US Army Corps of Engineers®
St. Paul District

Draft Environmental Assessment

Below Goose Bay Upper Pool 4 Dredge Cuts
Pool 4, Upper Mississippi River
River Miles 785.5 to 786.5

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Draft Environmental Assessment

Below Goose Bay Upper Pool 4

Dredge Cuts

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Draft Environmental Assessment

Below Goose Bay Upper Pool 4

Dredge Cuts

1 Introduction

1.1 Background

The U.S. Army Corps of Engineers (Corps) is responsible for the operation and maintenance of the 9-foot navigation channel on the Upper Mississippi River (UMR). To properly maintain the navigation channel, bathymetry surveys are periodically completed by the Corps to identify areas that may be experiencing excess sedimentation. Areas of high sedimentation or fill are caused by the normal cycle of silt movement, erosion from high water levels and changing river currents. Sedimentation on the river can also increase due to man-made alterations to the river channel (i.e., locks, dams, wing dams). Normal siltation generally takes place at predicable locations, allowing the Corps to perform dredging operations in a timely fashion to avoid imminent closure dredging or emergency dredging operations. Due to the unpredictable nature of the river, other areas or dredge cuts are periodically added to the Upper Mississippi River Channel Maintenance Management Plan (CMMP) to maintain the 9-foot navigation channel.

One section of the UMR that has been experiencing increased sedimentation is the area below Goose Bay in Upper Pool 4 between river miles 785.5 and 786.5, identified as the Project Area for this Environmental Assessment (Figure 1). The Project Area is expected to require routine dredging in the future and this Environmental Assessment has been completed to determine any effects that may occur due to dredging operations.

The Below Goose Bay (RM 785.5 -786.5) dredge cut is part of the Corps' 9-Foot Navigation Channel but was not a designated site covered by the Corps' Channel Maintenance Management Plan (CMMP); (U.S. Army Corps of Engineers, 1997a). Therefore, the effects of dredging this proposed cut were not addressed in the accompanying Environmental Impact Statement (EIS); (U.S. Army Corps of Engineers, 1997b), and are being addressed in this EA. However, the proposed placement sites for the disposal of the dredged material from this cut are identified in the CMMP and the effects of placing dredged material at these sites are addressed in the EIS. Therefore, the placement sites are not addressed again in this EA. Moreover, the proposed action would have no discharge into a water of the United States; therefore, a Clean Water Act Section 404(b)(1) evaluation is not needed.

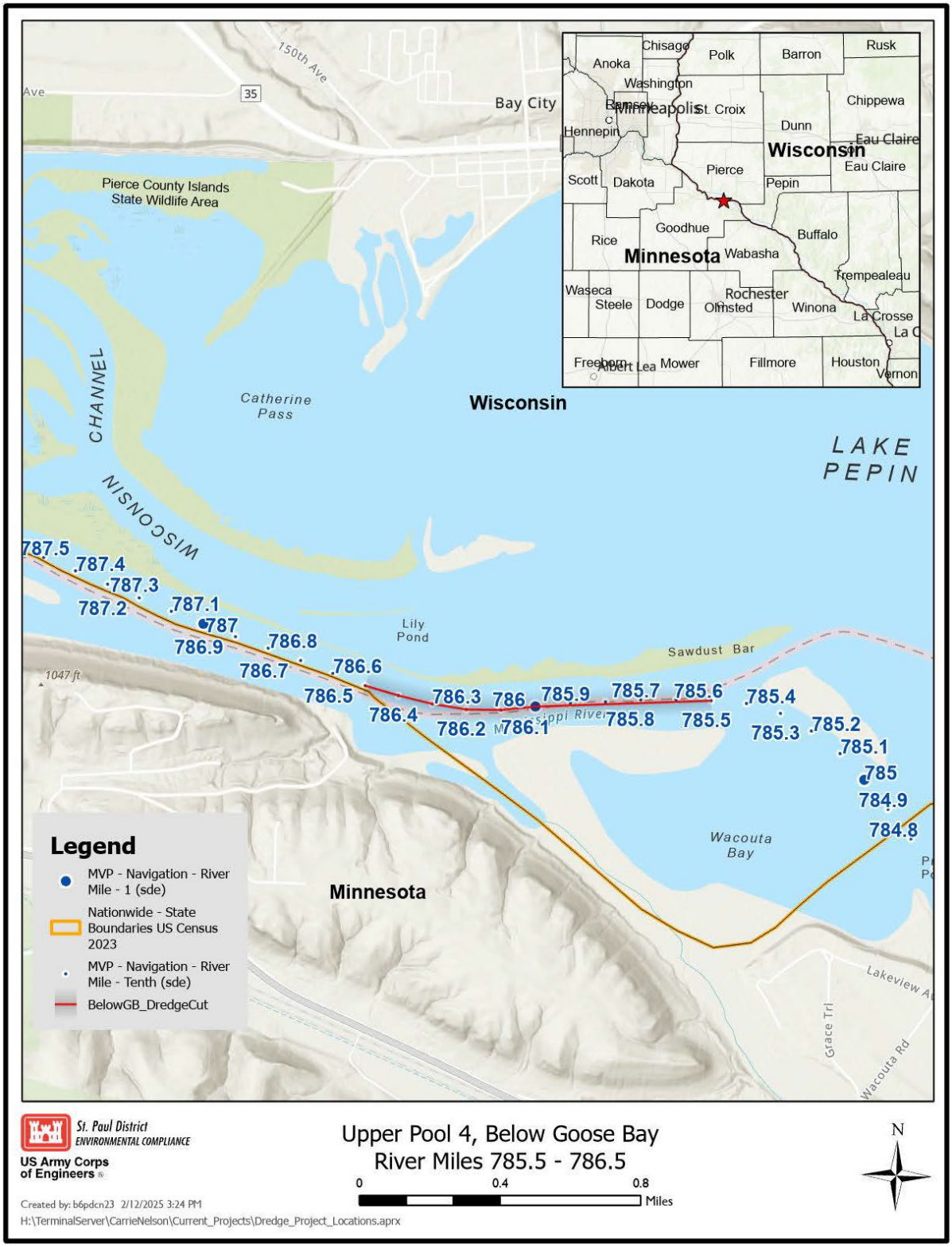

Figure 1. Project Area

1.2 Purpose and Need

The purpose of the proposed dredging would be for the maintenance of the navigation channel from river miles 785.5 – 786.5. This new dredge cut would be called Below Goose Bay and would be added to CMMP as a routine cut, allowing the Corps to dredge in a timely manner and reduce the chances of imminent closure dredging or closing navigation for emergency dredging. Dredging within the Project Area will be necessary to maintain the 9-foot channel, thus ensuring safe navigation throughout this section of the UMR. The most recent survey, collected in May 2025, shows the sediment building in the navigation channel (Figure 2).

