

**DREDGE MATERIAL MANAGEMENT PROGRAM  
BUFFALO SITE 5 ACCESS CHANNEL  
MISSISSIPPI RIVER, POOL 16,  
RIVER MILES 471.3 TO 471.5**

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**SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT**

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**February 2022**



**US Army Corps  
of Engineers®**  
Rock Island District

**DREDGE MATERIAL MANAGEMENT PROGRAM  
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**EXECUTIVE SUMMARY**

This document reviews environmental impacts from the construction of an access channel from the Buffalo Dredge Cut, Mississippi River, Pool 16, river miles 471.3 to 471.5 to Dredged material placement site #5 (Project). The public is entitled to take part in its review. If you have concerns about the environmental impact of this Project, we encourage your input in this decision-making process.

The U.S. Army Corps of Engineers, Rock Island District (District), must consider the impacts of dredging an access channel from the Buffalo Dredge Cut in order to continue use of the dredged material placement site and the impacts to the surrounding environment.

When committing Federal funds for a Federal action (dredging the navigation channel), the District must inform public officials and citizens before these decisions are made and actions are taken.

This Supplemental Environmental Assessment documents the District's decision making in consideration of the environment. This document is tiered from the Environmental Assessment titled *Dredged Material Placement Site, Buffalo Dredge Cut Pool 16, Upper Mississippi River Miles 472.0-473.2*, October 1997, to address unique project features and site-specific characteristics (e.g., footprint area, topography and hydraulic conditions, associated biota, etc.) not addressed in the original Environmental Assessment. This document is in compliance with the National Environmental Policy Act (Code of Federal Regulations, Title 40 §1500-1508).

If you have any questions, concerns, or comments, contact the Regional Planning and Environmental Division. North at: (309) 794-6104, or by email at: [PublicInvolvement@usace.army.mil](mailto:PublicInvolvement@usace.army.mil) by March 9, 2022. Comments may also be sent to:

District Engineer  
US Army Corps of Engineers, Rock Island District  
Attn: Bales (PD-P)  
Clock Tower Building  
P. O. Box 2004  
Rock Island IL 61204

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FINDING OF NO SIGNIFICANT IMPACT

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## **I. PURPOSE AND NEED FOR FEDERAL ACTION**

### **A. Background Information**

The U.S. Army Corps of Engineers (USACE), Rock Island District (District), is directed by Congress to maintain a 9-foot navigation channel on the Upper Mississippi River (UMR). The natural fluvial process causes the bedload of the UMR to be in a constantly moving, dynamic state. These sediments occasionally threaten navigation by causing the channel to become narrow and/or shallow at localized sites. Maintenance involves dredging of accumulated sediment to restore the channel to proper navigation dimensions.

The District prepared an Environmental Assessment (EA) titled, *Dredged Material Placement Site, Buffalo Dredge Cut Pool 16, Upper Mississippi River Miles 472.0-473.2*, October 1997. The EA was written to determine environmental impacts, a requirement necessary to support the report titled *Dredged Material Management Plan for Dredged Material Placement, Site Plan for the Buffalo Dredge Cut, Upper Mississippi River Miles 472.0-473.2*, March 1998 (Buffalo DMMP). To reach and use the site, The District must construct an access channel from the 9-foot navigation channel to Buffalo DMMP Site 5 (Project), an upland placement site documented in the aforementioned EA and DMMP. The District prepared this Supplemental Environmental Assessment (SEA) tiered from the original Buffalo DMMP EA to comply with the National Environmental Policy Act of 1969 (NEPA) guidelines.

The On-Site Inspection Team (OSIT), consisting of personnel from both state and Federal agencies, performs natural resource assessments of each dredging and placement operation. The OSIT reviews proposed dredged material placement sites on location and recommends areas that would minimize impacts to backwaters, wetlands, prime farmland, and other sensitive habitats. The OSIT may also hold a post-placement inspection of any of the dredged material placement sites each year. The OSIT serves in an advisory capacity and has no regulatory authority. However, OSIT concerns and opinions are integral to the District's decision-making process and the District must notify the OSIT of any departures that it makes from the OSIT recommendations. Final authority on dredging projects rests with the District Engineer.

### **B. Purpose of and Need for Action**

The District needs to establish reliable river access to the Buffalo DMMP Site 5 for channel maintenance dredging. Under present conditions, the access area is not deep enough to float construction or dredging equipment from the main channel during normal and low flow conditions. Dredging an access channel would allow future access to the site for both hydraulic and mechanical dredged material placement. Long-term placement areas, like Site #5, are needed to avert emergency dredging placement actions that may have high ecological or monetary costs.

*Buffalo Dredge Material Management Program  
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The OSIT visited the proposed access channel on July 17, 2019, to consider potential access alternatives. The OSIT recommended the District direct resources towards making Buffalo DMMP Site 5 usable and available for future dredge material placement needs within Pool 16. The District prepared this SEA in response to the OSIT's request. Additionally, the OSIT recommended the District consider upgrading the rail-crossing to allow heavy equipment to access the site for beneficial use. Currently the railroad track crossing is unsuitable for most vehicular traffic and trailers because the main rail and side rail are stair stepped. Road access would enable beneficial use removal of dredged material from Buffalo DMMP Site 5. Communications with the railroad indicated improvements would require over 1,000 feet of railroad track to be raised to the proper grade. The District continues to work with the railroad to improve the crossing, but this issue has not been resolved.

**C. Location**

Located in Scott County, Iowa, Buffalo Site 5 is approximately two miles downstream from the town of Buffalo at river miles 471.3 to 471.5 along the right descending bank (471.3-471.5R). The proposed access channel is 100 feet wide and approximately 600 feet long. The access channel would connect the main channel to the Iowa shore, approximately 100 yards downstream of the confluence of an unnamed creek (RM 471.5R). Dredged material from the access channel would be mechanically placed at Buffalo DMMP Site 3 (Figure 1). Mechanical dredgers use floating deck-mounted machinery like cranes with clam buckets or large backhoes to remove material from the river. Material is placed on a barge and moved to dredged material placement sites. These sites were previously assessed in the Buffalo DMMP and EA.

Buffalo Dredge Material Management Program Site  
Mississippi River, Pool 16 River Miles 471.3 to 471.5

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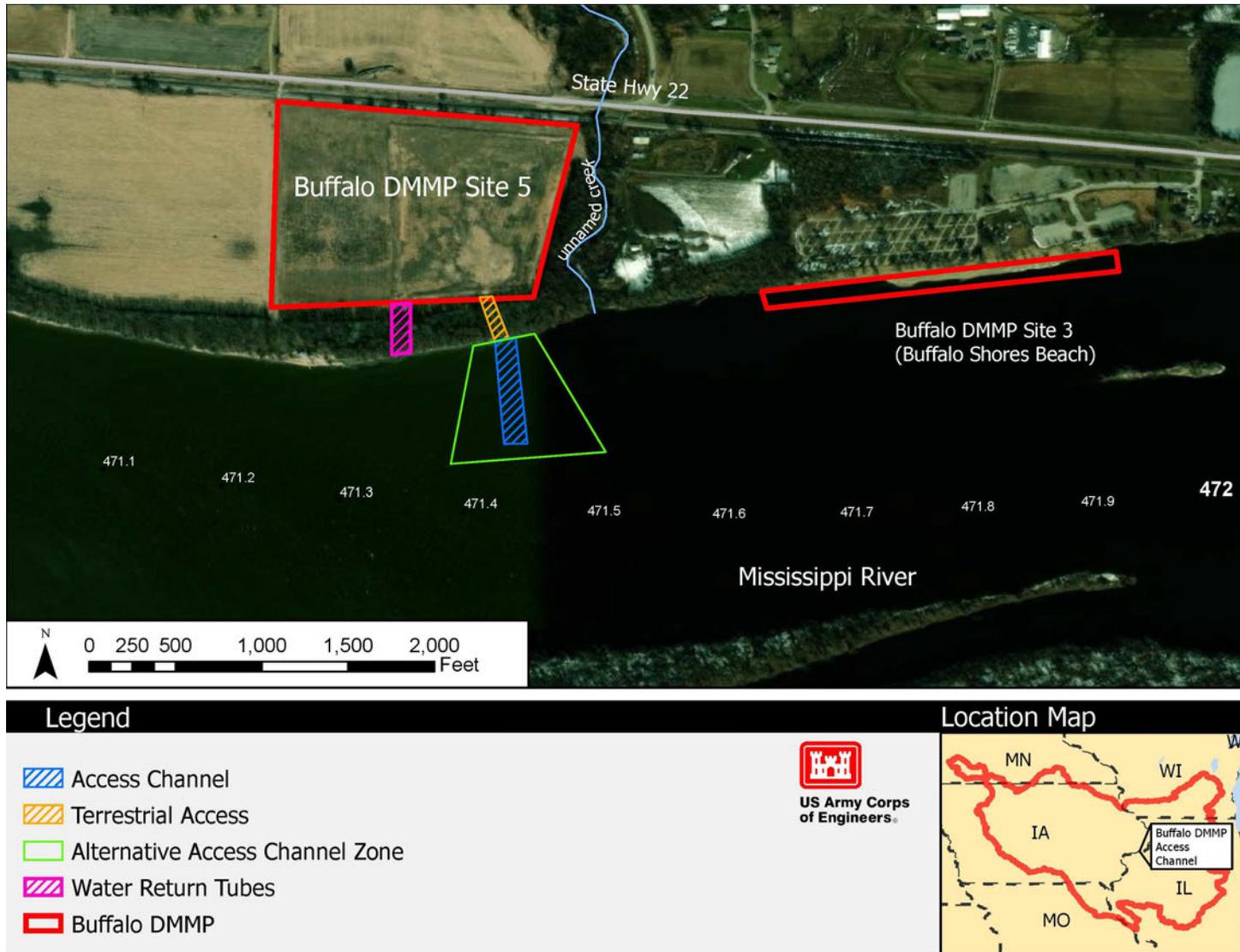


Figure 1. Project Location

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## **D. Authority**

The formal authorization for the District to perform activities on the Mississippi River was given in the Rivers and Harbors Act of 1878. The Rivers and Harbors Act of 1927; as modified by the Rivers and Harbors Acts of 1930, 1932, 1935, and 1950 and a Resolution of the House Committee on Flood Control of September 19, 1944, was the formal authorization for the Corps to perform operation and maintenance activities on the Upper Mississippi River (UMR). These Acts and Resolution authorize the construction, operation, and maintenance of the 9-foot navigation channel on the Mississippi River between the mouth of the Missouri River and St. Paul, Minnesota.

In addition, pursuant to Section 1103(i) of the Water Resources Development Act of 1986 [33 U.S.C. § 652(i)], Congress authorized the Corps to dispose of dredged material from the system pursuant to the recommendations of the Great River Environmental Action Team (GREAT) II study, specifically the GREAT II's Mississippi River Main Report. The proposed Project is authorized by the referenced legislation and its purpose is compatible with the annual Operations and Maintenance appropriation.

- (1) The River and Harbors Act of 3 July 1930, authorized the Mississippi River 9-Foot Channel Project and states in part: *Mississippi River between mouth of Illinois River and Minneapolis, MN: The existing project is hereby modified so as to provide a channel depth of nine feet at low water with widths suitable for long-haul common-carrier service.*
- (2) 33 USC 591, authorized condemnation, purchase, or donation of land or right-of-way for the improvement of rivers.

Section 1103 of the Water Resources Development Act of 1986, 33 USC 652(i)(1), authorized the purchase of the subject tracts in fee or easement. It further states “...*the Secretary shall, as he determines feasible, dispose of dredged material from the system pursuant to the recommendations of the GREAT I, GREAT II, and GRRM studies.*”<sup>1</sup>

**E. Related National Environmental Policy Act Documentation.** Prior NEPA documentation relevant to this Project includes:

- (1) *Final Environmental Impact Statement, Continued Operation and Maintenance Nine-Foot Navigation Channel, Upper Mississippi River -Pools 11 through 22, July 1974.* This document addressed the environmental impacts resulting from the continued operation and maintenance of the existing nine-foot channel navigation system on the UMR within the Rock Island District.
- (2) *Dredged Material Placement Site, Buffalo Dredge Cut Pool 16, Upper Mississippi River Miles 472.0-473.2, October 1997.* This document addresses the environmental compliance, including the Clean Water Act 404(b)(1) (CWA) evaluation, for all placement alternatives in the Buffalo Reach Dredged Material Management Plan. This SEA and the DMMP listed below are tiered from this EA.

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<sup>1</sup> Great River Environmental Action Team Reports:  
GREAT I--A Study of the Upper Mississippi River, September 1980  
GREAT II--A Study of the Upper Mississippi River, December 1980  
GREAT River Resource Management Study, September 1982

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- (3) *Dredged Material Management Plan for Dredged Material Placement, Site Plan for the Buffalo Dredge Cut, Upper Mississippi River Miles 472.0-473.2, March 1998.*
- (4) *Summary of Cumulative Dredging, Dredged Material Placement Actions, and Programmatic Environmental Assessment for Future Dredged Material Placement Associated with Channel Maintenance Activities Mississippi River, River Miles 300-614 and Illinois Waterway, River Miles 80-286, U.S. Army Corps of Engineers Rock Island District, February 2003.* This document provides a summary of past dredging and considers the environmental impacts associated with future dredged material placement sites at the system level.

## **II. ALTERNATIVES INCLUDING THE PROPOSED ALTERNATIVE**

### **A. No-Action Alternative**

Under the No-Action Alternative, there would be limited river access to Buffalo DMMP Site 5, and the site would not be utilized. Other previously used placement sites would be used for dredging as long as capacity allowed. Without access to Buffalo DMMP Site 5, if capacity becomes limited, the District may need to use previously undisturbed bankline or in-water placement areas that may have more aquatic environmental impacts.

### **B. Proposed Alternative**

The Proposed Alternative is to dredge a channel mechanically or hydraulically from main river channel to the bankline adjacent to Buffalo DMMP Site 5, enabling access to the site at all river levels (Photograph 1). Approximately 8,000 cubic yards of material would be moved from the access channel to Buffalo DMMP Site 3 (471.6-472.0R). The access channel would be 100 feet wide and 7 feet deep extending approximately 600 feet out to the navigation channel. Following completion of the access channel, the District would offload construction equipment on shore for dredging operations at Buffalo DMMP Site 5. Minimal tree removal would be required through the riparian zone (Photograph 1) to create a 25-foot-wide by 200-foot-long access corridor (Photograph 2) for construction equipment to reach the Buffalo DMMP Site 5 placement area from shore, as well as create a clearing for return water pipes. Once construction equipment reached the placement area, the District would prepare Buffalo DMMP Site 5 for future hydraulic channel maintenance events including a new fine sediment basin for mechanically dredged fine material. This containment area would create space for the District to dispose of fine material in an upland area. Return water would be routed through three 20-inch pipes from the drop structures at Buffalo DMMP Site 5. Minor excavation is needed to bury pipes and establish proper flow from the drop structures back to the river pipes (Photograph 3).

To identify the alignment that would best avoid and minimize impacts, the District considered a zone containing a variety of access channel alignments to avoid environmentally sensitive areas and reduce dredging requirements (Figure 2). Factors considered included bathymetry, sediment type, and the presence of protected mussel species. Alternative access channel alignments within this zone may be re-considered, fully compliant, and coordinated through the OSIT should issues with the selected alignment arise over the life of the Project. Maintenance dredging may be required throughout the life of the Project for the access channel and would be kept as close to the original access channel as possible.

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**Photograph 1.** Bankline at the Proposed Access Channel



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**Photograph 3.** Example of the Return Water Method to Be Used at Buffalo DMMP Site 5, Using Three 20-inch Diameter Pipes Temporarily Placed in an Excavated Gravity-Flow Ditch

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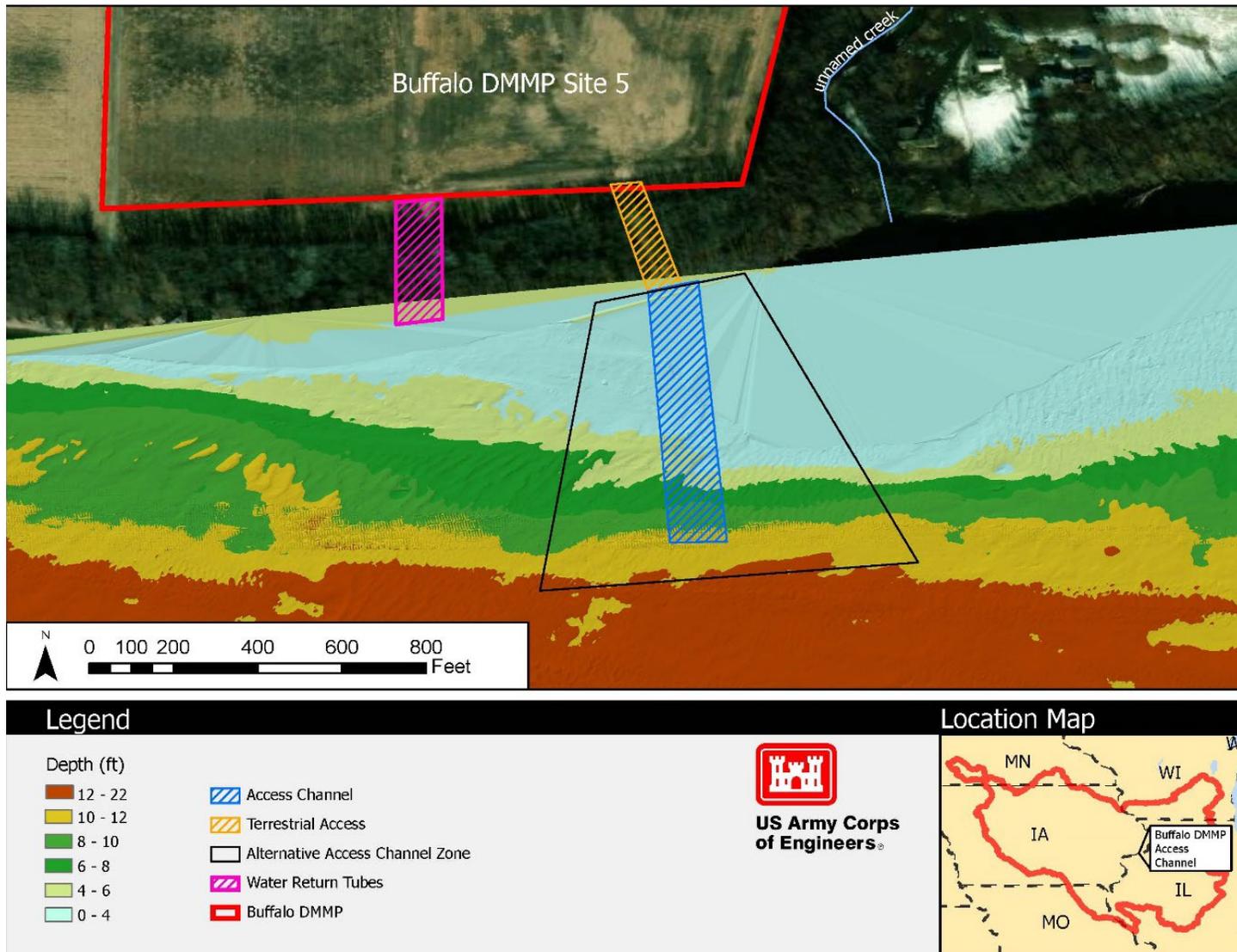


Figure 2. Depth of the Project Area

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**C. Alternative Considered But Not Moved Forward for Analysis**

**Land-based Access Alternative.** Land-based access to the placement site is off two-lane, Iowa Highway 22, near Buffalo, Iowa. There is no turning lane to the placement site entrance. Additionally, there is a small hill that peaks near the placement site entrance making it difficult to see oncoming traffic. These factors create unsafe conditions for crews to access Buffalo DMMP Site 5 by land at the entrance to the placement site. Additionally, there is a double-track railway operated and maintained by Canadian Pacific Railway (CP) near the Highway 22 entrance. The main track is elevated higher than the railroad siding track, creating a stairstep. The District discussed potential modifications to the railroad crossing (U.S. Department of Transportation #607165D). In order to bring the lower rail to the main rail's elevation, the siding track would need to be raised on either side approaching the crossing to reach a safe grade for trains. The length of rail needed to be raised is determined by the grade. A less than 1.5% grade is preferred for freight trains. Due to safety concerns and substantial railroad track renovations, this alternative was not carried forward for further analysis.

**III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

**A. General Setting**

Pool 16 of the UMR extends 25.7 miles from Lock and Dam 16 in Muscatine, Iowa, to Lock and Dam 15 in Rock Island, Illinois. Pool 16 contains 11,630 acres of aquatic habitat and has islands, side channels, and backwaters throughout its length. Unlike many pools, the lower reach of Pool 16 is not an open expanse of water. The Rock River enters the UMR in upper Pool 16 at Rock Island, Illinois. The Habitat Needs Assessment-II (McCain et al 2018) describes the middle reach of the UMR, including Pool 16, as less lentic, more structured channel, reduced water clarity, with less river-floodplain connectivity than the Upper Pools.

