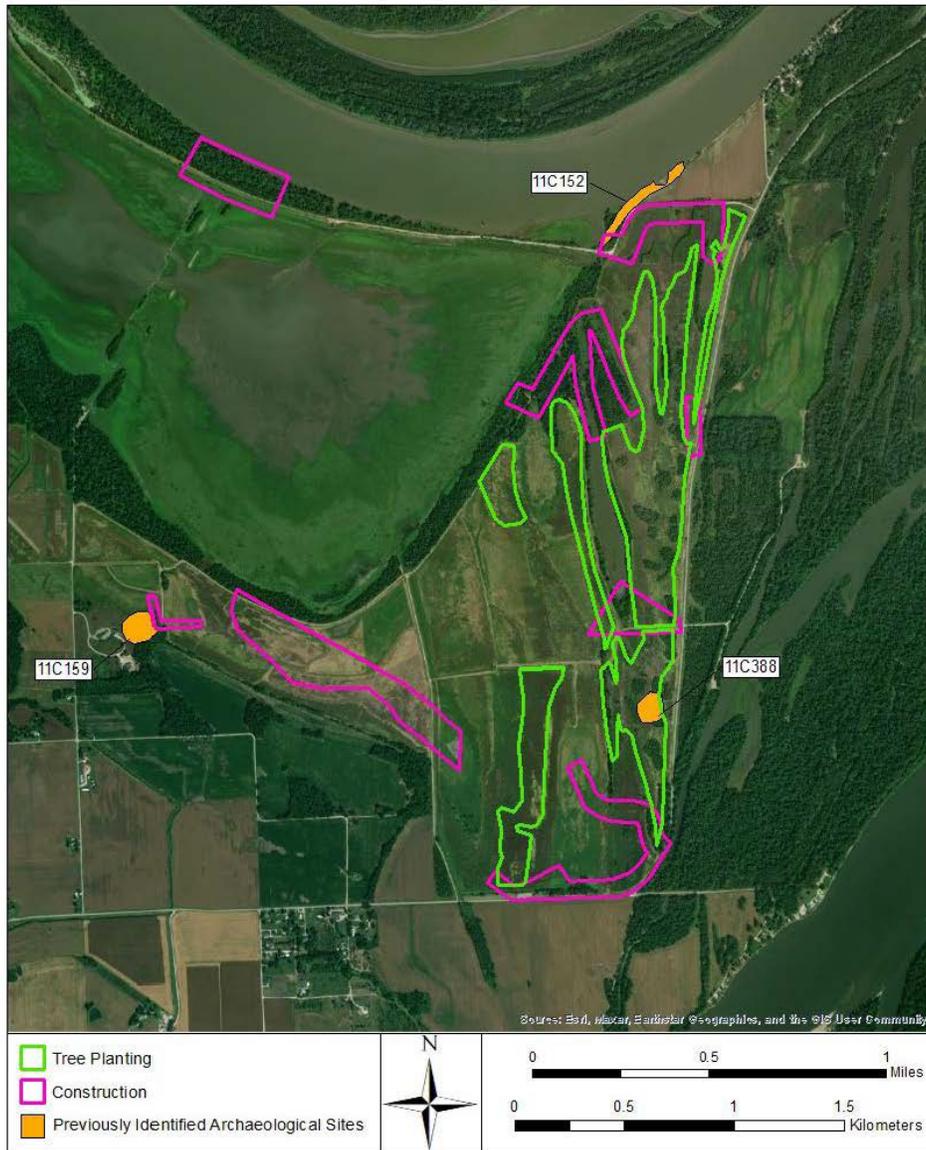


Figure 3. Map of previously identified archaeological sites within the Yorkinut APE.

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3.2 Letter from Illinois SHPO

No concurrence letter has been provided by SHPO at this time.

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4 TRIBAL COORDINATION

4.1 Initial Letter to Consulting Tribes

**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS, ST. LOUIS DISTRICT  
1222 SPRUCE STREET  
ST. LOUIS, MISSOURI 63103-2833

January 4, 2022

Engineering and Construction Division  
Curation and Archives Branch

Subject: Yorkinut Slough Study Area Habitat Rehabilitation and Enhancement Project, Calhoun County, Illinois

Ms. Devon Frazier Smith  
Tribal Historic Preservation Officer  
Absentee-Shawnee Tribe of Indians of Oklahoma  
2025 S. Gordon Cooper Drive  
Shawnee, OK 74801

Dear Ms. Frazier Smith:

The U.S. Army Corps of Engineers, St. Louis District (District) is contacting your tribe to initiate consultation regarding a feasibility study for a Habitat Rehabilitation and Enhancement Project (HREP) in the Two Rivers National Wildlife Refuge, Calhoun County, Illinois (Figure 1), in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended. The District, in partnership with the U.S. Fish and Wildlife Services (USFWS), is undertaking a feasibility study for the Yorkinut Slough study area. The study area consists of approximately 1,800 acres that is owned and managed by USFWS.

Both the Yorkinut Slough study area and adjacent Swan Lake are exposed to frequent flood events that limit water level management of moist-soil units and deposit sediment throughout the study area. Yorkinut Slough drains into Swan Lake. In addition to Yorkinut Slough, Swan Lake receives runoff from six tributaries and an approximately 25,000-acre watershed that contributes large amounts of water and sediment to the lake. Yorkinut Slough and Swan Lake can flood from the Mississippi and Illinois Rivers, which can overtop the berms and access road. All of this leads to sedimentation degrading wetland habitats; loss of ridge and swale topography; and the loss of forest diversity, including hard mast trees.

The overarching goal of this study is to formulate alternatives to restore and improve the quality and diversity of emergent wetland, woodland, and forest resources within the study area. In addition, the study also documents whether District participation is economically justified in restoring ecosystem structure and function within the study area.

Presently, the District is reviewing four alternatives. The alternatives range between No Action and Maximum Action. The alternatives involve actions at a subset of locations identified in the Maximum Action alternative. The No Action would mean no federal action takes place and there would be no change from the current management direction or level of management intensity. Maximum Action includes reconfiguration of emergent wetland units to improve natural hydrologic conditions, the installment of water control structures, enhancing ridge and swale

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topography, raising berms and reconfiguring berms to make the slopes shallower, managing upland tributary inputs in Lower Swan Lake to reduce impacts to the Yorkinut Slough study area and Swan Lake, restoring drainage within forest stands on Six Mile Island to reduce flood stress impacts to forest resources, timber stand improvement activities, tree planting, and restoring a side channel on Six Mile Island. A map showing the measures included in the Maximum alternative is attached for reference (Figures 2a and 2b). The feasibility level of design is currently being undertaken and upon its completion, the project's Area of Potential Effect (APE) will be developed. At that time, the District will undertake an archaeological survey to locate any potentially affected historic properties as part of its Section 106 responsibilities.

The District is presently aware of three previously identified archaeological sites within the study area (Figure 3). Site 11C152 was identified by Northwestern University in 1975 as a historic Native American campsite. Subsequent investigations in 1994 and 2010 identified the site as multi-component from Early Woodland to Protohistoric. Phase III investigations of this site took place in 2010 by Bear Creek Archaeology (BCA). Site 11C159 was identified in 1979 by American Resources Group as possibly Middle Archaic lithic scatter and 19<sup>th</sup> century historic ceramic scatter. The Illinois State Historic Preservation Office (SHPO) has determined it ineligible to the National Register of Historic Places (NRHP). Finally, site 11C388 is a prehistoric lithic scatter identified in 1981 by Center for American Archaeology. This site has not been evaluated for NRHP eligibility.

The District is requesting that you review the map and information about the project and notify our office if you have any concerns about traditional cultural properties, sacred sites, or other resources that may be located within the study area. If you have any questions or comments, please feel free to contact me at (314) 331-8855 or contact Meredith Hawkins Trautt (Archaeologist and Tribal Liaison) at (314) 925-5031 or [Meredith.M.Trautt@usace.army.mil](mailto:Meredith.M.Trautt@usace.army.mil).

Sincerely,

**SIGNED**

Jennifer L. Riordan  
Chief, Curation and Archives  
Analysis Branch

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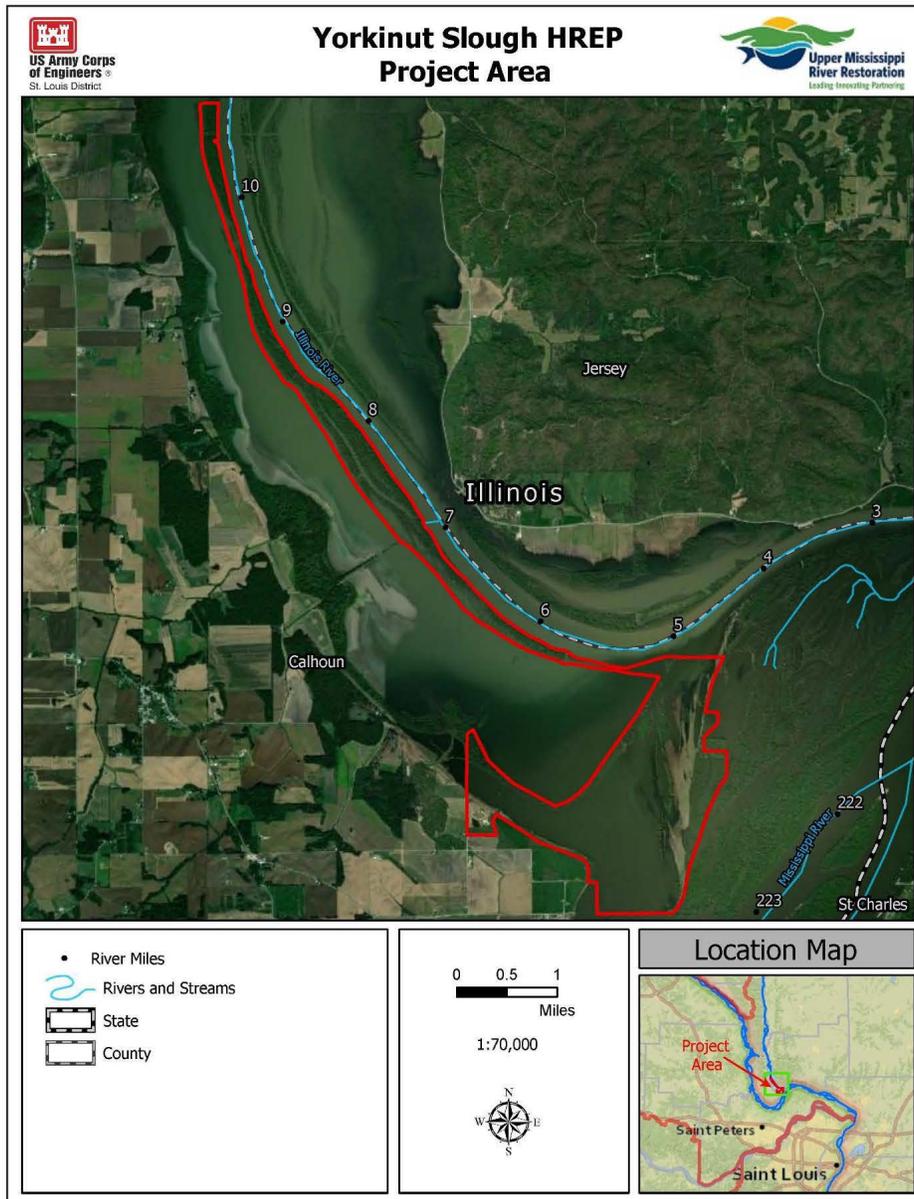


Figure 1. General location of study area.