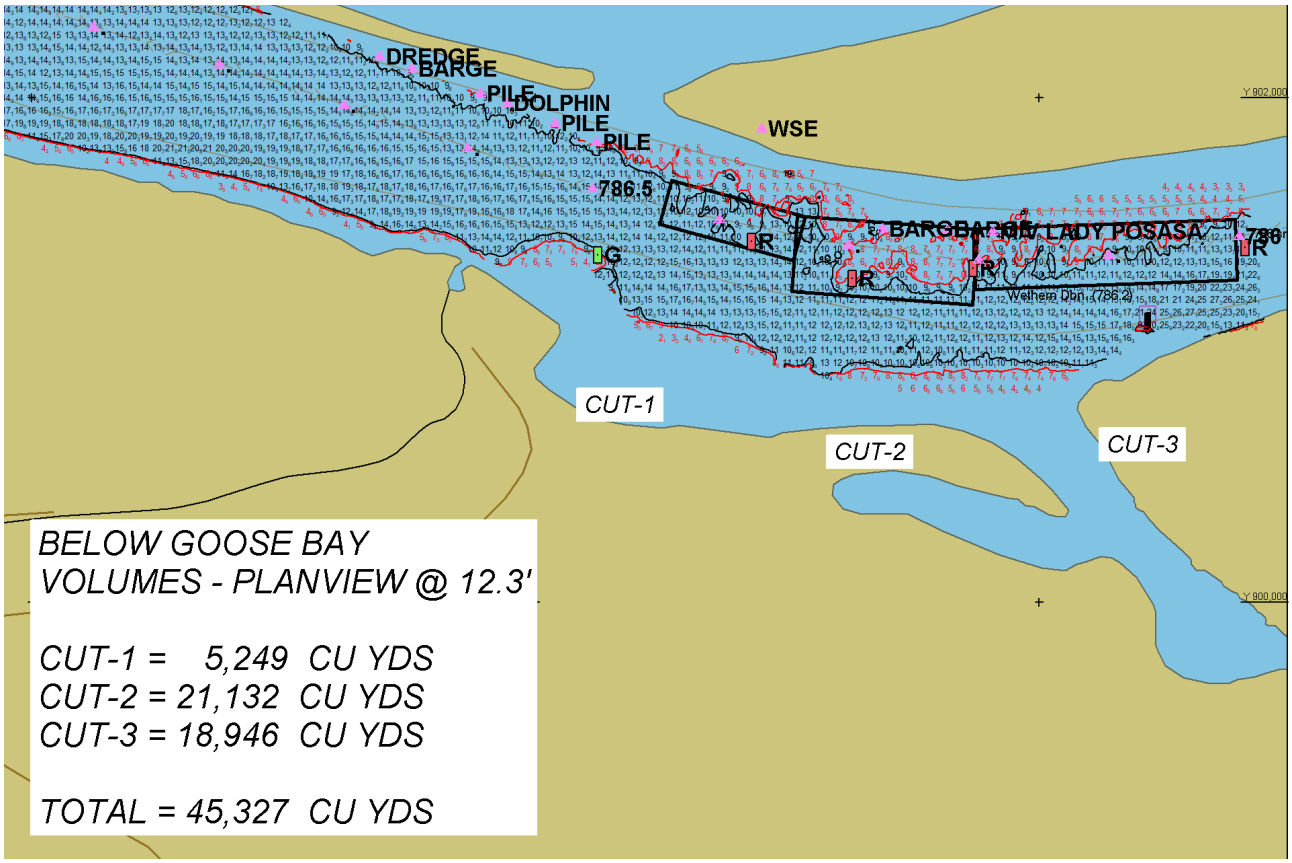

Figure 2. Sediment shoaling in the navigation channel.

1.3 Authority

Congress first authorized the Corps to maintain navigation on the Mississippi River through removing sandbars, snags and other obstacles via the Rivers and Harbors Act (RHA) of 1824. The RHA of 1930 and related subsequent legislation authorized the Corps to maintain a 9- foot navigable channel on the Mississippi River through the use of a lock and dam system. Today the Corps maintains the authority and responsibility for maintaining the 9- foot navigation channel throughout the UMR.

2 Alternatives

2.1 No Action Alternative

The No Action Alternative provides a baseline to which other alternatives can be compared. In this case, the No Action Alternative would be to not create the new dredge cut identified as Below Goose Bay. Without creating this new dredge cut this area would only be dredged under imminent closure or emergency closure conditions. This would mean that there would be no advance dredging taking place within river miles 785.5-786.5. Imminent closure procedures would begin once depths reach less than 10.5 feet within the navigable channel. Based on the most recent bathymetry survey, imminent closure dredging would need to be completed in the near future within this project area, as both the width and depth of the navigation channel is currently outside of the recommended dimensions.

Material dredged under the No Action Alternative would be placed at sites that are approved through the CMMP. If capacity is not available among approved sites, or timing is critical, dredged material would be placed in accordance with the CMMP. These options include first placing dredged materials into temporary or emergency placement sites and finally placing material in water adjacent to the navigation channel to be transferred at a later date. Though using alternative options are unlikely, the shortened timetable and unpredictability of imminent closure or emergency dredging operations make it more likely to occur than regular planned dredging events.

2.2 Proposed Alternative

The Proposed Alternative is to establish the new Below Goose Bay cut as a routine dredge cut between river miles 785.5 and 786.5 to allow for dredging when deemed necessary by the Corps. Maintaining the 9-foot navigation channel in this area is expected to rely primarily on mechanical dredging due to accessibility limitations of existing dredged material management sites. Hydraulic dredging remains a permissible method and will be considered for future use if viable disposal opportunities are identified. Neither dredging option would result in more than incidental movement or fallback of dredged material to the river.

The anticipated frequency of dredging for the Proposed Alternative is difficult to determine due to the unpredictable nature of sediment movement in the UMR. The Project Area may only need to be dredged every five years, but frequency could increase in the future as the sediment levels and flows rates fluctuate over time. For this reason, the frequency of dredging under the Proposed Alternative is adaptive in nature.

Dredged material from the Proposed Alternative would be placed at dredged material placement sites approved through the CMMP. If capacity is not available among approved sites, dredged material would be placed in accordance with the CMMP guidelines. These options include the placement of dredged material into temporary and emergency placement sites or placing material in water adjacent to the navigation channel to be transferred at a later date. These practices would be unlikely, especially since the Proposed Alternative would allow for a more predictable timetable regarding dredging needs.

3 Affected Environment and Environmental Consequences

The proposed project area is located near the head of Lake Pepin in Upper Pool 4 of the Mississippi River (Figure 1). Pool 4 is an impoundment of the Mississippi River resulting from the construction of Lock and Dam (LD) 4 in 1935 as part of the navigation channel project. Pool 4 is 44.2 miles long, extending from Red Wing, Minnesota at River Mile 797 to Alma, Wisconsin at River Mile 753.

Lake Pepin, a large river lake, is entirely contained within Pool 4 of the Upper Mississippi River (UMR). The average or typical elevation in Upper Lake Pepin is about 668.5 feet (NAVD 1988) based on the average discharge at LD 4 and according to Lake City gauge records from 1972 to present (USACE, n.d.). Presently, Lake Pepin stretches over 22 miles, extending from river mile 786 to 763.5 and averaging 1.7 miles wide. The average depth of the lake is 21 feet, and the maximum depth is 60 feet, though water depths throughout much of Upper Lake Pepin are less than five feet. Lake Pepin forms the boundary between Minnesota and Wisconsin and covers 29,000 acres.

3.1 Natural Resources

3.1.1 Air Quality

The U.S. Environmental Protection Agency is required by the Clean Air Act to establish air quality standards that primarily protect human health. These National Ambient Air Quality Standards (NAAQS) regulate six major air contaminants across the U.S. When an area meets criteria for each of the six contaminants, it is called an “attainment area” for the contaminant; those areas that do not meet the criteria are called “nonattainment areas.” Pierce County is classified as an attainment area for each of the six contaminants and is therefore not a region of impaired ambient air quality (EPA, n.d.). This designation means that the project area has relatively few air pollution sources of concern.

To minimize air emissions, the USACE requires contractors to meet or exceed all federal, state, and local air resource requirements.

No Action Alternative – The No Action Alternative would likely have no long-term effect on the air quality of the Project Area but could have a minor adverse effect on air quality under imminent closure or emergency dredging. Dredging would require the use of heavy equipment that would consume fossil fuels and produce exhaust. Effects of heavy equipment would be localized and last for a short duration and return to pre-existing conditions once dredging has ceased. If dredged material is placed temporarily in-water under imminent closure or emergency conditions as defined in the CMMP, that material would have to be moved to an approved temporary placement site later resulting in additional handling and more combustion emissions. Overall, adverse effects on air quality under the No Action Alternative would be minor and temporary.

Proposed Alternative – The Proposed Alternative would have similar effects to air quality to that of the No Action Alternative if dredging were to occur under imminent closure or emergency dredging conditions. However, the Proposed Alternative would allow for dredging to occur on a more routine, planned basis. This would increase the certainty that dredged material would be placed at approved placement sites, thereby reducing the potential for in-water placement and extra handling compared to the No Action Alternative. Therefore, the Proposed Alternative would likely have minor beneficial effects to air quality relative to the No Action Alternative.