The Project area consists of an access channel, terrestrial access corridor, and return water corridor. The access channel would be located in the main channel border, extending from the bankline to the main channel. Structure within main channel border habitat includes woody debris from the nearby shore. Main channel borders provide habitat for aquatic plants, fish, mussels, and other invertebrates. The access corridor bisects the wooded riparian zone between the access channel and Buffalo DMMP Site 5. The return water corridor is located from the drop structure back to the river through the riparian zone.

The Project area is influenced by the delta of an unnamed creek, which flows into the UMR approximately 100 yards upstream of the proposed access channel. The benthic materials are generally medium to fine sand, with gravel and some particulates. A delta sandbar, mixed with fines to large rocks, extends downstream from the confluence of unnamed creek into the upper portion of the Project area (Table 1). The proposed access channel area is shallow under normal flow conditions, gently sloping from the shore toward the main channel (Figure 2).

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**Table 1.** Grain Size Analysis of Sediment Samples (Samples Collected: 01-Sep-21)<sup>1</sup>

Sample Number	Percent Finer by Weight		
	471.15A	471.15B	471.15C
1 1/2"	100.0%	100.0%	100.0%
3/4"	100.0%	100.0%	100.0%
3/8"	98.1%	100.0%	100.0%
#4	89.3%	98.5%	97.3%
#10	84.9%	97.6%	91.4%
#16	83.3%	96.6%	87.1%
#30	72.9%	84.7%	70.7%
#40	51.5%	61.7%	50.6%
#50	22.0%	23.6%	21.0%
#70	5.1%	3.8%	4.5%
#100	1.7%	0.5%	1.5%
#200	0.8%	0.1%	0.6%
CLASSIFICATION	SP, GRAVELLY MEDIUM TO FINE SAND	SP, MEDIUM TO FINE SAND	SP, MEDIUM TO FINE SAND

<sup>1</sup> Visual classification of soil is in accordance with "The Unified Soils Classification System (USCS)". Laboratory testing was performed in accordance with EM 1110-2-1906, dated 30 Nov 70, revised 1 May 80 and 20 Aug 86. All samples were oven dried at 110 degrees centigrade.

**B. Social Effects**

**1. Aesthetic Values.** Aesthetics and visual resources are institutionally important because of the laws and policies affecting visual resources, most notably NEPA and the USACE Engineer Regulation (ER) 1105-2-100, *Planning Guidance Notebook*. Visual resources are technically important because of the high value placed on the preservation of unique geological, botanical, and cultural features. Aesthetic resources are publicly important since environmental organizations and the public support the preservation of naturally pleasing vistas.

The Project is located in the Mississippi River and its floodplain. This area is characterized by a rich heritage based on agrarian history and industrial development. The river has islands and mature forests and abundant wildlife. There are barges and other navigation and shipping elements along the river. Recreational areas such as Buffalo Shores, Clark's Ferry, Lake of the Hills, West Park Lake, and Wildcat Den State Park, are located near the area. Other recreational areas include Loud Thunder Forest Preserve, and Andalusia Island. Pine Creek Grist Mill is an historic structure that can be visited by the public. These elements contribute to the Pool 16 aesthetic character.

**No-Action Alternative.** Aesthetics and visual resources would continue to evolve from existing conditions because of both land use trends and natural processes over the course of time. The Mississippi River would continue to naturally change but the landscape would remain ephemeral, and visual resources would continue to be rich with biodiversity.

**Proposed Alternative.** Aesthetics would be temporarily affected by heavy equipment and placement activity. Sand placed on Buffalo DMMP Site 3 would not permanently affect the aesthetics of the beach because sand has been placed there in past dredging events. Tree clearing for the access and return water corridor would allow for more visibility of Buffalo DMMP

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Site 5 from the river. Return water pipes would be buried back to the river from the drop structure. Other aesthetics of the site would return once channel maintenance dredging was complete. The recreational beach at Buffalo DMMP Site 3 would be expended with dredged material but other recreational areas, forest preserves, and historic structures would all remain unchanged after the Proposed Alternative.

**2. Business and Home Relocations.** There are no privately-owned commercial or residential plots, a tract or small piece of land as part of a larger piece of land, at Buffalo DMMP Site 3 or 5. There is one USACE cottage lease near the proposed Project site. This lease is on federally-owned land with a privately built structure.

**No-Action Alternative.** Under the No-Action Alternative, there would be no relocations of businesses or homes.

**Proposed Alternative.** The Proposed Alternative would have no effect on home and business locations in the area. The cottage near the proposed Project site would not be affected by Proposed Alternative.

**3. Community Cohesion (Sense of Unity).** The nearby parks and surrounding neighborhoods have a rich community connection and identity. The housing areas are close to schools, churches, community centers and other small-town amenities. There are opportunities for boating, wildlife observation, photography, plus activities such as swimming, picnicking, fishing, and hunting.

**No-Action Alternative.** Under the No-Action Alternative, there would be no changes in community cohesion from current conditions.

**Proposed Alternative.** The Proposed Alternative would have no adverse effects to community cohesion.

#### **4. Community Growth and Development**

**No-Action Alternative.** Under the No-Action alternative, there would be no changes in community growth and development from current conditions.

**Proposed Alternative.** The Proposed Alternative would have no effects community growth and development.

**5. Existing/Potential Land Use.** Land within the Project area is within the historic floodplain of the UMR. Extensive human activity has manipulated vegetation and land use. The District utilized the National Land Cover Database 2019 to generate land use coverage for this area. Buffalo DMMP Site 5 was used as crop land prior to the District's acquisition for dredged material placement. The District consulted the 1989 Land Use Allocation Plan and the *Mississippi River Master Plan for Resource Management of Pools 11-22 (1989)* to ensure conformity. The District also referred to the current draft of a revised Master Plan which will be published at a future date to ensure the Project remains compliant with forthcoming changes.

**No-Action Alternative.** Under the No-Action Alternative, there would be no changes from current land use conditions.

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**Proposed Alternative.** The Proposed Alternative would have no effect on existing or potential land use or and land management documents.

**6. Noise Levels.** Noise levels within the proposed cuts are similar to that of other UMR reaches. These reaches typically have occasional to frequent commercial and recreational traffic through the navigational channel. Noise levels increase as commercial and recreational watercraft move through the area and decrease as watercraft leave the area. The area experiences higher noise levels during daylight hours while boat traffic is typically higher. In addition to water traffic, train traffic is also a noise contributor. Trains can be moving across the tracks throughout the daytime and nighttime hours.

**No-Action Alternative.** Under the No-Action Alternative, there would be no change in noise from the current condition.

**Proposed Alternative.** Temporary increase in noise levels created during channel excavation and dredged material placement would impact the surrounding area. There are no additional long-term impacts expected.

**7. Recreational Opportunities.** The largest recreational attraction in the area is Buffalo Shores Recreation Area Campground. The recreation area is a twenty-five-acre park located on USACE fee title land with 65 overnight campsites operated by the Scott County Conservation Board. A beach has been created by Buffalo DMMP Site 3 and provides numerous recreational activities including fishing, sunbathing, and swimming. Other recreational activities include pleasure boating, camping, and hunting. In addition, the cottage lease program allows leasees to build structures on federally-owned land providing water front recreational opportunities.

**No-Action Alternative.** Recreation on Buffalo DMMP Site 3 beach would continue. However, because dredged material would continue to be placed on shoreline sites, specifically Buffalo DMMP Site 3, recreational activities are disrupted as dredged material is added to the beach. However, recreational activities return after the placement and reshaping of the beach. Dredged material is placed periodically based on channel maintenance needs at Site 3 and would be coordinated with the OSIT.

**Proposed Alternative.** The Proposed Alternative would add approximately 8000 cubic yards of dredged material from the Buffalo DMMP Site 5 Access Channel to Buffalo DMMP Site 3. Dredged material would continue to be placed periodically based on channel maintenance needs and would be coordinated with the OSIT.

## **C. Economic Effects**

The Project location is in southwest portion of Scott County, Iowa. The closest city is the Village of Buffalo, Iowa. The largest employers in Buffalo are Linwood Mining & Minerals Corporation, river shipping, and retail. The median household income is \$56,250 when compared to Iowa's overall median household income of \$60,523 the household earnings are slightly below average. There are approximately 60 businesses in the Buffalo zip code, comprising of wholesalers, construction contractors, leisure and hospitality, other sales related businesses.

**1. Commercial Navigation.** Pool 16 is the section of the Mississippi River between Lock and Dam 15 in Rock Island, Illinois and Lock and Dam 16 in Muscatine, Iowa. In 2017, Lock and Dam 15 had annual tonnage of 23,268,394. More than 580 facilities ship and receive

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commodities within the Mississippi River 9-foot Channel Navigation Project. Grains (corn and soybeans) dominate traffic; chemicals and related products are the second largest group. A modern 15-barge tow transports the equivalent of 1,050 semi-trucks (26,250 tons, 937,387 bushels of corn, or 240 rail cars). In 2016, the 9-foot channel Project generated an estimated \$2 billion of transportation cost savings compared to its approximately \$246 million operation and maintenance cost (USACE 2018).

**No-Action Alternative.** The No-Action Alternative would result in the access channel not being constructed. Conditions would remain the same with no water access to Buffalo DMMP Site 5 and potential to use new, undisturbed shoreline or in- water placement sites in an emergency event.

**Proposed Alternative.** The Proposed Alternative would provide adequate access to the site for channel maintenance activities, increasing the amount of time the placement site is available for use and providing additional capacity for dredged material in the reach. Additional capacity gives the District dredge material placement flexibility when maintaining the navigation channel.

**2. Employment.** Largest employers in the surrounding area are manufacturing, construction, retail, and education/social services. The unemployment rate is similar to the rest of Scott County and greater Quad Cities Metropolitan Area.

**No-Action Alternative.** Under the No-Action Alternative, there would be no significant changes in employment from current conditions.

**Proposed Alternative.** Under the Proposed Alternative, there would be no significant changes in employment from current conditions.

**3. Property Values.** According the 2019 American Community Survey the median household value in Buffalo \$121,100. The median household value in the greater area of Scott County is \$163,200.

**No-Action Alternative.** Under the No-Action Alternative, there would be no changes in property values from current conditions.

**Proposed Alternative.** The Proposed Alternative would have no effect on property values.

#### 4. Tax Revenue

**No-Action Alternative.** Under the No-Action Alternative, there would be no changes in tax revenue from current conditions.

**Proposed Alternative.** The Proposed Alternative would have no effect on tax revenue.

**5. Transportation.** The Mississippi River Pool 16 is utilized for transportation by commercial and recreational vessels. Transportation near the Project site include State Highway 22 and a railway, both running parallel to the Mississippi River (Figure 1).

**No-Action Alternative.** Under the No-Action Alternative transportation would be unchanged. Highway 22 and the railway would operate unchanged and dredged material

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placement within the reach would continue to focus solely on approved bankline or in-water placement.

**Proposed Alternative.** The Proposed Alternative would temporarily increase traffic of heavy machinery during channel excavation and movement of dredging material. Buffalo DMMP Site 5 would increase capacity in this reach and provide increased placement flexibility to the District. The District will continue to maintain the channel and avoid closures using other dredged material placement sites if Buffalo DMMP Site 5 is unavailable.

**6. Regional Growth.** According to most recent census estimates population in Buffalo is declining in recent years.

**No-Action Alternative.** Under the No-Action Alternative, there would be no significant changes in regional growth from current conditions.

**Proposed Alternative.** The Proposed Alternative would have no significant effect on regional growth. Population would decline or remain stable independent of the Proposed Alternative.

#### **D. Natural Resource Effects**

**1. Aquatic Habitat.** The Upper Mississippi River Conservation Committee (Schlesser 2020) described the area between the main channel and the shoreline as main channel border habitat. This classification included all areas where wing dikes occur along the main channel. The aquatic habitat of the Project area is typical of main channel border habitat in this reach.

**No-Action Alternative.** The No-Action Alternative would result in continued use of existing bankline placement sites from the original Buffalo DMMP Environmental Assessment and not constructing Buffalo DMMP Site 5.

**Proposed Alternative.** Fish and wildlife species would be disrupted temporarily due to construction, but impacts are expected to be minimal. The proposed Project would result in the permanent loss of approximately 1.38 acres of river bottom habitat by the creation of the access channel. This area would alter the use of this area by mussels and other bottom-dwelling and benthic creatures currently using the area for feeding, reproduction, and other life requisites. The access channel may alter flow pattern within the Project footprint; however, no significant changes are expected. The access channel may fill back in or create swirling downstream. The access channel may not be the right habitat for species to reinhabit the dredged location.

**2. Air Quality.** The U.S. Environmental Protection Agency (USEPA) classifies Scott County, Iowa as an attainment area for each of the six air contaminants and therefore, is not a region of impaired ambient air quality. This designation means the Project area has relatively few air pollution sources of concern (USEPA 2021a).

**No-Action Alternative.** Under the No-Action Alternative no change to air quality is anticipated.

**Proposed Alternative.** The proposed Project would have negligible effects to air quality, either short term or long term. Any impacts from diesel or gas exhaust would be below any ambient air quality standards in the Project area. The District would take reasonable precautions

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to prevent the discharge of visible emissions of fugitive dusts beyond the Project area (567 Iowa Administrative Code 23.3(2)(c)).

**3. Aquatic Resources/Wetlands.** The river is the main aquatic habitat in the area. Aside from the river, there are no wetlands in the project area.

**No-Action Alternative.** Under the No-Action Alternative, there would be no change in wetlands.

**Proposed Alternative.** Dredged material from the Buffalo DMMP Site 5 Access Channel would be mechanically or hydraulically dredged and placed at Buffalo DMMP Site 3. Placement sites are documented in the District's 404(b)(1) Evaluation, titled *Maintenance Dredging of the 9-Foot Channel Navigation Project, Upper Mississippi River, River Miles 300.0 – 614.0* (USACE 2014). There would be no changes to wetland resources. For any temporary impacts to wetlands, the District would return most of these areas to pre-Project conditions. The return water corridor would have pipes installed. However, the surface would be as close to pre-project conditions as possible. The District would follow OSIT procedures for coordination of the placement site. A State of Iowa section 401 Water Quality Certification would be obtained prior to implementation of the Proposed Alternative for this Project. The Project would be in full compliance with the CWA prior to implementation.

**4. Bald and Golden Eagles.** The District had an internal site visit May 17, 2021. During the site visit there were no bald or golden eagle nests observed.

**No-Action Alternative.** Under the No-Action Alternative, there would be no change to bald or golden eagles.

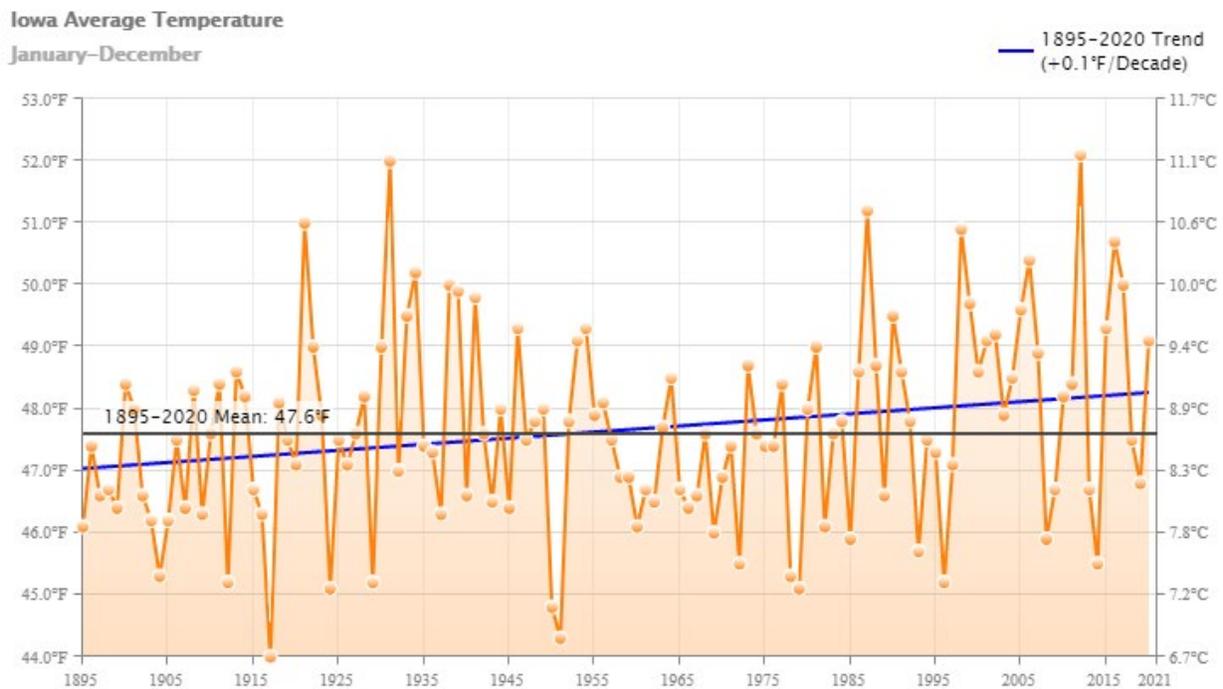
**Proposed Alternative.** Under the Proposed Alternative, the District determined there would be no change for bald or golden eagles.

**5. Climate Change.** Executive Order (EO) 13653, *Preparing the United States for the Impacts of Climate Change* (November 1, 2013). This EO directs Federal agencies to conduct their environmental, transportation and energy-related activities in an environmentally, economically, and fiscally sound and sustainable manner. The District strives to protect, sustain, and improve the natural and man-made environment of the Nation, and is committed to compliance with applicable environmental and energy statutes, regulations, and EOs. Sustainability is an overarching concept encompasses energy, climate change, and the environment to ensure Federal activities do not negatively impact resources for future generations. Proposed alternative plans must provide for sustainable solutions addressing both short- and long-term environmental as well as social and economic considerations.

Many scientists believe greenhouse gases (GHGs) are components of the atmosphere trapping heat relatively near the surface of the earth and contribute to the greenhouse effect (or heat-trapping) and climate change. Most GHGs occur naturally in the atmosphere from natural processes and events but increases in their concentration result from human activities such as burning fossil fuels. Several studies conclude global temperatures are expected to continue to rise as human activities continue to add carbon dioxide (CO<sub>2</sub>), methane, nitrous oxides, and other GHGs to the atmosphere. Whether rainfall increases or decreases remains difficult to Project for specific regions.

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Climate change impacts within the Project area would likely involve increased temperatures (Figure 3) and increased precipitation (Figure 4) leading to further altered (flashier) hydrologic conditions. Any changes in hydrologic conditions occurring within the basin would likely result from less frequent but more intense warm-weather precipitation events, moderately to severely reduced summer flow conditions and degraded water quality, less winter ice cover and more cold-weather erosion events. The character of riparian habitats may also change, and invasive species may move into the area with changing climate (Pryor et al. 2014). Extreme rainfall events and flooding have increased during the last century and these trends are expected to continue, causing erosion, declining water quality, and negative impacts on transportation, agriculture, human health, and infrastructure. The range and distribution of fish and other aquatic species would likely change, and an increase in invasive species would also likely occur (Pryor et al. 2014).



