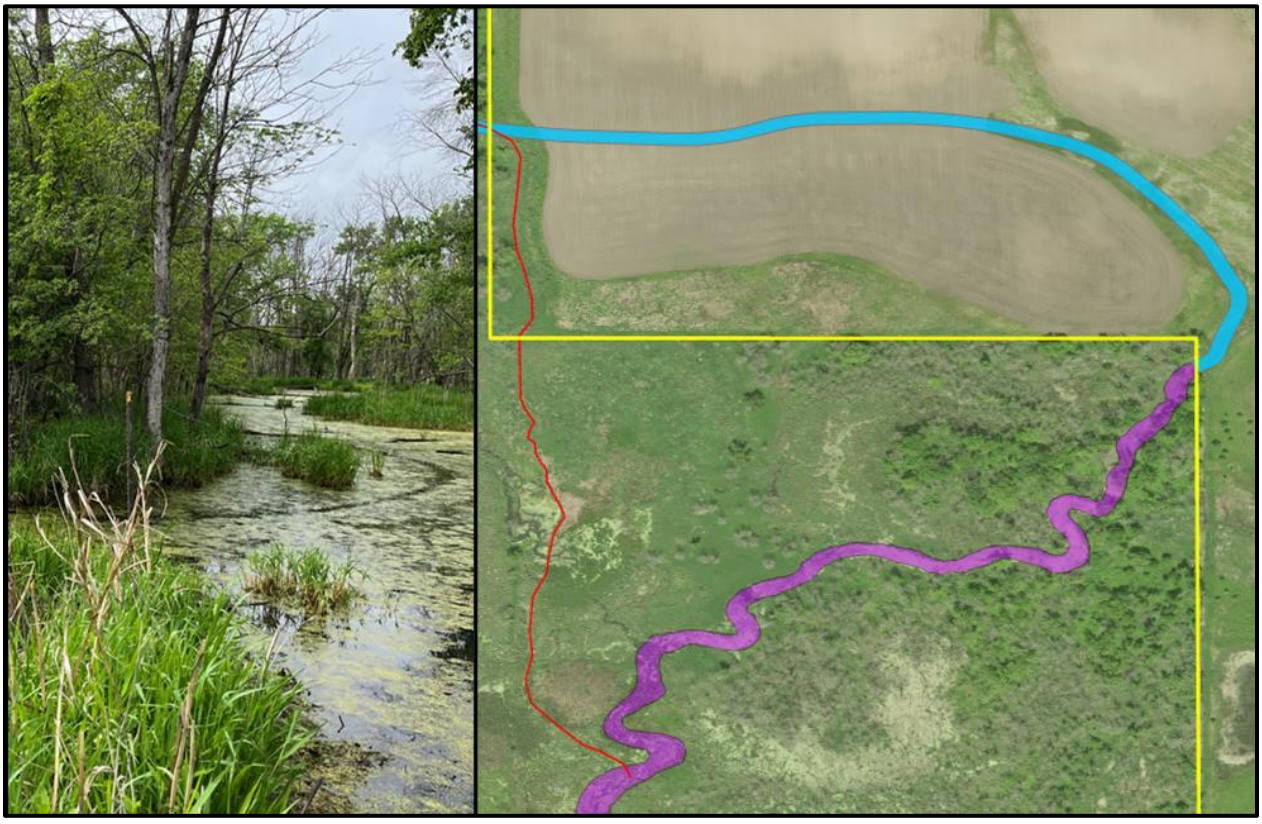
US Army Corps of Engineers®
St. Paul District