3.1.2 Water Quality

Lake Pepin divides the rest of the pool into Upper Pool 4 and Lower Pool 4. The smaller backwaters of Upper Pool 4 have been degraded by sedimentation and high turbidity, resulting in limited aquatic vegetation. In contrast, the backwaters of Lower Pool 4 have less turbidity and better conditions for supporting aquatic vegetation, which is often abundant. Transparencies in the main channel above Lake Pepin during summer average 19 inches, while below Lake Pepin transparency averages 38 inches (Ratcliff, 2014).

The high sediment and nutrient loads from the Minnesota River greatly influence light penetration, primary production, and the growth of aquatic vegetation in Upper Pool 4. The general water chemistry of Upper Pool 4 is considered adequate to maintain most aquatic life. Because of the

nutrient enrichment and longer hydraulic retention times, Lake Pepin has algal blooms during low flow conditions that can cause significant temporal swings in dissolved oxygen, particularly in isolated sloughs and backwater lakes. Otherwise, the dissolved oxygen content of the water remains high year-round and above levels required to sustain a quality fishery. Because it is well mixed and has a large flow, the river is well aerated, and it can assimilate a considerable biochemical oxygen demand (BOD) loading.

The Wisconsin DNR has included the Mississippi River in the project reach on the 2024 303(d) list of impaired waters for total suspended solids (TSS), mercury and phosphorus in the water column, mercury, PCB's and PFOS in fish tissue (WDNR, 2024).

The Minnesota Pollution Control Agency has included the Mississippi River in the project reach on the 2024 303(d) list of impaired waters for total suspended solids (TSS), mercury, aluminum and PCBs in fish tissue, and mercury, sulfate, aluminum and Escherichia coli (E. coli) in the water column (MPCA, 2024).

No Action Alternative – The No Action Alternative may require dredging under imminent closure or emergency dredging operations, which would re-suspend previously deposited sediments, increasing local turbidity. Under the No Action Alternative there is a chance, though minor, for in-water placement of dredged materials adjacent to the navigation channel prior to transferring to an approved site. In-water dredged material placement would increase localized turbidity and lower water quality. Negative effects on water quality would be temporary and minor under the No Action Alternative.

Proposed Alternative – Water quality effects during planned dredging operations under the Proposed Alternative would be similar to the No Action Alternative; however, in-water dredged material placement would be far less likely. Relative to the No Action Alternative, the Proposed Alternative would have a minor beneficial effect on water quality.

3.1.3 Sediment Quality

Sediment quality is generally good in Pool 4. Main channel sediments are primarily medium to coarse sands with only trace amounts (generally less than 3 percent by weight) of silts and clays. Sand, silt, and clay sediments are found within defined sloughs, while finer silt and clay materials are found in boat harbors and marshy backwater areas.

A sediment survey will be completed by the Corps in July 2025 within the Proposed Alternative footprint, Below Goose Bay Dredge Cut. Due to unsafe commercial navigation conditions dredging within the project area is urgently needed and will be implemented as soon as the NEPA process can be completed. Because of the urgent timing involved this Draft EA is going through public review while final sediment testing results are pending. The sediment testing results will be used to determine the final placement of the dredged material; if contaminant levels are unacceptable for upland placement at an approved site, an alternative site will be used.

Sediment surveys conducted by the Corps of Engineers in October 2014 and September 2016, within the area immediately downstream of the proposed project, indicated sediment composition was predominantly coarse sand (98% sand, 2% silt). Laboratory analysis of these sediment samples revealed no contaminant concentrations exceeding Minnesota Pollution Control Agency (MPCA) Sediment Quality Targets (SQT) or Soil Reference Values (SRV).

Main-channel sediments within the proposed dredge cut are expected to be similar to the adjacent samples consisting primarily of course to medium sands with only trace amounts of silts and clays, making it unlikely for contaminates to be present.

No Action Alternative – The No Action Alternative allows for the possibility of future dredging due to imminent closure operations or emergency response. While dredging can temporarily disturb sediments and potentially release contaminants, existing data from sediment surveys near the project area suggest a limited risk. These surveys indicate that sediments are primarily coarse-grained, which are less likely to contain elevated contaminant levels.

Sediment quality testing is ongoing within the project area. Preliminary assessment, based on regional data, indicates that any sediment mobilization from dredging would likely be short-term and not result in significant contaminant impacts. If contaminants were released, it would be for a short period until they are reabsorbed to sediment particles or taken up by some biological form. Acute or chronic toxic releases would be unlikely.

Proposed Alternative – Dredging under the Proposed Alternative would have similar effects on sediment quality as described for the No Action Alternative. While the Proposed Alternative reduces the chance of in-water placement of dredged materials, existing data from sediment testing near the project area indicate the sediments are primarily coarse materials which are less likely to contain elevated contaminant levels. Because of this, the effects between planned dredge activities and emergency dredge operations are not expected to be substantially different from the No Action Alternative.

3.1.4 Wetlands

Wetlands are areas that are inundated or saturated by surface and ground water at a frequency to support vegetation typically adapted to saturated soils, which include swamps, marshes, bogs and similar areas. All areas within and near the proposed Below Goose Bay dredge cut area are classified as riverine deep-water habitats. Main channel and channel border areas are usually not indicative of wetland habitat or wetland plants due to depth and high flows. For these reasons, wetland habitats should not be a concern within the Project Area.

No Action Alternative – The No Action Alternative would have no effect on wetlands.

Proposed Alternative – The Proposed Alternative would have no effect on wetlands. All actions done for the project would occur within the proposed dredge cut, which is classified as riverine deep-water habitat that is not conducive for wetland plants.

3.1.5 Aquatic Habitat

A United States Fish and Wildlife Service (USFWS) publication, “An Aquatic Habitat Classification System for the Upper Mississippi River System” (Wilcox, 1993), was used to classify the aquatic area in the Nine Foot Navigational Channel Project. The navigation channel habitat, as defined by Wilcox, includes the areas maintained by the Corps to a minimum depth of 9 feet and width of 300 feet. Different curves or bends along the river require increased channel width to accommodate barges. Aquatic habitat along the proposed Below Goose Bay dredge cut area is classified as riverine deep-water habitat, or main-channel habitat.

No Action Alternative – The No Action Alternative could negatively impact the aquatic habitat of the main channel, especially under imminent closure or emergency dredging operations. Imminent closure or emergency dredging could result in the need for temporary placement of dredged material in the water adjacent to the cut or offloading material at an unapproved dredged material placement site. In-water placement, though rare, would alter the character and scope of the aquatic habitat near the Project Area. These actions under imminent closure or emergency dredging are unlikely and the dredged material would ultimately be removed and placed in a proper dredged material placement site, resulting in a minor impact to the aquatic habitat. These effects would reoccur with each needed dredging event.

Proposed Alternative – Aquatic habitat effects under the Proposed Alternative for dredging as similar to the effects discussed under the No Action Alternative. It is expected that dredged material would be placed at approved dredged material placement sites and that no in water placement occur unless an emergency or imminent need arises.

3.1.6 Floodplain

The proposed project dredging area is located entirely within the existing 9-foot navigation channel. All materials removed would be placed in existing upland dredged material management sites.

No Action Alternative – The No Action Alternative would have no effect on the floodplain or flood elevations.

Proposed Alternative – The Proposed Alternative would have no effect on the floodplain or flood elevations.

3.1.7 Terrestrial Habitat

The terrestrial habitat affected by the proposed dredge cut would involve areas where dredged material would be deposited. Sediment from the No Action Alternative and Proposed Alternative would utilize approved dredged material placement sites or temporary placement sites covered under the CMMP. This EA focuses on the potential effects of dredging within the proposed cut and does not evaluate the effects of sediment placement. The effects that dredged material would have on terrestrial habitat at placement sites were evaluated through the Environmental Impact Statement (EIS) associated with the CMMP.

3.1.8 Biological Resources

3.1.8.1 Fisheries

The fishery of Pool 4 is considered quite productive. Game fish found in the pool include northern pike, walleye, sauger, yellow perch, white bass, and a variety of centrarchids. Species including carp, buffalo, catfish, and drum dominate the commercial catch. Pool 4, especially Lake Pepin, is one of the most productive pools in terms of pounds of fish caught commercially. Pool 4 supports a very productive and highly utilized walleye and sauger sport fishery. Pool 4 also supports imperiled and/or rare fish species such as lake sturgeon, paddlefish and river redhorse.