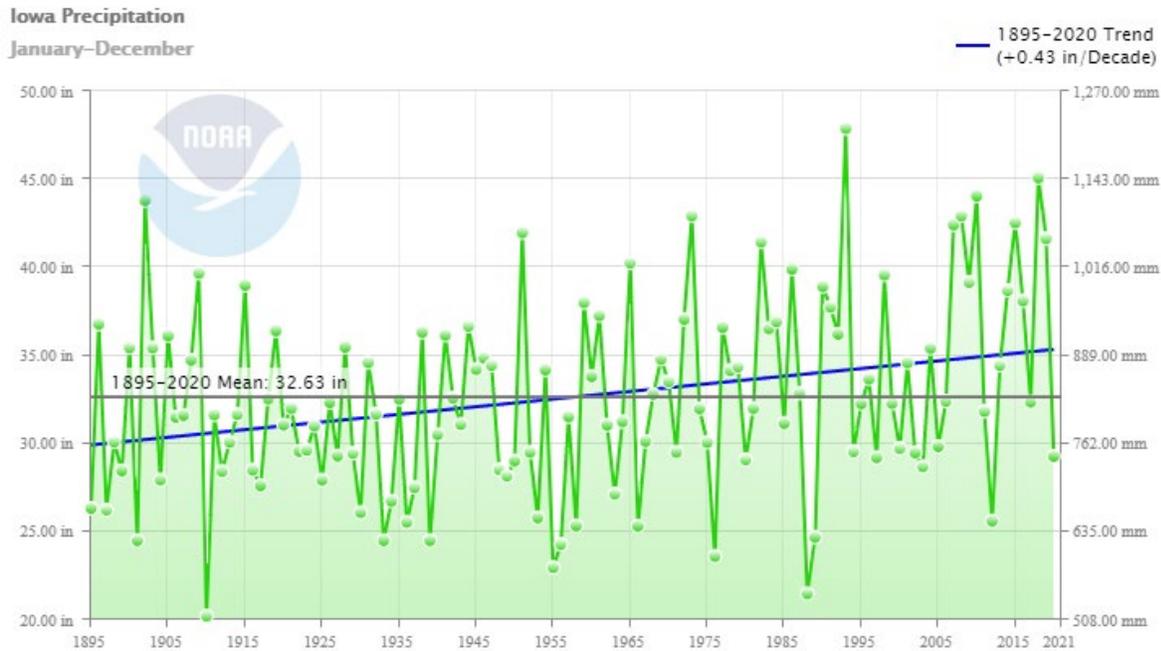
**Figure 3.** Temperatures Rising in Iowa

Annual average temperatures (orange line) across Iowa show a trend towards increasing temperature.

The trend (heavy blue line) calculated over the period 1895-2020 is equal to an increase of 3°F. (NOAA National Centers for Environmental information, Climate at a Glance: Statewide Time Series, published August 2021, retrieved on August 17, 2021, from <https://www.ncdc.noaa.gov/cag/>)

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**Figure 4.** Statewide Average Annual Precipitation for Iowa from 1895 to 2021

The green line shows the year-to-year variability. The blue line is a linear trend showing an increase of 2.95 inches over the past century. Source: NOAA National Centers for Environmental information, Climate at a Glance: Statewide Time Series, published August 2021, retrieved on August 17, 2021, from <https://www.ncdc.noaa.gov/cag/>

In the next few decades, it is expected longer growing seasons and rising CO<sub>2</sub> levels would increase yields of some crops, though such benefits may be progressively offset by extreme weather events. Though adaptation options can reduce some of the detrimental effects, in the long-term, the combined stresses associated with climate change are expected to decrease agricultural productivity (Pryor et al., 2014).

**No-Action Alternative.** Under the No-Action Alternative, there would be no significant impacts based on climate change or contribute to regional climate change impacts.

**Proposed Alternative.** Under the Proposed Alternative, there would be no significant impacts based on climate change or contribute to regional climate change impacts. There would not be an increase in navigation traffic due to the proposed Project.

**6. Environmental Justice.** Environmental Justice is institutionally significant because of EO 12898, *Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations* of 1994 and Department of Defense’s Strategy on Environmental Justice of 1995, which directs Federal agencies to identify and address any disproportionately high adverse human health or environmental effects of Federal actions to minority and/or low-income populations. Within the surrounding area, minorities account for 4 percent of the population and low-income populations account for 18 percent compared to 14 and 29 percent respectively for the state of Iowa (USEPA 2021b).

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**No-Action Alternative.** Under the No-Action Alternative, there are no concerns with environmental justice.

**Proposed Alternative.** The Project would not displace or have any adverse impacts related to environmental justice as the action would not disproportionately impact any individuals of a particular social or economic status. Under the Proposed Alternative, there are no concerns with environmental justice.

**7. Groundwater.** Groundwater in Scott County largely comes from Silurian-Devonian Aquifer.

**No-Action Alternative.** Under the No-Action Alternative no changes to groundwater are anticipated.

**Proposed Alternative.** Under the Proposed Alternative no changes to groundwater are anticipated.

**8. Invasive Species.** There are invasive plants, fish, and animals in the Project area including zebra mussels, Silver Carp, Bighead Carp, and reed canary grass. These invasive species are common throughout this reach of the river.

**No-Action Alternative.** Though navigation on the Upper Mississippi River has affected the spread of some species, no invasive species would spread as a result of the No-Action Alternative.

**Proposed Alternative.** The proposed Project would not authorize or carry out any actions likely to promote invasive species proliferation. Any subsequent occurrence of any invasive species in the Project area should not solely be the result of the implementation of this Project.

**9. Migratory Birds.** The District accessed the United States Fish and Wildlife Service's (USFWS's), IPaC website (<https://ecos.fws.gov/ipac/>) on January 14, 2022, for a list of migratory birds of concern. The overall goal of the Birds of Conservation Concern is to accurately identify the migratory and non-migratory bird species, beyond those already designated as federally-threatened or endangered, that represent the USFWS's highest conservation priorities. The USFWS identified five birds of conservation concern (Table 2). The Migratory Bird Resource list includes only a subset of birds that may occur in the Project area. It is not representative of all birds that may occur in the Project area, only a subset of birds of priority concern. In addition to bird species of concern, there are hundreds of bird species utilizing the Project area. These include ducks, shorebirds, passerines, and other types of birds.

**Table 2.** Bird Species of Conservation Concern

Species	Scientific Name	Probable Project Area Use
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Nesting, foraging for fish
Kentucky Warbler	<i>Oporornis formosus</i>	Nesting
Red-headed	<i>Melanerpes erythrocephalus</i>	Nesting
Rusty Blackbird	<i>Euphagus carolinus</i>	Migration
Wood Thrush	<i>Hylocichla mustelina</i>	Nesting

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**No-Action Alternative.** Under the No-Action Alternative, there would be no change in migratory birds.

**Proposed Alternative.** Under the Proposed Alternative, the District would remove trees prior to nesting and no impact to migratory species is anticipated.

**10. Soils.** Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. A USDA-Soil Conservation Service Form (AD- 1006), Farmland Conversion Impact Rating, was completed for the original EA (USACE 1998) indicating 16.3 acres of prime farmland was converted to non-agricultural use in the development of Buffalo DMMP Site 5.

**No-Action Alternative.** No-Action Alternative would have no additional impact on prime farmland.

**Proposed Alternative.** The Proposed Alternative would have no additional impact on prime farmland.

**11. Surface Water Quality.** The Iowa and Illinois Departments of Natural Resources (DNR) manage water quality through the implementation of the states' Water Quality Standards. The Iowa DNR designated the reach that includes the Project area as: "A1" primary contact recreation uses, "B(WW-1)" wildlife and aquatic life uses warm water and "HH" human health (Iowa DNR 2019).

**No-Action Alternative.** Under the No-Action Alternative no significant change to water surface quality is anticipated.

**Proposed Alternative.** Under the Proposed Alternative no significant change to water surface quality is anticipated.

**12. Terrestrial Habitat.** The bankline is covered in riparian vegetation. The riparian zone is composed of scrub-shrubs and broad-leaved deciduous trees.

**No-Action Alternative.** Under the No-Action Alternative, there would be no change in how terrestrial habitat is managed. If the site can't be used for dredged material placement due to inaccessibility, the District may consider disposing of the property or allowing the property to become a more natural setting.

**Proposed Alternative.** Vegetation would need to be cleared from approximately 0.5 acres to provide corridors for access to the Buffalo DMMP site 5. Access and return water corridors would be used to go into and out of the site. The return water corridor would be modified to allow gravity-flow to move water from Buffalo DMMP Site 5 back to the river.

**13. Threatened or Endangered Species.** The District accessed the USFWS', IPaC website (<https://ecos.fws.gov/ipac/>) on January 14, 2022 (Appendix A, *Coordination*), to obtain a list of the federally-listed threatened and endangered species potentially found in the Project area (Table 3). The OSIT visited Buffalo DMMP Site 5 on July 17, 2019, where the Project Area was assessed and the OSIT recommended aquatic survey of the access channel for mussel species. A mussel survey was completed on August 3, 2021. The mussel survey found the federally-endangered sheepsnose mussel. State endangered mussel species were also

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observed in the mussel survey. A full list of Iowa threatened and endangered species can be found at <https://www.iowadnr.gov/Conservation/lowas-Wildlife/Threatened-and-Endangered>.

In addition to the species listed in Table 3, the District noted a portion of the Project Area overlaps with a Rusty Patched Bumble Bee (*Bombus affinis*) Low Potential Zone (Figure 5). While the USFWS considers Low Potential Zones important for conservation actions and additional survey effort, Section 7 consultation and Incidental Take Permits are not needed in these areas (per <https://www.fws.gov/midwest/endangered/insects/rpbb/rpbbmap.html>). The Project Area's riparian zone contains frequently inundated bottomland hardwood habitat, not suitable for overwintering queen rusty patched bumble bees as they prefer upland forests and woodlands. The Buffalo DMMP Site 5 placement area is an old field, primarily vegetated by a mix of native and nonnative grasses and pioneer species, such as wild carrot, New England aster, thistles, and goldenrods. The District would use the Buffalo DMMP Site 5 placement area and access corridor minimally every 3-5 years, causing new disturbance each time and preventing the site from progressing to later stages of succession. Therefore, the District believes the Project Area does not contain suitable habitat for rusty patched bumble bees.

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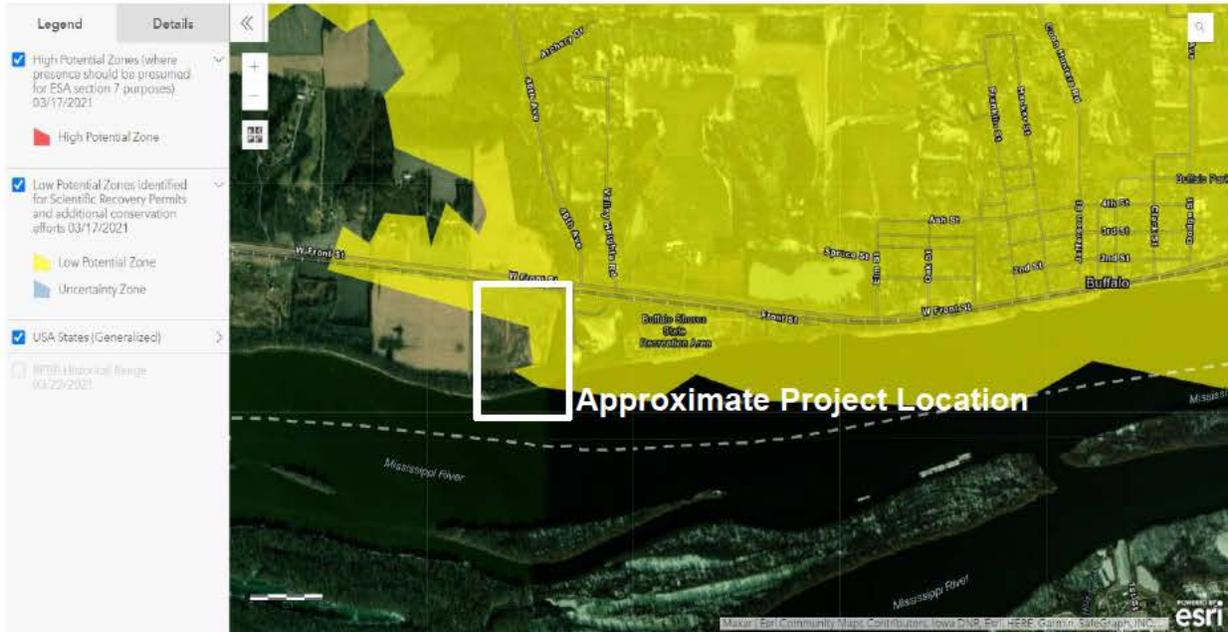
**Table 3. Federally-Listed Species**

Species	Scientific Name	Status	Habitat
Indiana bat	<i>Myotis sodalis</i>	Endangered	Caves, mines (hibernacula); small stream corridors with well-developed riparian woods; upland forests (foraging).
Northern long-eared bat	<i>Myotis septentrionalis</i>	Threatened	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests during late spring and summer.
Higgins eye pearl mussel	<i>Lampsilis higginsii</i>	Endangered	Larger rivers where it is usually found in deep water with moderate currents and sand or gravel substrate.
Sheepnose Mussel	<i>Plethobasus cyphus</i>	Endangered	Shallow areas in larger rivers and streams.
Spectaclecase	<i>Cumberlandia monodonta</i>	Endangered	Large rivers in areas sheltered from the main force of the current.
Monarch Butterfly	<i>Danaus plexippus</i>	Candidate	Open fields and meadows with milkweed and blooming native plants in the spring and summer.
Eastern Massasauga (rattlesnake)	<i>Sistrurus catenatus</i>	Threatened	Wet areas including wet prairies, marshes and low areas along rivers and lakes. Massasauga use adjacent uplands during part of the year and often hibernate in crayfish burrows but may also be found under logs, tree roots, or in small mammal burrows.
Prairie bush clover	<i>Lespedeza leptostachya</i>	Threatened	Dry to mesic prairies with gravelly soil
Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	Threatened	Mesic to wet prairies
Western prairie fringed orchid	<i>Platanthera praeclara</i>	Threatened	Wet prairies and sedge meadows.
Rusty-patched bumble bee	<i>Bombus affinis</i>	Endangered	Upland forests and woodlands

Source: <https://ecos.fws.gov/ipac/> Dated January 14, 2022

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**Figure 5. Rusty Patched Bumble Bee Dispersal Map Showing Project Area Overlap with a Low Potential Zone (Yellow)**

This Project does not contain suitable habitat for the following species:

- eastern massasauga,
- spectaclecase,
- prairie bush clover,
- eastern prairie fringed orchid,
- western prairie fringed orchid, and
- rusty-patched bumble bee

Suitable summer habitat for Indiana bats and northern long-eared bats consists of forested or wooded habitats where they roost, forage, and travel. Roosting habitat includes forests and woodlots containing trees greater than 3 inches diameter at breast height (dbh) with exfoliating bark, cracks, or crevices. Trees ranged in age, size, and condition, including several exceeding 10 inches dbh with limited loose, flaky bark.

A designated higgins eye pearl mussel (*Lampsilis higginsii*) Essential Habitat Area (EHA) is located approximately 0.3 river miles downstream from the Project area, between RM 470-471R. Monitoring events over the past two decades have resulted in the collection of 28 species, including higgins eye pearl mussel and sheepsnose mussel (Environmental Solutions & Innovations, Inc. 2019). Additionally, Andalusia Slough, separated from the Project area by Andalusia Island and the main channel, has historically been known to harbor a diverse mussel bed, including federally-listed species.

The mussel community in the Project area consists of 19 species. (Table 4). The site was surveyed in August 2021 (EnviroScience 2021), divers conducted semi-quantitative sampling using five-minute searches spaced at 10-meter intervals along five transects. At each 10-meter

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interval, the diver collected all mussels within 1 meter of the transect line. An additional 50 points were sampled quantitatively in whole substrate quadrats completed in and around the proposed footprint of the Project area.

**Table 4.** Summary of Mussels Collected in the Vicinity of the Buffalo DMMP Access Channel Survey Area in Pool 16 of the Upper Mississippi River, 2021

Common Name	Species	Total	Overall Relative Abundance
Mucket	<i>Actinonaias ligamentina</i>	1	0.2
Threeridge	<i>Amblema plicata</i>	62	9.7
Wartyback	<i>Cyclonaias nodulata</i>	WD	0.0
Pimpleback	<i>Cyclonaias pustulosa</i>	171	26.8
Butterfly**	<i>Ellipsaria lineolata</i>	17	2.7
Wabash Pigtoe	<i>Fusconaia flava</i>	50	7.8
Plain Pocketbook	<i>Lampsilis cardium</i>	30	4.7
White Heelsplitter	<i>Lasmigona complanata</i>	4	0.6
Black Sandshell	<i>Ligumia recta</i>	13	2.0
Washboard	<i>Megalonaias nervosa</i>	2	0.3
Threehorn Wartyback	<i>Obliquaria reflexa</i>	97	15.2
Hickorynut	<i>Obovaria olivaria</i>	29	4.5
Sheepnose*	<i>Plethobasus cyphus</i>	1	0.2
Round Pigtoe	<i>Pleurobema sintoxia</i>	3	0.5
Pink Heelsplitter	<i>Potamilus alatus</i>	FD	0.0
Pink Papershell	<i>Potamilus ohioensis</i>	5	0.8
Giant Floater	<i>Pyganodon grandis</i>	1	0.2
Mapleleaf	<i>Quadrula quadrula</i>	30	4.7
Creeper	<i>Strophitus undulatus</i>	1	0.2
Monkeyface	<i>Theliderma metanevra</i>	119	18.7
Fawnsfoot	<i>Truncilla donaciformis</i>	WD	0.0
Deertoe	<i>Truncilla truncata</i>	2	0.3
<b>Total Live</b>		<b>638</b>	
<b>Total Species (live)</b>		<b>19</b>	

WD = weathered shell; FD = fresh shell

\*Federally-listed species

\*\*State-listed species

**No-Action Alternative.** The No-Action Alternative would have no effect on threatened or endangered species.

**Proposed Alternative.** The USFWS has not designated Critical Habitat in Scott County, Iowa for any of the species in Table 3; therefore, the District determined there would be **No Effect** to Critical Habitat. Although the District does not believe suitable habitat would develop in the Project Area, as the USFWS records new rusty patched bumble bee occurrences and redraws High Potential Zones, the District would continue to evaluate the Project Area for suitable habitat and coordinate with the USFWS as needed. As stated above, the Project area does not contain suitable habitat for eastern massasauga, spectacleglacier, prairie bush clover, eastern

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prairie fringed orchid, western prairie fringed orchid, and rusty-patched bumble bees therefore, the District determined the Project would have **No Effect** on these species.

The District would remove approximately 24 trees from a 25-foot wide by 200-foot long corridor through the riparian zone for construction equipment to access Buffalo DMMP Site 5 for moving dredge material and placing dredge equipment on the site. Trees located in the equipment access and return water pipe corridors ranged in age, size, and condition, including several exceeding 10 inches dbh with limited loose, flaky bark. Due to the variety in age, size, and condition, as well as extensive suitable habitat in proximity to the Project Area, the District determined the proposed project **May Affect but Not Likely to Adversely Affect** Indiana bat and northern long-eared bat. The District would only clear trees from October 1–March 31 to avoid impacts while Indiana and northern long-eared bats may be roosting in the area.

The Proposed Alternative **May Affect and is Likely to Adversely Affect** sheepnose and higgins eye pearlymussel. To minimize the effect, the District chose a channel alignment to avoid mussel beds. Due to the expected effect on sheepnose and higgins eye pearlymussel, the District prepared a Biological Assessment (BA) on November 19, 2021, to be compliant under Section 7 of the Endangered Species Act. Compliance was completed on January 28, 2022, after receiving the Final Biological Opinion from USFWS. The District would coordinate with the USFWS and the OSIT prior to access dredging to provide notification of the action. Direct effects anticipated as a result of access dredging include suitable habitat loss, and injury or death if sheepnose or higgins eye pearlymussel reside in the access channel path. The following reasonable and prudent measures are necessary to minimize the effects of the Project on the sheepnose and higgins eye pearlymussels:

1. Coordinate with the OSIT prior to each maintenance dredging event within the access channel.
2. Conduct maintenance dredging of the access channel at a minimum frequency of once every five years or less, unless otherwise coordinated with the Service.
3. Collect accurate GPS locations denoting the access channel borders to be used during future access channel maintenance events in order to prevent changes in the access channel alignment between uses.
4. Coordinate all subsequent access dredging events with the OSIT, including Service and State partners, regardless of dredging frequency.
5. Monitor the Buffalo DMMP Site 3 bankline dredged material placement site capacity and initiate coordination with the Service and OSIT should the site approach capacity limitations.

**14. Water Supply.** Most local communities rely upon the Mississippi River for their source of water for drinking, agriculture, and industry.

**No-Action Alternative.** Under the No-Action Alternative no change to water supply is anticipated.

**Proposed Alternative.** Under the Proposed Alternative no change to water supply is anticipated.

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**E. Cultural Resource Effects.** The Area of Potential Effect (APE) is the footprint of proposed access channel to Buffalo DMMP Site 5 and associated access, return water, and staging areas for the pipe access.

**No-Action Alternative.** No historic properties would be affected by the No-Action Alternative.

**Proposed Alternative.** Project features include dredging of the access channel to Buffalo DMMP Site 5, dredged material placement by pump and pipe or mechanical placement to Buffalo DMMP Site 3, and machinery access and staging areas for pipe placement. Impacts associated with Project features include ground disturbance from dredging, dredged material placement, and staging and access to pipe placement. The APE is the footprint of proposed access channel to Buffalo DMMP Site 5 and associated access, return water and staging areas for the pipe access.