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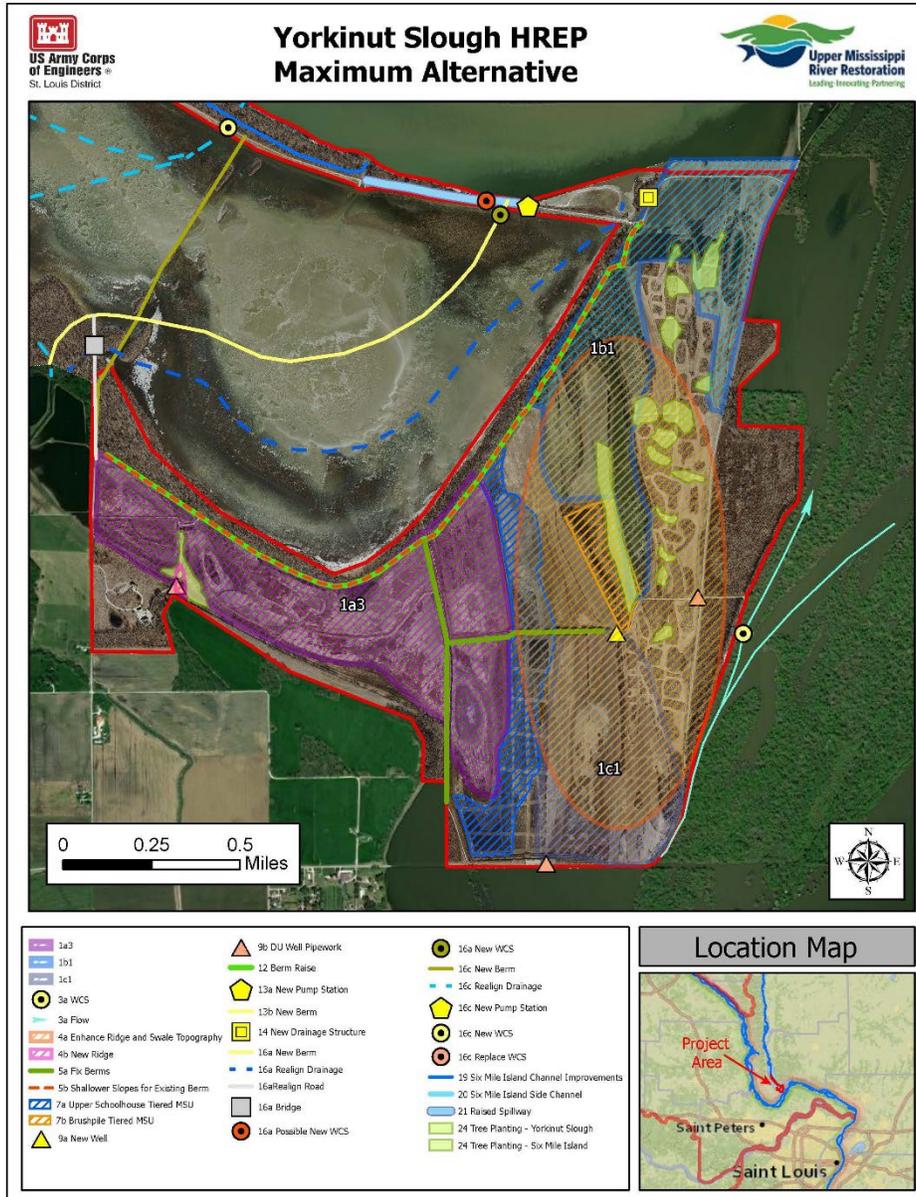


Figure 2a. Maximum alternative measures in the main portion of the study area.

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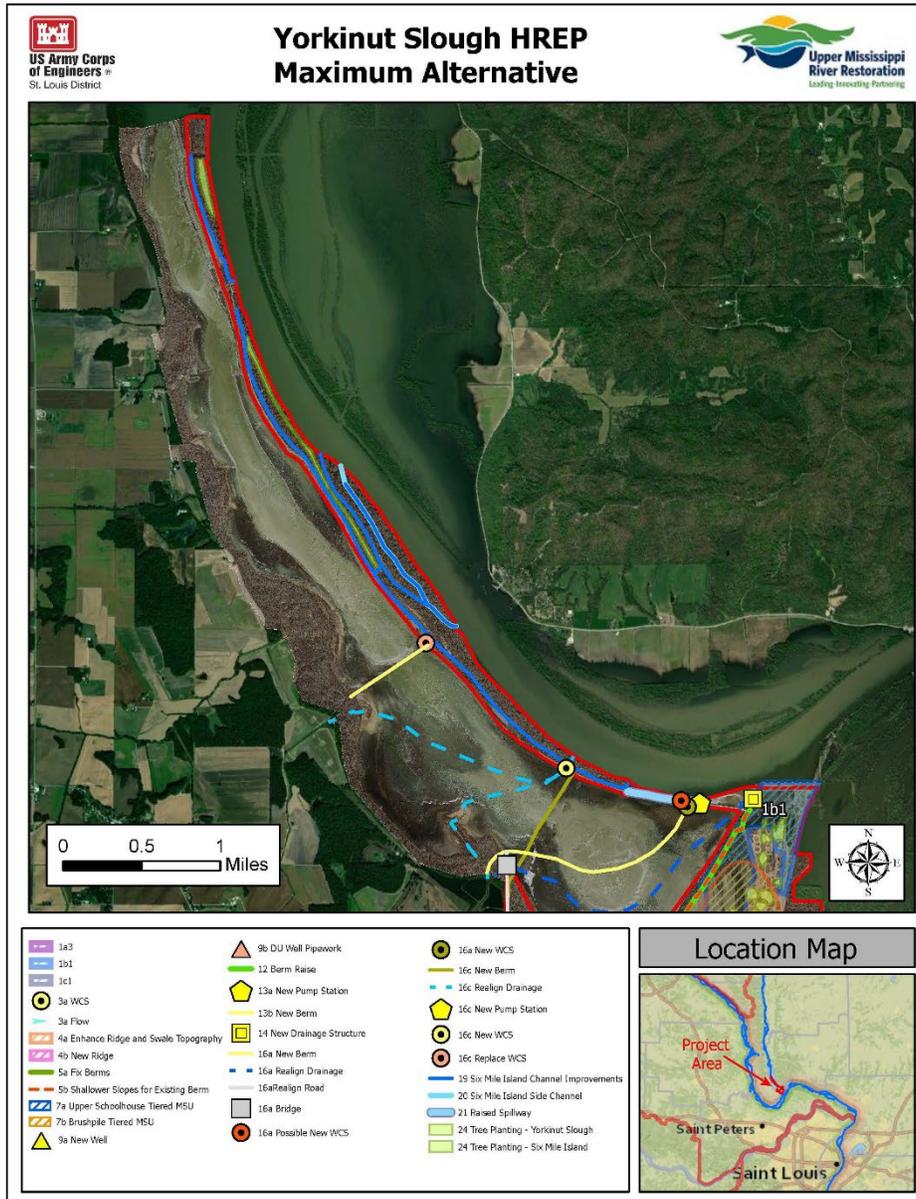


Figure 2b. Maximum alternative measures in the Six Mile Island portion of the study area.

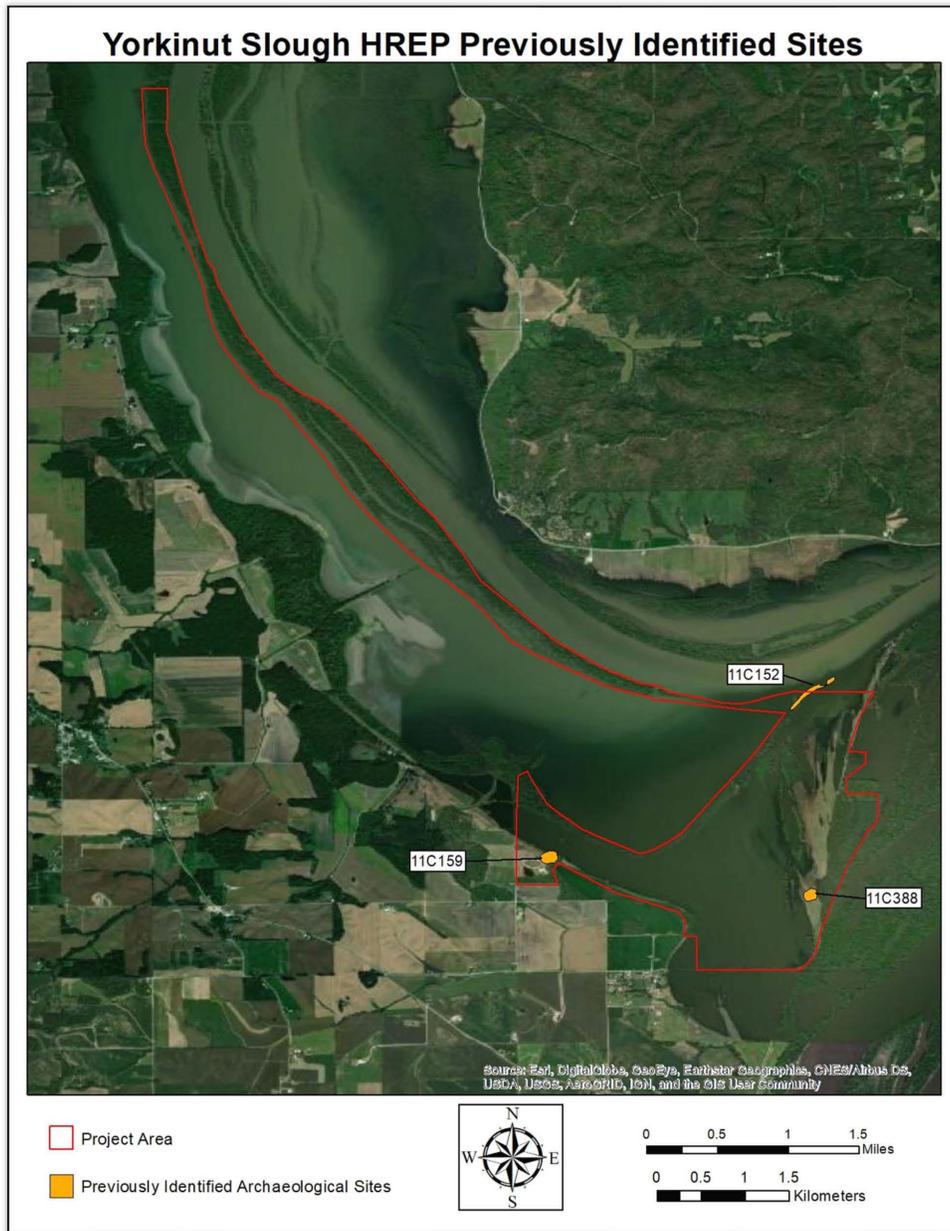


Figure 3. Map of study area showing previously identified archaeological sites.

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4.1.1 Tribal Distribution List

**MVS Tribal Leaders**

<b>Tribe</b>	<b>Title</b>	<b>Full Name</b>	<b>Street Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>	<b>Furnished Copy</b>
Absentee-Shawnee Tribe of Indians of Oklahoma	Governor	John Raymond Johnson c/o Representative Alicia Miller	2025 S. Gordon Cooper Drive	Shawnee	OK	74801	Ms. Carol Butler and Ms. Devon Frazier Smith
Caddo Nation of Oklahoma	Chairman	Bobby Gonzalez	P.O. Box 487	Binger	OK	73009	Mr. Jonathan M. Rohrer
Citizen Potawatomi Nation, Oklahoma	Chairman	John Barrett	1601 S. Gordon Cooper Drive	Shawnee	OK	74801	Ms. Tracy Wind
Eastern Shawnee Tribe of Oklahoma	Chief	Glenna J. Wallace	12755 S. 705 Road	Wyandotte	OK	74370	Mr. Paul Barton
Forest County Potawatomi Community, Wisconsin	Chairman	Ned Daniels, Jr.	P.O. Box 340	Crandon	WI	54520	Mr. Benjamin Rhodd
Hannahville Indian Community, Michigan	Chairman	Kenneth Meshigaud	N 14911 Hannahville B-1 Road	Wilson	MI	49896	Mr. Earl Meshigaud
Ho-Chunk Nation of Wisconsin	President	Marlon White Eagle	P.O. Box 667	Black River Falls	WI	54615	Mr. William Quackenbush
Iowa Tribe of Kansas and Nebraska	Chairman	Tim Rhodd	3345 Thrasher Road, #8	White Cloud	KS	66094	Mr. Lance Foster and Mr. Alan Kelley
Iowa Tribe of Oklahoma	Chairman	Edgar B. Kent, Jr.	335588 E. 750 Rd	Perkins	OK	74059	Ms. Candace Pershall
Kickapoo Tribe of Indians of the Kickapoo Reservation in Kansas	Chairman	Lester Randall	824 111th Drive	Horton	KS	66439	Ms. Johanna Thomas
Kickapoo Tribe of Oklahoma	Chairman	Darwin Kaskaske	105365 S. Hwy 102	McCloud	OK	74851	Ms. Kay Rhoads
Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians	Chairman	Bob Peters	2872 Mission Dr.	Shelbyville	MI	49344	Ms. Lakota Hobia
Menominee Indian Tribe of Wisconsin	Chairperson	Gunnar Peters	W2908 Tribal Office Loop Road, P.O. Box 910	Keshena	WI	54135	Mr. David Grignon
Miami Tribe of Oklahoma	Chief	Douglas Lankford	P.O. Box 1326	Miami	OK	74355	Ms. Diane Hunter
Nottawaseppi Huron Band of the Potawatomi, Michigan	Chairman	Jamie Stuck	2221—1 & 1/2 Mile Road	Fulton	MI	49052	Mr. Douglas R. Taylor
Peoria Tribe of Indians of Oklahoma	Chief	Craig Harper	P.O. Box 1527	Miami	OK	74355	Ms. Charla EchoHawk

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Tribe	Title	Full Name	Street Address	City	State	Zip	Furnished Copy
Prairie Band Potawatomi Nation	Chairman	Joseph Rupnick	Government Center, 16281 Q Road	Mayetta	KS	66509	Ms. Tara Mitchell
Sac & Fox Nation of Missouri in Kansas and Nebraska	Chairperson	Tiauna Carnes	305 N. Main Street	Reserve	KS	66434	Mr. Gary Bahr
Sac & Fox Nation, Oklahoma	Principal Chief	Justin F. Woods	920963 S Highway 99, Building A	Stroud	OK	74079	Mr. Chris Boyd
Sac & Fox Tribe of the Mississippi in Iowa	Chairman	Vern Jefferson	349 Meskwaki Road	Tama	IA	52339	Mr. Johnathan Buffalo
Shawnee Tribe	Chief	Benjamin Barnes	29 S Hwy 69A	Miami	OK	74354	Ms. Tonya Tipton
The Osage Nation	Principal Chief	Geoffrey Standing Bear	P.O. Box 779	Pawhuska	OK	74056	Dr. Andrea Hunter
Quapaw Nation	Chairman	Joseph Byrd	P.O. Box 765	Quapaw	OK	74363	Mr. Everett Bandy
United Keetoowah Band of Cherokee of Oklahoma	Chief	Joe Bunch	P.O. Box 746	Tahlequah	OK	74464	Mr. Acee Watt