Draft Environmental Assessment

Rolling Prairie Dredged Material Management Site: Gorman Creek Restoration

Upper Mississippi River Pool 5
Wabasha County, MN

2025



Draft Environmental Assessment

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Wabasha County, Minnesota

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1 Introduction

1.1 Background

The U.S. Army Corps of Engineers, St. Paul District (Corps) operates the 9-foot Channel Navigation Project on the Upper Mississippi River (UMR) between Minneapolis, Minnesota, and Guttenberg, Iowa. Project operations require regular removal of dredged material (river sand) from areas of the bed of the main navigation channel to ensure sufficient depth for barges and other large commercial watercraft. Dredged material must be managed in a cost-effective and environmentally acceptable manner. In 2019, the Corps completed a Dredged Material Management Plan (DMMP) for Pool 5 which included the purchase of a 944-acre tract of land that would satisfy dredged material management needs in Pool 5 for the next 100 years. This large parcel, now called the Rolling Prairie site, contains land currently in agricultural production, several wetland areas, and a wetland mitigation site. Near the southwestern corner of the property, there is a historic stream channel that was re-routed around the property to maximize farmland potential in the 1990s. The historic stream channel is entirely within a portion of the property that has been planned for wetland preservation and restoration. The Corps proposes to restore the creek to the old channel alignment and restore the riparian wetland around the channel to restore ecological function at the site. The proposed restoration would also have incidental benefits to the adjacent McCarthy Lake Wildlife Management Area (WMA), owned and managed by the Minnesota Department of Natural Resources (MNDNR).

This Environmental Assessment is tiered off of the 2019 DMMP. The 2019 DMMP includes the purpose, need, plan formulation, benefits, and effects of the acquisition of and dredged material placement at the Rolling Prairie site in compliance with NEPA. The conditions and environmental effects described in the 2019 DMMP are still valid to support the project evaluated in this EA. This EA provides project-specific analysis of the proposed project and alternatives as a tiered NEPA document consistent with 40 CFR 1501.11 and 1508.1(ff). When the analysis presented in the 2019 DMMP is adequate, no additional analysis is provided and instead the 2019 DMMP is incorporated by reference.

1.2 Purpose and Need

The Corps owns in-fee the Rolling Prairie site. The historic channel of Gorman Creek passes through the southwestern portion of the Rolling Prairie site, in an area that is planned for riparian and emergent and forested wetland restoration. Restoring the historic creek alignment would contribute to the restoration goals for the site and those of the adjacent McCarthy WMA, as well as restore hydrological function both on and around the Rolling Prairie site.

1.3 Authority

Authority for continued operation and maintenance of the UMR 9-Foot Channel Navigation Project is provided in the Rivers and Harbors Acts of 1930 and 1932. Original authority for the Corps to work on the Mississippi River was provided in the Rivers and Harbors Act of 1878. 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) I study, which were implemented, in part, in the Channel Maintenance Management Plan (CMMP). The proposed project is consistent with the CMMP's plan for dredged material placement site management and Corps policy, as outlined in Chapter 2 of Engineering Regulation 1130-2-540, for natural resource management of Corps civil works project lands pursuant to the Forest Cover Act, 16 U.S.C. § 580n, and other applicable authority.

1.4 Related Studies and Reports

The following studies and projects addressing channel maintenance, resource management, land use, and recreational planning in Pool 5 have the most relevance to this study. These studies and reports are being incorporated into this Environmental Assessment by reference.

1.4.1 Channel Maintenance Management Plan (CMMP) and Environmental Impact Statement (Record of Decision 1997)

The CMMP and accompanying Environmental Impact Statement (EIS) is the St. Paul District's plan for channel maintenance and dredged material management for the UMR. The report was published in 1996. Much of the plan is devoted to the designation and design of dredged material placement sites. Included in this report is a discussion of the District's program for channel management.

1.4.2 Pool 5 Dredged Material Management Plan (2020)

This Feasibility Report and Integrated Environmental Assessment documents a planning effort to prepare a coordinated, long-term plan for managing dredged material in Pool 5 of the UMR. The recommended plan from this study included the purchase and use of the Rolling Prairie site. FONSI signed 10 February 2020.