The District conducted an archival search for historic properties following Dredging Guidance Letter 89-01 *Policy and Procedures for the Conduct of Underwater Historic Resource Surveys for Maintenance Dredging and U.S. Army Corps of Engineers Activities*, March 1989. The District queried the most updated Iowa Geographic Information Systems site file database and reviewed the report entitled *An Investigation of the Submerged Historic Properties in the Upper Mississippi River and Illinois Waterway*, dated October 1997 (Contract Number DACW25-93-D-0-012, Order No. 27). No submerged historic properties were identified in the APE.

The District consulted with the Iowa archeological site geographic information systems database and determined that there are no previously recorded sites documented in the Project APE. The District had conducted archeological survey in support of the original DMMP Project as documented by correspondence in Appendix A (R&C#19950982007). Cottage sites of recent age were discovered, documented, and determined to be ineligible for the National Register of Historic Places. In addition, one previously recorded site is located nearby but outside of the original APE but could not be relocated by the 1997 field investigation. The District coordinated a determination of No Adverse Effect based on avoidance measures. The State Historical Society of Iowa (SHSI) concurred with that determination by letter dated March 12, 1997, and stamped concurrence on the public notice dated June 21, 1999.

The access channel segment of the APE has been subjected to extensive past disturbance from inundation and active erosion and sedimentation. The absence of previously recorded shipwrecks at this location in addition to the past disturbance suggest there is low potential for intact cultural resources within the proposed access channel. Therefore, it is the District's opinion that this portion of the undertaking would have No Effect on historic properties within the APE in accordance with 36 CFR 800.4(d)(1). The overland portion of the access to Buffalo DMMP Site 5 and the return water location is confined to near surface impacts within previously surveyed areas. It is the District's opinion that past survey adequately evaluated this portion of the APE and that no historic properties would be affected by overland access to Buffalo DMMP Site 5 or the return water activity.

The Proposed Alternative would have No Effect to historic properties within the APE as determined through consultation with interested parties in accordance with 36 CFR 800.4(d)(1) of the Federal regulations implementing the National Historic Preservation Act of 1966, as

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amended. This determination was provided to relevant federally-recognized tribes and the SHSI for review and comment by letter dated 28 September 2021. The SHSI replied by stamped concurrence via e-mail dated 30 September 2021. No other comments were received. Consultation is fully documented in Appendix A.

#### **F. Hazardous, Toxic and Radioactive Waste (HTRW)**

The Study Area of Interest (Project Area) is located in Scott County, Iowa. The Study Area encompasses the Mississippi River main channel border and Iowa shoreline. Per the ER 1165-2-132, *Hazardous, Toxic, and Radioactive Waste*, includes any material listed as a “hazardous substance” under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601 et seq (CERCLA). [See 42 U.S.C. 9601(14).]

Hazardous substances regulated under CERCLA include “hazardous wastes” under Sec. 3001 of the Resource Conservation and Recovery Act, 42 U.S.C. 6921 et seq; “hazardous substances” identified under Section 311 of the Clean Air Act, 33 U.S.C. 1321, “toxic pollutants” designated under Section 307 of the Clean Water Act, 33 U.S.C. 1317, “hazardous air pollutants” designated under Section 112 of the Clean Air Act, 42 U.S.C. 7412; and “imminently hazardous chemical substances or mixtures” on which the U. S. Environmental Protection Agency (USEPA) has taken action under Section 7 of the Toxic Substance Control Act, 15 U.S.C. 2606; these do not include petroleum or natural gas unless already included in the above categories. Dredged material and sediments beneath waters proposed for dredging qualify as HTRW only if they are within the boundaries of a site designated by the USEPA or a state for a response action (either a removal action or a remedial action) under CERCLA, or if they are a part of a National Priority List site under CERCLA.

The District conducted grain size analyses from several core samples collected within the Project area on September 1, 2021. Dredged or fill material is most likely to be free from chemical, biological, or other pollutants where it is composed primarily of sand, gravel, or other naturally occurring inert material. The Buffalo DMMP Site 5 access samples were homogenous medium- to fine-grain sand and samples did not exhibit any characteristic HTRW concerns (Table 1). Based on these results, no further testing is warranted for these sites.

#### **G. Irreversible and Irrecoverable Commitment of Resources**

Fuels, materials, and various forms of energy would be utilized during the dredging activities.

#### **H. Probable Adverse Effects Which Cannot Be Avoided**

The loss of some benthic organisms currently inhabiting the Project area is an unavoidable adverse effect of the Proposed Alternative. Following dredging activities, benthic organisms should rapidly recolonize the navigation channel area.

If the District constructs the access channel the approximately one acre of main channel habitat would be temporarily disrupted. The District anticipates these impacts would be insignificant.

#### **I. Relationship Between Short-Term Use and Long-Term Productivity**

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Dredging activities would temporarily disrupt wildlife and human use of the Project area. Negative long-term impacts are expected to be minimal on all ecosystems associated with this Project. Benefits from the Project would be derived by maintaining the navigation channel to reduce shipping delays on the entire river system.

There are no other reasonably foreseeable impacts anticipated beyond what is described in this SEA.

**IV. COMPLIANCE WITH APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS**

Tabular summation of compliance can be found in Table 5.

**Table 5. Relationship of Plans to Environmental Protection Statures and Other Environmental Requirements**

<b>Federal Policies</b>	<b>Status</b>
Archaeological and Historic Preservation Act	Full Compliance
Bald and Golden Eagle Protection Act	Full Compliance
Clean Air Act	Full Compliance
Clean Water Act	Full Compliance
Endangered Species Act	Full Compliance
Executive Order 11988, Floodplain Management,	Full Compliance
Executive Order 11990, Protection of Wetlands	Full Compliance
Executive Order 12898, Environmental Justice	Full Compliance
Executive Order 13112 Invasive Species and Executive Order 13751 Safeguarding the Nation from the Impacts of Invasive Species	Full Compliance
Executive Order 13653, Preparing the United States for the Impacts of Climate Change	Full Compliance
Farmland Protection Act	Full Compliance
Fish and Wildlife Coordination Act	Full Compliance
Migratory Bird Treaty Act	Full Compliance
National Environmental Policy Act	Full Compliance
National Historic Preservation Act	Full Compliance
River and Harbors Act, 33 U.S.C. 403, et seq.	Full Compliance
Wild and Scenic Rivers Act, 16 U.S.C. 1271, et seq.	Not Applicable
Analysis of Impacts on Prime and Unique Farmland (CEQ Memorandum, 11 Aug 80)	Full Compliance
Corps of Engineers Planning Guidance Handbook (ER 1105-2-100)	Full Compliance

Full Compliance - Having met all requirements for the current stage of planning

**A. FEDERAL LAWS**

**National Environmental Policy Act.** This SEA and a signed FONSI would fulfill NEPA compliance.

**Endangered Species Act.** The USFWS Biological Opinion January 28, 2022, outlines the specific steps necessary to protect federally-listed species affected by the Project. The District

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would implement all reasonable and prudent measures to achieve full compliance with the Endangered Species Act.

**Clean Water Act.** Dredged material from the Buffalo DMMP Site 5 Access Channel would be mechanically or hydraulically dredged and placed at Buffalo DMMP Site 3. The Buffalo DMMP Site 3 is documented in the District's 404(b)(1) Evaluation, titled *Maintenance Dredging of the 9-Foot Channel Navigation Project, Upper Mississippi River, River Miles 300.0 – 614.0* (USACE, 2014). This 404(b)(1) evaluation went out for a 30-day joint public notice on November 6, 2014. A State of Iowa section 401 Water Quality Certification would be obtained prior to implementation of the Proposed Alternative for this Project. The District would follow OSIT procedures for coordination of the placement site. The Project would be in full compliance with the CWA prior to implementation.

**Fish and Wildlife Coordination Act.** Project plans have been coordinated with the U.S. Fish and Wildlife Service and the Iowa Department of Natural Resources. The Project will be in full compliance with the Fish and Wildlife Coordination Act before this Supplemental Environmental Assessment's FONSI is signed.

**National Historic Preservation Act.** The Area of Potential Effect (APE) is the footprint of proposed access channel to Buffalo DMMP Site 5 and associated access, return water and staging areas for the pipe access. The Proposed Alternative would have No Effect to historic properties within the APE as determined through consultation with interested parties in accordance with 36 CFR 800.4(d)(1) of the Federal regulations implementing the National Historic Preservation Act of 1966, as amended. This determination was provided to relevant federally-recognized tribes and the SHSI for review and comment by letter dated 28 September 2021. The SHSI replied by stamped concurrence via e-mail dated 30 September 2021. No other comments were received. Consultation is fully documented in Appendix A.

If this Project uncovers an item or items which might be of archaeological, historical, or architectural interest, or if important data come to light in the Project area, the District would ensure that reasonable efforts to avoid or minimize harm to the property are made until the significance of the discovery can be determined as required in 36 CFR 800.13. The Project is in full compliance with the National Historic Preservation Act.

## **B. EXECUTIVE ORDERS**

**EO 11988, Floodplain Management, May 24, 1977.** Implementation of the Proposed Alternative would avoid, to the extent possible, long- and short-term adverse impacts associated with the occupancy and modification of the base floodplain and avoids direct and indirect support of development or growth (construction of structures and/or facilities, habitable or otherwise) in the base floodplain wherever there is a practicable alternative.

**EO 11990, Protection of Wetlands, May 24, 1996.** This EO directs Federal agencies to avoid adverse impacts to wetlands, both short- and long-term, associated with modifying or destroying wetlands and to avoid construction in wetlands, where there is a practicable alternative. As previously described in the 1997 EA, there would be no impacts to wetlands. The Project is in full compliance with EO 11990.

*Supplemental Environmental Assessment*

**V. AGENCY COORDINATION AND PUBLIC COMMENTS**

Agencies, government entities, and tribal groups contacted or contributing to the development of the SEA or consulted during its preparation include the following:

U.S. Fish and Wildlife Service  
US Environmental Protection Agency  
Federal Emergency Management Agency  
US Coast Guard  
US Maritime Administration  
Iowa Department of Natural Resources  
Iowa State Historic Preservation Office  
Illinois Department of Natural Resources  
Citizen Potawatomi Nation  
Forest County Potawatomi Community  
Ho-Chunk Nation  
Iowa Tribe of Kansas and Nebraska  
Iowa Tribe of Oklahoma  
Kaw Nation  
Kickapoo Tribe in Kansas  
Kickapoo Tribe of Oklahoma  
Menominee Indian Tribe of Wisconsin  
Meskwaki Nation  
Miami Tribe of Oklahoma  
Omaha Tribe of Nebraska  
Osage Nation  
Otoe-Missouria Tribe  
Peoria Tribe of Indians of Oklahoma  
Ponca Nation  
Ponca Tribe of Nebraska  
Prairie Band Potawatomi Nation  
Sac & Fox Nation of Missouri in Kansas & Nebraska  
Sac and Fox Nation of Oklahoma  
Upper Sioux Community, Minnesota  
Winnebago Tribe of Nebraska  
Upper Mississippi River Basin Association,  
River Industry Action Committee

Correspondence can be found in Appendix A, *Pertinent Correspondence*

A complete list of parties is located in Appendix B, *Distribution List*

The Iowa State Historic Preservation Office responded to the District's coordination with a stamp of concurrence on September 30, 2021 (210982425).

The District prepared a BA after reviewing the preliminary findings of the mussel survey. In response to the BA, the USFWS prepared a BO.

*Buffalo Dredge Material Management Program  
Buffalo Site 5 Access Channel  
Mississippi River, Pool 16 River Miles 471.3 to 471.5*

*Supplemental Environmental Assessment*

**VI. REFERENCES**

- Environmental Solutions & Innovations, Inc. 2019. Final Report Monitoring Of Native And Non-Indigenous Mussel Species In The Upper Mississippi River At Two Higgins Eye Pearlymussel (*Lampsilis Higginsii*) Essential Habitat Areas, Cordova, Illinois (Pool 14) And Buffalo, Iowa (Pool 16). Prepared for U.S. Army Corps of Engineers – Rock Island District 1500 Rock Island Drive Rock Island, Illinois 61201. Contract No. W912EK-16-D-0010. 284 pp.
- EnviroScience (Becca Winterringer). 2021. Mussel Survey at the Buffalo DMMP Site, Buffalo, Iowa, Mississippi River, Scott County, Iowa; Contract Number: W912EK-16-D-0010 ES Project No. 14919
- Iowa Department of Natural Resources. 2019. Surface Water Classification. Water Quality Monitoring and Assessment, Water Quality Bureau Environmental Services Division, Des Moines, IA Accessed at [https://www.iowadnr.gov/Portals/idnr/uploads/water/standards/files/SWC%20Final%207\\_24\\_19.pdf?ver=2019-07-24-081149-400](https://www.iowadnr.gov/Portals/idnr/uploads/water/standards/files/SWC%20Final%207_24_19.pdf?ver=2019-07-24-081149-400)
- McCain, K.N.S., S. Schmuecker, and N.R. De Jager. 2018. Habitat Needs Assessment-II for the Upper Mississippi River Restoration Program: Linking Science to Management Perspectives. U.S. Army Corps of Engineers, Rock Island District, Rock Island, IL
- Pryor, S. C., D. Scavia, C. Downer, M. Gaden, L. Iverson, R. Nordstrom, J. Patz, and G. P. Robertson, 2014: Ch. 18: Midwest. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 418-440. doi:10.7930/J0J1012N.
- Schlesser, N.J., editor. 2020. UMRCC Fisheries Compendium, 4<sup>th</sup> edition. Upper Mississippi River Conservation Committee.
- U.S. Army Corps of Engineers. 1974. *Final Environmental Impact Statement, Continued Operation and Maintenance Nine-Foot Navigation Channel, Upper Mississippi River -Pools 11 through 22, July 1974*. Rock Island District, Rock Island, IL
1989. *Mississippi River Master Plan for Resource Management of Pools 11-22*. Rock Island District, February 2003. Rock Island District, Rock Island, IL
1997. Environmental Assessment Dredged Material Placement Site, Buffalo Dredge Cut Pool 16, Upper Mississippi River Miles 472.0-473.2, October 1997. Rock Island District, Rock Island, IL
2003. Summary of Cumulative Dredging, Dredged Material Placement Actions, and Programmatic Environmental Assessment for Future Dredged Material Placement Associated with Channel Maintenance Activities Mississippi River, River Miles 300-614 and Illinois Waterway, River Miles 80-286, Rock Island District, Rock Island, IL February 2003.

*Buffalo Dredge Material Management Program  
Buffalo Site 5 Access Channel  
Mississippi River, Pool 16 River Miles 471.3 to 471.5*

*Supplemental Environmental Assessment*

2014. Maintenance Dredging of the 9-Foot Channel Navigation Project, Upper Mississippi River, River Miles 300.0 – 614.0. Permit No. CEMVR-OD-P-2014-1163, 1164, 1165. Rock Island District

2018. Upper Mississippi River Lock & Dams. Rock Island District.  
<https://usace.contentdm.oclc.org/digital/api/collection/p16021coll11/id/3033/download>

U.S. Environmental Protection Agency. 2021a. Nonattainment Areas for Criteria Pollutants (Green Book) Accessed at <https://www.epa.gov/green-book>

2021b. EJ Screen Tool Accessed at <https://ejscreen.epa.gov/mapper>

DRAFT

**DRAFT FINDING OF NO SIGNIFICANT IMPACT**

**SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT**  
**DREDGE MATERIAL MANAGEMENT PROGRAM**  
**BUFFALO SITE 5 ACCESS CHANNEL**  
**MISSISSIPPI RIVER, POOL 16,**  
**RIVER MILES 471.3 TO 471.5**  
**SCOTT COUNTY, IOWA**

The U.S. Army Corps of Engineers, Rock Island District, has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The final Supplemental Environmental Assessment (SEA) dated **DATE OF IFR/EA**, for the Buffalo Site 5 Access Channel Project addresses channel maintenance opportunities and feasibility in the Mississippi River, Pool 16, River Miles 471.3 to 471.5, Scott County, Iowa.

The Final SEA, incorporated herein by reference, evaluated various alternatives that would provide access to Buffalo DMMP Site 5 in the study area. The Proposed Alternative is the National Economic Development Plan and includes:

In addition to a No Action Alternative, one alternative was evaluated. The alternative included:

- **Proposed Alternative:** This alternative would mechanically or hydraulically dredge a channel from main river to the bankline adjacent to Buffalo DMMP Site 5, enabling access to the site at all river levels. Approximately 8,000 cubic yards of material would be moved from the access channel to the Buffalo DMMP Site 3. The access channel would be approximately 100 feet wide and 7 feet deep extending approximately 600 feet out to the channel. This would provide depth to land work barges transporting heavy equipment and space to pull the dredge pipe for hydraulic dredging. Heavy equipment would be used for positioning hydraulic dredge pipe and moving mechanically dredged sediments from work barges into Buffalo DMMP Site 5. Return water would be routed through three 20-inch pipes from the drop structures at Buffalo DMMP Site 5 to the river through an excavated 8-foot-wide ditch. Excavation is needed to establish gravity-flow from the drop structures back to the river. Ditch banks may be stabilized if return flows cause erosion.

A zone containing a variety of channel alignments was considered in order to avoid environmentally sensitive areas and reduce dredging requirements to identify the alignment that best met the Federal Standard. Factors considered included bathymetry, sediment type, and the presence of protected mussel species. Alternative access channel alignments within this zone may be re-considered and coordinated through the OSIT and with USFWS should issues with the selected alignment arise over the life of the Project.

For greater discussion of each alternative see Section II of the accompanying SEA.

For all alternatives, the potential effects were evaluated, as appropriate. Table 1 is summary assessment of the potential effects of the Proposed Alternative.

**Table 1: Summary of Potential Effects of the Proposed Alternative**

	Insignificant effects	Insignificant effects as a result of mitigation*	Resource unaffected by action
Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Air Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Aquatic Resources/Wetlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Invasive Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fish And Wildlife Habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Threatened/Endangered Species/Critical Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Historic Properties	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other Cultural Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Floodplains	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hazardous, Toxic & Radioactive Waste	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydrology	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Land Use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Navigation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Noise Levels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Socio-Economics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tribal Trust Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Water Quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate Change	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\*The District will follow its conservation measures and the USFWS's reasonable and prudent measures outlined in the Biological Opinion to reduce impacts to threatened and endangered species.

No compensatory mitigation is required as part of the Proposed Alternative.

A concurrent State and Agency and Public review of the draft SEA and FONSI was completed on **DATE DRAFT EA AND FONSI REVIEW PERIOD ENDED**. All comments submitted during the public review period were responded to in the Final SEA and FONSI.

The District determined there would be no effect on eastern massasauga, spectaclecase, prairie bush clover, eastern prairie fringed orchid, western prairie fringed orchid, or rusty-patched bumble bee. The District also determined the Project may affect, but is not likely to adversely affect, Indiana and northern long eared bats. The District determined the Project may affect, and is likely to adversely affect, sheepsnose and higgins eye pearlymussels.

Pursuant to Section 7 of the Endangered Species Act of 1973, as amended, the U.S. Fish and Wildlife Service issued a Biological Opinion, dated **28 January 2022**, that determined the Proposed Alternative would not jeopardize the continued existence of the following federally-listed species or adversely modify designated critical habitat: sheepsnose mussel, higgins eye pearlymussel, and Indiana and northern long eared bats. All terms and conditions, conservation measures, and reasonable and prudent alternatives and measures resulting from these consultations shall be implemented in order to minimize take of endangered species and avoid jeopardizing the species.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers determined the Proposed Alternative has no effect on historic properties. A coordination letter was sent September 28, 2021, and in a letter dated October 1, 2021, Iowa State Historic Preservation Office stamped concurrence.

Pursuant to the CWA of 1972, as amended, the discharge of dredged or fill material associated with the Proposed Alternative has been found to be compliant with section 404(b)(1) Guidelines (40 CFR 230). Placement sites are documented in the District's 404(b)(1) Evaluation, titled *Maintenance Dredging of the 9-Foot Channel Navigation Project, Upper Mississippi River, River Miles 300.0 – 614.0* (USACE, 2014). The District would follow OSIT procedures for coordination with the placement site.

A water quality certification pursuant to section 401 of the Clean Water Act would be obtained from the Iowa Department of Natural Resources prior to implementation. Water quality certification shall be implemented in order to minimize adverse impacts to water quality. A State of Iowa section 401 Water Quality Certification was obtained on **DATE**. The Project will be in full compliance with the CWA prior to implementation.

All applicable environmental laws have been considered and coordination with appropriate agencies and officials has been completed.