**MVS Reps**

Tribe	Title	Name	Position	Street Address	City	State	Zip	Email
Absentee-Shawnee Tribe of Indians of Oklahoma	Ms.	Devon Frazier Smith	Tribal Historic Preservation Officer	2025 S. Gordon Cooper Drive	Shawnee	OK	74801	dfrazier@astribe.com
Absentee-Shawnee Tribe of Indians of Oklahoma	Ms.	Carol Butler	Cultural Preservation Director	2025 S. Gordon Cooper Drive	Shawnee	OK	74801	cbutler@astribe.com
Caddo Nation of Oklahoma	Mr.	Jonathan M. Rohrer	Tribal Historic Preservation Officer	P.O. Box 487	Binger	OK	73009	<a href="mailto:jrohrer@mycaddonati.on.com">jrohrer@mycaddonati.on.com</a>
Citizen Potawatomi Nation, Oklahoma	Ms.	Tracy Wind	Assistant Tribal Historic Preservation Officer	Cultural Heritage Center, 1601 S. Gordon Cooper Drive	Shawnee	OK	74801	tracy.wind@potawatomi.org; cpnthpo@potawatomi.org
Eastern Shawnee Tribe of Oklahoma	Mr.	Paul Barton	Tribal Historic Preservation Officer	70500 E. 128 Road	Wyandotte	OK	74370	<a href="mailto:THPO@estoo.net">THPO@estoo.net</a>
Forest County Potawatomi Community, Wisconsin	Mr	Benjamin Rhodd	Tribal Historic Preservation Officer	8130 Mishko Swen Dr., P.O. Box 340	Crandon	WI	54520	<a href="mailto:Benjamin.Rhodd@fcpsn.gov">Benjamin.Rhodd@fcpsn.gov</a>

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Hannahville Indian Community, Michigan	Mr.	Earl Meshigaud	Historic Preservation Office	P.O. Box 351, Highway 2 & 41	Harris	MI	49845	earlmeshigaud@hannahville.org
Ho-Chunk Nation of Wisconsin	Mr.	William Quackenbush	Tribal Historic Preservation Officer	P.O. Box 667	Black River Falls	WI	54615	bill.quackenbush@ho-chunk.com
Iowa Tribe of Kansas and Nebraska	Mr.	Lance Foster	Tribal Historic Preservation Officer	3345B Thrasher Road	White Cloud	KS	66094	lfoster@iowas.org
Iowa Tribe of Kansas and Nebraska	Mr.	Alan Kelley	Deputy Tribal Historic Preservation Officer	3345 Thrasher Road	White Cloud	KS	66094	<a href="mailto:akelley@iowas.org">akelley@iowas.org</a>
Iowa Tribe of Oklahoma	Ms.	Candace Pershall	Cultural Preservation	335588 E. 750 Rd	Perkins	OK	74875	<a href="mailto:cpershall@iowanation.org">cpershall@iowanation.org</a>
Kickapoo Tribe of Indians of the Kickapoo Reservation in Kansas	Ms.	Johanna Thomas	Vice Chairman	824 111th Drive	Horton	KS	66439	<a href="mailto:johannathomas83@yahoo.com">johannathomas83@yahoo.com</a>
Kickapoo Tribe of Oklahoma	Ms.	Kay Rhoads	OSG Director/NAGPRA Representatives	P.O. Box 70, 105365 S. Hwy 102	McCloud	OK	74851	kay.rhoads@okkt.net; cc pamwesley@okkt.net
Match-E-Ben-Nash-She-Wish Band of Pottawatomi Indians	Ms.	Lakota Hobia	Tribal Historic Preservation Officer	2872 Mission Drive	Shelbyville	MI	49344	Lakota.Hobia@glt-nsn.gov; mbpi_thpo@glt-nsn.gov
Menominee Indian Tribe of Wisconsin	Mr.	David Grignon	Tribal Historic Preservation Officer	P.O. Box 910	Keshena	WI	54135	dgrignon@mitw.org
Miami Tribe of Oklahoma	Ms.	Diane Hunter	Tribal Historic Preservation Officer	202 S. Eight Tribes Trail	Miami	OK	74355	Section 106: THPO@MiamiNation.com
Nottawaseppi Huron Band of the Potawatomi, Michigan	Mr.	Douglas R. Taylor	Tribal Historic Preservation Officer	1485 MNO--Bmadzen Way	Fulton	MI	49052	Douglas.Taylor@nhbp-nsn.gov
Peoria Tribe of Indians of Oklahoma	Ms.	Charla EchoHawk	Director of Cultural Preservation	118 S. Eight Tribes Trail	Miami	OK	74354	<a href="mailto:cechohawk@peoriatribe.com">cechohawk@peoriatribe.com</a>
Pokagon Band of Potawatomi Indians, Michigan and Indiana	Mr.	Matthew Bussler	Tribal Historic Preservation Officer	P.O. Box 180	Dowagiac	MI	49047	matthew.bussler@pokagonband-nsn.gov
Prairie Band Potawatomi Nation	Ms.	Tara Mitchell	Deputy Tribal Historic Preservation Officer	Government Center, 16281 Q Road	Mayetta	KS	66509	<a href="mailto:taramitchell@pbnati.on.org">taramitchell@pbnati.on.org</a>
Sac & Fox Nation of Missouri in Kansas and Nebraska	Mr.	Gary Bahr	Vice Chairperson	305 N. Main Street	Reserve	KS	66434	<a href="mailto:gary.bahr@sacfoxks.com">gary.bahr@sacfoxks.com</a>

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Sac & Fox Nation, Oklahoma	Mr.	Chris Boyd	NAGPRA/Historic Preservation Office	920963 S Highway 99, Building A	Stroud	OK	74079	chris.boyd@sacandfoxnation-nsn.gov
Sac & Fox Tribe of the Mississippi in Iowa	Mr.	Johnathan Buffalo	Historic Preservation Office	349 Meskwaki Road	Tama	IA	52339	sp.historical@meskwaki-nsn.gov
Shawnee Tribe	Ms.	Tonya Tipton	Historic Preservation Office	P.O. Box 189	Miami	OK	74355	<a href="mailto:Section106@shawnee-tribe.com">Section106@shawnee-tribe.com</a>
The Osage Nation	Dr.	Andrea Hunter	Historic Preservation Office	627 Grandview Avenue	Pawhuska	OK	74056	<a href="mailto:s106@osagenation-nsn.gov">s106@osagenation-nsn.gov</a>
Quapaw Nation	Mr.	Everett Bandy	Tribal Historic Preservation Officer	ATTN: QNHPP, P.O. Box 765	Quapaw	OK	74363	ebandy@quapawnation.com
United Keetoowah Band of Cherokee of Oklahoma	Mr.	Acee Watt	Tribal Historic Preservation Officer	P.O. Box 746	Tahlequah	OK	74464	<a href="mailto:awatt@ukb-nsn.gov">awatt@ukb-nsn.gov</a>

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4.2 Tribal Coordination on Area of Potential Effect (APE)

**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS, ST. LOUIS DISTRICT  
1222 SPRUCE STREET  
ST. LOUIS, MISSOURI 63103-2833

February 3, 2022

Engineering and Construction Division  
Curation and Archives Analysis Branch (ECZ)

**Subject:** Yorkinut Slough Study Area Habitat Rehabilitation and Enhancement Project, Area of Potential Effect, Calhoun County, Illinois

Ms. Devon Frazier Smith  
Tribal Historic Preservation Officer  
Absentee-Shawnee Tribe of Indians of Oklahoma  
2025 S. Gordon Cooper Drive  
Shawnee, OK 74801

Dear Ms. Frazier Smith:

The U.S. Army Corps of Engineers, St. Louis District (District), in partnership with U.S. Fish and Wildlife Services (USFWS), is engaging in a study to formulate alternatives to restore and improve the quality and diversity of emergent wetland, woodland, and forest resources within Wo Rivers National Wildlife Refuge, Calhoun County, Illinois. The study is a Habitat Rehabilitation and Enhancement Project (HREP) that was initiated to formulate alternatives to restore and improve the quality and diversity of emergent wetland, woodland, and forest resources within the Yorkinut Slough study area (Figure 1). Pursuant to Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36 CFR 800, the District is continuing consultation regarding the study. Your tribe was initially contacted about this project on January 4, 2022.

The study with an integrated Environmental Assessment (EA) will evaluate and compare the benefits, costs, and impacts (positive or negative) of alternatives including the No Action Alternative. The study will also satisfy the requirement of the National Environmental Policy Act (NEPA) to evaluate the proposed federal action. The study is currently at the Tentatively Selected Plan (TSP) Milestone, which means that multiple alternatives have been developed and a TSP has been identified. This letter to continue consultation is a requirement at this stage of the study.

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- Berm enhancement and associated earthwork (approximately 8 acres)
- Berm deconstruction and associated earthwork (approximately 21 acres)
- Remove 7 water control structures
- Install 11 water control structures
- Install 2 well pumps
- Well pump pipe installation (approximately 5400 ft.)
- Install 1 pump station
- Excavate 27 acres of channel
- Remove 13 acres of channel
- Excavate/re-grade acres of emergent wetlands (included in channel excavation acreage)
- Reforestation (approximately 215 acres)
- Clearing and grubbing (approximately 5 acres)
- Timber stand improvement (approximately 943 acres)

Figures 2a and 2b show the 380 acres of direct impact of the TSP, which has been established as the area of potential effect (APE). The District will be conducting a geomorphological survey of the APE and areas determined to have a high potential for cultural resources will have a Section 106 cultural resource survey completed. Results of the survey and the District's recommendations will be provided to your office.

The District is presently aware of three previously identified archaeological sites within the southern portion of the APE (Figure 3). Site 11C152 was an Early Woodland to Protohistoric site that was determined to be eligible to the National Register of Historic Places (NRHP). The site underwent Phase III mitigation in 2010 and is presently considered completely mitigated by the Illinois State Historic Preservation Office (SHPO). Site 11C159 was identified as possibly Middle Archaic lithic scatter and 19<sup>th</sup> century historic ceramic scatter. The SHPO has determined it ineligible to the NRHP. Finally, site 11C388 is a prehistoric lithic scatter. This site has not been evaluated for NRHP eligibility. All three sites will be investigated to determine if there is evidence of their presence remaining within the APE. All cultural resources identified during the Phase I cultural resource survey will be evaluated for their eligibility to the NRHP.

The District is requesting that you review the map and information about the project and notify our office if you have any concerns related to the APE. If you have any questions or comments, please feel free to contact me at (314) 331-8855 or contact Meredith Hawkins Trautt (Archaeologist and Tribal Liaison) at [Meredith.M.Trautt@usace.army.mil](mailto:Meredith.M.Trautt@usace.army.mil) or call (314) 925-5031.

Sincerely,

**SIGNED**

Jennifer L. Riordan  
Chief, Curation and Archives  
Analysis Branch

Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP

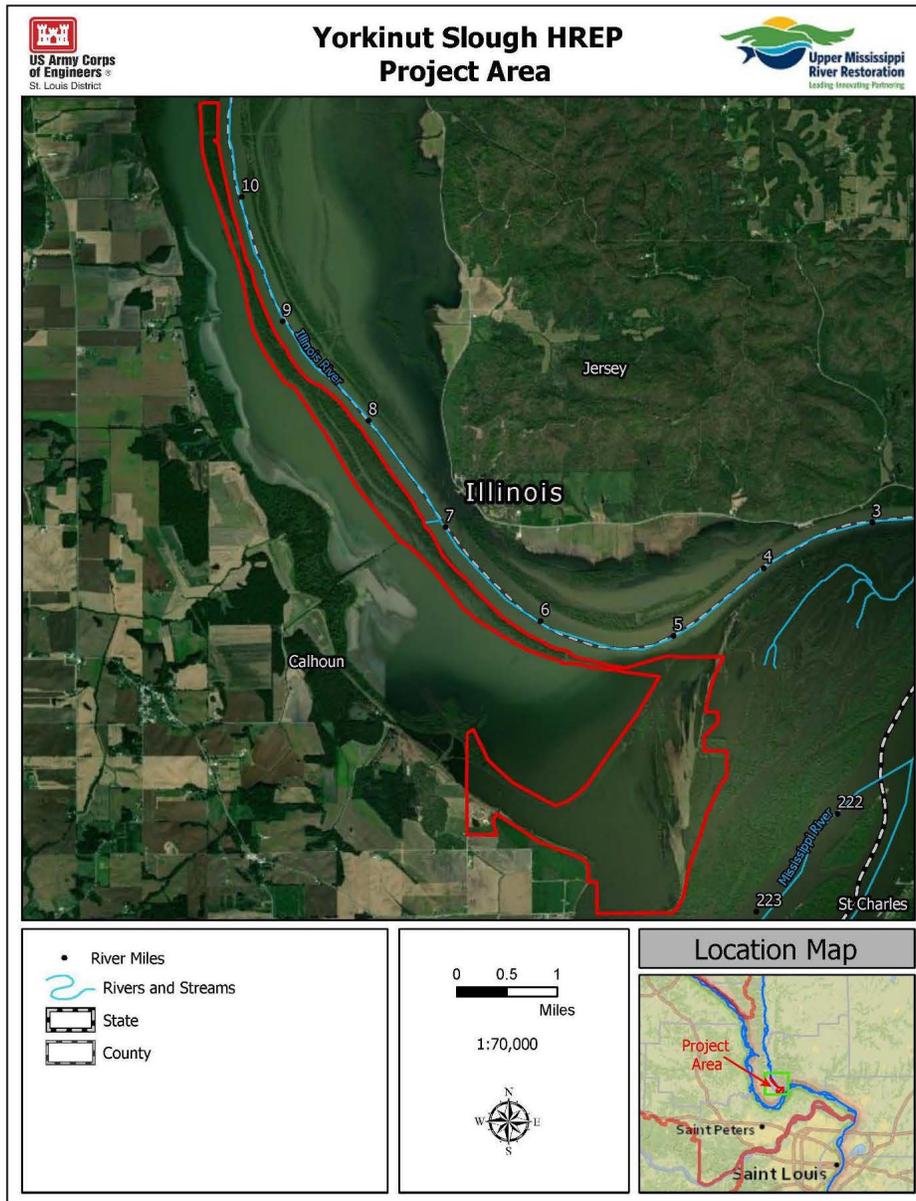


Figure 1. General location of Yorkinut study area.