1.4.3 Land Use and Operational Plan: Rolling Prairie Property Dredged Material Management Mixed Use Site (2024)

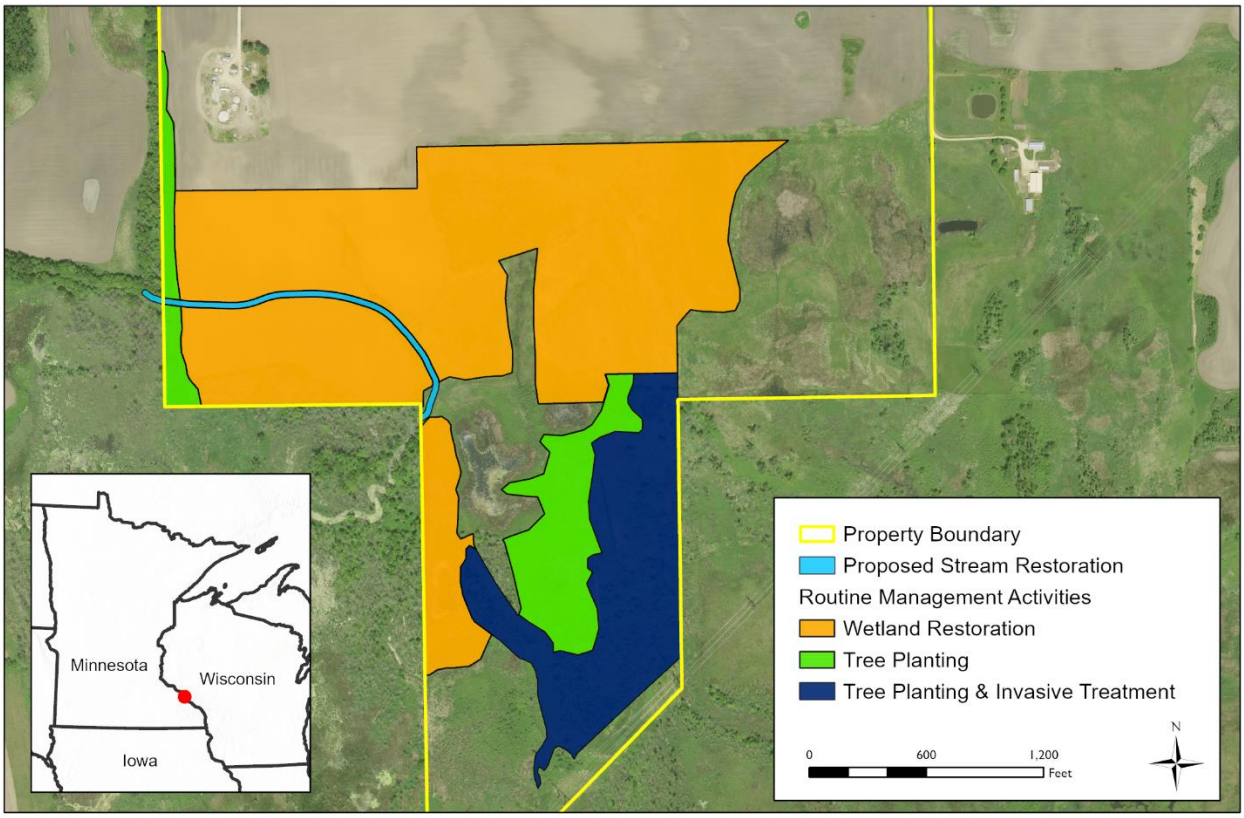
This November 2024 document outlines both Land Use Management and Operational Plans regarding how the Rolling Prairie Property will be managed and used over the next 100+ years. The document presents the anticipated order of placement operations, how the project area is expected to look after placement activities cease, and documents known land features such as wetlands and easements that are important considerations for site management. The restoration of Gorman Creek is included in this plan. The Land Use Plan was circulated for public review.

1.4.4 Programmatic Environmental Assessment for Floodplain Forest Management (PEA) on the Upper Mississippi River, Upper St. Anthony Falls to Lock and Dam 10. (2020)

This Environmental Assessment evaluates the effects of a wide variety of land management activities on St. Paul District Corps lands in and around the UMR Nine-foot Channel Navigation Project. The PEA evaluates the programmatic effects of annual management needs across over 24,000 acres of Corps-owned lands. Specific land management actions are reviewed on a case-by-case basis to ensure compatibility with the PEA and to ensure up-to-date compliance with statutes including the NEPA, the Endangered Species Act, the Clean Water Act, the Bald and Golden Eagle Protection Act, and the National Historic Preservation Act. Land management actions including prescribed burns, native vegetation planting, bareroot tree planting, and herbicide management have already been planned as routine maintenance of the Rolling Prairie property in accordance with the November 2024 Land Use and Operational Plan. These actions

fall under the framework of the PEA and were reviewed for compliance with all applicable statutes in December 2024. These maintenance activities are part of the No Action Alternative and are shown in Figure 1, alongside the proposed stream restoration location for context.