Direct effects of turbidity and sedimentation on fishes include loss of benthic interstitial spaces for incubation, decreased water clarity for visual feeding species, habitat homogenization, physiological damage (e.g., gills, energy conversion, and stress), increased mortality, and altered distribution. Indirect effects include reduced recruitment rates, loss of structure (e.g., aquatic macrophytes), altered predator/prey ratios, reduced diversity, and skewed community structure – toward tolerant species (Ickes, 2003).

No Action Alternative – The No Action Alternative may require dredging under imminent closure or emergency dredging operations. Under emergency dredging operations there is a chance, though minor, for in-water placement of dredged materials adjacent to the navigation channel prior to transferring to an approved site. In-water dredged material placement would increase localized turbidity and lower water quality.

Fish are highly mobile and would likely disperse from the area once dredging operations begin under either alternative. Any fish pushed out of the dredge area could utilize similar habitat near to where dredging is occurring. Once dredging operations cease, fish would be free to reenter the area they once occupied. Because in-water placement of dredged materials would result in higher water turbidity than planned dredging activities, the No Action Alternative may result in minor adverse effects to fishes compared to the Proposed Alternative.

Proposed Alternative – Effects to fisheries during planned dredging operations under the Proposed Alternative would be similar to the No Action Alternative; however, in-water dredged material placement would be far less likely. Because planned dredging activities would result in lower water turbidity relative to the No Action Alternative, the Proposed Alternative would have a minor beneficial effect on fisheries.

3.1.8.2 Mussels

A diverse native mussel assemblage occurs within Upper Pool 4 including the federally endangered Higgins eye (*Lampsilis higginsii*) and spectaclecase (*Cumberlandia monodonta*) as well as several species listed for state protection in Minnesota and Wisconsin. Historically, a total of 43 mussel species occurred within Upper Pool 4 with more recent evidence indicating 35 species currently occur live (Kelner 2024). Mussels were nearly eliminated from the UMR mainstem upstream of Lake Pepin from Pools 1 through Upper 4 in the first three-quarters of the last century from pollution from the Twin Cities. Mussels began to recolonize the reach in the 1980s after the separation of the storm and sewer system in Minneapolis followed by improved water quality conditions. Given the improved conditions and natural native mussel recolonization, the federally endangered Higgins eye (*Lampsilis higginsii*), which hadn't naturally recolonized, was artificially propagated and reintroduced into Pools 2, 3, and Upper 4 in the early 2000's by the Corps and now appear to be self-reproducing.

Fingernail clams (*Musculium transversum*) thrive in areas of Upper 4 that have adequate oxygen and silt bottoms. They are important food items for waterfowl, especially diving ducks, and several species of fish. The zebra mussel (*Dreissena polymorpha*) is an invasive species first introduced in the UMR in the early 1990s hadn't become established in the UMR and St. Croix River upstream of Lake Pepin until the early 2000's but remain in relatively lower numbers within UMR Pool 1 through Upper Pool 4 than downstream of Lake Pepin. Presently, the lower St. Croix River population likely provides the upstream adult source population providing zebras mussel recruits to Pool 3 and Upper Pool 4. Albeit relatively low numbers, population levels fluctuate annually in Upper Pool 4. Zebra mussels are presented in 3.1.10.

Main channel habitat is not usually preferred mussel habitat due to shifting sand and shoaling that may occur. A recent mussel survey conducted within the proposed dredge cut footprint during May 2025 by the Corps yielded only one live individual Hickorynut (Obovaria olivaria), which is a common species. The surveys were conducted using a skimmer dredge and two transects totaled a distance of 889 m. No federal or state listed threatened or endangered species, or species proposed for federal listing were observed during the mussel survey. Prior surveys near the site resulted in more mussels but no federally listed species. The shifting substrate conditions that are evident on the hydrographic surveys and the recent shoaling and constricting of the navigation channel further reduces the likelihood of a mussel community developing in this location.

No Action Alternative – The No Action Alternative may require dredging under imminent closure or emergency dredging operations. During emergency dredging operations there is a chance, though minor, for placing dredged materials in the water adjacent to the navigation channel prior to transferring to an approved site. In-water placement could smother mussels adjacent to the navigation channel, would increase localized turbidity and lower water quality. Therefore, if in-water placement were to occur this could potentially have a greater negative effect on native mussels in the local vicinity than planned maintenance dredging where the dredged material is deposited in an approved dredged material management site.

Proposed Alternative – Effects to mussels during planned dredging operations under the Proposed Alternative would be similar to the No Action Alternative. However, in-water dredged material placement would be far less likely. Because planned dredging activities would result in

lower water turbidity and reduced activity footprint relative to the No Action Alternative, the Proposed Alternative would have a minor beneficial effect on mussels.

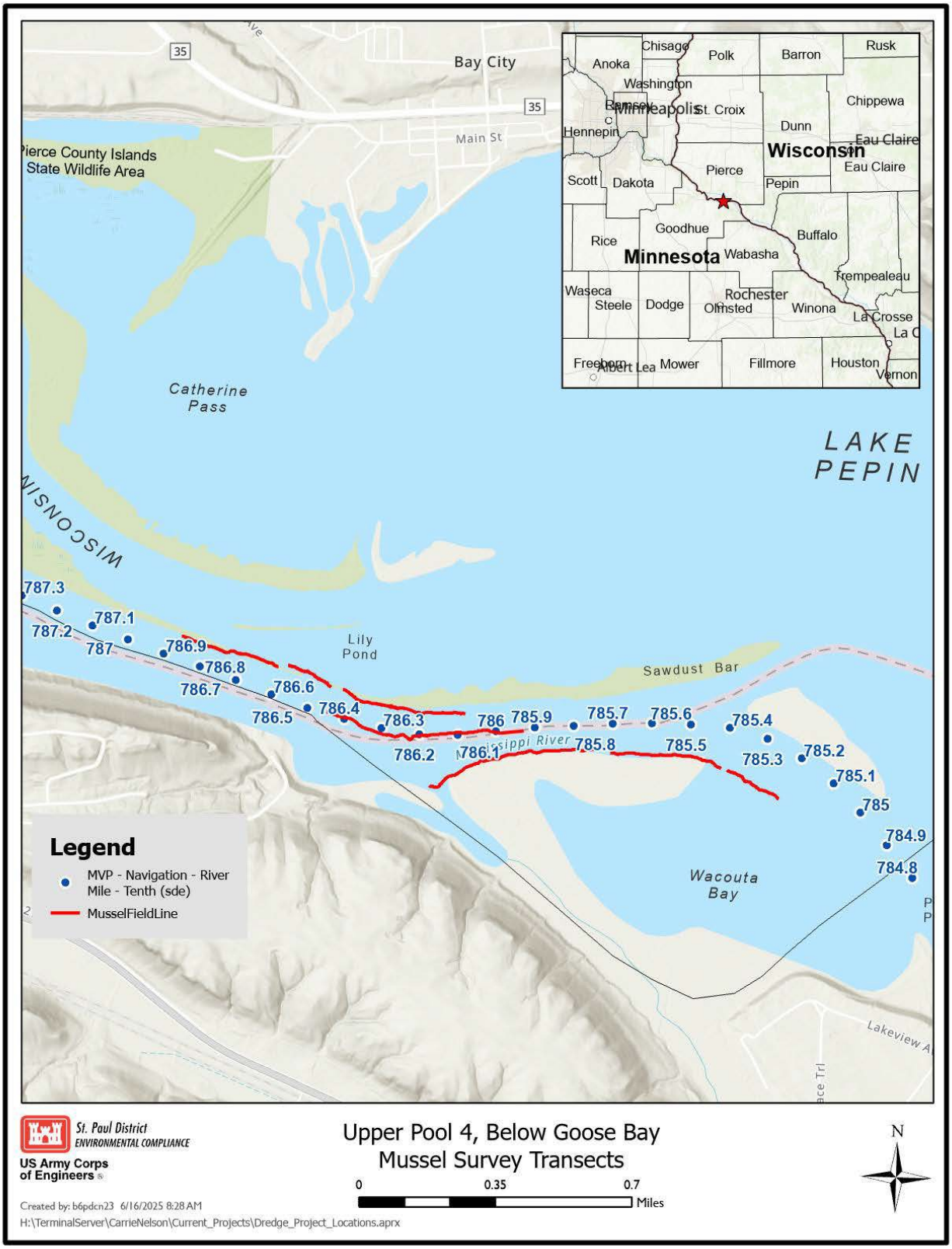

Figure 3. Mussel Survey Transects.