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Yorkinut Slough HREP



Figure 2a. Map showing northern portion of the Yorkinut APE.

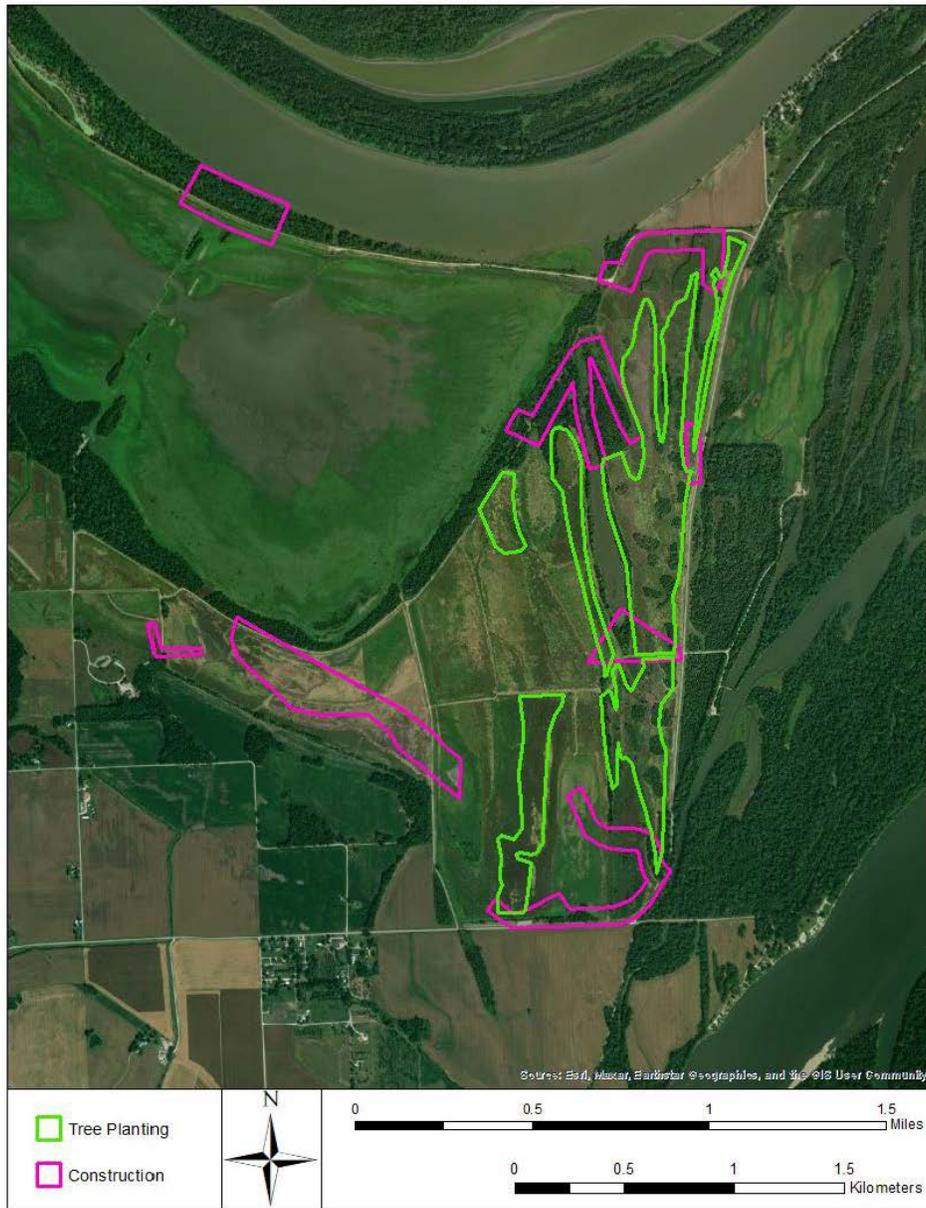


Figure 2b. Southern portion of the Yorkinut APE.

### Yorkinut Slough HREP Previously Identified Sites

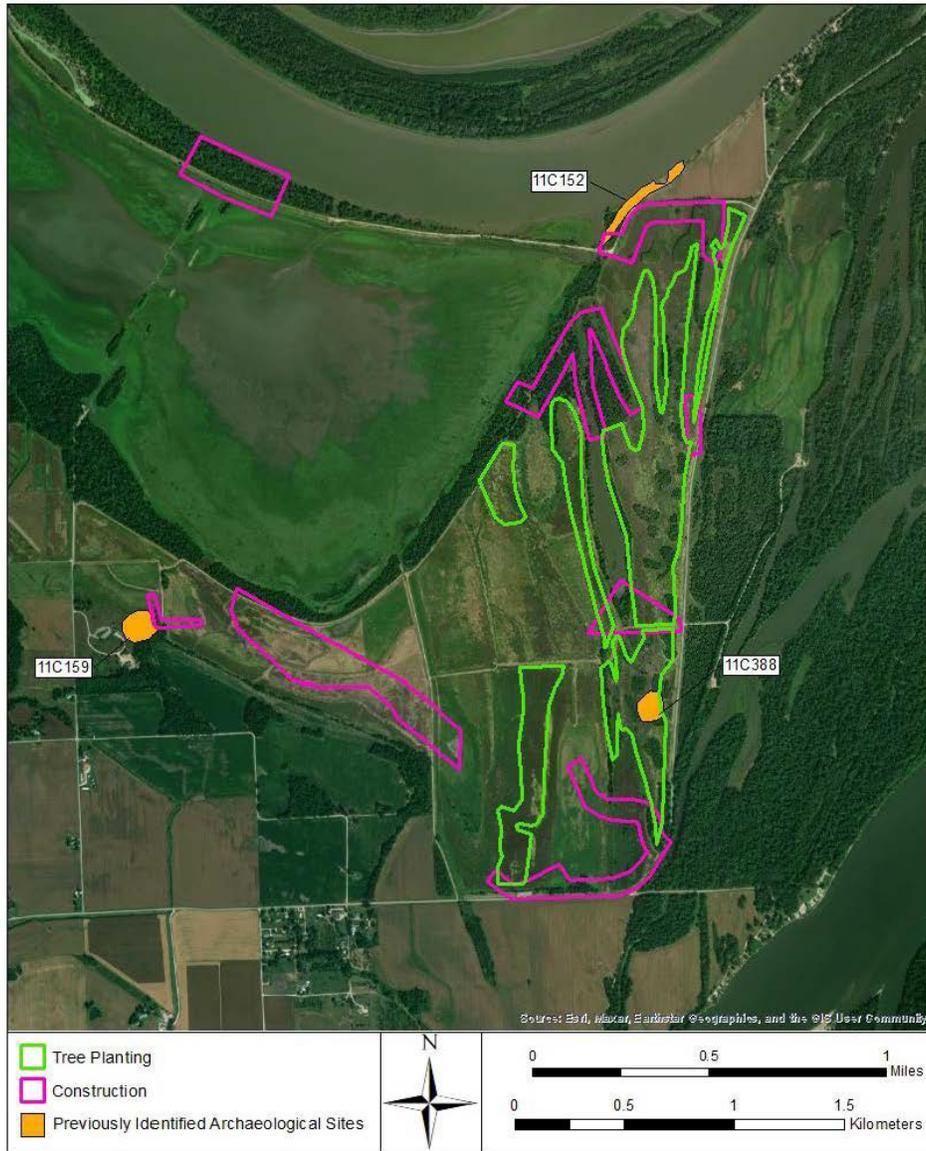


Figure 3. Map of previously identified archaeological sites within the Yorkinut APE.

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Yorkinut Slough HREP*

4.2.1 Tribal Distribution List

**MVS Leaders**

<b>Tribe</b>	<b>Title</b>	<b>Full Name</b>	<b>Street Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>	<b>Furnished Copy</b>
Absentee-Shawnee Tribe of Indians of Oklahoma	Governor	John Raymond Johnson c/o Representative Alicia Miller	2025 S. Gordon Cooper Drive	Shawnee	OK	74801	Ms. Carol Butler and Ms. Devon Frazier Smith
Caddo Nation of Oklahoma	Chairman	Bobby Gonzalez	P.O. Box 487	Binger	OK	73009	Mr. Jonathan M. Rohrer
Citizen Potawatomi Nation, Oklahoma	Chairman	John Barrett	1601 S. Gordon Cooper Drive	Shawnee	OK	74801	Ms. Tracy Wind
Eastern Shawnee Tribe of Oklahoma	Chief	Glenna J. Wallace	12755 S. 705 Road	Wyandotte	OK	74370	Mr. Paul Barton
Forest County Potawatomi Community, Wisconsin	Chairman	Ned Daniels, Jr.	P.O. Box 340	Crandon	WI	54520	Mr. Benjamin Rhodd
Hannahville Indian Community, Michigan	Chairman	Kenneth Meshigaud	N 14911 Hannahville B-1 Road	Wilson	MI	49896	Mr. Earl Meshigaud
Ho-Chunk Nation of Wisconsin	President	Marlon White Eagle	P.O. Box 667	Black River Falls	WI	54615	Mr. William Quackenbush
Iowa Tribe of Kansas and Nebraska	Chairman	Tim Rhodd	3345 Thrasher Road, #8	White Cloud	KS	66094	Mr. Lance Foster and Mr. Alan Kelley
Iowa Tribe of Oklahoma	Chairman	Edgar B. Kent, Jr.	335588 E. 750 Rd	Perkins	OK	74059	Ms. Candace Pershall
Kickapoo Tribe of Indians of the Kickapoo Reservation in Kansas	Chairman	Lester Randall	824 111th Drive	Horton	KS	66439	Ms. Johanna Thomas
Kickapoo Tribe of Oklahoma	Chairman	Darwin Kaskaske	105365 S. Hwy 102	McCloud	OK	74851	Ms. Kay Rhoads
Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians	Chairman	Bob Peters	2872 Mission Dr.	Shelbyville	MI	49344	Ms. Lakota Hobia
Menominee Indian Tribe of Wisconsin	Chairperson	Gunnar Peters	W2908 Tribal Office Loop Road, P.O. Box 910	Keshena	WI	54135	Mr. David Grignon
Miami Tribe of Oklahoma	Chief	Douglas Lankford	P.O. Box 1326	Miami	OK	74355	Ms. Diane Hunter
Nottawaseppi Huron Band of the Potawatomi, Michigan	Chairman	Jamie Stuck	2221—1 & 1/2 Mile Road	Fulton	MI	49052	Mr. Douglas R. Taylor
Peoria Tribe of Indians of Oklahoma	Chief	Craig Harper	P.O. Box 1527	Miami	OK	74355	Ms. Charla EchoHawk

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

Tribe	Title	Full Name	Street Address	City	State	Zip	Furnished Copy
Prairie Band Potawatomi Nation	Chairman	Joseph Rupnick	Government Center, 16281 Q Road	Mayetta	KS	66509	Ms. Tara Mitchell
Sac & Fox Nation of Missouri in Kansas and Nebraska	Chairperson	Tiauna Carnes	305 N. Main Street	Reserve	KS	66434	Mr. Gary Bahr
Sac & Fox Nation, Oklahoma	Principal Chief	Justin F. Woods	920963 S Highway 99, Building A	Stroud	OK	74079	Mr. Chris Boyd
Sac & Fox Tribe of the Mississippi in Iowa	Chairman	Vern Jefferson	349 Meskwaki Road	Tama	IA	52339	Mr. Johnathan Buffalo
Shawnee Tribe	Chief	Benjamin Barnes	29 S Hwy 69A	Miami	OK	74354	Ms. Tonya Tipton
The Osage Nation	Principal Chief	Geoffrey Standing Bear	P.O. Box 779	Pawhuska	OK	74056	Dr. Andrea Hunter
United Keetoowah Band of Cherokee of Oklahoma	Chief	Joe Bunch	P.O. Box 746	Tahlequah	OK	74464	Mr. Acee Watt