Technical, environmental, economic, and cost effectiveness criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 *Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies*. All applicable laws, EOs, regulations, and local government plans were considered in evaluation of alternatives. Based on this report, the reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the Proposed Alternative would not cause significant adverse effects on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

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Date

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Jesse T. Curry  
Colonel, Corps of Engineers  
District Commander

**DREDGE MATERIAL MANAGEMENT PROGRAM  
BUFFALO SITE 5 ACCESS CHANNEL  
MISSISSIPPI RIVER, POOL 16,  
RIVER MILES 471.3 TO 471.5**

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**ENVIRONMENTAL ASSESSMENT**

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**APPENDIX A**

**PERTINENT COORDINATION**

<b>From</b>	<b>Page</b>
Kraig McPeek, U.S. Fish and Wildlife Service, Illinois Iowa Field Office letter/email.....A-1 January 28, 2022, to Jodi Creswell of the Final Biological Opinion Cover Letter for Dredged Material Management Program Project at Buffalo DMMP Site 5	A-1
Kraig McPeek, U.S. Fish and Wildlife Service, Illinois Iowa Field Office letter/email.....A-2 November 24, 2021, to Jodi Creswell regarding formal Section 7 consultation for Dredged Material Management Program Project at Buffalo DMMP Site 5	A-2
Daniel K. Higginbottom, Iowa State Historic Preservation Office stamped concurrence ..... A-4 dated October 1, 2021, regarding the Dredged Material Management Program Project at Buffalo DMMP Site 5	A-4
Jodi Creswell, U.S. Army Corps of Engineers letter to Distribution List dated..... A-7 September 28, 2021, regarding the Dredged Material Management Program Project at Buffalo DMMP Site 5	A-7
Kraig McPeek, U.S. Fish and Wildlife Service, Illinois Iowa Field Office letter/email..... A-26 dated August 5, 2021, to Jodi Creswell regarding the Dredged Material Management Program Project at Buffalo DMMP Site 5	A-26
Christine Schwake, Iowa Department of Natural Resources email to Kyle Bales, ..... A-29 dated August 3, 2021, (with attached letter dated March 3, 2017) regarding 401 water quality certification of the Dredged Material Management Program Project at Buffalo DMMP Site 5	A-29
Jodi Creswell, U.S. Army Corps of Engineers letter/email to Distribution List dated ..... A-38 July 21, 2021, regarding the Dredged Material Management Program Project at Buffalo DMMP Site 5	A-38



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Illinois - Iowa Field Office  
1511 47<sup>th</sup> Avenue  
Moline, Illinois 61265  
Phone: (309) 757-5800 Fax: (309) 757-5807

FWS/ILIAFO  
TAILS#03E18000-2021-F-2108

January 28, 2022

Jodi Creswell  
Chief, Environmental Planning Branch  
Attn: Kyle Bales  
U.S. Army Corps of Engineers  
Rock Island District  
Clock Tower Building, P. O. Box 2004  
Rock Island, Illinois 61204-2004

Dear Ms. Creswell:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion for the proposed access channel dredging at the Buffalo Dredged Material Management Plan (DMMP) site located along the right descending bank of the Upper Mississippi River, Pool 16, between approximate river miles (RM) 471.3 to 471.5, near Buffalo, Scott County, Iowa. The U.S. Army Corps of Engineers (Corps) is proposing to authorize the dredging in waters of the United States under Section 404 of the Clean Water Act for this project. Formal consultation under Section 7 of the Endangered Species Act (Act) was initiated by the Corps on September 29, 2021, since the project may impact the federally endangered sheepnose (*Plethobasus cyphus*) and Higgins eye pearlymussel (*Lampsilis higginsii*).

This biological opinion is based on Service records and existing literature concerning the distribution of mussel resources in the Upper Mississippi River as well as a final biological assessment and information provided by the Corps, November 23, 2021. A complete administrative record of this consultation is on file at this office.

Sincerely,

KRAIG  
MCPEEK

Kraig McPeek  
Field Supervisor  
Illinois-Iowa Field Office

Enclosure



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Illinois-Iowa Ecological Services Field Office  
1511 47<sup>th</sup> Avenue  
Moline, Illinois 61265  
Phone: (309) 757-5800 Fax: (309) 757-5807



Jodi Creswell  
Chief, Environmental Planning Branch  
ATTN: Mr. Kyle Bales  
U.S. Army Corps of Engineers  
Rock Island District  
P.O. Box 2004, Clock Tower Building  
Rock Island, Illinois 61204-2004  
kyle.bales@usace.army.mil

November 24, 2021  
Electronic Mail

Dear Ms. Creswell:

This letter acknowledges the U.S. Fish and Wildlife Service's (Service) receipt of your letter dated September 29, 2021, requesting initiation of formal Section 7 consultation under the Endangered Species Act. The consultation concerns the possible effects to threatened and endangered species by the U.S. Army Corps of Engineers, Rock Island District (District)'s proposed access channel dredging and long-term maintenance dredging at the Buffalo Dredged Material Management Plan (DMMP) site located within Pool 16 of the Mississippi River, along the right descending bank between approximate river miles 471.3 and 471.5, near Buffalo, Scott County, Iowa.

All information required of you to initiate formal consultation was included in the final biological assessment (BA) or is otherwise accessible for our consideration and reference. As provided in the final BA, the proposed project may affect, and is likely to adversely affect the federally endangered Higgin's eye pearl mussel (*Lampsilis higginsii*) and sheepnose mussel (*Plethobasus cyphus*). This consultation will address the effect of the project on Higgin's eye pearl mussel and sheepnose as described in your final BA, dated November 2021, and attendant documents.

Section 7 allows the Service up to 90 calendar days to conclude formal consultation with your agency and an additional 45 calendar days to prepare our biological opinion (BO) (unless an extension is mutually agreed upon). The final BA was provided to the Service on September 29, 2021. Following our review, additional information and clarification was requested and provided to the Service by email on October 27, 2021 and a partner Agency coordination call was held on November 17, 2021. The final BA was received on November 23, 2021. Therefore, we expect to provide you with our BO no later than April 7, 2022.

As a reminder, the Endangered Species Act requires that after initiation of formal consultation, the Federal action agency may not make any irreversible or irretrievable commitment of resources that limits future options. This practice insures agency actions do not preclude the formulation or implementation of reasonable and prudent alternatives that avoid jeopardizing the continued existence of endangered or threatened species or destroying or modifying their critical habitats.

If you have any additional questions or concerns, please contact Sara Schmuecker at 309-757-5800, extension 203.

Sincerely,

KRAIG  
MCPEEK

  
Kraig McPeck  
Field Supervisor  
Illinois and Iowa Field Office



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS - ROCK ISLAND DISTRICT  
CLOCK TOWER BUILDING - PO BOX 2004  
ROCK ISLAND, ILLINOIS 61204-2004

210982425

September 28, 2021

Regional Planning and Environmental  
Division North (RPEDN)

SEE DISTRIBUTION LIST

The U.S. Army Corps of Engineers, Rock Island District (District), is currently proposing access channel excavation for dredged material placement at the Dredge Material Management Program (DMMP) Buffalo Placement Site 5 located river miles 471.3 and 471.5 near Buffalo, Scott County, Iowa.

Project features include dredging of the access channel to site 5, dredged material placement by pump and pipe to site 3, and machinery access and staging areas for pipe placement. Impacts associated with project features include ground disturbance from dredging, dredged material placement, and staging and access to pipe placement.

The preferred alternative is to hydraulically dredge a channel from main river to the bankline adjacent to Buffalo DMMP Site 5, enabling access to the site at all river levels. Approximately 8,000 cubic yards of material would be moved from the access channel to the Buffalo DMMP Site 3 (Buffalo Shores Beach). The access channel will be 100 feet wide and 7 feet deep extending approximately 600 feet out to the channel.

Return water will be routed through three 20-inch pipes from the drop structures at Buffalo DMMP Site 5 to the river through a shallow 8-foot-wide by 2-foot-deep ditch. Ditch banks may be stabilized if return flows cause erosion.

#### **Federal Undertaking**

Pursuant to the National Historic Preservation Act (NHPA) of 1966, as amended, and its implementing regulations, 36 CFR Part 800, the District has determined that dredging of existing channel, the placement of dredge material, and machinery staging and access in the proposed locations has potential to cause effects to archeological historic properties [36 CFR 800.3(a)(1)] and consequently will require a determination of effect within the Area of Potential Effect.

#### **Area of Potential Effect**

The Area of Potential Effect (APE) is the footprint of proposed access channel to placement site 5 and associated access and staging areas for the pipe access to site 5. Specifically, the APE is located in the fractional Sections 20, Township 77N, Range 20W, Scott County, Iowa (Enclosures 1 and 2). The District has documented extensive coordination for placement sites 3 and 5 and does not consider them a part of the APE for this undertaking.

### **Consulting Parties**

The District finds the organizations identified on the Distribution List are entitled to be consulting parties, as set out in 36 CFR 800.2, and invites them by copy of this letter to participate in the Section 106 process.

### **State Historic Preservation Officer (SHPO) Invitation**

The District invites the SHPO to:

- identify any other consulting parties as per 36 CFR 800.3(f);
- comment as per 36 CFR 800.2(d)(3) on the District' plan to involve the public by utilizing the District' normal procedures for public involvement under the National Environmental Policy Act (NEPA); and,
- comment on or contribute to identification efforts including definition of the APE, all as per 36 CFR 800.4(a-b).

### **Identification of Historic Properties**

The District conducted an archival search for historic properties following the Policy and Procedures for the Conduct of Underwater Historic Resource Surveys for Maintenance Dredging and Corps Activities (DGL-89-01, March 1989). The District queried the most updated Iowa Geographic Information Systems site file database and reviewed the report entitled *An Investigation of the Submerged Historic Properties in the Upper Mississippi River and Illinois Waterway*, dated October 1997 (Contract Number DACW25-93-D-0-012, Order No. 27). No submerged historic properties were identified in the APE.

The District consulted with the Iowa archeological site geographic information systems database and determined that there are no previously recorded sites documented in the project APE. The District had conducted archeological survey in support of the original DMMP project as documented by correspondence in Enclosure 3 (R&C#19950982007). Cottage sites of recent age were discovered, documented, and determined to be ineligible for the National Register of Historic Places. In addition, one previously documented site, 13ST75, had been previously recorded within the original APE but could not be relocated by the 1997 field investigation. The Contractor recommended a 45-meter buffer be placed around the recorded site boundaries in order to avoid impacting the site. The District revised the APE accordingly and coordinated a determination of No Adverse Effect to site 13ST75 based on avoidance measures. The State Historical Society of Iowa concurred with that determination by letter dated March 12, 1997 and stamped concurrence on the public notice dated June 21, 1999 (Enclosure 3). Site 13ST75 is located outside of the current APE and will not be impacted by the current undertaking as proposed.

**Determination of Effect**

The access channel segment of the APE has been subjected to extensive past disturbance from inundation and active erosion and sedimentation. The absence of previously recorded shipwrecks at this location in addition to the past disturbance suggest there is low potential for intact cultural resources within the proposed access channel. Therefore, it is the District's opinion that this portion of the undertaking will have No Effect on historic properties within the APE in accordance with 36 CFR 800.4(d)(1). The overland portion of the access to DMMP Site 5 and the return water location are confined to near surface impacts within previously surveyed areas (Enclosures 2 and 3). It is the opinion of the District that past survey adequately evaluated this portion of the APE and that no historic properties will be affected by overland access to DMMP Site 5 or the return water activity.

**Request for Information from Consulting Parties**

The District is seeking information from all consulting parties (Enclosure 4) regarding their concerns with issues relating to the potential effects of this undertaking on historic properties and, particularly, the tribes' concerns with identifying properties that may be of religious and cultural significance to them and may be eligible for the NRHP [36 CFR 800.4(a)(3-4)]. Concerns about confidentiality [36 CFR 800.11(c)] regarding locations of properties can be addressed under Section 304 of the NHPA which provides withholding from public disclosure the location of properties under several circumstances, including in cases where it would cause a significant invasion of privacy, impede the use of a traditional religious site by practitioners, endanger the site, etc.

The District requests your written comments on this project within 30 days, pursuant to 36 CFR 800.3(c)(4). If you have any questions regarding this matter, please call Mr. Jim Ross of our Environmental Compliance Branch, [REDACTED] or write to our address above, ATTN: Environmental Compliance Branch (Jim Ross).

NAME Don Sigurdson  
DATE 9/30/21

CONCUR  
*[Handwritten signature]*

Sincerely,

[REDACTED]

Jodi Creswell  
Chief, Environmental Planning Branch RPEDN

Enclosures (4)



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS - ROCK ISLAND DISTRICT  
CLOCK TOWER BUILDING - PO BOX 2004  
ROCK ISLAND, ILLINOIS 61204-2004

September 28, 2021

Regional Planning and Environmental  
Division North (RPEDN)

#### SEE DISTRIBUTION LIST

The U.S. Army Corps of Engineers, Rock Island District (District), is currently proposing access channel excavation for dredged material placement at the Dredge Material Management Program (DMMP) Buffalo Placement Site 5 located river miles 471.3 and 471.5 near Buffalo, Scott County, Iowa.

Project features include dredging of the access channel to site 5, dredged material placement by pump and pipe to site 3, and machinery access and staging areas for pipe placement. Impacts associated with project features include ground disturbance from dredging, dredged material placement, and staging and access to pipe placement.

The preferred alternative is to hydraulically dredge a channel from main river to the bankline adjacent to Buffalo DMMP Site 5, enabling access to the site at all river levels. Approximately 8,000 cubic yards of material would be moved from the access channel to the Buffalo DMMP Site 3 (Buffalo Shores Beach). The access channel will be 100 feet wide and 7 feet deep extending approximately 600 feet out to the channel.

Return water will be routed through three 20-inch pipes from the drop structures at Buffalo DMMP Site 5 to the river through a shallow 8-foot-wide by 2-foot-deep ditch. Ditch banks may be stabilized if return flows cause erosion.

#### **Federal Undertaking**

Pursuant to the National Historic Preservation Act (NHPA) of 1966, as amended, and its implementing regulations, 36 CFR Part 800, the District has determined that dredging of existing channel, the placement of dredge material, and machinery staging and access in the proposed locations has potential to cause effects to archeological historic properties [36 CFR 800.3(a)(1)] and consequently will require a determination of effect within the Area of Potential Effect.

#### **Area of Potential Effect**

The Area of Potential Effect (APE) is the footprint of proposed access channel to placement site 5 and associated access and staging areas for the pipe access to site 5. Specifically, the APE is located in the fractional Sections 20, Township 77N, Range 20W, Scott County, Iowa (Enclosures 1 and 2). The District has documented extensive coordination for placement sites 3 and 5 and does not consider them a part of the APE for this undertaking.

### **Consulting Parties**

The District finds the organizations identified on the Distribution List are entitled to be consulting parties, as set out in 36 CFR 800.2, and invites them by copy of this letter to participate in the Section 106 process.

### **State Historic Preservation Officer (SHPO) Invitation**

The District invites the SHPO to:

- identify any other consulting parties as per 36 CFR 800.3(f);
- comment as per 36 CFR 800.2(d)(3) on the District' plan to involve the public by utilizing the District' normal procedures for public involvement under the National Environmental Policy Act (NEPA); and,
- comment on or contribute to identification efforts including definition of the APE, all as per 36 CFR 800.4(a-b).

### **Identification of Historic Properties**

The District conducted an archival search for historic properties following the Policy and Procedures for the Conduct of Underwater Historic Resource Surveys for Maintenance Dredging and Corps Activities (DGL-89-01, March 1989). The District queried the most updated Iowa Geographic Information Systems site file database and reviewed the report entitled *An Investigation of the Submerged Historic Properties in the Upper Mississippi River and Illinois Waterway*, dated October 1997 (Contract Number DACW25-93-D-0-012, Order No. 27). No submerged historic properties were identified in the APE.

The District consulted with the Iowa archeological site geographic information systems database and determined that there are no previously recorded sites documented in the project APE. The District had conducted archeological survey in support of the original DMMP project as documented by correspondence in Enclosure 3 (R&C#19950982007). Cottage sites of recent age were discovered, documented, and determined to be ineligible for the National Register of Historic Places. In addition, one previously documented site, 13ST75, had been previously recorded within the original APE but could not be relocated by the 1997 field investigation. The Contractor recommended a 45-meter buffer be placed around the recorded site boundaries in order to avoid impacting the site. The District revised the APE accordingly and coordinated a determination of No Adverse Effect to site 13ST75 based on avoidance measures. The State Historical Society of Iowa concurred with that determination by letter dated March 12, 1997 and stamped concurrence on the public notice dated June 21, 1999 (Enclosure 3). Site 13ST75 is located outside of the current APE and will not be impacted by the current undertaking as proposed.

**Determination of Effect**

The access channel segment of the APE has been subjected to extensive past disturbance from inundation and active erosion and sedimentation. The absence of previously recorded shipwrecks at this location in addition to the past disturbance suggest there is low potential for intact cultural resources within the proposed access channel. Therefore, it is the District's opinion that this portion of the undertaking will have No Effect on historic properties within the APE in accordance with 36 CFR 800.4(d)(1). The overland portion of the access to DMMP Site 5 and the return water location are confined to near surface impacts within previously surveyed areas (Enclosures 2 and 3). It is the opinion of the District that past survey adequately evaluated this portion of the APE and that no historic properties will be affected by overland access to DMMP Site 5 or the return water activity.

**Request for Information from Consulting Parties**

The District is seeking information from all consulting parties (Enclosure 4) regarding their concerns with issues relating to the potential effects of this undertaking on historic properties and, particularly, the tribes' concerns with identifying properties that may be of religious and cultural significance to them and may be eligible for the NRHP [36 CFR 800.4(a)(3-4)]. Concerns about confidentiality [36 CFR 800.11(c)] regarding locations of properties can be addressed under Section 304 of the NHPA which provides withholding from public disclosure the location of properties under several circumstances, including in cases where it would cause a significant invasion of privacy, impede the use of a traditional religious site by practitioners, endanger the site, etc.

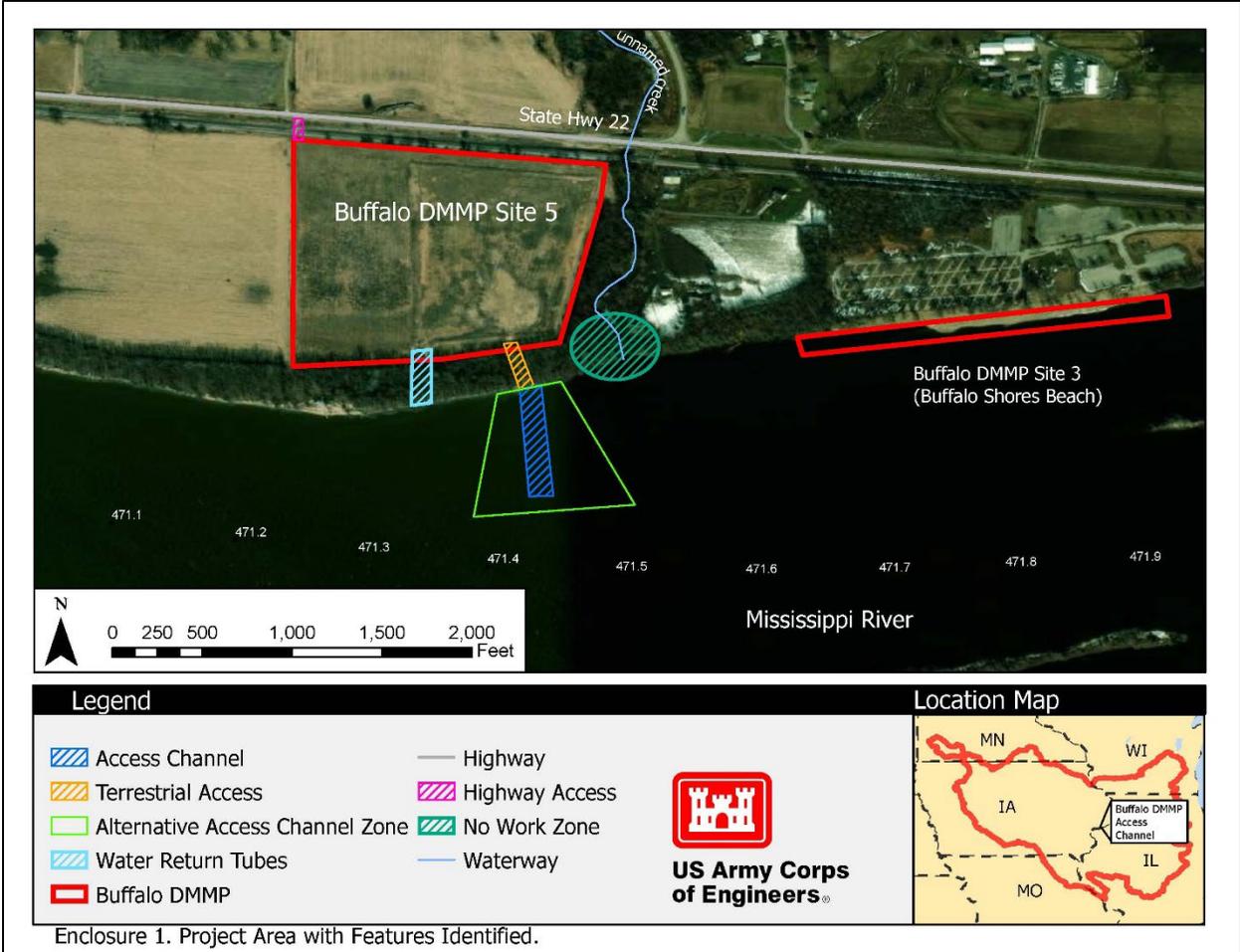
The District requests your written comments on this project within 30 days, pursuant to 36 CFR 800.3(c)(4). If you have any questions regarding this matter, please call Mr. Jim Ross of our Environmental Compliance Branch, (██████████) or write to our address above, ATTN: Environmental Compliance Branch (Jim Ross).