3.1.9 Threatened and Endangered Species

3.1.9.1 Federally Listed Species

The USFWS' Information for Planning and Conservation (IPaC) website was consulted on May 29, 2025, to determine if any proposed, candidate, threatened, or endangered species may occur within the study area. The results indicated that three federally listed endangered species, one proposed endangered species and one proposed threatened species may occur within the project area. No critical habitat for any of these species exists in or near the project area. Their common name, scientific name, status and preferred habitat type are further described in Table 1 Below:

Table 1. Federally listed species

Common Name	Scientific Name	Status	Habitat
Higgins eye	*Lampsilis higginsii*	Endangered	Mississippi River
Spectaclecase	*Cumberlandia monodonta*	Endangered	Mississippi River
Northern long-eared bat	*Myotis septentrionalis*	Endangered	Winter hibernation in caves or mines. Spring/fall swarming in surrounding wooded areas. Summer foraging in forested habitat understory. Summer roosts vary from human structures to tree crevices and cavities and occasionally caves or mines.
Tricolored bat	*Perimyotis subflavus*	Proposed Endangered	Northern populations spend winter hibernation in caves or mines. Spring/fall swarming in surrounding wooded areas. Summer foraging in forested habitat understory. Summer roosts are typically in live or recently dead trees amongst leaf clusters. Less often summer roosts include human structures to tree crevices and cavities and rarely caves or mines.
Monarch butterfly	*Danaus Plexippus*	Proposed Threatened	Eastern population adults overwinter in central Mexico. Spring/summer/fall adults feed on native flowering plants in wide ranging habitats. Native milkweed species are required as a larval host plant for successful reproduction.

No Action Alternative – Based on mussel survey results (see section 3.1.8.2 *Mussels*) it's unlikely Higgins eye or spectaclecase would be impacted as the species were not collected during previous surveys and habitat conditions are not conducive for the species near the site. The proposed dredge cut does not provide habitat for the northern long-eared bat, tricolored bat, or monarch butterfly. Therefore, the No Action alternative would have no effect on any federally listed species, nor would it jeopardize species proposed for listing.

Proposed Alternative – Based on mussel survey results there are no federally listed threatened or endangered mussel species that would be impacted from the Proposed Action. Additionally, the Proposed Alternative would not impact either habitat for, nor individuals of other proposed or listed species including monarch, northern long-eared bat and tricolored bats. Therefore, the Proposed Alternative would have no effect on any federally listed species, nor would it jeopardize species which are proposed for listing.

3.1.9.2 State Listed Species

The MDNR Natural Heritage Information System Natural History Inventory (NHI) identified 18 species listed as State Threatened or Endangered within a 2-mile radius of the project area. Of the 18 species identified, 2 species are fish, 1 is a reptile and 15 species are freshwater mussels.

The WDNR Natural Heritage Information System Rare Features Database (NHIS) identified 18 species listed as State Threatened or Endangered within a 2-mile radius of the project area. Of the 18 species identified, there is 1 mammal, 11 mussels and 6 fish species.

A mussel survey by the Corps at the site on May 22, 2025, revealed no State-protected mussels were present. Previous surveys within 1 mile of the proposed project site have identified state-listed species.

Table 2. State listed species.

Common Name	Scientific Name	*Minnesota Status	**Wisconsin Status	Habitat
Lake sturgeon	*Acipenser fulvescens*	SC	SC	Mississippi River
American eel	*Anquilla rostrata*	SC	SC	Mississippi River
Black buffalo	*Ictiobus niger*	_	THR	Mississippi River
Blue sucker	*Cycleptus elongatus*	SC	THR	Mississippi River
Mississippi silvery minnow	*Hybognathus nuchalis*	SC	_	Mississippi River
Mud darter	*Etheostoma asprigene*	_	SC	Mississippi River
Goldeye	*Hiodon alosoides*	_	END	Mississippi River
Paddlefish	*Polyodon spathula*	THR	THR	Mississippi River
Pallid shiner	*Hybopsis amnis*	_	END	Mississippi River
Skipjack herring	*Alosa chrysochloris*	END	END	Mississippi River
Buckhorn	*Tritogonia verrucosa*	_	THR	Mississippi River
Butterfly	*Ellipsaria lineolate*	THR	END	Mississippi River
Ebonyshell	*Fusconaia ebena*	END	END	Mississippi River
Elephant ear	*Elliptio crassidens*	END	END	Mississippi River
Fawnsfoot	*Truncilla donaciformis*	THR	THR	Mississippi River

Higgins eye	*Lampsilis higginsii*	END	END	Mississippi River
Monkeyface	*Theliderma metanevra*	END	THR	Mississippi River
Pistolgrip	*Tritogonia verrucosa*	END	_	Mississippi River
Purple wartyback	*Cyclonaias tuberculata*	END	END	Mississippi River
Rock pocketbook	*Arcidens confragosus*	END	THR	Mississippi River
Sheepnose	*Plethobasus cyphyus*	END	END	Mississippi River
Yellow sandshell	*Lampsilis teres*	END	END	Mississippi River
Mucket	*Actinonais ligamentina*	THR	_	Mississippi River
Elktoe	*Alasmidonta marginata*	THR	SC	Mississippi River
Spike	*Eurynia dilatata*	THR	_	Mississippi River
Black sandshell	*Ligumia recta*	SC	_	Mississippi River
Washboard	*Megalonaias nervosa*	END	SC	Mississippi River
Round pigtoe	*Pleurobema sintoxia*	SC	_	Mississippi River
Leonard's skipper	*Hesperia leonardus leonardus*	SC	_	Dry prairie habitats including prairie, savanna and woodland openings.
Leadplant flower moth	*Schinia lucens*	SC	_	Mesic to dry native prairie and savanna communities where leadplant is present.
Big brown bat	*Eptesicus fuscus*	_	THR	Winter hibernation in caves or mines. Spring/fall swarming in surrounding wooded areas. Summer foraging in forested

				habitats near water sources. Summer roosts vary from human structures to tree crevices and cavities.
Northern long-eared bat	*Myotis septentrionalis*	SC	–	Winter hibernation in caves or mines. Spring/fall swarming in surrounding wooded areas. Summer foraging in forested habitat understory. Summer roosts vary from human structures to tree crevices and cavities and occasionally caves or mines.
Tricolored bat	*Perimyotis subflavus*	SC	–	Northern populations spend winter hibernation in caves or mines. Spring/fall swarming in surrounding wooded areas. Summer foraging in forested habitat understory. Summer roosts are typically in live or recently dead trees amongst leaf clusters. Less often summer roosts include human structures to tree crevices and cavities and rarely caves or mines.
Timber rattlesnake	*Crotalus horridus*	THR	–	Forested bluffs, south-facing rock outcrops and bluff prairies particularly along the Mississippi river valley.
North American racer	*Coluber constrictor*	SC	–	Winter hibernation in mammal burrows, caves, rock crevices, gravel banks or human constructed foundations and old wells. Spring/summer/fall wide ranging from deciduous forests to grasslands. Woodland margins and field edges are preferred in summer.
Smooth Softshell	*Apalone mutica*	SC	SC	Large rivers with sandy or mud bottoms, lakes, impoundments and shallow bogs.
Red-shouldered hawk	*Buteo lineatus*	SC	–	Overwinter in lowland areas near water in central and southern US and Central America. Spring/summer habitat is large tracts of mature deciduous forest

				with wetland openings and floodplain forests.
Peregrine falcon	*Falco peregrinus*	SC	_	Historically, nest on cliff edges along rivers or lakes. Some have adapted to nesting on buildings and bridges. Prefer to hunt in open non-forested areas.