**MVS Reps**

Tribe	Title	Name	Position	Street Address	City	State	Zip	Email
Absentee-Shawnee Tribe of Indians of Oklahoma	Ms.	Devon Frazier Smith	Tribal Historic Preservation Officer	2025 S. Gordon Cooper Drive	Shawnee	OK	74801	dfrazier@astribe.com
Absentee-Shawnee Tribe of Indians of Oklahoma	Ms.	Carol Butler	Cultural Preservation Director	2025 S. Gordon Cooper Drive	Shawnee	OK	74801	cbutler@astribe.com
Caddo Nation of Oklahoma	Mr.	Jonathan M. Rohrer	Tribal Historic Preservation Officer	P.O. Box 487	Binger	OK	73009	<a href="mailto:irohrer@mycaddonati.on.com">irohrer@mycaddonati.on.com</a>
Citizen Potawatomi Nation, Oklahoma	Ms.	Tracy Wind	Assistant Tribal Historic Preservation Officer	Cultural Heritage Center, 1601 S. Gordon Cooper Drive	Shawnee	OK	74801	tracy.wind@potawatomio.org; cpnthpo@potawatomio.org
Eastern Shawnee Tribe of Oklahoma	Mr.	Paul Barton	Tribal Historic Preservation Officer	70500 E. 128 Road	Wyandotte	OK	74370	<a href="mailto:THPO@estoo.net">THPO@estoo.net</a>
Forest County Potawatomi Community, Wisconsin	Mr.	Benjamin Rhodd	Tribal Historic Preservation Officer	8130 Mishko Swen Dr., P.O. Box 340	Crandon	WI	54520	<a href="mailto:Benjamin.Rhodd@fcp-wisn.gov">Benjamin.Rhodd@fcp-wisn.gov</a>
Hannahville Indian Community, Michigan	Mr.	Earl Meshigaud	Historic Preservation Office	P.O. Box 351, Highway 2 & 41	Harris	MI	49845	earlmeshigaud@hannahville.org

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

Ho-Chunk Nation of Wisconsin	Mr.	William Quackenbush	Tribal Historic Preservation Officer	P.O. Box 667	Black River Falls	WI	54615	bill.quackenbush@ho-chunk.com
Iowa Tribe of Kansas and Nebraska	Mr.	Lance Foster	Tribal Historic Preservation Officer	3345B Thrasher Road	White Cloud	KS	66094	lfoster@iowas.org
Iowa Tribe of Kansas and Nebraska	Mr.	Alan Kelley	Deputy Tribal Historic Preservation Officer	3345 Thrasher Road	White Cloud	KS	66094	<a href="mailto:akelley@iowas.org">akelley@iowas.org</a>
Iowa Tribe of Oklahoma	Ms.	Candace Pershall	Cultural Preservation	335588 E. 750 Rd	Perkins	OK	74875	<a href="mailto:cpershall@iowanation.org">cpershall@iowanation.org</a>
Kickapoo Tribe of Indians of the Kickapoo Reservation in Kansas	Ms.	Johanna Thomas	Vice Chairman	824 111th Drive	Horton	KS	66439	<a href="mailto:johannathomas83@yahoo.com">johannathomas83@yahoo.com</a>
Kickapoo Tribe of Oklahoma	Ms.	Kay Rhoads	OSG Director/NAGPRA Representatives	P.O. Box 70, 105365 S. Hwy 102	McCloud	OK	74851	kay.rhoads@okkt.net; cc pamwesley@okkt.net
Match-E-Ben-Nash-She-Wish Band of Pottawatomí Indians	Ms.	Lakota Hobia	Tribal Historic Preservation Officer	2872 Mission Drive	Shelbyville	MI	49344	Lakota.Hobia@glt-nsn.gov; mbpi_thpo@glt-nsn.gov
Menominee Indian Tribe of Wisconsin	Mr.	David Grignon	Tribal Historic Preservation Officer	P.O. Box 910	Keshena	WI	54135	dgrignon@mitw.org
Miami Tribe of Oklahoma	Ms.	Diane Hunter	Tribal Historic Preservation Officer	202 S. Eight Tribes Trail	Miami	OK	74355	Section 106: THPO@MiamiNation.com
Nottawaseppi Huron Band of the Potawatomi, Michigan	Mr.	Douglas R. Taylor	Tribal Historic Preservation Officer	1485 MNO--Bmadzen Way	Fulton	MI	49052	Douglas.Taylor@nhbp-nsn.gov
Peoria Tribe of Indians of Oklahoma	Ms.	Charla EchoHawk	Director of Cultural Preservation	118 S. Eight Tribes Trail	Miami	OK	74354	<a href="mailto:cechohawk@peoriatribe.com">cechohawk@peoriatribe.com</a>
Pokagon Band of Potawatomi Indians, Michigan and Indiana	Mr.	Matthew Bussler	Tribal Historic Preservation Officer	P.O. Box 180	Dowagiac	MI	49047	matthew.bussler@pokagonband-nsn.gov
Prairie Band Potawatomi Nation	Ms.	Tara Mitchell	Deputy Tribal Historic Preservation Officer	Government Center, 16281 Q Road	Mayetta	KS	66509	<a href="mailto:taramitchell@pbnation.org">taramitchell@pbnation.org</a>
Sac & Fox Nation of Missouri in Kansas and Nebraska	Mr.	Gary Bahr	Vice Chairperson	305 N. Main Street	Reserve	KS	66434	<a href="mailto:gary.bahr@sacfoxks.com">gary.bahr@sacfoxks.com</a>
Sac & Fox Nation, Oklahoma	Mr.	Chris Boyd	NAGPRA/Historic Preservation Office	920963 S Highway 99, Building A	Stroud	OK	74079	chris.boyd@sacandfoxnation-nsn.gov

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

Sac & Fox Tribe of the Mississippi in Iowa	Mr.	Johnathan Buffalo	Historic Preservation Office	349 Meskwaki Road	Tama	IA	52339	sp.historical@meskwaki-nsn.gov
Shawnee Tribe	Ms.	Tonya Tipton	Historic Preservation Office	P.O. Box 189	Miami	OK	74355	<a href="mailto:Section106@shawnee-tribe.com">Section106@shawnee-tribe.com</a>
The Osage Nation	Dr.	Andrea Hunter	Historic Preservation Office	627 Grandview Avenue	Pawhuska	OK	74056	<a href="mailto:s106@osagenation-nsn.gov">s106@osagenation-nsn.gov</a>
United Keetoowah Band of Cherokee of Oklahoma	Mr.	Acee Watt	Tribal Historic Preservation Officer	P.O. Box 746	Tahlequah	OK	74464	<a href="mailto:awatt@ukb-nsn.gov">awatt@ukb-nsn.gov</a>

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

4.3 Tribal Response for Initial Letter



**EASTERN SHAWNEE  
CULTURAL PRESERVATION DEPARTMENT**  
70500 East 128 Road, Wyandotte, OK 74370

January 14, 2022

Department of the Army St. Louis District Corps of Engineers  
1222 Spruce Street  
St. Louis, MO 63103-2833

**RE: *Yorkinut Slough Study Area Habitat and Enhancement Project, Calhoun County, Illinois***

Dear Ms. Trautt,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within Calhoun County, Illinois. The Eastern Shawnee Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore, the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects.

As described in your correspondence, and upon research of our database(s) and files, we find our people occupied these areas historically and/or prehistorically. However, the project proposes **NO Adverse Effect** or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue project as planned. However, should this project inadvertently discover an archeological site or object(s) we request that you immediately contact the Eastern Shawnee Tribe, as well as the appropriate state agencies (within 24 hours). We also ask that all ground disturbing activity stop until the Tribe and State agencies are consulted. Please note that any future changes to this project will require additional consultation.

In accordance with the NHPA of 1966 (16 U.S.C. § 470-470w-6), federally funded, licensed, or permitted undertakings that are subject to the Section 106 review process must determine effects to significant historic properties. As clarified in Section 101(d)(6)(A-B), historic properties may have religious and/or cultural significance to Indian Tribes. Section 106 of NHPA requires Federal agencies to consider the effects of their actions on all significant historic properties (36 CFR Part 800) as does the National Environmental Policy Act of 1969 (43 U.S.C. § 4321-4347 and 40 CFR § 1501.7(a)). This letter evidences NHPA and NEPA historic properties compliance pertaining to consultation with this Tribe regarding the referenced proposed projects.

Thank you, for contacting the Eastern Shawnee Tribe, we appreciate your cooperation. Should you have any further questions or comments please contact our Office.

Sincerely,



Paul Barton, Tribal Historic Preservation Officer (THPO)  
Eastern Shawnee Tribe of Oklahoma  
(918) 666-5151 Ext:1833

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

**From:** [Alan Kelley](#)  
**To:** [Trautt, Meredith M CIV USARMY CEMVS \(USA\)](#)  
**Subject:** [Non-DoD Source] Re: USACE Feasibility Study, Yorkinut Slough, Calhoun Co., IL  
**Date:** Friday, January 14, 2022 12:11:35 PM

---

I have no concerns on this project.

Thanks; Alan

On Tue, Jan 4, 2022 at 5:24 PM Trautt, Meredith M CIV USARMY CEMVS (USA)  
<[Meredith.M.Trautt@usace.army.mil](mailto:Meredith.M.Trautt@usace.army.mil)> wrote:

Dear Mr. Kelley,

Please see the attached letter pertaining to the U.S. Army Corps of Engineers, St. Louis District's feasibility study for the Yorkinut Slough, a Habitat Rehabilitation and Enhancement Project in the Two Rivers National Wildlife Refuge, Calhoun County, Illinois. Per USACE's policy, a hard copy of this letter has been sent to Chairman Rhodd and Mr. Lance Foster.

Sincerely,

*Meredith Hawkins Trautt, M.S., RPA*

Archaeologist and Tribal Liaison

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

MCX CMAC EC Z

1222 Spruce Street

St. Louis, MO 63103

Office: (314) 925-5031

[Meredith.M.Trautt@usace.army.mil](mailto:Meredith.M.Trautt@usace.army.mil)

Pronouns: she/her

--  
Alan Kelley

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*



2872 Mission Drive, Shelbyville, MI 49344 | {p} 269.397.1780 | [gunlaketribe-nsn.gov](http://gunlaketribe-nsn.gov)

February 15, 2022

Jennifer L. Riordan  
Chief, Curation and Archives  
US Army Corps of Engineers, St. Louis District  
1222 Spruce Street  
St. Louis, Missouri 63103

Re: THPO Response to consultation for Yorkinut Slough Study Area Habitat Rehabilitation and Enhancement Project

Dear Ms. Riordan:

As the Tribal Historic Preservation Officer (THPO), we have received your request for consultation regarding the proposed undertaking in Calhoun County, Illinois. We request to continue to receive notification about the development of the project's Area of Potential Effect (APE) as well as the results of any archaeological survey. While this office does not have any available information for the area at this time regarding other cultural resources, we request that proposed project avoid any and all adverse effects to the previously identified site, 11C152. If avoidance is not possible, we request to re-engage in consultation to identify strategies to minimize and/or mitigate the project's effects.

Please also know that other Tribes may have historic resources in the area that we are not aware of. We thank you for including the Match-E-Be-Nash-She-Wish Band of Pottawatomí Indians in your plans.

Sincerely,

Lakota Pochedley  
THPO  
2872 Mission Dr.  
Shelbyville, Michigan 49344  
[Lakota.pochedley@gltnsn.gov](mailto:Lakota.pochedley@gltnsn.gov)  
Phone: (269) 397-1780

Cc: Meredith Trautt Hawkins, Tribal Liaison & Archaeologist, USACE, [Meredith.M.Trautt@usace.army.mil](mailto:Meredith.M.Trautt@usace.army.mil)

**BAND OF POTTAWATOMI INDIANS | GUN LAKE TRIBE**

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*



**Miami Tribe of Oklahoma**

3410 P St. NW, Miami, OK 74354 • P.O. Box 1326, Miami, OK 74355  
Ph: (918) 541-1300 • Fax: (918) 542-7260  
www.miamination.com



Via email: Meredith.M.Trautt@usace.army.mil

January 12, 2022

Meredith Hawkins Trautt  
U.S. Army Corps of Engineers  
St. Louis District  
1222 Spruce Street  
St. Louis, MO 63103-2833

Re: Yorkinut Slough Study Area Habitat Rehabilitation and Enhancement Project, Calhoun County, Illinois – Comments of the Miami Tribe of Oklahoma

Dear Ms. Trautt:

Aya, kikwehsitoole – I show you respect. The Miami Tribe of Oklahoma, a federally recognized Indian tribe with a Constitution ratified in 1939 under the Oklahoma Indian Welfare Act of 1936, respectfully submits the following comments regarding the Yorkinut Slough Study Area Habitat Rehabilitation and Enhancement Project.

The Miami Tribe objects to projects that disturb or destroy archaeological sites that are included on or eligible for the NRHP. Please send me copies of the archaeological survey reports for sites 11C152, 11C159 and 11C388. Given the Miami Tribe's deep and enduring relationship to its historic lands and cultural property within present-day Indiana, if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at 918-541-8966 or by email at [dhunter@miamination.com](mailto:dhunter@miamination.com) to initiate consultation.

The Miami Tribe requests to serve as a consulting party for this project. In my capacity as Tribal Historic Preservation Officer, please contact me regarding consultation.