Figure 1 – Routine Land Management Activities at Rolling Prairie, shown with the proposed Gorman Creek stream restoration location for context.



2 Alternatives

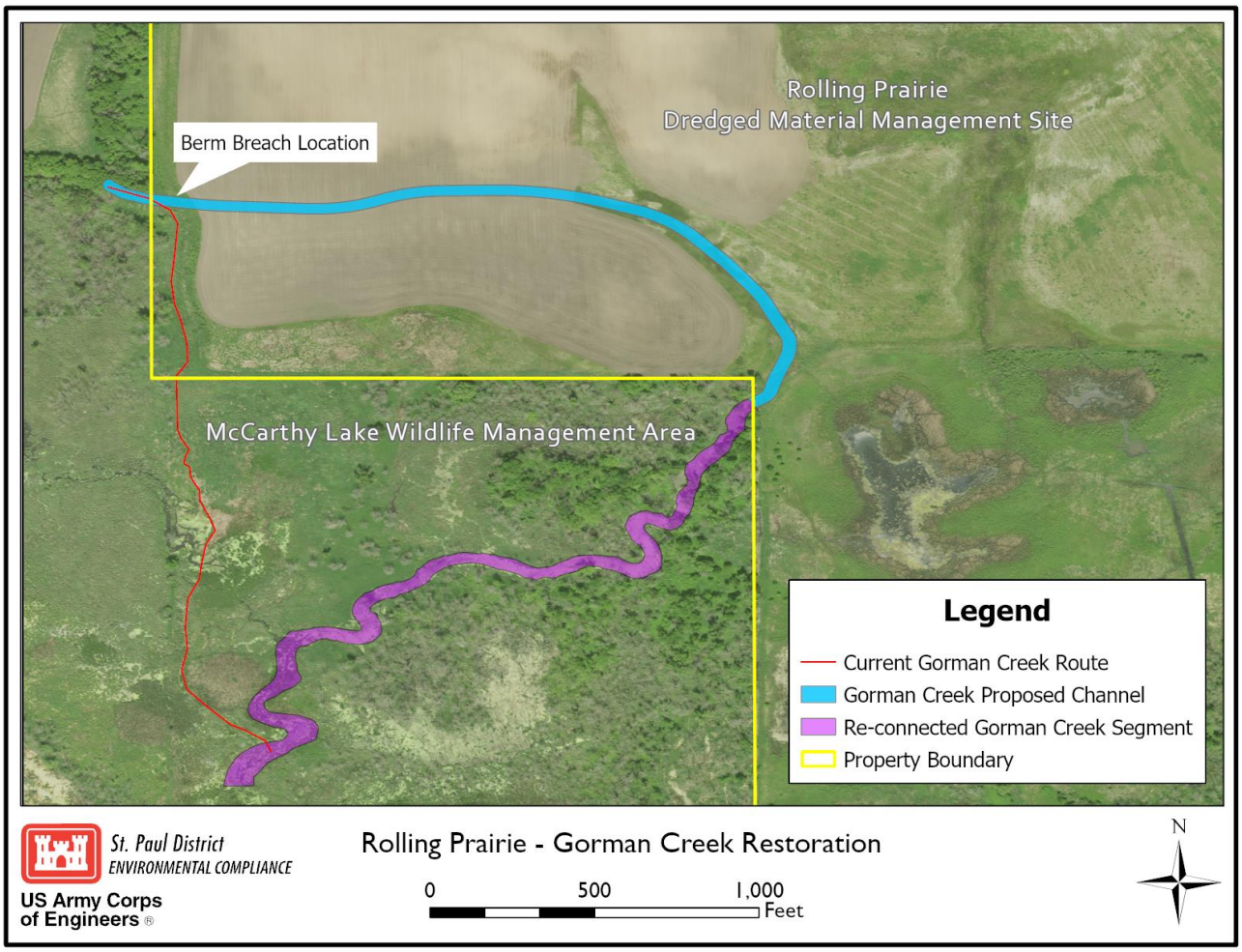
2.1 No Action Alternative

The No Action Alternative would result in no stream channel restoration of Gorman Creek. The agricultural lease on this portion of the Rolling Prairie Dredged Material Placement Site is no longer active, and routine land management of the area by Corps staff would commence. Routine land management would include emergent and forested wetland restoration within and around the historic Gorman Creek bed as previously planned and described in references noted in Chapter 1.4.4 and shown on Figure 1. Wetland restoration activities will include native wet prairie seeding, prescribed burning, and mowing. Tree planting will include bareroot planting of swamp white oak, and bur oak. Invasive species control will include targeted herbicide treatment of reed canarygrass, cow vetch, and crown vetch, as well as buckthorn and prickly ash management. However, the hydrologic connection between the upstream and downstream portions of the historic channel would remain disconnected from historic hydrology, limiting the potential ecological function of both the Corps' property and the adjacent McCarthy Lake WMA.

2.2 Proposed Alternative

The Proposed Alternative would involve excavating a small channel through recently cultivated land and notching a berm that was constructed in the 1990s to divert Gorman Creek away from the Rolling Prairie site. Figure 2 shows the proposed project features. The channel runs from the west side of the property to the southeastern corner where it would reconnect with an artificially cut-off remnant channel on the Minnesota DNR's McCarthy Lake WMA. The proposed alternative would only involve work on Corps property at the Rolling Prairie Dredged Material Management Site. All planned management activities described in the No Action Alternative would also occur.

Figure 2 - Gorman Creek Restoration Features



Work would begin with channel excavation. The constructed channel would be a minimum of 1-foot deep and between 14 – 20-feet wide, with 3:1 side slopes. The channel would be approximately 2,000 feet long and would primarily follow the approximate path of the historic Gorman Creek channel. Minor adjustments to the historic alignment were incorporated to account for the current terrain by following the path of low elevation through the agricultural field. The channel would be constructed to a slope of between 0.05% and 3.0%. An excavator would be used to remove soils from the channel alignment and place them adjacent to the