*Copyright 2024, State of Minnesota, Department of Natural Resources (DNR). Rare Features Data included here were provided by the Division of Ecological and Water Resources, Minnesota DNR, and were current as of 30 May 2024. This data is not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present. *(END = Endangered; THR = Threatened; SC = Special Concern).

**Copyright 2025, State of Wisconsin, Department of Natural Resources (DNR). Element Occurrence Data included here were provided by accessing the Natural Heritage Inventory Portal database 23 April 2025. **(END = Endangered; THR = Threatened; SC = Special Concern).

No Action Alternative – The No Action Alternative may require dredging under imminent closure or emergency dredging operations. During emergency dredging operations there is a chance, though minor, for placing dredged materials in the water adjacent to the navigation channel prior to transferring to an approved site. In-water dredged material placement could smother and kill mussels and would increase localized turbidity and lower water quality. If in-water placement were to occur this could potentially have a greater negative effect on state-listed freshwater mussels in the local vicinity than planned maintenance dredging where the dredged material is deposited in an approved dredged material management site. Any state-list fish species in the area would likely not be affected as they would avoid the disturbance. Other state-listed species would not be affected.

Proposed Alternative – The proposed action alternative would not affect State-listed mussel species because none are found at the site. State-listed fishes that prefer main channel habitat may be affected indirectly through temporary displacement during active dredging. However, fish will be able to return to these areas immediately after dredging is complete. Other state-listed species would not be affected.

3.1.10 Invasive Species

Pool 4 is a 26-mile section of the Mississippi River, created by Lock and Dam 4 near Red Wing, Minnesota and Hager City, Wisconsin. These slower-moving sections of the river, often called “pools,” can be particularly vulnerable to invasive species. The slower water makes it easier for them to become established, and the changed environment can sometimes help non-native plants and animals thrive. The Mississippi River itself is an important route for the spread of these species.

The U.S. Geological Survey (USGS) maintains the Species Information and Range Explorer Network (SIREN), a publicly accessible, geo-referenced database documenting the distribution of invasive species. SIREN data were queried on May 13, 2025, to identify aquatic invasive species reported within Pool 4. Table 3 presents the results of this query, focusing on aquatic species with ten or more documented occurrences. (USGS, n.d.)

Table 3. Aquatic invasive species reported in Pool 4.

Scientific Name	Common Name	Number of Occurrences
Cyprinus carpio Linnaeus	Common Carp	317
Salmo trutta Linnaeus	Brown Trout	170
Oncorhynchus mykiss	Rainbow Trout	51
Dreissena polymorpha	Zebra Mussel	38
Lythrum salicaria L.	Purple Loosestrife	17
Corbicula fluminea	Asian Basket Clam	13
Hypophthalmichthys nobilis	Bighead Carp	12
Daphnia lumholtzi	Spiny Waterflea	11

Siren: the National Early Detection and Rapid Response (EDRR) Information System. www.invasivespecies.gov/siren. Accessed 13 May 2025.

No Action Alternative – The no action alternative would not be expected to result in adverse effects to invasive species by increasing their populations or introducing new species to the region. The movement of dredged material in the project area could in theory provide opportunities for the movement and establishment of invasive species, but relative to the movement of such species through other means such as flooding or other natural or human-induced movements, the effects of dredged material management would be inconsequential (U.S. Army Corps of Engineers, 2022).

Proposed Alternative – The Recommended Plan is not expected to have a measurable effect on invasive species establishment over the no action alternative. Dredged material is placed upland and if it were to contain any viable invasive aquatic plant species seeds, they would be unable to establish in upland habitats.

3.2 Socio-economic Resources

The Pool 4 region is mainly composed of rural small cities, towns, villages, and unincorporated areas, bounded by Lock and Dam 3 near Mississippi river mile 797 and Lock and Dam 4 near mile 753. Red Wing, Minnesota is the largest community along this stretch with a population of 16,444 and is located southeast of Lock and Dam 3 between river miles 792 and 789. Sprinkled along the River on the Wisconsin side are towns and villages with populations under 1,000, including Bay City, Maiden Rock, Stockholm, Pepin, and Nelson (US Census Bureau).

The Burlington Northern Santa Fe Railroad closely follows all of Pool 4's shoreline on the Wisconsin side. The Canadian Pacific Railroad traces along most of Pool 4 on the Minnesota side, veering away from the river around river mile 763 to pass through Wabasha, Minnesota.

The Mississippi River provides a commercially navigable channel, authorized by Congress, maintained at a 9-foot depth for barge traffic. This traffic facilitates the transport of a diverse range of commodities throughout the Upper Mississippi River System (UMRS). According to data from the American Community Survey, primary cargoes include agricultural commodities, petroleum products, and coal, with agricultural products comprising approximately 50 percent of the total tonnage shipped (US Department of Transportation, n.d.).

3.2.1 Recreation

The river supports valued recreational activities and aesthetic enjoyment, which has led to the development of numerous elements of recreational and aesthetic infrastructure around Pool 4. These elements are efficiently summarized by the 2011 Mississippi River Guide (MN DNR, 2011) by the Minnesota Department of Natural Resources. Based on this guide, throughout the

Pool 4 stretch there are 11 marinas, 3 docking facilities, 4 fishing piers, 11 parks, 2 resorts, 7 private campgrounds, 23 areas of public access to the river, a national wildlife refuge, and two other areas of interest.

Frontenac State Park in Minnesota is a large park and campground, covering river miles 784 to 776. It provides bird watching, public camping, 13 miles of hiking trails, picnicking, and panoramic overlooks.

Marinas surrounding Pool 4 within the project area include Red Wing Marina (Red Wing, Minnesota, river mile 791), Trenton Island Marina (Hager City, Wisconsin river mile 791) and Bill's Bay Marina (Red Wing, Minnesota, river mile 759).

No Action Alternative – The No Action Alternative could potentially have an adverse effect on recreation if the channel must be closed due to unsafe navigation conditions and imminent closure is necessary. Closure of the navigational channel would be temporary, but the public would have little or no prior notice of imminent closure or emergency dredging. The No Action Alternative would likely result in minor short term adverse effects on recreational opportunities within Pool 4. The temporary minor effects would reoccur whenever imminent closure or emergency dredging is necessary.

Proposed Alternative – The Proposed Alternative would allow for maintenance dredging within the navigation channel before imminent closure conditions are met, rarely resulting in the closure of the navigational channel or impeding recreational opportunities. Compared to the No Action Alternative the Proposed Alternative would have a minor short term benefit by eliminating the need for temporary closures of the navigational channel.

3.2.2 Aesthetic Values

Despite regular commercial and recreational boat traffic, the proposed project area lies within a stretch of the river highly valued for its natural beauty and often appearing as a largely undisturbed landscape.

No Action Alternative – The No Action Alternative would normally not affect the aesthetics of the Project Area. However, if imminent closure or emergency dredging were to occur it would result in an unexpected increase in dredging equipment presence and activity. Since aesthetic values depend on the visual appeal of the environment, some could view dredging operations as unsightly, resulting in a temporary adverse effect.

Proposed Alternative – The Proposed Alternative is anticipated to result in aesthetic effects during planned dredging operations comparable to those associated with imminent closure or emergency dredging under the No Action Alternative. However, the Proposed Alternative would reduce the potential for in-water placement of dredged material, which necessitates repeated handling and movement of sediment. Consequently, the Proposed Alternative would result in a minor beneficial effect on aesthetics relative to the No Action Alternative.

3.2.3 Noise

Noise levels within the Project Area are similar to that of other reaches of the UMR. These reaches typically have occasional to frequent commercial and recreational traffic through the navigational channel. Noise levels would increase as commercial and recreational watercraft move through the Project Area and decrease as watercraft leave the area. The Project Area would experience higher noise levels during daylight hours while boat traffic is typically higher.