Respectfully,

*Diane Hunter*

Diane Hunter  
Tribal Historic Preservation Officer

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

**From:** [Douglas Taylor](#)  
**To:** [Trautt, Meredith M CIV USARMY CEMVS \(USA\)](#)  
**Subject:** [URL Verdict: Unknown][Non-DoD Source] RE: USACE Feasibility Study, Yorkinut Slough, Calhoun Co., IL  
**Date:** Wednesday, January 5, 2022 1:14:13 PM  
**Attachments:** [image001.png](#)

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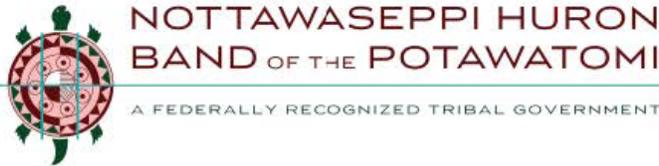
Greetings,

Ref: USACE Feasibility Study, Yorkinut Slough, Calhoun Co., IL

Thank you for including the Nottawaseppi Huron Band of the Potawatomi in your consultation process. From the description of your proposed project, it does not appear as if any cultural or religious concerns of the Tribe's will be affected. We therefore have no objection to the project. Of course, if the project scope is significantly changed or inadvertent findings are discovered during the course of the project, please contact us for further consultation.

Very Respectfully  
Douglas R. Taylor

Douglas R. Taylor | Tribal Historic Preservation Officer (THPO)  
**Pine Creek Indian Reservation**  
**1301 T Drive S, Fulton, MI 49052**  
o: 269-704-8347 | c: 269-419-9434 | f: 269-729-5920  
[Douglas.Taylor@nhbp-nsn.gov](mailto:Douglas.Taylor@nhbp-nsn.gov) | [www.nhbp-nsn.gov](http://www.nhbp-nsn.gov)



*Please consider the environment before printing this email. This message has been prepared on resources owned by the Nottawaseppi Huron Band of the Potawatomi located in the State of Michigan. It is subject to the Electronic Communications Policy of Nottawaseppi Huron Band of the Potawatomi. This communication may contain confidential (including "protected health information" as defined by HIPAA) or legally privileged information intended for the sole use of the designated recipient(s). If you are not the intended recipient, please notify the sender immediately by reply e-mail and delete all copies of this communication and attachments without reading or saving them. If you are not the named addressee you are notified that disclosing, disseminating, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.*

**From:** Trautt, Meredith M CIV USARMY CEMVS (USA) <[Meredith.M.Trautt@usace.army.mil](mailto:Meredith.M.Trautt@usace.army.mil)>  
**Sent:** Tuesday, January 4, 2022 6:22 PM  
**To:** Douglas Taylor <[Douglas.Taylor@nhbp-nsn.gov](mailto:Douglas.Taylor@nhbp-nsn.gov)>  
**Subject:** USACE Feasibility Study, Yorkinut Slough, Calhoun Co., IL

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*



**Osage Nation Historic Preservation Office**



Date: April 19, 2022

File: 2122-4935IL-1

St. Louis District, USACE  
Meredith Trautt  
1222 Spruce Street  
St. Louis, MO 63103-2833  
Email: Meredith.M.Trautt@usace.army.mil

**RE: USACE, St. Louis District, Yorkinut Slough Study Area Habitat Rehabilitation and Enhancement Project, Calhoun County, Illinois**

***SENT VIA EMAIL***

Dear Ms. Trautt,

The Osage Nation has received notification and accompanying information for the proposed project listed as USACE, St. Louis District, Yorkinut Slough Study Area Habitat Rehabilitation and Enhancement Project, Calhoun County, Illinois. **Upon completion of the cultural resource survey mentioned in this notification, the Osage Nation Historic Preservation Office requests a copy of the cultural resource survey report for review and comment.**

In accordance with the National Historic Preservation Act, (NHPA) [54 U.S.C. § 300101 et seq.] 1966, undertakings subject to the review process are referred to in 54 U.S.C. § 302706 (a), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).

The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources. In the course of the cultural resource survey, no probing into potential mounds, cairns, or burial features should take place. If a suspected mound, cairn, or burial feature is identified, the USACE St. Louis District should contact the Osage Nation Historic Preservation Office for consultation. **The Osage Nation anticipates reviewing and commenting on the survey report for the proposed USACE, St. Louis District, Yorkinut Slough Study Area Habitat Rehabilitation and Enhancement Project, Calhoun County, Illinois.**

Should you have any questions or need any additional information please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

Andrea A. Hunter, Ph.D.  
Director, Tribal Historic Preservation Officer

Caitlin Eileen Nichols, MA, RPA  
Archaeologist

1

627 Grandview Ave. \* Pawhuska, OK 74056 Telephone 918-287-5328 \* Fax 918-287-5376  
www.osagenation-nsn.gov/who-we-are/historic-preservation \* HistoricPreservation@osagenation-nsn.gov

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

**From:** [Acee Watt](#)  
**To:** [Trautt, Meredith M CIV USARMY CEMVS \(USA\)](#)  
**Cc:** [United Keetoowah Band of Cherokee of Oklahoma](#)  
**Subject:** [Non-DoD Source] RE: USACE Feasibility Study, Yorkinut Slough, Calhoun Co., IL  
**Date:** Monday, January 10, 2022 2:37:47 PM

---

Good afternoon

I have no current comments regarding the proposed project, but I appreciate you all reaching out to us for consultation please keep me updated as the project progresses.

Kind regards,

*Acee Watt*, B.S.B.A.  
Section 106 Coordinator  
Office of Historic Preservation  
Main Line: 918.871.2852  
Cell: 918.930.0458  
[awatt@ukb-nsn.gov](mailto:awatt@ukb-nsn.gov)  
[ukbthpo@ukb-nsn.gov](mailto:ukbthpo@ukb-nsn.gov)



This communication is confidential | Destroy if received in error and please let me know | Unauthorized use, copying or distribution is prohibited.

---

**From:** Trautt, Meredith M CIV USARMY CEMVS (USA) <Meredith.M.Trautt@usace.army.mil>  
**Sent:** Tuesday, January 4, 2022 5:23 PM  
**To:** Acee Watt <awatt@ukb-nsn.gov>  
**Subject:** USACE Feasibility Study, Yorkinut Slough, Calhoun Co., IL

Good evening Acee,

Please see the attached letter pertaining to the U.S. Army Corps of Engineers, St. Louis District's feasibility study for the Yorkinut Slough, a Habitat Rehabilitation and Enhancement Project in the Two Rivers National Wildlife Refuge, Calhoun County, Illinois. Per USACE's policy, a hard copy of this letter has been sent to Chief Bunch.

Sincerely,

*Meredith Hawkins Trautt, M.S., RPA*  
Archaeologist and Tribal Liaison  
U.S. Army Corps of Engineers, St. Louis District  
MCX CMAC EC Z  
1222 Spruce Street  
St. Louis, MO 63103  
Office: (314) 925-5031

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

4.4 Tribal Response for Area of Potential Effect Letter



Meredith Hawkins Trautt, M.S., RPA  
Archaeologist and Tribal Liaison  
U.S. Army Corps of Engineers, St. Louis District  
MCX CMAC EC Z  
1222 Spruce Street  
St. Louis, MO 63103  
Office: (314) 925-5031 Mobile: (314) 798-2169  
[Meredith.M.Trautt@usace.army.mil](mailto:Meredith.M.Trautt@usace.army.mil)  
Pronouns: she/her

02/03/2023

Subject: Yorkinut Slough Study Area Habitat Rehabilitation and Enhancement Project, Area of Potential Effect, Calhoun County, Illinois

- Request MOU or MOA
- Copy of SHPO Report. Archeological Survey
- I Concur with (OSA) Office State Archaeologist
- Site Visit/Have Concerns May wish to monitor ground disturbance
- No interest in the area geographically
- No Comment or Objections on the proposed undertaking at this time.
- No objections to the project as proposed. Concur with SHPO
- If human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction  
Please stop immediately and notify this office.

Sincerely,

*Alan Kelley*

Alan Kelley,  
Deputy THPO  
3345 Thrasher Rd  
White Cloud KS 66094  
Iowa Tribe of Kansas and Nebraska 785-351-0080 [akelley@iowas.org](mailto:akelley@iowas.org)

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

**From:** [Douglas Taylor](#)  
**To:** [Trautt, Meredith M CIV USARMY CEMVS \(USA\)](#)  
**Subject:** [URL Verdict: Neutral][Non-DoD Source] RE: Yorkinut Slough HREP, Calhoun County, IL  
**Date:** Friday, February 3, 2023 11:35:14 AM  
**Attachments:** [image001.png](#)

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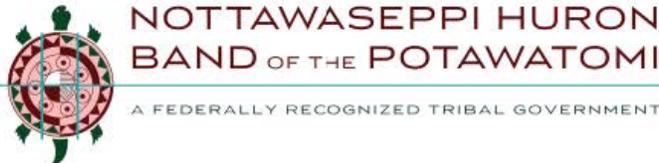
Greetings,

Ref: Yorkinut Slough HREP, Calhoun County, IL

Thank you for including the Nottawaseppi Huron Band of the Potawatomi (NHBP) in your consultation process. From the description of your proposed project, it does not appear as if any cultural or religious concerns of the Tribe's will be affected. We therefore have no objection to the project. Of course, if the project scope is significantly changed or inadvertent findings are discovered during the course of the project, please contact us for further consultation.

Very Respectfully  
Douglas R. Taylor

Douglas R. Taylor | Tribal Historic Preservation Officer (THPO) & NAGPRA Representative  
**Pine Creek Indian Reservation**  
**1301 T Drive S, Fulton, MI 49052**  
o: 269-704-8347 | c: 269-419-9434 | f: 269-729-5920  
[Douglas.Taylor@nhbp-nsn.gov](mailto:Douglas.Taylor@nhbp-nsn.gov) | [www.nhbp-nsn.gov](http://www.nhbp-nsn.gov)



*Please consider the environment before printing this email. This message has been prepared on resources owned by the Nottawaseppi Huron Band of the Potawatomi located in the State of Michigan. It is subject to the Electronic Communications Policy of Nottawaseppi Huron Band of the Potawatomi. This communication may contain confidential (including "protected health information" as defined by HIPAA) or legally privileged information intended for the sole use of the designated recipient(s). If you are not the intended recipient, please notify the sender immediately by reply e-mail and delete all copies of this communication and attachments without reading or saving them. If you are not the named addressee you are notified that disclosing, disseminating, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.*

**From:** Trautt, Meredith M CIV USARMY CEMVS (USA) <[Meredith.M.Trautt@usace.army.mil](mailto:Meredith.M.Trautt@usace.army.mil)>  
**Sent:** Friday, February 3, 2023 9:38 AM  
**To:** Douglas Taylor <[Douglas.Taylor@nhbp-nsn.gov](mailto:Douglas.Taylor@nhbp-nsn.gov)>  
**Subject:** Yorkinut Slough HREP, Calhoun County, IL

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

**From:** [Benjamin Rhodd](#)  
**To:** [Trautt, Meredith M CIV USARMY CEMVS \(USA\)](#)  
**Subject:** [URL Verdict: Neutral][Non-DoD Source] RE: Yorkinut Slough (HREP), Calhoun County, IL  
**Date:** Monday, February 6, 2023 4:38:09 PM

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Ms. Trautt,

Pursuant to consultation under Section 106 of the National Historic Preservation Act (1966 as amended) the Forest County Potawatomi Community (FCPC), a Federally Recognized Native American Tribe, reserves the right to comment on Federal undertakings, as defined under the act.

The Tribal Historic Preservation Office (THPO) staff has reviewed the information you provided for this project. Upon review of site data and supplemental cultural history within our Office, the FCPC THPO requests to be consulted upon this project and we request to remain as a consulting party for this project.

As a standard caveat sent with each proposed project reviewed by the FCPC THPO, the following applies. In the event an Inadvertent Discovery (ID) occurs at any phase of a project or undertaking as defined, and human remains or archaeologically significant materials are exposed as a result of project activities, work should cease immediately. The Tribe(s) must be included with the SHPO in any consultation regarding treatment and disposition of an ID find.

Thank you for protecting cultural and historic properties and if you have any questions or concerns, please contact me at the email or number listed below.

Respectfully,

Ben Rhodd, MS, RPA, Tribal Historic Preservation Officer  
Forest County Potawatomi  
Historic Preservation Office  
8130 Mish ko Swen Drive, P.O. Box 340, Crandon, Wisconsin 54520  
P: 715-478-7354 C: 715-889-0202 Main: 715-478-7474  
Email: [Benjamin.Rhodd@fcp-nsn.gov](mailto:Benjamin.Rhodd@fcp-nsn.gov)  
[www.fcpotawatomi.com](http://www.fcpotawatomi.com)

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**From:** Trautt, Meredith M CIV USARMY CEMVS (USA) <[Meredith.M.Trautt@usace.army.mil](mailto:Meredith.M.Trautt@usace.army.mil)>  
**Sent:** Friday, February 3, 2023 8:39 AM  
**To:** Benjamin Rhodd <[Benjamin.Rhodd@fcp-nsn.gov](mailto:Benjamin.Rhodd@fcp-nsn.gov)>  
**Subject:** Yorkinut Slough (HREP), Calhoun County, IL

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Rhodd,

Please see the attached letter pertaining the USACE, St. Louis District's Yorkinut Slough Habitat Restoration and Enhancement Project (HREP) in Calhoun County, IL. The St. Louis District has determined the area of potential effect for the project and is continuing consultation with your tribe. Per USACE's policy, a hard copy of this letter has been sent to Chairman Daniels.