Sincerely,

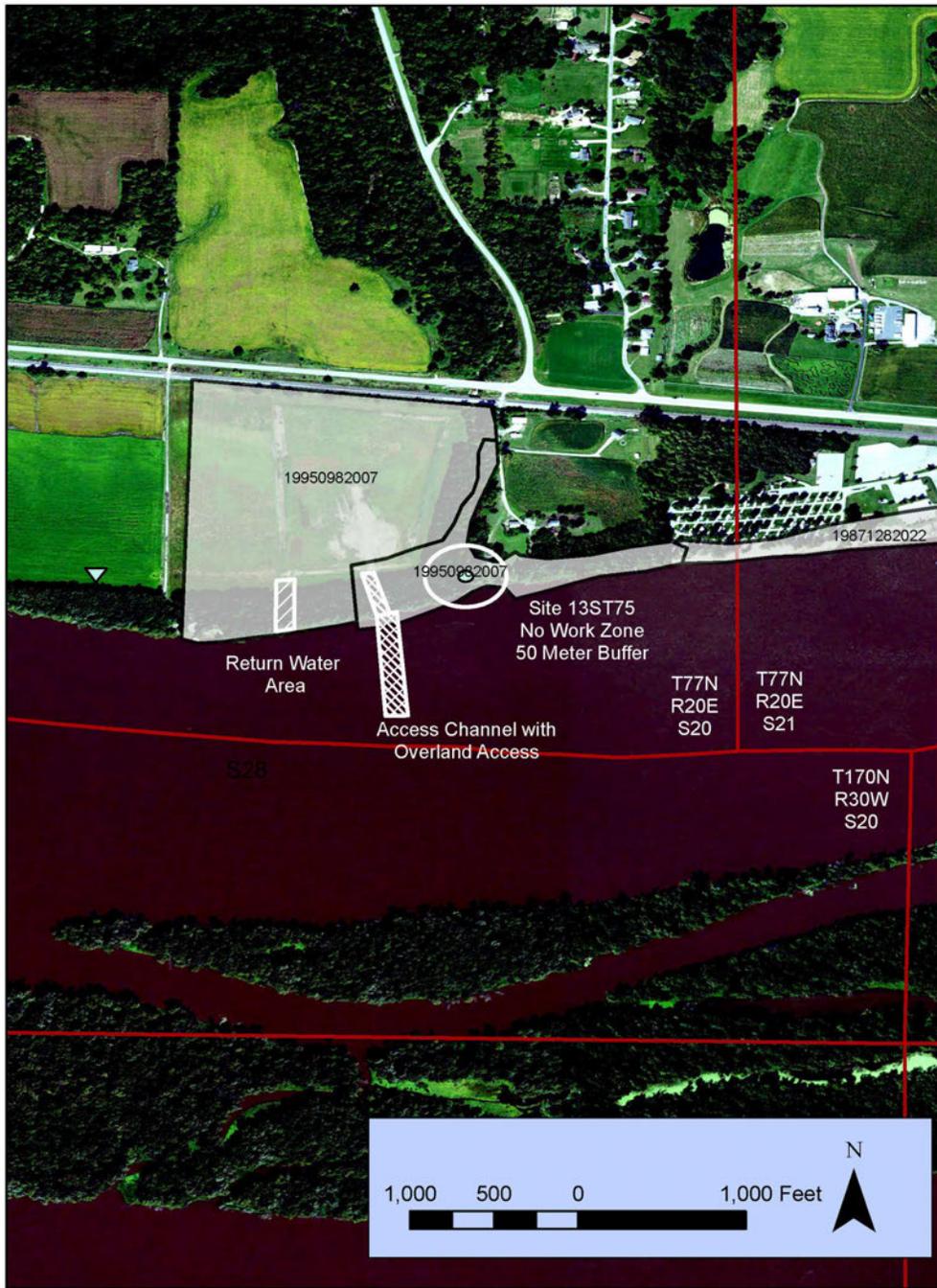
Jodi Creswell

Jodi Creswell  
Chief, Environmental Planning Branch RPEDN

Enclosures (4)



Enclosure 1. Project Area with Features Identified.



Enclosure 2. Project APE with Past Surveys, Documented Sites, and No Work Zone Identified.



**Illinois Historic  
Preservation Agency**

1 Old State Capitol Plaza • Springfield, Illinois 62701-1507 • (217) 782-4836 • TTY (217) 524-7128

217/785-4997

ROCK ISLAND COUNTY  
Andalusia  
Mississippi RM 472.0-473.2 Pool 16  
Buffalo Dredge Cut

PLEASE REFER TO:  
IHPA LOG #950905008PRI

September 12, 1995

Mr. Dudley M. Hanson, P.E.  
Dept of the Army/Rock Island Dist/CoE  
Chief, Planning Division  
Clock Tower Building/Post Office Box2004  
Rock Island, Illinois 61204-2004

Gentlemen:

Thank you for requesting comments from our office concerning the possible effects of the project referenced above on cultural resources. Our comments are required by Section 106 of the National Historic preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties".

Our staff has reviewed the specifications and assessed the impact of the project as submitted by your office. We have determined, based on the available information, that this project, as proposed, will have no effect on any Historic Properties. We, therefore, have no objection to the undertaking proceeding as planned.

Please retain this letter in your files as evidence of compliance with Section 106 of the National Historic Preservation Act of 1966, as amended.

Sincerely,

Anne E. Haaker  
Deputy State Historic  
Preservation Officer

AEH:JSP

Enclosure 3 Past Buffalo DMMP NHPA Coordination (13 pages).

C-12



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS  
CLOCK TOWER BUILDING — P.O. BOX 2004  
ROCK ISLAND, ILLINOIS 61204-2004

October 2, 1995

Planning Division (11-2-240a)

Ms. Beth Foster  
R&C Coordinator  
State Historical  
Society of Iowa  
600 East Locust  
Des Moines, Iowa 50319

Dear Ms. Foster:

The Rock Island District of the U.S. Army Corps of Engineers (Corps) has selected dredged material placement alternatives for the historic Buffalo Dredge Cut, Upper Mississippi River Miles 472.0 to 473.2, Pool 16, Scott County, Iowa. This chronic dredge cut within the navigation channel has been dredged 12 times in the last 51 years. Proposed alternative sites for dredged material placement were developed as part of the Corps' Long-Term Management Strategy for the Dredged Material Management Plans.

An archival search for historic properties following the "Policy and Procedures for the Conduct of Underwater Historic Resource Surveys for Maintenance Dredging and Disposal Activities" (DGL-89-01, March 1989) was conducted. The Corps also queried the Illinois and Iowa Geographic Information Systems site file data base for historic properties potentially affected by the historic dredge cut and dredged material placement alternatives. No historic properties are documented within the dredge cut or placement alternatives.

The attached Information on the Dredged Material Management Plan for the Buffalo Dredge Cut (information package) documents the dredge cut and the proposed dredged material placement alternative Site 1 (Pocket Beaches on Island No. 319) in Illinois, and Site 2 (Buffalo Beach), Site 3 (Buffalo Shores Beach), and Site 4 (Agricultural Field Iowa Shore) in Iowa. The dredged material placement cut and alternative sites are shown on portions of the United States Geological Survey 7.5 Minute Anadalousia, IA. and 7.5 Minute Montpelier, IA. quadrangle maps within the information package. Alternative Sites 1, 2, and 3 are historic and used within the past 12 dredging events.

C-14

The opinion of the Corps is that the historic sites require no further coordination because of their previous use and the lack of historic properties. Since dredged material placement alternative Site 4 (Agricultural Field Iowa Shore) is a new site, the Corps recommends an archeological survey with deep testing to search for undocumented historic properties, if this site is included in any final alternative.

The Illinois Historic Preservation Agency (IHPA) has reviewed the information package and has commented by letter dated September 12, 1995 (attached) (IHPA LOG #950905008PRI). The IHPA has determined that the dredge cut and dredged material placement alternative would have no effect on any historic properties within Illinois.

Please comment or concur with our opinion and recommendations within 30 days, or the Corps will assume that you have reviewed the Buffalo Dredge Cut and dredged material placement alternative sites and concur with our recommendations.

If you have questions concerning the cut and proposed alternative sites, please call Mr. Ron Deiss of our Environmental Analysis Branch, telephone [REDACTED] or write to our address above, ATTN: Planning Division (Ron Deiss).

Sincerely,

Dudley M. Hanson, P.E.  
Chief, Planning Division

**Attachments**

Copy Furnished

Ms. Ann Haaker  
Deputy State Historic  
Preservation Officer  
Illinois Historic Preservation Agency  
Old State Capitol  
Springfield, Illinois 62704 (w/attachments)



REPLY TO  
ATTENTION OF:

**DEPARTMENT OF THE ARMY**  
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS  
CLOCK TOWER BUILDING — P.O. BOX 2004  
ROCK ISLAND, ILLINOIS 61204-2004

August 5, 1996

Planning Division (11-2-240a)

Ms. Anne Haaker  
Deputy State Historic  
Preservation Officer  
Illinois Historic  
Preservation Agency  
Old State Capitol  
Springfield, Illinois 62704

Dear Ms. Haaker:

The Rock Island District of the U.S. Army Corps of Engineers (Corps) has selected dredged material placement alternatives for the historic Buffalo Dredge Cut, Upper Mississippi River Miles 472.0 to 473.2, Pool 16, Scott County, Iowa. This chronic dredge cut within the navigation channel has been dredged 12 times in the last 51 years. Proposed alternative sites for dredged material placement were developed as part of the Corps' Long-Term Management Strategy for the Dredged Material Management Plans and have been previously coordinated with your agency.

Site 1 (Pocket Beaches on Island No. 319) in Illinois was previously coordinated with your office as a historic dredged material placement site with no potential for historic properties. This opinion received concurrence from your office by attached letter dated September 12, 1995 (Attachment 1) (IHPA Log No. 950905008PRI). Since our initial correspondence the Corps has added two new pocket beaches at Site 1 to increase capacity (Attachment 2).

An archival search for historic properties following the "Policy and Procedures for the Conduct of Underwater Historic Resource Surveys for Maintenance Dredging and Disposal Activities" (DGL-89-01, March 1989) was conducted. The Corps also queried the Illinois Geographic Information Systems site file data base for historic properties potentially affected by the historic dredge cut and dredged material placement alternatives. No historic properties are documented within the new pocket beaches which will be constructed along the bankline and partially in the water.

C-19

The bankline location of the pocket beaches was previously surveyed for historic properties in the Corps report: Preliminary Cultural Resource Survey and Geomorphological Assessment of Selected Areas in Navigation 16, Mississippi River (page 11a), dated June 1982, prepared under the supervision of Edward B. Jelks and David L. Carlson, Illinois State University, Normal, Illinois. No historic properties were discovered during this survey.

Although Island No. 316 is an old landform, much of the area which comprises the pocket beaches is accreted, as documented in the Corps Landform Sediment Assemblage Maps and its supporting report: Landform Sediment Assemblage (LSA) Units in the Upper Mississippi River Valley, United State Army Corps of Engineers, Rock Island District, Volume 1, dated January 5, 1996, prepared by Jeffery D. Anderson, E. Arthur Bettis III, and James S. Oliver, Illinois State Museum, Springfield, Illinois. Thus, much of the land has recent fluvial origins.

The opinion of the Corps is that the new dredged material placement pocket beaches require no further coordination due to the lack of potential for historic properties. Please comment or concur with our opinion and recommendations within 30 days, or the Corps will assume that you concur with our recommendations.

If you have questions concerning the cut and proposed alternative sites, please call Mr. Ron Deiss of our Environmental Analysis Branch, telephone [REDACTED] or write to our address above, ATTN: Planning Division (Ron Deiss).

Sincerely,

ORIGINAL SIGNED BY  
D. BURKE

Dudley M. Hanson, P.E.  
Chief, Planning Division

**Attachments**

**Copy Furnished:**

Ms. Beth Foster  
R&C Coordinator  
State Historical  
Society of Iowa  
600 East Locust  
Des Moines, Iowa 50319 (w/attachments)



**Illinois Historic  
Preservation Agency**

1 Old State Capitol Plaza • Springfield, Illinois 62701-1507 • (217) 782-4836 • TTY (217) 524-7128

**ROCK ISLAND COUNTY**  
Andalusia  
Mississippi RM 472.0 to 473.2, Pool 16  
Buffalo Dredge Cut

PLEASE REFER TO:  
IHPA LOG #960809009PRI

September 23, 1996

Mr. Dudley M. Hanson, P.E.  
Dept of the Army/Rock Island Dist/CoE  
Chief, Planning Division  
Clock Tower Building/Post Office Box2004  
Rock Island, Illinois 61204-2004

Gentlemen:

Thank you for requesting comments from our office concerning the possible effects of the project referenced above on cultural resources. Our comments are required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties".

Our staff has reviewed the specifications and assessed the impact of the project as submitted by your office. We have determined, based on the available information, that no significant historic, architectural or archaeological resources are located within the proposed project area.

Please retain this letter in your files as evidence of compliance with Section 106 of the National Historic Preservation Act of 1966, as amended.

Sincerely,

Anne E. Haaker  
Deputy State Historic  
Preservation Officer

AEE:JSP:bb



# State Historical Society of Iowa

The Historical Division of the Department of Cultural Affairs

November 15, 1996

In reply please refer to:  
R&C#: 950982007

Dudley M. Hanson, P. E.  
Chief, Planning Division  
Rock Island District Corps of Engineers  
Clock Tower Building  
P. O. Box 2004  
Rock Island, IL 61204-2004

RE: COE - SCOTT COUNTY - BUFFALO DREDGE CUT - DREDGED MATERIAL PLACEMENT  
SITES 1 - 5 - RI. MI 472.0 & 473.2 - SEC. 20 & 21, T77N-R2E - ADDITIONAL INFORMATION

Dear Mr. Hanson,

We have received and reviewed the additional information you submitted to our office concerning the above referenced project. We sincerely apologize for not responding to the previously submitted information concerning this project. Based on your project description and a review of our records and maps, we make the following comments and recommendations.

We understand that Dredged Material Placement sites 1, 2, and 3 have been previously used as Dredged Material Placement locations. Therefore, we concur with your opinion that the proposed project activities will not impact any historic properties, and we recommend project approval for these locations.

We also concur with your opinion that an archeological survey should be conducted prior to land disturbance activities at Dredged Material Placement sites 4 and 5. The purpose of the survey is to locate any presently unidentified archeological or historical sites which may be affected by the proposed undertaking.

Should you have any questions please contact me at the number below.

Sincerely,

Douglas W. Jones, Archaeologist  
Community Programs Bureau  
(515) 281-4358

cc: Ron Deiss, Archaeologist, Environmental Analysis Branch, Rock Island District COE

A-9



# State Historical Society of Iowa

The Historical Division of the Department of Cultural Affairs

March 12, 1997

In reply please refer to:  
R&C#: 950982007

Dudley M. Hanson, P. E.  
Chief, Planning Division  
Rock Island District Corps of Engineers  
Clock Tower Building  
P. O. Box 2004  
Rock Island, IL 61204-2004

RE: COE - SCOTT COUNTY - BUFFALO DREDGE CUT - DREDGED MATERIAL PLACEMENT SITES 1 - 5 -  
RI. MI 472.0 & 473.2 - SEC. 20 & 21, T77N-R2E - PHASE I ARCHEOLOGICAL RECONNAISSANCE -  
BCA#518

Dear Mr. Hanson,

Based on the information you provided, we concur with the consultant's recommendations that the identified architectural property is not eligible for listing on the National Register of Historic Places, and that the area containing archaeological site 13ST75 should either be avoided or Phase II archaeological investigations should occur prior to any construction activities. We understand that avoidance of an area including site 13ST75 and a 45 meter buffer zone as demarcated on Figure 3 (p. 23) is the preferred option at this time. Therefore, we recommend that the area to be avoided be clearly demarcated within the project area prior to the dredged material placement activities should they occur within the immediate vicinity of the proposed buffer zone.

We also concur with the consultant's recommendation that there are no historic properties which might be affected by the proposed undertaking within the remainder of the proposed project area, and we recommend project approval for the remaining portion of the proposed project area. If other design modifications are designated for this project which would involve undisturbed new R.O.W. or easements or site 13ST75, please forward additional information to our office for further comment.

If the proposed project work uncovers an item(s) which might be of archeological, historical or architectural interest, or if important new archeological, historical or architectural data come to light in the project area, you should make reasonable efforts to avoid or minimize harm to the property until the significance of the discovery can be determined.

Should you have any questions please contact me at the number below.

Sincerely,

Douglas W. Jones, Archaeologist  
Community Programs Bureau  
(515) 281-4358

cc: Ron Deiss, Archaeologist, Environmental Analysis Branch, Rock Island District COE  
Joe B. Thompson, Principal Investigator, Bear Creek Archeology

402 Iowa Avenue  
Iowa City, Iowa 52240-1806  
(319) 335-3916

600 E. Locust  
Des Moines, Iowa 50319-0290  
(515) 281-6412

Montauk  
Box 372  
Clermont, Iowa 52135-0372  
(319) 423-7173

A-16



# State Historical Society of Iowa

The Historical Division of the Department of Cultural Affairs

August 6, 1997

In reply please refer to:  
R&C#: 950982007

Lon McGuire, P. E.  
Project Manager, Regulatory Branch  
Rock Island Corps of Engineers  
Clock Tower Building  
P. O. Box 2004  
Rock Island, IL 61203-2004

RE: COE - SCOTT COUNTY - CEMVR-RD-338880 - MAINTENANCE OF A COMMERCIAL  
NAVIGATION CHANNEL FOR THE TRANSPORT OF COMMODITIES, ETC. - DREDGED  
MATERIAL PLACEMENT SITES - SEC. 20, T77N-R2E

Dear Mr. McGuire,

Based on the information you provided, our records indicate that we have received and reviewed previous correspondence on this proposed project. In a letter dated 3/12/97 from myself to Dudley Hanson (Chief, Planning Division, Rock Island District Corps of Engineer's Office), we concurred with the findings of the report and recommended that the general location of site 13ST75 be avoided. We understand that this site will be avoided by all activities associated with the dredged material placement. Therefore, we still find that there are no historic properties which might be affected by the proposed undertaking, and we stand by our earlier recommendation of project approval issued in the 3/12/97 letter. If other design modifications are designated for this project which would involve undisturbed new R.O.W. or easements, please forward additional information to our office for further comment.

If the proposed project work uncovers an item(s) which might be of archeological, historical or architectural interest, or if important new archeological, historical or architectural data come to light in the project area, you should make reasonable efforts to avoid or minimize harm to the property until the significance of the discovery can be determined.

Should you have any questions please contact me at the number below.

Sincerely,

Douglas W. Jones, Archaeologist  
Community Programs Bureau  
(515) 281-4358

cc: Ron Deiss, Archeologist, Environmental Analysis Branch, Rock Island District COE

402 Iowa Avenue  
Iowa City, Iowa 52240-1806

600 E. Locust  
Des Moines, Iowa 50319-0900

Montauk  
Box 372

C-44



REPLY TO  
ATTENTION OF

JUN 1 1999

DEPARTMENT OF THE ARMY  
ROCK ISLAND DISTRICT CORPS OF ENGINEERS  
CLOCK TOWER BUILDING - P.O. BOX 2004  
ROCK ISLAND, ILLINOIS 61204-2004

May 28, 1999

Planning, Programs, and  
Project Management Division

COE  
RAC# 950982007

SEE AMENDED EA DISTRIBUTION LIST

In June 1998, the River Resources Coordinating Team approved the Final Report entitled *Dredged Material Management Plan for Dredged Material Placement, Site Plan for the Buffalo Dredge Cut, Upper Mississippi River Miles 472.0 - 473.2*, dated March 1998. Since that time, the Rock Island District of the U.S. Army Corps of Engineers (Corps) has been pursuing implementation of the approved plan. As a result of our implementation efforts, the Corps' Rock Island District determined that expanding the recommended placement alternative described in the Buffalo Dredged Material Management Plan (DMMP) would best meet future dredging needs.