channel, primarily on the north side, which would then be shaped with a dozer. After the channel has been constructed, the upstream berm on the west side of the Rolling Prairie property would be notched to restore flow to the historic channel. The berm notch would be wide and with low slopes to discourage beaver use. The breach would be 30 feet wide with 1:3 slopes. A small deeper pool would be constructed within the alignment to allow for sediment to settle. Minor shaping at the downstream end of the restored channel would be conducted to guide flow back into the remnant channel downstream. The construction is expected to last around a week and would be conducted using a medium sized excavator and a D6 dozer. During project planning, a plug to stop flow from entering the current channel was considered. Plugging the existing artificial channel is not anticipated to be required because the proposed channel closely mimics historic conditions and existing land contours support flow downstream to the existing outlet. However, plugging the old channel could be implemented if the stream does not follow the new alignment as anticipated.

3 Affected Environment and Environmental Consequences

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.” Wabasha County, MN is classified as an attainment area for each of the six contaminants and is therefore not a region of impaired ambient air quality (U.S. Environmental Protection Agency 2024). This designation means that the project area has relatively few air pollution sources of concern.

No Action Alternative – The No Action Alternative would have no effect on air quality.

Proposed Alternative – The operation of heavy equipment during construction would temporarily increase vehicle emissions and slightly degrade air quality in the immediate vicinity of the project area. However, impacts would be short-term and negligible due to the minimal equipment needed and short construction timeframe described in Section 2.2.

3.1.2 Terrestrial Habitat

The project area primarily consists of agricultural lands which have been farmed for several decades following the construction of a berm on the western side of the property to block Gorman Creek from flowing through the site. The site is still subject to occasional periodic flooding during years of above average rainfall. The site has minimal vegetation growing on it, due to frequent tilling. An agricultural lease on the site ended in 2024.