No Action Alternative – The No Action Alternative would have no effect on the noise level throughout the Project Area in the near term. However, if channel siltation continues and imminent closure or emergency dredging occurs, the noise level would increase in the vicinity of

the Project Area, resulting in a temporary minor adverse effect. Noise levels would return to normal following the completion of the dredging work.

Proposed Alternative – The Proposed Alternative would have similar effects on noise levels to that of the No Action Alternative if dredging were to occur under imminent closure or emergency dredging conditions. However, the Proposed Alternative would allow for dredging to occur on a more routine, planned basis. This would increase the certainty that dredged material would be placed at approved placement sites, thereby reducing the potential for in-water placement and extra handling compared to the No Action Alternative. Therefore, the Proposed Alternative would likely have minor beneficial effects to noise levels relative to the No Action Alternative.

3.2.4 Commercial Navigation

Commercial navigation transports 669 million tons of cargo along the Mississippi River each year. This mode of commodity transport is a large contributor to the country's transportation need and generates a transportation cost savings of more than $6.2 billion in domestic transportation savings annually (USACE, 2019). Nearly half of the nation's grain exports are moved by barge, making commercial navigation extremely important to the nation's food supply and economy.

No Action Alternative – Under the No Action Alternative, temporary channel closures may be required with little warning, causing a disruption in the commercial navigation industry both locally and regionally. Channel closures are expected to occur infrequently and be temporary; however, if they do occur commercial navigation would be suspended causing delays in the transportation of goods up and down the river through Pool 4. Such delays would likely result in higher transportation costs that could substantially affect the commercial navigation industry both locally and regionally. For this reason, the No Action Alternative could result in substantial adverse impacts to commercial navigation in the future.

Proposed Alternative – The Proposed Alternative would result in continued commercial navigational movement within the 9-foot navigational channel at the Project Area by avoiding the need for imminent closure. The Proposed Alternative would allow the Corps to schedule needed dredging within the proposed dredge cut, called "Below Goose Bay" in a timely fashion. Therefore, the Proposed Alternative would have lasting substantially beneficial effects on commercial navigation relative to the No Action Alternative.

3.3 Cultural Resources

The Corps reviewed the Minnesota Statewide Historic Inventory Portal, the Office of the State Archaeologist Portal, the Wisconsin Historic Preservation Database (WHPD), the National Register of Historic Places (NRHP), and the Corps Project files and reference library of cultural resource reports to identify historic properties within the area of potential effect (APE). One historic property, the 9-foot navigation channel, was identified within the area.

The Corps identified the horizontal APE extending to the width (10-feet) of the navigation channel and the length of one (1) mile between river mile (RM) 786.5 and 785.5. The vertical APE is on average 12-feet below the low control pool elevation. The APE does not contain submerged historic wrecks or historic wingdams. Additionally, there is low probability of impacting intact archaeological deposits that would be eligible for the NRHP given the increased rate of sedimentation triggering the Undertaking.

No Action Alternative – Under the No Action Alternative, imminent closure procedures would occur which could include dredging under imminent closure or emergency dredging conditions. Placement of dredged material would be in accordance with the CMMP. If available, material would be placed at an approved dredged material placement site. If no approved placement site has capacity or timing is critical, a temporary or emergency placement site may be used. Finally,

the dredged material may be placed in adjacent waters outside of the navigation channel, to be collected and moved to an approved placement site at a later date. If emergency dredging actions occur and material is placed at an approved, temporary, or emergency site, the Corps, following the process outlined in the CMMP, is in compliance with the NHPA and thus there would be no effects to cultural resources or historic properties. However, if emergency dredging results in dredged material being placed in adjacent waters outside of the navigation channel, additional compliance may be needed.

Proposed Alternative – The Proposed Alternative would have No Adverse Effect to Historic Properties. The dredging activity would occur within the 9-foot navigation channel which is considered eligible for listing on the NRHP. However, the activity would not adversely affect the 9-foot channel. All associated placement activities will adhere to the CMMP.

3.4 Cumulative Effects

Analyzing cumulative effects requires identifying the environmentally relevant area and the past, present, and future actions in that area that would contribute incrementally to the overall effect. The environmentally relevant area is determined by both location and time. Future actions are those that are reasonably likely to occur. A future project is only considered in this analysis if there is sufficient information on the project to understand what its incremental contribution to cumulative effects might be.

3.4.1 Past, Present and Future Projects

Below Goose Bay proposed dredge cut project area is located within the Upper Mississippi River (UMR) which has been the subject of many studies and water resource projects over the last several decades. Table 4 references the actions taken in the Upper Pool 4 since 2001.

Table 4. Prior studies and projects in Upper Pool 4.

Type	*USACE Designation*	*Year*	*Relevance*
Study	Channel Management Study Pool 3/Upper Pool 4	2001	Previous Channel Management Study completed in this project reach.
Project	Higgins eye mussel reintroduction activities in Pool 4	2003 - 2010	Studying includes considerations for environmental constraints specifically for mussel habitat.
Study	Mississippi River Upper Pool 4 Section 1122 Pierce County Islands Head of Lake Pepin Backwater Complex Feasibility Study and Integrated Environmental Assessment	2020	Ecosystem restoration feasibility study within this project reach
Project	Upper Pool 4 Section 1122 Project Design Documentation Study, Plans and Specifications	2022	Ecosystem restoration project Planning, Engineering, & Design (PED) documentation within this project reach
Project	Island 4 NESP Documentation Study, Plans and Specifications	2023	Ecosystem restoration project Planning, Engineering, &

			Design (PED) documentation within this project reach
Project	Wacouta Bay NESP Planning Implementation Study	2024	Ecosystem restoration project planning study within this project reach

3.4.2 Cumulative Effects Analysis

The cumulative impacts of the Corps' CMMP were addressed in the EIS (U.S. Army Corps of Engineers, 1997b). The proposed alternative here would generally have beneficial environmental effects relative to the No Action alternative due to the avoidance of adverse effects that would occur under imminent closure or emergency dredging conditions. Therefore, there would be no adverse cumulative effects to resources in Pool 4 when considered in combination with other routine dredging in the pool.

Table 5. Environmental Assessment Matrix: indicates the adverse and beneficial effects of the Proposed Alternative when compared to the No Action Alternative for the Project Area.

	No Action Alternative							Proposed Alternative						
	BENEFICIAL				ADVERSE			BENEFICIAL				ADVERSE		
PARAMETER	SIGNIFICANT	SUBSTANTIAL	MINOR	NO EFFECT	MINOR	SUBSTANTIAL	SIGNIFICANT	SIGNIFICANT	SUBSTANTIAL	MINOR	NO EFFECT	MINOR	SUBSTANTIAL	SIGNIFICANT
A. Social Effects														
1. Noise Levels					ST					ST				
2. Aesthetic Values					ST					ST				
3. Recreational Opportunities					ST					ST				
4. Transportation				X							X			
5. Public Health and Safety				X							X			
6. Community Cohesion (Sense of Unity)				X							X			
7. Community Growth and Development				X							X			
8. Business and Home Relocations				X							X			
9. Existing/Potential Land Use				X							X			
10. Controversy				X							X			
B. Economic Effects														
1. Property Values				X							X			
2. Tax Revenue				X							X			
3. Public Facilities and Services				X							X			
4. Regional Growth				X							X			
5. Employment				X							X			
6. Business Activity				X							X			
7. Farmland/Food Supply				X							X			
8. Commercial Navigation						X			X					
9. Flooding Effects				X							X			
10. Energy Needs and Resources				X							X			
C. Natural Resource Effects														
1. Air Quality					ST					ST				
2. Terrestrial Habitat				X							X			
3. Wetlands				X							X			
4. Aquatic Habitat					ST					ST				
5. Habitat Diversity and Interspersion				X							X			
6. Biological Productivity				X							X			
7. Surface Water Quality					ST					ST				
8. Water Supply				X							X			
9. Groundwater				X							X			
10. Soils				X							X			
11. Threatened or Endangered Species				X							X			
D. Cultural Resource Effects														
1. Historic Architectural Values				X							X			
2. Precontact & Historic Archeological Values				X							X			

X = Long-term effects; ST = Short-term recurring effects.