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

**From:** [Jonathan Rohrer](#)  
**To:** [Trautt, Meredith M CTV USARMY CEMVS \(USA\)](#)  
**Subject:** [URL Verdict: Neutral][Non-DoD Source] Two Rivers National Wildlife Refuge, Habitat Rehabilitation and Enhancement Project -  
**Date:** Tuesday, February 7, 2023 3:34:39 PM

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Meredith,

Thank you for your report, received on 02-07-2023. The Caddo Nation of Oklahoma appreciates your willingness to conduct proper consultation, pursuant to Section 106 of the National Historic Preservation Act. At this time the Caddo Nation has no additional information to add. However, in the event that any projects may be proposed in the subject area, we would need to be notified as soon as possible.

Should you have any questions or concerns regarding our response please feel free to contact our office.

Best regards,

Jonathan

**Jonathan M. Rohrer**  
Tribal Historic Preservation Officer



**Caddo Nation**  
P.O. Box 487  
Binger, OK 73009  
t: (405)656-0970 Ext. 2070  
e: [jrohrer@mycaddonation.com](mailto:jrohrer@mycaddonation.com)

[www.mycaddonation.com](http://www.mycaddonation.com)



*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*



**Miami Tribe of Oklahoma**

3410 P St. NW, Miami, OK 74354 • P.O. Box 1326, Miami, OK 74355  
Ph: (918) 541-1300 • Fax: (918) 542-7260  
www.miamination.com



Via email: Meredith.M.Trautt@usace.army.mil

February 14, 2023

Meredith Hawkins Trautt, M.S., RPA  
Archaeologist and Tribal Liaison  
U.S. Army Corps of Engineers, St. Louis District  
MCX CMAC EC Z  
1222 Spruce Street  
St. Louis, MO 63103

Re: Yorkinut Slough HREP, Calhoun County, Illinois – Comments of the Miami Tribe of Oklahoma

Dear Ms. Trautt:

Aya, kweehsitoolaani– I show you respect. The Miami Tribe of Oklahoma, a federally recognized Indian tribe with a Constitution ratified in 1939 under the Oklahoma Indian Welfare Act of 1936, respectfully submits the following comments regarding Yorkinut Slough HREP in Calhoun County, Illinois.

The Miami Tribe offers no objection to the above-referenced project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site. However, given the Miami Tribe's deep and enduring relationship to its historic lands and cultural property within present-day Illinois, if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at 918-541-8966 or by email at THPO@miamination.com to initiate consultation.

The Miami Tribe accepts the invitation to serve as a consulting party to the proposed project. In my capacity as Tribal Historic Preservation Officer I am the point of contact for consultation.

Respectfully,

*Diane Hunter*

Diane Hunter  
Tribal Historic Preservation Officer

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*



**EASTERN SHAWNEE**  
**CULTURAL PRESERVATION DEPARTMENT**  
70500 East 128 Road, Wyandotte, OK 74370

March 16, 2023  
USACE St. Louis District  
1222 Spruce Street  
St. Louis, Missouri 63103-2833

**RE: Yorkinut Slough Study Area Habitat Rehabilitation and Enhancement, Calhoun County, Illinois**

Dear Ms. Trautt,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within Calhoun County, Illinois. The Eastern Shawnee Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore, the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects.

As described in your correspondence, and upon research of our database(s) and files, we find our people occupied these areas historically and/or prehistorically. However, the project proposes **NO Adverse Effect** or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue project as planned. However, should this project inadvertently discover an archeological site or object(s) we request that you immediately contact the Eastern Shawnee Tribe, as well as the appropriate state agencies (within 24 hours). We also ask that all ground disturbing activity stop until the Tribe and State agencies are consulted. Please note that any future changes to this project will require additional consultation.

In accordance with the NHPA of 1966 (16 U.S.C. § 470-470w-6), federally funded, licensed, or permitted undertakings that are subject to the Section 106 review process must determine effects to significant historic properties. As clarified in Section 101(d)(6)(A-B), historic properties may have religious and/or cultural significance to Indian Tribes. Section 106 of NHPA requires Federal agencies to consider the effects of their actions on all significant historic properties (36 CFR Part 800) as does the National Environmental Policy Act of 1969 (43 U.S.C. § 4321-4347 and 40 CFR § 1501.7(a)). This letter evidences NHPA and NEPA historic properties compliance pertaining to consultation with this Tribe regarding the referenced proposed projects.

Thank you, for contacting the Eastern Shawnee Tribe, we appreciate your cooperation. Should you have any further questions or comments please contact our Office.

Sincerely,

A handwritten signature in blue ink that reads "Paul Barton".

Paul Barton, Tribal Historic Preservation Officer (THPO)  
Eastern Shawnee Tribe of Oklahoma  
(918) 666-5151 Ext:1833  
THPO@estoo.net

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

5 U.S. FISH AND WILDLIFE SERVICE  
Marion, IL Ecological Services Office

*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

5.1 Threatened and Endangered Species and Critical Habitat in the Study Area



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](mailto:Marion@fws.gov)

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



In Reply Refer To:  
Project Code: 2023-0026431  
Project Name: Yorkinut Slough HREP Project

February 02, 2023

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.

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 ECOSPHERE 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.

***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>

### ***Northern Long-eared Bat Update***

Please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

Other Trust Resources and Activities

### ***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.

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Yorkinut Slough HREP*

02/02/2023

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**Attachment(s):**

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds

## **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

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Yorkinut Slough HREP*

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## **Project Summary**

Project Code: 2023-0026431  
Project Name: Yorkinut Slough HREP Project  
Project Type: Restoration / Enhancement - Wetland  
Project Description: Habitat restoration project located within Two Rivers National Wildlife Refuge. Project has been updated with expanded boundary onto Six Mile Island adjacent to the Illinois River.

**Project Location:**

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.9697461,-90.55287706119294,14z>



Counties: Calhoun County, Illinois

## Endangered Species Act Species

There is a total of 5 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
Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a>	Endangered
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
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## Insects

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

## Flowering Plants

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

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Yorkinut Slough HREP*

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**Critical habitats**

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

## 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
TWO RIVERS NATIONAL WILDLIFE REFUGE <a href="https://www.fws.gov/refuges/profiles/index.cfm?id=33621">https://www.fws.gov/refuges/profiles/index.cfm?id=33621</a>	6,651.136

## 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 [USEWS 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 birders 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
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	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.	Breeds Oct 15 to Aug 31
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31

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NAME	BREEDING SEASON
<p><b>Chimney Swift <i>Chaetura pelagica</i></b>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 25
<p><b>Eastern Whip-poor-will <i>Antrostomus vociferus</i></b>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 1 to Aug 20
<p><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></p>	Breeds elsewhere
<p><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.</p>	Breeds elsewhere
<p><b>Kentucky Warbler <i>Oporornis formosus</i></b>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 20 to Aug 20
<p><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></p>	Breeds elsewhere
<p><b>Prothonotary Warbler <i>Protonotaria citrea</i></b>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 1 to Jul 31
<p><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.</p>	Breeds May 10 to Sep 10
<p><b>Ruddy Turnstone <i>Arenaria interpres morinella</i></b>                      This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds elsewhere
<p><b>Rusty Blackbird <i>Euphagus carolinus</i></b>                      This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds elsewhere
<p><b>Short-billed Dowitcher <i>Limnodromus griseus</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/9480">https://ecos.fws.gov/ecp/species/9480</a></p>	Breeds elsewhere
<p><b>Wood Thrush <i>Hylocichla mustelina</i></b>                      This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	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 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

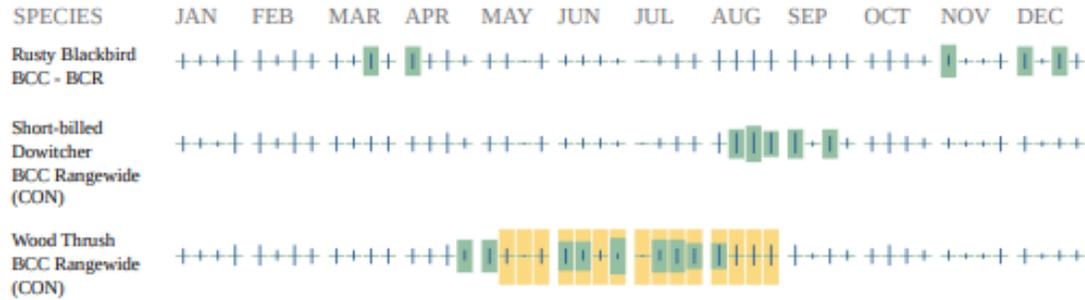
## Draft Feasibility Report with Integrated Environmental Assessment Yorkinut Slough HREP

02/02/2023

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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 <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.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](#) 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 list of migratory birds that potentially occur 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 [Rapid Avian Information Locator \(RAIL\) 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 or migrating in my 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 query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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
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 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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5.2 U.S. Fish and Wildlife Coordination Act Report



United States Department of the Interior  
U.S. FISH AND WILDLIFE SERVICE  
Southern Illinois Sub-Office (ES)  
8588 Route 148  
Marion, Illinois 62959



In Reply Refer To:  
FWS/SISO  
Consultation Code: 2023-0026431

April 6, 2023

Colonel Kevin R. Golinghorst  
U.S. Army Corps of Engineers  
St. Louis District  
1222 Spruce Street  
St. Louis, Missouri 63103-2833

Attn: Lane Richter, CEMVP-PD-P

Dear Colonel Golinghorst:

This letter constitutes our Draft Fish and Wildlife Coordination Act Report (Report) for the Yorkinut Slough Habitat Rehabilitation and Enhancement (HREP) Project located in Calhoun County, Illinois. This report is intended to provide partial compliance with Subsection 2(b) of the Fish and Wildlife Coordination Act and compliance with the Endangered Species Act of 1973, as amended, and the National Environmental Policy Act. This Report has been reviewed by the Missouri Department of Conservation and the Illinois Department of Natural Resources and their concurrence is noted.

**Introduction**

The Yorkinut Slough HREP Project is a component of the Upper Mississippi River Restoration Program (UMRR), authorized by Section 1103 of the Water Resources Development Act (WRDA) of 1986. The vision of the UMRR is “A healthier and more resilient Upper Mississippi River ecosystem that sustains the river’s multiple uses”. The Project addresses habitat rehabilitation and enhancement at Yorkinut Slough, which is owned by the U.S. Fish and Wildlife Service (USFWS) and is part of the Two Rivers National Wildlife Refuge (refuge). Yorkinut Slough consists of 2,350 acres of wetland, woodland, floodplain forest, and early successional habitats located between Illinois River Miles 5 and 11. The proposed project is located near the confluence of the Illinois and Upper Mississippi Rivers.

**Resource Problems and Opportunities**

Human activity over the past two centuries within the Illinois River basin, floodplain, and channel has altered the hydrology and biotic communities historically present within the project area. These alterations have reduced the diversity and quality of wetlands, bottomland grasslands, and floodplain forests in the region. The stressors are likely to continue and cause further decline in the quality of habitats within the project area.

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Colonel Kevin R. Golinghorst

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The wetland habitats within the project area are impacted by flooding, sedimentation, and insufficient water management capabilities. Without action, it is anticipated that the aquatic habitats would continue to degrade and result in a loss of wetland habitat for migratory waterfowl and other wildlife resources. The bottomland floodplain forest habitats within the project area are impacted by water inundation during the growing season and a lack of hard-mast regeneration and recruitment, resulting in forest loss and a community with limited species and age diversity. Without action, it is anticipated that forest health would continue to degrade with the current hydrologic regime and water management infrastructure and will result in a loss of habitat for migratory waterfowl, neotropical migrants, endangered bat species, and resident wildlife. In addition, the altered floodplain connectivity and sedimentation of the project area results in a loss of depth and vegetation diversity. The degraded state of the project area, however, provides a significant opportunity to improve the quality and diversity of floodplain forest and wetland habitats within the proposed project area for the benefit of migratory waterfowl and other wildlife resources.

The primary problems to be addressed by this project include degraded emergent wetland habitats and insufficient water management capabilities, excessive flooding during the growing season and loss of bottomland floodplain forests, altered floodplain connectivity and sedimentation resulting in a loss of ridge and swale topography within the study area.

## **Goals and Objectives**

The goal of the Yorkinut Slough Project is to restore and improve the quality and diversity of emergent wetland, woodland, and forest resources within the Project area. To achieve this goal a planning team of biologists, engineers, and planners from the U.S. Army Corps of Engineers (USACE) and USFWS developed the objectives for the project. The objectives include the following:

- Objective 1: Restore and increase early successional and emergent wetland within the study area over the 50-year period of analysis.
- Objective 2: Restore and increase floodplain forests within the study area over the 50-year period of analysis.
- Objective 3: Improve hydrologic conditions for wildlife including waterfowl, shorebirds, wading birds, Neotropical migrants, and others within the study area over the 50-year period of analysis.