No Action Alternative – The No Action Alternative would have a minor beneficial effect on terrestrial habitat. This area of the site has been in agricultural production for several decades, providing minimal habitat value. No further agricultural work is planned on the site, and the Corps plans to manage the site as primarily a mixed emergent/forested wetland through routine plantings and vegetation management strategies. Most of the area will be wetland, but the resulting mosaic of wetland and riparian habitat with native vegetation would improve the terrestrial habitat value of the site compared to prior agricultural land conditions.

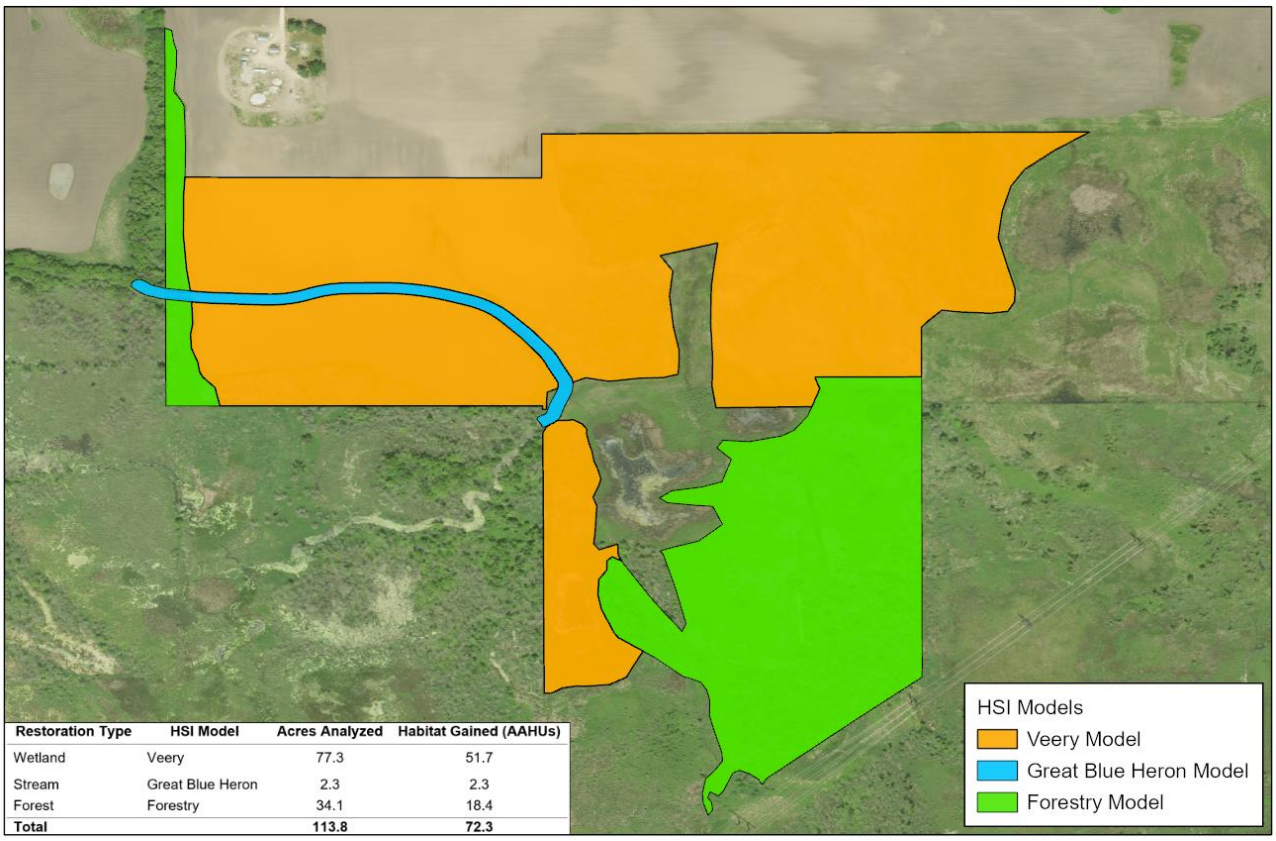
Proposed Alternative – The Proposed Alternative would have minor beneficial effect on terrestrial habitat, like the No Action Alternative. The same native vegetation management strategies and plans would be applied to the overall site. The Proposed Alternative would further improve the habitat by reintroducing the historic hydrology and increasing habitat heterogeneity.