The Rock Island District plans to expand the recommended placement alternative (Site 5 - Downstream Stockpile) from a 3.2-hectare portion of an agricultural field to the entire 11.7-hectare field. Expanding the size of Site 5 - Downstream Stockpile would allow the Rock Island District to take advantage of an opportunity to increase the site's capacity and extend the DMMP's project life beyond 40 years, without raising implementation costs. Eliminating site preparation work that was required for the smaller placement site will offset the extra cost of acquiring the additional land. An expanded site will not impact flood heights and will continue to meet the Federal Standard as described in 33 CFR, Parts 335-338, and ER 1105-2-100. The revised dimensions and capacity for Site 5 - Downstream Stockpile are as follows (see attached map):

47.6 acres  
19.3 Ha

Length	350 meters (1,150 feet)
Width	335 meters (1,100 feet)
Depth of Material	6.1 meters (20 feet), unchanged
Terrestrial Encroachment	11.7 hectares (29.0 acres)
Capacity	572 000 cubic meters (750,000 cubic yards)

In order to expedite implementation, the Rock Island District does not intend to revise the Buffalo DMMP text. We do ask that a copy of this letter and the revised project map be inserted into your Buffalo DMMP to document this action.

**CONCUR**

in Pulcher, RI COE

NAME J. Kaufmann Iowa SDPS office

DATE 6-8-99

JUN 10 1999



# PUBLIC NOTICE

US Army Corps  
of Engineers  
Rock Island District

Applicant: U.S. Army Corps of Engineers

Date: June 8, 1999

Expires: June 28, 1999

CEMVR-RD-338880-1

Section 404

Joint Public Notice  
U.S. Army Corps of Engineers  
Iowa Department of Natural Resources

*RIC# COE# 950982007*

- 1. Applicant.** U.S. Army Corps of Engineers, Clock Tower Building, Rock Island, Illinois 61204-2004.
- 2. Project Location.** Site 5 is located in Section 20, Township 77 North, Range 2 East; Scott County, Iowa. The project area lies in Pool 16 approximately 16 kilometers (10 miles) downstream of Lock and Dam 15 and approximately 25 kilometers (15.5 miles) upstream of Lock and Dam 16. The town of Buffalo, Iowa, is adjacent to the project area. The dredge cut is located between river miles 472.0 - 473.2.

**3. Project Description.**

a. Previous Coordination. On August 1, 1997, a public notice was published describing the overall project. Dredged material was to be placed along three historic sites (Sites 1, 2, and 3) that had been previously used. One new, non-historic site was proposed for use (Site 5). Site 5, a privately-owned crop field covering approximately 3.2 hectares (8 acres), will accommodate over 149 500 cubic meters (195,550 cubic yards) of dredged material. Site 5 was approximately 168 meters (550 feet) wide and 183 meters (600 feet long).

b. Current Proposal. The current proposal is a change in the size of the Site 5 dredged material placement site from 3.2 hectares to 11.7 hectares. Site 5, a privately-owned crop field covering approximately 11.7 hectares, will accommodate over 572 000 cubic meters of dredged material. Site 5 measures approximately 335 meters wide and 350 meters long. Dredged material will be placed to a maximum depth of 6.1 meters (20 feet). Berms will be constructed around the site. Return water will be routed over land back to the river.

e. Conversion. The U.S. Army Corps of Engineers, Rock Island District (District), is currently in the process of converting most measurements from English to metric. However, River Miles (RM) will remain in English units for the time being. The conversion table below will assist in interpreting units listed in metric for those more familiar with English units.

1 foot	=	0.3048 meter (m)	1 meter	=	3.2810 feet
1 mile	=	1.6090 kilometers (km)	1 kilometer	=	0.6214 mile
1 acre	=	0.4047 hectare (ha)	1 hectare	=	2.4710 acres
1 cubic yard	=	0.7646 cubic meter (m <sup>3</sup> )	1 cubic meter	=	1.3080 cubic yards

**4. Agency Review and Where to Reply.**

a. Department of the Army, Corps of Engineers. The project plans are being processed under the provisions of Section 404 of the Clean Water Act (33 U.S.C. 1344). Comments concerning the project should be addressed to the District Engineer, U.S. Army Corps of Engineers, Rock Island District, Clock Tower Building - Post Office Box 2004, Rock Island, Illinois 61204-2004. Mr. Lonn McGuire (309/794-5709) may be contacted for additional information. The return water from the proposed dredged material placement site is authorized by Nationwide Permit 16. The Iowa Department of Natural Resources has issued a water quality certification for Nationwide Permit 16.

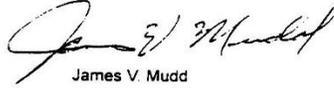
**CONCUR**

*∴ Ron Pulcher, RICDE*

NAME *L. Kaufmann* Iowa DNR office

DATE *6-21-99*

11. **Public Hearing Requests.** Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. A request may be denied if substantive reasons for holding a hearing are not provided.



James V. Mudd  
Colonel, U.S. Army  
District Engineer

Attach  
Plan

**REQUEST TO POSTMASTERS:** Please post this notice conspicuously and continuously until the expiration date specified at the top of page 1.

**NOTICE TO EDITORS:** This notice is provided as background information for your use in formatting news stories. This notice is not a contract for classified display advertising. For more information, call the Rock Island District Public Affairs Office, 309/794-5274.

**Enclosure 4 - DISTRIBUTION LIST**

**Citizen Potawatomi Nation**  
Dr. Kelli Mosteller, THPO  
1601 S Gordon Cooper Drive  
Shawnee OK 74801

**Forest County Potawatomi Community**  
Mr. Michael LaRonge, THPO  
5320 Wensaut Ln.  
P.O. Box 340  
Crandon, WI 54520

**Ho-Chunk Nation**  
Mr. Bill Quackenbush, THPO  
PO Box 667  
Black River Falls, WI 54615

**Iowa Tribe of Kansas and Nebraska**  
Mr. Lance Foster, THPO  
3345 B Thrasher Rd.  
White Cloud, KS 66094

**Iowa Tribe of Oklahoma**  
Mr. Eagle McClellan, Cultural Preservation  
Director  
335588 E. 750 Rd.  
Perkins, OK 74059

**Kaw Nation**  
Ms. Crystal Douglas, THPO  
Drawer 50  
Kaw City, OK 74641

**Kickapoo Tribe in Kansas**  
Mr. Curtis Simon, NAGPRA Director  
1107 Goldfinch Rd  
Horton, KS 66439

**Kickapoo Tribe of Oklahoma**  
Mr. Kent Collier, NAGPRA Coordinator  
PO Box 70  
Mcloud, OK 74851

**Menominee Indian Tribe of Wisconsin**  
Mr. David J. Grignon, THPO  
W2908 Tribal Office Loop Road  
P.O. Box 910  
Keshena, WI 54135-0910

**Meskwaki Nation**  
Mr. Johnathan Buffalo  
Director, Historic Preservation Department  
303 Meskwaki Road  
Tama, IA 52339

**Miami Tribe of Oklahoma**  
Ms. Diane Hunter, THPO  
P.O. Box 1326  
Miami, OK 74355

**Omaha Tribe of Nebraska**  
Mr. Thomas Parker, THPO  
PO Box 368  
Macy, NE 68039

**Osage Nation**  
Mr. Jess Hendrix, Archaeologist  
627 Grandview  
Pawhuska, OK 74056

**Otoe-Missouria Tribe**  
Ms. Elsie Whitehorn, THPO  
8151 Hwy 177  
Red Rock OK 74651

**Peoria Tribe of Indians of Oklahoma**  
Mr. Logan Pappenfort, THPO  
P.O. Box 1527  
Miami, OK 74355

**Ponca Nation**  
Ms. Halona Cabe, THPO  
20 White Eagle Dr.  
Ponca City, OK 74601

**Ponca Tribe of Nebraska**  
Mr. Nicholas Mauro, THPO  
PO Box 288  
Niobrara, NE 68760

**Prairie Band Potawatomi Nation**  
Ms. Hattie Mitchell, NAGPRA Representative  
16281 Q Road  
Mayetta, KS 66509

**Enclosure 4 - DISTRIBUTION LIST**

**Prairie Island Indian Community**

Mr. Noah White, THPO  
5636 Sturgeon Lake Road  
Welch, MN 55089

**Sac & Fox Nation of Missouri in Kansas  
& Nebraska**

The Honorable Tiauna Carnes, Chairperson  
305 North Main Street  
Reserve, KS 66434

**Sac and Fox Nation of Oklahoma**

Chris Boyd, NAGPRA Coordinator  
920883 S Hwy 99, Admin Bldg A  
Stroud, OK 74079

**Upper Sioux Community, Minnesota**

Ms. Samantha Odegard, THPO  
P.O. Box 147  
Granite Falls, MN

**Winnebago Tribe of Nebraska**

Mr. Eben Crawford, Curator & NAGPRA Asst.  
PO Box 687  
Winnebago, NE 68071

**State Historic Preservation Office**

Review & Compliance Coordinator  
600 E. Locust St.  
Des Moines, Iowa 50319-0290



## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

Illinois - Iowa Field Office

1511 47<sup>th</sup> Avenue

Moline, Illinois 61265

Phone: (309) 757-5800 Fax: (309) 757-5807

IN REPLY REFER TO:

FWS/ILIAFO

TAILS: 03E18000-2021-TA-2108

August 5, 2021  
Electronic Mail

Jodi Creswell  
Chief, Environmental Planning Branch  
Attn: Kyle Bales  
U.S. Army Corps of Engineers  
Rock Island District  
Clock Tower Building, P.O. Box 2004  
Rock Island, Illinois 61201-2004  
[kyle.bales@usacc.army.mil](mailto:kyle.bales@usacc.army.mil)

Dear Ms. Creswell:

This responds to your request for comments regarding proposed modifications to the Buffalo Dredged Material Management Plan (DMMP) site and associated preparation of a supplemental environmental assessment (EA), dated July 21, 2021. The project is located within Pool 16 of the Upper Mississippi River, between river miles (RM) 471.3 and 471.5, near Buffalo, Scott County, Iowa. The original combined EA and DMMP, titled "Dredged Material Management Plan for Dredged Material Placement, Site Plan for the Buffalo Dredge Cut, Upper Mississippi River Miles 472.0-473.2," was finalized in 1998 and was designed to address dredged material placement needs over a 40-year project lifespan. The proposed modifications are intended to address site access limitations and increase site capabilities through assessing site access from the Mississippi River, including dredging of an access channel and limited tree clearing, and construction of a confined placement unit within the existing DMMP footprint for the mechanical placement of fine dredged material. We are providing information concerning threatened and endangered species.

#### Threatened and Endangered Species

As described in your letter, nine federally listed species and one candidate species have ranges overlapping the project area. The federally threatened or endangered species include the Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), eastern massasauga (*Sistrurus catenatus*), Higgins eye pearl mussel (*Lampsilis higginsii*), sheepsnose mussel (*Plethobasus cyphus*), spectacle mussel (*Cumberlandia monodonta*), eastern prairie fringed orchid (*Platanthera leucophaea*), prairie bush-clover (*Lespedeza leptostachya*), and western prairie fringed orchid (*Platanthera praeclara*).

### Plant and Reptile Resources

Habitat descriptions for these species can be found on our website. You may use these descriptions to help you determine if there is suitable habitat within your project area. If no suitable habitat exists within your project area or its area of impact, and no species or critical habitat is present, it is appropriate to determine the project will have “no effect” on these species. If you determine the action will have “no effect” on these species or critical habitat, concurrence with that determination from the Service is not required. The Illinois-Iowa Ecological Services Field Office has no regulatory or statutory authority for concurring with “no effect” determinations. However, we recommend you maintain a written record of your “no effect” determination and include it in your decision record. An example “no effect” memo can be found on our website at <http://www.fws.gov/midwest/endangered/section7/s7process/letters.html>.

### Freshwater Mussels

A designated Higgins eye pearlymussel Essential Habitat Area (EHA) is located approximately 0.3 river miles downstream from the project area, between RM 470-471R. Monitoring events over the past two decades have resulted in the collection of 28 species, including Higgins eye pearlymussel and sheepsnose mussel (EcoAnalysts 2019). Additionally, Andalusia Slough, separated from the project area by Andalusia Island and the main channel, has historically been known to harbor a diverse mussel bed, including federally listed species.

It is our understanding, based on this information, a mussel survey was recently (early August 2021) conducted within the project area. We also understand that both Higgins eye pearlymussel and sheepsnose mussel individuals were collected within the survey area. The final survey report is pending.

We recommend project and access alignment alternatives be considered to avoid and minimize potential impacts to federally listed freshwater mussel species to the extent practicable. However, if the possibility of an adverse effect cannot be eliminated, the Corps is required to initiate formal consultation. As stated in your letter, the Corps intends to proactively begin preparation of a Biological Assessment (BA) concurrent with the survey effort and report preparation. The following link provides guidance for initiating formal consultation and preparing a BA: [http://www.fws.gov/midwest/endangered/section7/ba\\_guide.html](http://www.fws.gov/midwest/endangered/section7/ba_guide.html).

### Bats

As described in your letter, the proposed project includes the clearing of approximately 24 trees to facilitate site access and support return water infrastructure. We recommend access routes be aligned to avoid the clearing of trees considered to be potentially suitable habitat for listed bat species to the extent practicable. For any tree removal that cannot be avoided, we recommend clearing be limited to periods outside of the maternity season (October 1 through March 31).

### Migratory Birds

The Service removed bald eagles from protection under the Endangered Species Act on August 8, 2007. However, they remain protected today under the Migratory Birds Treaty Act and the Bald and Golden Eagle Protection Act (Eagle Act). The Eagle Act prohibits take which is defined as, “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb” (50 CFR 22.3). Disturb is defined in regulations as, “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, or 2) decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior.” In accordance with the avoidance measures described in the Eagle Act (16 U.S.C. 668-668c), any activities resulting in potential disturbance should be restricted within 660 feet of any identified active eagle nest to dates outside of the nesting season. Should activities be anticipated to result in potential take or disturbance of eagles or their nests, please contact the Region 3 Migratory Bird Office (<https://www.fws.gov/Midwest/eagle/contactus.html>).

### Conclusion

The above comments provide technical assistance only and do not constitute the report of the Secretary of the Interior on the project within the meaning of Section 2(b) of the Fish and Wildlife Coordination Act, do not fulfill the requirements under Section 7 of the Endangered Species Act, nor do they represent the review comments of the U.S. Department of the Interior on any forthcoming environmental statement.

If you have any questions regarding these comments, please contact me at the email address or the number below.

Regards,

Sara Schmuecker  
U.S. Fish and Wildlife Service  
Illinois-Iowa Field Office  
1511 47<sup>th</sup> Avenue, Moline, IL 61265  
(309) 757-5800, ext. 203  
[REDACTED]

### References

EcoAnalysts, Inc. 2019. Final report: Upper Mississippi River Higgins eye (*Lampsilis higginsii*) freshwater mussel monitoring synthesis report. Prepared for: U.S. Army Corps of Engineers – Rock Island, St. Paul, and St. Louis Districts. Pp 211 + Appendices.

**From:** [Schwake, Christine](#)  
**To:** [Bales, Kyle R CIV USARMY CEMVP \(USA\)](#)  
**Subject:** [Non-DoD Source] Re: Buffalo Dredge Material Placement Program Access Site (DMMP)  
**Date:** Tuesday, August 3, 2021 9:48:53 AM  
**Attachments:** 401 WOC 2017 IWPs Iowa DNR 03-17-2017.pdf

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Hi Kyle -

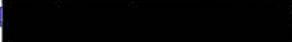
I am attaching the 401 for the nationwide permit 16. There isn't a 401 for RP 46 because it is a Section 10-only authorization.

So the bottom line for this project is that you have all the 401s you need.

Thanks for looking into this for me!

Chris

On Thu, Jul 22, 2021 at 5:03 PM Bales, Kyle R CIV USARMY CEMVP (USA)

<

Please find attached the coordination letter for Buffalo DMMP access site. Please provide any comments you may have about the project in 30 days. If you have any questions feel free to contact me.

Thank you,

Kyle Bales, Biologist

CEMVP-PD-P

US Army Corps of Engineers,

Clock Tower Building

P.O. Box 2004

Rock Island, IL 61204-2004



--



**Christine Schwake • Environmental Specialist**

Water Quality Bureau

***Iowa Department of Natural Resources***

**P 515-725-8399**

502 E 9th St, Des Moines, IA 50319





## STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR  
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
CHUCK GIPP, DIRECTOR

March 3, 2017

Mr. Ward Lenz  
Rock Island District Corps of Engineers  
Clock Tower Building  
PO Box 2004  
Rock Island, IL 61204-2004

Subject: Section 401 Water Quality Certification for the 2017 Nationwide Permits

Dear Mr. Lenz,

On January 6, 2017, in Part III of the Federal Register (Vol. 82 Number 4, pp 1860-2008) U.S. Army Corps of Engineers (Corps) announced the reissuance of 50 existing nationwide permits (NWP), general conditions, and definitions, with some modifications. The Corps also issued two new NWPs and one new general condition. The NWPs, general conditions, and definitions will be effective on March 19, 2017.

In accordance with Section 401 of the Federal Clean Water Act (33 U.S.C. par. 1251 et. seq.), the Iowa Department of Natural Resources has reviewed the proposed modifications and additions to the NWPs and Iowa Regional Conditions and, by this letter, is issuing Section 401 Water Quality Certification with the following conditions:

1. Side slopes of a newly constructed channel will be no steeper than 2:1 and planted to permanent, perennial, native vegetation if not armored.
2. Nationwide permits with mitigation may require recording of the nationwide permit and pertinent drawings with the Registrar of Deeds or other appropriate official charged with the responsibility for maintaining records of title to, or interest in, real property and require the permittee to provide proof of that recording to the Corps.
3. Mitigation shall be scheduled prior to, or concurrent with, the discharge of dredged or fill material into waters of the United States, unless an alternate timeline is specifically approved in the authorization.
4. For newly constructed channels through areas that are unvegetated, native grass filter strips, or a riparian buffer with native trees or shrubs a minimum of 35 feet wide from the top of the bank must be planted along both sides of the new channel. A survival rate of 80 percent of native species shall be achieved within three years of establishment of the buffer strip.

502 EAST 9th STREET / DES MOINES, IOWA 50319-0034  
PHONE 515-725-8200 FAX 515-725-8202 [www.iowadnr.gov](http://www.iowadnr.gov)

5. For single-family residences authorized under nationwide permit 29, the permanent loss of waters of the United States (including jurisdictional wetlands) must not exceed 1/4 acre.
6. For nationwide permit 46, the discharge of dredged or fill material into ditches that would sever the jurisdiction of an upstream water of the United States from a downstream water of the United States is not allowed.
7. For projects that impact an Outstanding National Resource Water, Outstanding Iowa Water, fens, bogs, seeps, or sedge meadows, a Pre-Construction Notice in accordance with General Condition No. 32 and an Individual Section 401 Water Quality Certification will be required.
8. For nationwide permits when the Corps' District Engineer has issued a waiver to allow the permittee to exceed the limits of the nationwide permit, an Individual Section 401 Water Quality Certification will be required.
9. Operation of heavy equipment within the stream channel should be avoided. If in-stream work is unavoidable, it shall be performed in such a manner as to minimize the duration of the disturbance, turbidity increases, substrate disturbance, bank disturbance, and disturbance to riparian vegetation. This condition does not further restrict otherwise authorized drainage ditch maintenance activities.
10. Any bank stabilization activity involving a method that protrudes from the bank contour, such as jetties, stream barbs and/or weirs, will require a Pre-Construction Notice in accordance with General Condition No. 32.
11. Beyond what is described in General Condition # 6, suitable fill material shall consist of clean materials, free from debris, trash, and other deleterious materials. If broken concrete is used as riprap, all reinforcing rods must be cut flush with the surface of the concrete, and individual pieces of concrete shall be appropriately graded and not exceed 3 feet in any dimension. Asphalt, car bodies, and broken concrete containing asphalt, and liquid concrete are specifically excluded.
12. No non-native, invasive or other plant species included on the Corps "Excluded Plant List" shall be planted for re-vegetation or stabilization purposes. The plant list can be found on the Corps website at: <http://www.mvr.usace.army.mil/Missions/Regulatory.aspx>. To prevent the spread of non-native and/or invasive plant species, the permittee shall ensure that equipment to be utilized in Waters of the United States is cleaned before arriving on site. Wash water shall not be discharged into any wetland, waterway, or any other surface water conveyances.

For any project that occurs on the Mississippi River, Missouri River, or a Category 4c 303(d) listed water body (attached), the Corps will contact the IDNR (Section 401 Water Quality staff) for project-specific comments/conditions to protect water quality/aquatic resources prior to finalizing the permit decision.