4 Environmental Compliance

4.1 National Environmental Policy Act

The National Environmental Policy Act (NEPA; 42 USC § 4321 et seq.) establishes the broad national framework for protecting our environment. NEPA's basic policy is to assure proper consideration to the environment prior to undertaking any major federal action. Two alternatives have been presented and the significance of the project's impacts have been evaluated. The document will be distributed to agencies, the public and other interested parties to gather any comments or concerns. If no significant impacts to the environment are found, a Finding of No Significant Impact (FONSI) will be signed by the St. Paul District commander.

4.2 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone from taking, possessing, or transporting an eagle, or the parts, nests, or eggs of such birds without prior authorization. Disturbing an eagle to a degree that causes, or is likely to cause injury to an eagle, decrease productivity or cause nest abandonment are considered forms of take. Activities that directly or indirectly lead to take are prohibited without a permit.

There are multiple eagle nests along the upper Mississippi river corridor including areas adjacent to the proposed dredge location. However, eagles residing in the vicinity of the 9-foot navigation channel are largely accustomed to barge traffic and related disturbances. Therefore, it is unlikely that the brief dredging operations under either the No Action or proposed action would have any effect on resident bald or golden eagles.

4.3 Clean Water Act

The Clean Water Act (CWA; 33 USC §1251 *et seq.*) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.

Section 404 of the CWA regulates the discharge of dredged or fill material into waters of the United States and is administered by USACE. The Corps does not issue permits to itself but complies with the provisions of the Act.

Section 401 water quality certification is required for actions that may result in a discharge of a pollutant into waters of the United States to ensure that the discharge complies with applicable water quality standards.

Dredging actions which meet the defined activities in the Code of Federal Regulations (CFR) 33 CFR 323.2 do not require CWA section 404 authorization. 33 CFR 323.2(d)(3) identifies incidental fallback of dredged materials which occur incidentally during the dredging process and excludes such fallback materials from the definition of "fill" as defined under the CWA. The proposed method of dredging under the Proposed Alternation would be consistent with this incidental fallback exemption. As waters of the United States would not be filled under the proposed alternative;, a Clean Water Act Section 404(b)(1) evaluation and a 401 Water Quality Certification are not required.

4.4 Endangered Species Act

The Endangered Species Act (16 USC § 1531 et seq.) provides for the conservation of threatened and endangered plants and animals and the habitats in which they are found.

Federally Threatened and Endangered Species

The St. Paul District has determined that the No Action and Proposed Alternatives would have no effect on federally listed threatened or endangered species. The proposed dredge cut, located within the main-channel of the river, would not provide habitat for northern long-eared bat, tricolored bat or the monarch butterfly. The only federally listed species that would have the potential to be affected by the proposed dredge cut would be Higgins eye and spectaclecase mussels. The IPaC website indicated there is no critical habitat for these species within the proposed dredge area.

Mussel surveys were completed within the project area in May 2025 which resulted in finding no listed mussel species within the project area.

State-Listed Rare Species

State-threatened and endangered fish species would not be affected under the No Action Alternative and the Proposed Alternative within the Project Area due to their mobility. There were no observations of state-threatened or endangered mussel species within the proposed dredge area during the Corps' mussel survey. Though there is the possibility for mussels to be present, the cut area is not deemed as favorable mussel habitat, nor does it contain any known mussel beds.

4.5 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA; 16 USC 661–667e) requires federal agencies to coordinate with the U.S. Fish and Wildlife Service and applicable state agencies when a stream or body of water is proposed to be modified. The proposed project was coordinated with the Minnesota DNR, Wisconsin DNR and the USFWS on 8 May 2025. A copy of the FWCA coordination can be found in Appendix B.

4.6 National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, as amended by Public Law 96-515 (94 Stat. 2987), established national policy for historic preservation, authorized the Secretary of the Interior to expand and maintain a National Register of Historic Places, and created the Advisory Council on Historic Preservation. Section 106 specifies that federal agencies, must consider the effect of the action on any property included in or eligible for the National Register of Historic Places.

The Corps has determined the project would have no adverse effect to historic properties. The Corps initially coordinated this action would have No Effect with the Wisconsin and Minnesota State Historic Preservation Offices (SHPO) on 20 March 2025. The Wisconsin SHPO concurred with the Corps' finding on 24 March 2025. On 23 April 2025, the Minnesota SHPO recommended a finding of no adverse effect to historic properties because the Project would take place in the 9-foot navigation channel, which is considered eligible to the NRHP (Appendix B). The Corps revised their finding to No Adverse Effect and is in compliance with the NHPA. Per Section 106 of the NHPA, and its implementing regulations 36 CFR 800.2(c)(2)(ii) the Corps is required to consult with Tribes when an Undertaking has the potential to affect historic properties which a Tribe may attach religious or cultural significance to. The Corps did not consult with Tribes for this Undertaking because there is no potential for historic properties within the APE that a Tribe may attach religious or cultural significance to.

Table 6. Compliance with Environmental Protection Statutes and Other Environmental Requirements

Environmental Requirement	Compliance[1]
Federal Statutes	
Archaeological and Historic Preservation Act	FULL

Bald and Golden Eagle Protection Act of 1940, as amended	FULL
Clean Air Act, as amended	FULL
Clean Water Act, as amended	FULL
Coastal Zone Management Act, as amended	NA
Endangered Species Act of 1973, as amended	FULL
Farmland Protection Policy Act of 1981	NA
Federal Water Project Recreation Act, as amended	FULL
Fish and Wildlife Coordination Act, as amended	FULL
Land and Water Conservation Fund Act of 1965, as amended	NA
Migratory Bird Treaty Act of 1918, as amended	FULL
National Environmental Policy Act of 1969, as amended	PARTIAL
National Historic Preservation Act of 1966, as amended	FULL
National Wildlife Refuge Administration Act of 1966	NA
Noise Pollution and Abatement Act of 1972	FULL
Watershed Protection and Flood Prevention Act	FULL
Wild and Scenic Rivers Act of 1968, as amended	NA
Executive Orders, Memoranda	
Floodplain Management (E.O. 11988)	FULL
Safeguarding the Nation from the Impacts of Invasive Species (E.O. 13112)	FULL
Protection and Enhancement of Cultural Environment (E.O. 11593)	FULL
Protection of Wetlands (E.O. 11990)	FULL
Analysis of Impacts on Prime and Unique Farmland (CEQ Memorandum, 30 August 1976)	NA

[1] The compliance categories used in this table were assigned according to the following definitions:

a. Full – All requirements of the statute, EO, or other policy and related regulations have been met for the current stage of planning.

b. Partial – Some requirements of the statute, EO, or other policy and related regulations remain to be met for the current stage of planning.

c. Noncompliance (NC) – Violation of a requirement of the statute, EO, or other policy and related regulations.

d. Not Applicable (NA) – Statute, EO, or other policy and related regulations not applicable for the current stage of planning.

5 Coordination

Planning for the overall project has been coordinated with the public, state and federal agencies, and other interested parties. Detailed descriptions of compliance efforts and comments received can be found in the Environmental Coordination and Public Review Comments section (Appendix B).

6 Summary of BMPs and Construction Restrictions

All contractors performing dredging and construction activities for the Corps are required to follow applicable Best Management Practices (BMPs). These practices cover a range of important areas including pre-dredge planning and preparation, turbidity control, dredged material management, aquatic habitat protection, Invasive species prevention and monitoring and reporting.

7 Distribution and Review of the Draft Environmental Assessment

This draft environmental assessment is being made available for a 30-day public review and comment period. The document can be viewed at: https://www.mvp.usace.army.mil/Home/Public-Notices/.

Questions on the project or comments on the Environmental Assessment can be directed to Carrie Nelson at 651-290-5567 or at CEMVP_Planning@usace.army.mil. Please address all formal written correspondence on this project to District Engineer, St. Paul District, Corps of Engineers, ATTN: Regional Planning and Environment Division North, 332 Minnesota Street, Suite E1500, St. Paul, Minnesota 55101.

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APPENDIX A

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APPENDIX B

Environmental Coordination and Public Review Comments

APPENDIX C

Sediment Sampling Results