The goals and objectives of the Yorkinut Slough Project fit well into the system wide objectives for the Upper Mississippi River System (Galat et al., 2007). The system wide objectives include:

- Manage for a more natural hydrologic regime (hydrology and hydraulics)
- Manage for processes that shape a diverse and dynamic river channel (geomorphology)
- Manage for processes that input, transport, assimilate, and output materials within UMR basin river-floodplains: water quality, sediments, and nutrients (biogeochemistry)
- Manage for a diverse and dynamic pattern of habitats to support native biota (habitat)

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- Manage for viable populations of native species and diverse plant and animal communities (biota)

### **Proposed Project Features**

To achieve the project objectives, several project plans/features were evaluated. The recommended plan (Alternative 3 Intermediate B) consists of the following:

- Berm construction (approximately 12 acres), berm enhancement (approximately 8 acres), berm deconstruction (approximately 21 acres) and associated earthwork to reconfigure, consolidate, and expand the moist soil units within the project area for waterfowl and other migratory birds.
- Remove seven water control structures, install 10 water control structures, install 2 well pumps, install well pump pipe (approximately 5400 ft.), install 1 large gravity structure (~16' wide), install 1 pump station, excavate 27 acres of channel, and remove 13 acres of channel to increase efficiency of the current water level management and improve hydrologic conditions for waterfowl and wildlife within the project area.
- Excavate/re-grade acres of emergent wetlands (included in channel excavation acreage) to restore ridge and swale topography and wetland diversity.
- Tree planting (approximately 215 acres) to restore and increase floodplain forest diversity and quantity.
- Clearing and grubbing (approximately 5 acres)
- Timber stand improvement (approximately 632 acres) to improve habitat diversity and forest quality.

This plan restores approximately 901 acres of bottomland floodplain forest and 532 acres of emergent wetland/moist soil habitat within the Project area.

### **Methodology to Evaluate Alternatives**

The Yorkinut Slough HREP was analyzed using the Habitat Evaluation Procedures (HEP) and a habitat-based waterfowl bioenergetics model (Heitmeyer 2010). The Duck Use Days model was utilized to evaluate emergent wetland habitats and the floodplain forest community model was utilized to evaluate forested areas and areas proposed for reforestation. Existing conditions, future without project conditions and future with project conditions were examined. This analysis was conducted with team members representing the USACE and USFWS.

The utilized evaluation models produced a rating of habitat quality for each respective habitat type. This rating is referred to as a Habitat Suitability Index (HSI). The habitat-based waterfowl bioenergetics model was converted to an index value to produce the HSI. The HSI, a value ranging from 0.1 to 1.0, measures the existing and future habitat conditions compared to optimum habitat, which is 1.0. This value, when multiplied by the available habitat within the project area, will provide a measure of available habitat quality and quantity known as habitat units (HUs). Average annual habitat units (AAHUs) for each species are typically calculated to

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reflect expected habitat conditions over a 50-year project life. Target years for evaluation included 0 (existing condition), 1, 5, 25, and 50 years.

**Existing, Future without, and Future with Project Conditions**

Several general and site-specific assumptions were made as to what the project area and vicinity would be like 50 years in the future with and without the project and can be found in Appendix B (Habitat Evaluation & Quantification) of the Feasibility Report (USACE 2023).

**Existing, Future without, and Future with Project Conditions**

Reforestation

The habitat suitability in areas proposed for reforestation improved with the project, while without the project the habitat suitability remained generally unchanged across the years (Table 1). Tree planting results in increased canopy coverage as the stand grows and matures, increased percent desired forest type, a reduction in invasive species, increased regeneration and improved structural diversity. Without the project the area would remain as old field with some limited woody encroachment over the life of the project (Table 1). The proposed project results in a net increase of 4,923 habitat units and 160 AAHUs for the area proposed for reforestation (Table 2 and 3).

Timber Stand Improvement (TSI)

The habitat suitability in areas proposed for TSI increased substantially with the project, while without the project the habitat suitability only improved slightly (Table 1). The TSI results varied from stand to stand; however, the general trend is increased canopy coverage over the life of the project, increased percent desired forest type, a reduction in invasive species, increased regeneration and improved structural diversity. With the project there is also opportunities to plant desired species and increase the hard mast component. Without the project there is a general decline in desired forest type and a loss of species diversity including hard mast species; however, there is still a slight increase in habitat suitability over the life of the project utilizing the model (Table 1). This increase is due to the loss of the ash and hard mast component and conversion to maple, elm, ash forest community. This conversion results in increased regeneration and canopy coverage as these species mature. In addition, these species often grow in crowded conditions which limits the potential for invasive species to grow. While there is a slight increase without project using the model, the reality is that without the project the forest stands will become less diverse and provide reduced value for wildlife resources. The proposed project feature results in a net increase of 3,400 habitat units and 109 AAHUs across the areas proposed for TSI (Table 2 and 3).

Emergent Wetland

The habitat suitability in the wetland areas improved with the project, while without the project wetland habitat conditions declined across the years (Table 1). With the project there is an improved capability to manage for ideal water conditions, reduced flooding impacts during the growing season, and reduced sedimentation within the units. These improved conditions result in

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significant increases in moist soil plant abundance, growth, and seed production especially during the first 25 years of the project. The production declines towards the end of the project as the infrastructure to maintain the site ages. Without the project, there would be a reduced capability to manage for ideal water conditions, increased impacts of flooding during the growing season, and increased sedimentation which would impact moist soil plant abundance, growth, and seed production. These impacts would result in reduced HSI scores over the life of the project (Table 1). The proposed project results in a net increase of 6,447 habitat units and 294 AAHUs across all emergent wetland areas (Table 2 and 3).

Summary

The HEP analysis indicates that restoration of forested habitats results in a net increase of 269 AAHUs over the no action alternative. In addition, the restoration of wetland habitats results in a net increase of 294 AAHUs over the no action alternative. The combination of habitat features in the preferred alternative will yield a net increase of 563 AAHUs over the future without project condition.

**Conclusions and Recommendations**

According to the Incremental Cost Analysis, the preferred alternative ranks 3 out of 5 in cost per AAHU output compared to the other alternatives including the no action alternative. A large portion of the cost for the preferred alternative is attributable to the infrastructure needed to maintain high quality moist soil/wetland habitats within the project area. Floodplain forest and wetland habitats are an important component of the Illinois River ecosystem and there are currently limited opportunities to implement restoration projects for these habitat types in this portion of the river. The Habitat Needs Assessment II (McCain, et al., 2018) identified the need to restore former agricultural areas to native floodplain vegetation, restore floodplain vegetation diversity, restore floodplain topographic diversity and associated inundation periods, and increase off-channel and floodplain lentic areas within this portion of the Illinois River. This plan restores approximately 901 acres of bottomland floodplain forest and 532 acres of wetland habitat. Additionally, it is very difficult to capture the full benefits associated with floodplain restoration projects. For purposes of the Incremental Cost Analysis, the model was only able to capture habitat unit benefits associated with the acreage within the project area. However, we believe that the ecosystem benefits of floodplain restoration extend beyond the project area for both aquatic and terrestrial species. These habitats are critical to migratory birds, neotropical migrants, and provide habitat for a variety of other wildlife resources. We fully support the preferred alternative as it will restore a large component of habitat diversity in this portion of the Illinois and Mississippi River System.

Overall, the proposed project (Alternative 3 Intermediate B) will be beneficial to the Illinois and Mississippi River Systems and biota dependent upon them by improving habitat quality in this portion of the river. The project will improve the quality and diversity of bottomland floodplain forest and emergent wetland habitats within the project area. Migratory waterfowl, neotropical migrant birds and other terrestrial organisms will have access to improved habitat for resting, feeding, nesting, and escape cover. The proposed Yorkinut Slough HREP will be beneficial to a variety of wildlife resources and is fully supported by the Service.

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**Threatened and Endangered Species**

To facilitate compliance with Section 7(c) of the Endangered Species Act of 1973, as amended, Federal agencies are required to obtain from the Fish and Wildlife Service (Service) information concerning any species, listed or proposed to be listed, which may be present in the area of a proposed action. In the Biological Assessment (BA), you provided a list of species, which may be present within the project area that was obtained from the Service's Information, Planning, and Conservation System (IPaC) website on December 5, 2022. That list includes the endangered Indiana bat (*Myotis sodalis*), threatened decurrent false aster (*Boltonia decurrens*), threatened northern long-eared bat (*Myotis septentrionalis*), proposed as endangered tricolored bat (*Perimyotis subflavus*), and candidate monarch butterfly (*Danaus plexippus*). There is no designated critical habitat in the project area at this time.

You can visit our Information, Planning, and Conservation System (IPaC) at the following link below to obtain an updated official U.S. Fish and Wildlife species list.

<https://ipac.ecosphere.fws.gov>

Given the proximity to a known Indiana bat hibernaculum, we recommend that tree clearing activities not occur during the period of April 1 to November 15 period to avoid impacting the listed bat species. If it is necessary to clear trees during the April 1 to November 15th time frame, a detailed bat habitat assessment or other approved surveys may need to be conducted to assess the value of the habitat to listed bat species and ascertain whether Indiana and/or northern long-eared bats occur in the project area. The biological assessment should be finalized for this proposed action and provided to our agency for review.

Although the bald eagle has been removed from the threatened and endangered species list, it continues to be protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act (BGEPA). The Service developed the National Bald Eagle Management Guidelines to provide landowners, land managers, and others with information and recommendations regarding how to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. The Service is aware of a bald eagle nest within the proposed project area, and we recommend additional coordination with our office as the project moves forward. A copy of the guidelines is available at:

<https://www.fws.gov/media/national-bald-eagle-management-guidelines-0>

Thank you for the opportunity to provide this Draft Fish and Wildlife Coordination Act Report. If you have questions, please contact me at (618) 998-5945.

Sincerely,

*/s/ Matthew T. Mangan*

Matthew T. Mangan

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Yorkinut Slough HREP*

Colonel Kevin R. Golinghorst

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Fish and Wildlife Biologist

Enclosures: Table 1  
Table 2  
Table 3  
Appendix A – Literature Cited

cc: IDNR (Atwood, Glover)  
MDC (Vitello)  
USFWS (Deutsch)

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Table 1. Habitat Suitability Index (HSI) scores for Existing, Future with Project (Year 1,5,25 and 50) and Future without Project (Year 1,5,25 and 50), Yorkinut Slough HREP.

Habitat Type /Measure	Model	Existing		Future With			Future Without			
		0	1	5	25	50	1	5	25	50
Reforestation	Floodplain Forest	0.07	-	0.43	0.77	0.86	-	0.08	0.07	0.10
TSI	Floodplain Forest	0.40	-	0.56	0.65	0.67	-	0.40	0.44	0.51
Emergent Wetland	Duck Use Days	0.20	0.60	0.90	0.69	0.43	0.20	0.18	0.10	0.05

Table 2. Habitat Units for Future with (Year 50) and Future without Project (Year 50), Yorkinut Slough HREP. Net change is the difference between Future with and Future without Project.

Habitat Type /Measure	Model	Future With	Future Without	Net
Reforestation	Floodplain Forest	5474	551	4923
TSI	Floodplain Forest	10887	7487	3400
Emergent Wetland	Duck Use Days	7444	997	6447

Table 3. AAHUs for Future with (Year 50) and Future without Project (Year 50), Yorkinut Slough HREP. Net change is the difference between Future with and Future without Project.

Habitat Type /Measure	Model	Future With	Future Without	Net
Reforestation	Floodplain Forest	181	21	160
TSI	Floodplain Forest	282	391	109
Emergent Wetland	Duck Use Days	354	60	294

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Colonel Kevin R. Golinghorst

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**APPENDIX A**

**LITERATURE CITED**

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Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP

6 ILLINOIS DEPARTMENT OF NATURAL RESOURCES



*Applicant:* Lane Richter  
*Contact:* Lane Richter  
*Address:* 1222 Spruce St.  
St. Louis, MO 63104

*IDNR Project Number:* 2308686  
*Date:* 01/09/2023  
*Alternate Number:* 2003901

*Project:* Yorkinut Slough  
*Address:* Calhoun County, Brussels

*Description:* Submitted for information only.

Project- potential HREP project on USFWS - Two Rivers National Wildlife Refuge managed lands.

### Natural Resource Review Results

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

- Gilbert Lake INAI Site
- Mcadams Peak Hill Prairie INAI Site
- Mcadams Peak Land And Water Reserve
- Bigeye Shiner (*Notropis boops*)
- Indiana Bat (*Myotis sodalis*)
- Indiana Bat (*Myotis sodalis*)
- Indiana Bat (*Myotis sodalis*)
- Northern Long-Eared Myotis (*Myotis septentrionalis*)
- Smooth Softshell (*Apalone mutica*)
- Western Sand Darter (*Ammocrypta clarum*)

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:* Calhoun

*Township, Range, Section:*

- 12S, 1W, 18
- 12S, 1W, 19
- 12S, 1W, 30
- 12S, 1W, 31
- 12S, 1W, 32
- 12S, 2W, 13
- 12S, 2W, 24
- 13S, 1W, 4
- 13S, 1W, 5
- 13S, 1W, 8
- 13S, 1W, 9
- 13S, 1W, 10
- 13S, 1W, 15
- 13S, 1W, 16



*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

IDNR Project Number: 2003901

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**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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*Draft Feasibility Report with Integrated Environmental Assessment  
Yorkinut Slough HREP*

7 PUBLIC COMMENTS