Best management practices must be used to prevent and control spills of hazardous substances and if there is a release, it must be reported to the Iowa Department of Natural Resources at 515-725-8694 as soon as possible but not later than 6 hours after the onset or discovery of the hazardous condition. If the hazardous condition involves the release of an EPA regulated material or an oil as defined by the EPA, the release may also need to be reported to the National Response Center at (800) 424-8802. Federal Reporting is required within 15 minutes of event occurrence or discovery.

We would like to ask the Corps to encourage applicants to use natural channel design principles and bioengineering techniques when the project involves reconstructing stream channels. This will help restore or enhance the habitat values of the reconstructed stream channel.

If you have any questions or comments regarding this Section 401 Water Quality Certification, please contact me at the address shown below or call [REDACTED]

Sincerely,



Christine M. Schwake  
Environmental Specialist

Enclosures

cc: Mr. John Moeschen, U.S. Army Corps of Engineers, Nebraska Regulatory Field Office, 8901 S. 154<sup>th</sup> ST, STE 1, Omaha, NE 68138-3635

Iowa Antidegradation Implementation Procedure

Appendix B – Outstanding Iowa Waters

<u>STREAMS</u>	<u>DESCRIPTION</u>	<u>Length (Miles)</u>
Baron Springs	Mouth (S2, T91N, R6W, Clayton Co.) to spring source (S4, T91N, R6W, Clayton Co.)	1.99
Bear Creek	From road crossing in SW ¼, NW1/4, S11, T86N, R10W, Benton Co. to E line, S25, T87N, R10W, Buchanan Co.	5.2
Bloody Run	From (W. line of Section 22, T95N, R4W, Clayton Co.) to the confluence with Unnamed Creek (NAD83) UTM Coordinates X(Easting) 645284.89 Y(Northing) 4766657.44	8.59
Brownfield Creek	Mouth (Clayton Co.) to spring source (S31, T91N, R3W, Clayton Co.)	.94
Clear Creek	Mouth (Allamakee Co.) to W. line of Section 25, T99N, R4W, Allamakee Co.	3.79
Deer Creek	Road crossing in SE¼, S35, T100N, R19W, Worth Co. to the N. line of S7, T100N, R19W, Worth Co.	7.29
Dousman Creek	Mouth (S33, T96N, R3W, Allamakee Co.) to Allamakee-Clayton Co. line	3.44
Duck Creek	From the mouth (S14, T100N, R06W Allamakee Co.) to the Iowa-Minnesota state line.	1.98
Ensign Creek (aka Ensign Hollow)	Mouth (S28, T92N, R6W, Clayton Co.) to spring source (S29, T92N, R6W, Clayton Co.)	1.05
Unnamed Creek (a.k.a. Erickson Spring Branch)	Mouth (S23, T98N, R4W, Allamakee Co.) to W. line of S23, T98N, R4W, Allamakee Co.	.91
French Creek	Mouth (Allamakee Co.) to E. line of Section 23, T99N, R5W, Allamakee Co.	5.58
Grannis Creek	Mouth (S30, T95N, R7W, Fayette Co.) to W. line of S36, T93N, R8W, Fayette Co.	3.56
Jones Creek	From the mouth (S19, T98N, R04W Allamakee Co.) to bridge crossing at Clonkitty Rd. (S14, T98N, R05W Allamakee Co.)	5.75
Kleinlein Creek	Mouth (Clayton Co.) to spring source (South Spring) (S10, T91N, R6W, Clayton Co.)	3.96
Linne Creek	From confluence with unnamed tributary in NE ¼, NW ¼, S34, T87N, R10W, Buchanan Co. to N. line of S23, T87N, R10W, Buchanan Co.	3.0
Little Paint Creek	Mouth to N. line of Section 30, T97N, R3W	1.92
Ludlow Creek	Mouth (S2, T96N, R6W, Allamakee Co.) to confluence with an unnamed tributary (S33, T97N, R6W, Allamakee Co.)	2.00
Mill Creek (aka Big Mill Creek)	Confluence with Little Mill Cr. to confluence with Unnamed Cr. (S1, T86N, R3E, Jackson Co.)	8.04
Mossey Glen Creek	Mouth (S3, T91N, R5W, Clayton Co.) to S. line of S10, T91N, R5W, Clayton Co.	1.96
North Bear Creek	Mouth (S25, T100N, R7W, Winneshiek Co.) to Iowa-Minnesota state line	6.39
Pine Creek (aka South Pine Creek)	Mouth (S26, T99N, R7W, Winneshiek Co.) to N. line of S21, T99N, R7W, Winneshiek Co.	2.80
Smith Creek (aka Trout River)	Mouth (S21, T98N, R7W, Winneshiek Co.) to S. line of S33, T98N, R7W, Winneshiek Co.	3.42
South Canoe Creek	From the mouth (S22, T99N, R08W Winneshiek Co.) to the bridge crossing at Winn Rd. (S21, T99N, R08W Win neshiek Co.)	1.90
Spring Branch Creek	Mouth (S10, T88N, R5W, Delaware Co.) to spring source (S35, T89N, R5W, Delaware Co.)	2.83
Storybook Hollow	Mouth (S7, T86N, R4E, Jackson Co.) to S. line of S12, T86N, R3E, Jackson Co	1.37
Trout Run	Mouth (S16, T98N, R4W, Allamakee Co.) through one mile reach	1.0
Twin Springs Creek	Mouth (S17, T98N, R8W, Winneshiek Co.) to springs in Twin Springs Park (S20, T98N, R8W, Winneshiek Co.)	0.61
Unnamed Creek (aka Cold Water Cr.)	Mouth (S32, T100N, R9W, Winneshiek Co.) to N. line of Section 31, T100N, R9W, Winneshiek Co.)	2.46
Unnamed Creek (aka S. Fk. Big Mill)	Mouth (S8, T86N, R4E, Jackson Co.) to W. line of S17, T86N, R4E, Jackson Co.	0.97
Village Creek	Mouth (Allamakee Co.) to W. line of S19, T98N, R4W, Allamakee Co.	13.32
Waterloo Creek	Mouth (S35, T100N, R6W, Allamakee Co.) to Iowa-Minnesota state line	9.39
West Branch French Creek	From the mouth (S23, T99N, R05W, Allamakee Co.) to the confluence with Unnamed Creek (S26, T99N, R05W, Allamakee Co.)	.67
<b>Grand Total</b>		<b>118.08</b>

<u>LAKES</u>	<u>Description (Section, Township, Range)</u>	<u>Size (Acres)</u>
Big Spirit Lake SGMA	S33, T100N, R36W	5684
West Okoboji Lake SGMA	S20, T99N, R36W	3,847

Appendix B

**Category 4c Impaired Waters**

<u>County(ies)</u>	<u>Water body</u>	<u>Location</u>
Adams	Binder Lake	S25, T72N, R34W
Boone & Dallas	Little Beaver Creek	S14, T81N, R27W (Dallas) to S29, T82N, R27W (Boone)
Cherokee & Ida	Maple River	S13, T88N, R40W (Ida) to S5, T91N, R39W (Cherokee)
Cherokee	Maple Creek	S5, T91N, R39W to S1, T91N, R39W
Clarke	South White Breast Creek	S3, T71N, R24W to headwaters
Clayton	Roberts Creek	S25, T94N, R5W to S16, T94N, R5W
Dallas & Boone	Little Beaver Creek	S14, T81N, R27W (Dallas) to S29, T82N, R27W (Boone)
Des Moines	Allen Green Refuge Marsh	S29, T72N, R1W
Fremont	Missouri River	Entire length
Guthrie	Lakin Slough	S34, T81N, R30W
Harrison	Round Lake	S13, T80N, R45W
Harrison	Missouri River	Entire length
Harrison & Shelby	Mosquito Creek	S9, T78N, R41W (Harrison) to NW 1/4, S12, T80N, R40W (Shelby)
Ida & Cherokee	Maple River	S13, T88N, R40W (Ida) to S5, T91N, R39W (Cherokee)
Ida	Halfway Creek	S22, T89N, R39W to SE 1/4, S24, T89N, R39W
Jasper & Poweshiek	North Skunk River	S20, T78N, R16W (Poweshiek) to S22, T81N, R19W (Jasper)
Kossuth & Winnebago	Little Buffalo Cr. (aka N. Buffalo)	S4, T97N, R27W (Kossuth) to S5, T98N, R26W (Winnebago)
Louisa	Klum Lake	S25, T75N, R2W
Lucas	White Breast Creek	S11, T73N, R22W to S22, T72N, R23W
Mahaska & Marion	Des Moines River	S33, T75N, R17W (Mahaska) to S19, T76N, R18W (Marion)
Marion & Mahaska	Des Moines River	S33, T75N, R17W (Mahaska) to S19, T76N, R18W (Marion)
Mills	Missouri River	Entire length
Monona	Missouri River	Entire length
Monona	Badger Lake	S28-33, T85N, R46W
Monona	Blencoe Lake	S25, T82N, R46W
Monona	Upper Blencoe Lake	S24, T82N, R46W
Monona	Rabbit Island Lake	S28, T85N, R47W
Pocahontas	Little Clear Lake	S6, T91N, R34W & S31-32, T92N, R34W
Pottawattamie	Jordan Creek	Mouth (S31, T74N, R39W) to Confluence w/Spring Creek (S4, T74N, R39W)
Pottawattamie	Missouri River	Entire length
Poweshiek & Jasper	North Skunk River	S20, T78N, R16W (Poweshiek) to S22, T81N, R19W (Jasper)
Sac	Black Hawk Wildlife Area	S9, T86N, R36W
Shelby & Harrison	Mosquito Creek	S9, T78N, R41W (Harrison) to NW 1/4, S12, T80N, R40W (Shelby)
Winnebago & Kossuth	Little Buffalo Cr. (aka N. Buffalo)	S4, T97N, R27W (Kossuth) to S5, T98N, R26W (Winnebago)
Woodbury	Missouri River	Entire length

Counties	OIW - 401	Fens, etc. - 401	4c - comments	Mississippi - comments	Missouri - comments
Adair		X			
Adams			X		
Allamakee	X	X		X	
Benton	X	X			
Black Hawk		X			
Boone			X		
Bremer		X			
Buchanan	X	X			
Butler		X			
Carroll		X			
Cerro Gordo		X			
Cherokee		X	X		
Chickasaw		X			
Clarke			X		
Clay		X			
Clayton	X	X	X	X	
Clinton		X		X	
Dallas			X		
Delaware	X	X			
Des Moines			X	X	
Dickinson	X	X			
Dubuque		X		X	
Emmet		X			
Fayette	X	X			
Floyd		X			
Franklin		X			
Fremont			X		X
Grundy		X			
Guthrie		X	X		
Hancock		X			
Harrison			X		X
Howard		X			
Ida			X		
Jackson	X			X	
Jasper			X		
Kossuth			X		
Lee				X	
Linn		X			
Louisa			X	X	
Lucas			X		
Mahaska			X		
Marion			X		
Mills			X		X
Mitchell		X			
Monona			X		X
Muscatine				X	
Osceola		X			
Pocahontas			X		
Pottawattamie			X		X
Poweshiek			X		
Sac			X		
Scott				X	
Shelby			X		
Story		X			
Warren		X			
Winnebago			X		
Winneshiek	X				
Woodbury			X		X
Worth	X				





DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, ROCK ISLAND DISTRICT  
PO BOX 2004 CLOCK TOWER BUILDING  
ROCK ISLAND, ILLINOIS 61204-2004

July 21, 2021

Regional Planning and Environmental  
Division North (RPEDN)

SEE DISTRIBUTION LIST

The U.S. Army Corps of Engineers, Rock Island District (District), is planning to modify the Dredge Material Management Program (DMMP) site near Buffalo, Iowa. The DMMP site is located in the Mississippi River, Pool 16, between river miles 471.3 and 471.5, in Scott County, Iowa (Enclosure 1). The District is preparing a supplemental environmental assessment (EA) addressing access changes and a new confined placement site at the DMMP site.

The District previously prepared an Environmental Assessment titled, *Dredged Material Management Plan for Dredged Material Placement, Site Plan for the Buffalo Dredge Cut, Upper Mississippi River Miles 472.0-473.2* (1998), for placement of dredged material for 40 years. Due to terrestrial access limitations across the train tracks from Highway 61, the District is proposing to access the site from the Mississippi River by dredging an approach channel from the main channel. This would require dredging and tree removal to provide access for equipment and return water infrastructure (Enclosure 2). Additionally, the supplemental EA will address the potential impacts of building a confined placement unit for the mechanical placement of fine dredged material (silts and clays) within the existing DMMP footprint.

The District carefully reviewed the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) website for a list of species and critical habitat that "may be present" within the project areas (Consultation Code 03E18000-2021-SLI-1868). No critical habitat for any listed species is present in the project areas or vicinity. There are 10 species listed for the Buffalo DMMP area (Enclosure 3). The District plans to conduct a mussel survey later this summer in the proposed access channel. As a proactive measure, the District is initiating a biological assessment (BA) to document compliance with the Endangered Species Act. If the mussel survey indicates there is no effect, the District will informally consult with the USFWS and cease development of the BA. The District estimates approximately 24 trees may be removed in the land-based access and return water infrastructure. The District will remove trees during the winter months (October 1-March 31) to avoid any potential impacts to undocumented maternal roosting areas for bats.

The District requests your comments on this project with respect to concerns for or anticipated effects on any resources within your agency's jurisdictional oversight. Any reports, studies, or other research concerning environmental resources in the project vicinity are also valuable. The District will likely seek 401 water quality certification for this project. A pre-filing meeting will be facilitated by the District upon request.

-2-

The point of contact for this action is Mr. Kyle Bales, [REDACTED]  
[REDACTED]

Sincerely,

Jodi K. Creswell  
Chief, Environmental Planning Branch  
RPEDN

Encls (3)

## DISTRIBUTION LIST

### STATE OF IOWA

#### DNR

Mississippi River HREP Biologist  
Fisheries Biologist  
Wildlife Management Biologist  
401 WQ Official

Kirk Hansen  
Andy Fowler  
Andy Robbins  
Christine Schwake

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#### CCB

Scott County

Roger Kean

[conservation@scottcountyiowa.gov](mailto:conservation@scottcountyiowa.gov)

#### Buffalo City Officials

City Hall

[buffalocityhall@mchsi.com](mailto:buffalocityhall@mchsi.com)

### STATE OF ILLINOIS

#### DNR

Matt Ohara  
Rebekah Anderson

[matt.ohara@illinois.gov](mailto:matt.ohara@illinois.gov)  
[rebekah.anderson@illinois.gov](mailto:rebekah.anderson@illinois.gov)

#### USFWS

OSIT Chair  
USFWS IA IL Field Office

Sara Schmuecker  
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Kathy Fields

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ENCLOSURE 1

Dredge Material Management Program Site Location



## ENCLOSURE 2

### Buffalo DMMP Access Dredging, Tree Removal, and Return Water Tubes Locations

Red polygons indicate where dredging and minimal tree removal will take place.  
Blue polygon indicates where the return water tubes will bring the water back to the river.



**ENCLOSURE 3**

**Buffalo, Iowa, DMMP Official Species List**



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Illinois-Iowa Ecological Services Field Office  
Illinois & Iowa Ecological Services Field Office  
1511 47th Ave  
Moline, IL 61265-7022  
Phone: (309) 757-5800 Fax: (309) 757-5807

In Reply Refer To:  
Consultation Code: 03E18000-2021-SLI-1868  
Event Code: 03E18000-2022-E-01695  
Project Name: Buffalo DMMP

January 14, 2022

Subject: Updated 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 any 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.

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 Service if they determine their project "may affect" listed species or critical habitat.

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 ECOS-IPaC website <http://ecos.fws.gov/ipac/> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. This website contains step-by-step instructions which will help you determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all wind energy projects, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.) and Migratory Bird Treaty Act (16 U.S.C. 703 et seq), 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, see our Eagle Permits website at <http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html> to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

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

## Official Species List

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

This species list is provided by:

**Illinois-Iowa Ecological Services Field Office**  
Illinois & Iowa Ecological Services Field Office  
1511 47th Ave  
Moline, IL 61265-7022  
(309) 757-5800

### Project Summary

Consultation Code: 03E18000-2021-SLI-1868

Event Code: Some(03E18000-2022-E-01695)

Project Name: Buffalo DMMP

Project Type: DREDGE / EXCAVATION

Project Description: Dredge placement site including the river where access will need to be established.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.452834949999996,-90.75348125931332,14z>



Counties: Scott County, Iowa

## Endangered Species Act Species

There is a total of 9 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.

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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. The location of the critical habitat is not available. 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

### Clams

NAME	STATUS
Higgins Eye (pearlymussel) <i>Lampsilis higginsii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5428">https://ecos.fws.gov/ecp/species/5428</a>	Endangered
Sheepnose Mussel <i>Plethobasus cyphus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6903">https://ecos.fws.gov/ecp/species/6903</a>	Endangered
Spectaclecase (mussel) <i>Cumberlandia monodonta</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7867">https://ecos.fws.gov/ecp/species/7867</a>	Endangered

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## 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
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/601">https://ecos.fws.gov/ecp/species/601</a>	Threatened
Prairie Bush-clover <i>Lespedeza leptostachya</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4458">https://ecos.fws.gov/ecp/species/4458</a>	Threatened
Western Prairie Fringed Orchid <i>Platanthera praeclara</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1669">https://ecos.fws.gov/ecp/species/1669</a>	Threatened

## 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.

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



## Wetlands

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

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

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

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

**DREDGE MATERIAL MANAGEMENT PROGRAM  
BUFFALO SITE 5 ACCESS CHANNEL  
MISSISSIPPI RIVER, POOL 16,  
RIVER MILES 471.3 TO 471.5**

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**ENVIRONMENTAL ASSESSMENT**

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**APPENDIX B**

**DISTRIBUTION LIST**

## LEGISLATIVE DISTRIBUTION LIST

### Federal

Charles Grassley	US Senator for Iowa
Joni Ernst	US Senator for Iowa
Mariannette Miller-Meeks	US House of Representative
Richard Durbin	US Senator for Illinois
Tammy Duckworth	US Senator for Illinois
Cheri Bustos	US House of Representative

### Iowa

Kim Reynolds	Governor of the State of Iowa
Jim Lykam	State Senator
Cindy Winckler	State House of Representative

### Illinois

J. B. Pritzker	Governor of the State of Illinois
Neil Anderson	State Senator
Michael Halpin	State House of Representative

## SHPO/TRIBAL DISTRIBUTION LIST

Dr. Kelli Mosteller	Citizen Potawatomi Nation
Michael LaRonge	Forest County Potawatomi Community
Bill Quackenbush	Ho-Chunk Nation
Lance Foster	Iowa Tribe of Kansas and Nebraska
Eagle McClellan	Iowa Tribe of Oklahoma
Crystal Douglas	Kaw Nation
Lester Randall	Kickapoo Tribe in Kansas
Kent Collier	Kickapoo Tribe of Oklahoma
David J. Grignon	Menominee Indian Tribe of Wisconsin
Johnathan Buffalo	Meskwaki Nation
Diane Hunter	Miami Tribe of Oklahoma
Thomas Parker	Omaha Tribe of Nebraska
Colleen Bell	Osage Nation
Elsie Whitehorn	Otoe-Missouria Tribe
Karen Stand	Peoria Tribe of Indians of Oklahoma
Liana Hesler	Ponca Nation
Nicholas Mauro	Ponca Tribe of Nebraska
Hattie Mitchell	Prairie Band Potawatomi Nation
Noah White	Prairie Island Indian Community
The Honorable Tiauna Carnes	Sac and Fox Nation of Missouri in Kansas and Nebraska
Chris Boyd	Sac and Fox Nation of Oklahoma
Samantha Odegard	Upper Sioux Community, Minnesota
Sunshine Thomas-Bear	Winnebago Tribe of Nebraska
Compliance Coordinator	Iowa State Historic Preservation Office

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Kathy Fields  
LTJG Evan Bledsoe  
Branden Leay Villalona

On-Site Inspection Team Co-Chair  
Project Director Illinois Iowa Field Office, USFWS  
NEPA Implementation Section USEPA Region 7  
NEPA Implementation Section USEPA Region 7  
FEMA Region VII  
Coast Guard  
Inland Waterways, US Department of Transportation

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Alex Moon  
Pete Hildreth  
Joe Larscheid  
Todd Bishop  
Kirk Hansen  
Andy Fowler  
Andy Robbins  
Christine Schwake  
Kelly Poole  
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Director of Iowa Department of Natural Resources  
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Steve Altman  
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Bradley Hayes

Director of Illinois Department of Natural Resources  
Illinois Department of Natural Resources

**COUNTY/CITY**

**Counties**

Roger Kean

Scott County Conservation Board

**Cities**

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Mayor, Buffalo, IA

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