3.1.3 Wetlands, Aquatic Habitat, and Surface Water Quality

Wetlands were analyzed at the Rolling Prairie site through a wetland assessment conducted by Corps regulatory staff to inform overall site planning for the Pool 5 DMMP (USACE 2020, Appendix E). The wetland assessment utilized historical imagery, National Wetlands Inventory data, LIDAR elevations, and soil maps to identify potential wetland areas. Site visits and soil borings were conducted to verify assumptions. Wetland areas throughout the Rolling Prairie site were mapped using the results. The area Gorman Creek would be rerouted through was mostly tilled in 2024 in preparation for planting agricultural crops, but wet conditions in late spring and summer precluded planting.

Habitat benefits of the restoration efforts of the No Action Alternative and those of the proposed project were quantified using the U.S. Fish and Wildlife Service's 1980 version of Habitat Evaluation Procedures (HEP). The HEP methodology utilizes a Habitat Suitability Index (HSI) to rate habitat quality on a scale of 0 to 1 (1 being optimum). A project planning period of 50 years was used in habitat evaluations.

Figure 3 - Habitat suitability index models used to evaluate the effects of the proposed Gorman Creek restoration and other restoration actions associated with the No Action Alternative.



Restoration Type	HSI Model	Acres Analyzed	Habitat Gained (AAHUs)
Wetland	Veery	77.3	51.7
Stream	Great Blue Heron	2.3	2.3
Forest	Forestry	34.1	18.4
Total		**113.8**	**72.3**

No Action Alternative – The No Action Alternative would have a substantial beneficial effect on wetlands, but no effect on aquatic habitat or surface water quality. No wetlands would be physically modified. Historic hydrologic conditions would not be restored on the site, and a nearby cut-off stream segment would remain stagnant, low-quality habitat. Wetland plantings and invasive species management would take place as part of the existing land management plan. The wetland restoration benefits (77.3 acres) were quantified using the veery (*Catharus fuscenscens*) model resulting in a net gain of 51.7 average annual habitat units (AAHUs), while forest restoration benefits (34.1 acres) were quantified using the Upper Mississippi River System Floodplain Habitat Model (Forestry) resulting in a gain of 18.4 AAHUs. Figure 3 summarizes these results, while full results of the HEP modeling are presented in Appendix C

Proposed Alternative – The proposed alternative would have temporary minor adverse effects on water quality following construction due to increased erosion and sediment transport. These adverse effects would resolve when the stream channel stabilizes, and vegetation reestablishes. The Proposed Alternative would have substantial long-term beneficial impacts to wetlands and aquatic habitat by restoring historic hydrology to approximately 2.3 acres of stream and adjacent riparian habitat, restoring flow to another 2.1 acres of cut-off channel, increasing stream length by approximately 2,300 feet, and indirect beneficial effects to approximately 77.3 surrounding acres of wetlands. These effects would cause minor beneficial impacts to surface water quality throughout portions of Gorman Creek by restoring flow to the stagnant, cut-off channel.

The area that would be impacted by project construction contains a gradient of annually tilled and planted agricultural land interspersed with lower-lying areas that are too wet to farm during wetter years. Under the proposed project, a new channel approximating the historic channel would be excavated through the existing agricultural field, including some areas identified as wetland. By overlaying the proposed channel path on the wetland assessment results, it is estimated that around 1 acre of wetland would be excavated and restored to its previous condition as stream habitat. The restored stream channel would improve the hydrologic conditions in the riparian areas surrounding the restored creek, leading to improved wetland vegetation growth and heterogeneity in the wetland habitat. The restoration would also provide fresh flow to a historic off-site portion of the creek. The creek restoration footprint (2.3 acres) was quantified using the Great Blue Heron Model and resulted in a net gain of 2.3 AAHUs compared to the future without project condition. Figure 3 summarizes these results, while full results of the HEP modeling are presented in Appendix C

A jurisdictional determination has not been made at the site. Since the Proposed Alternative may involve impacts to Section 404 regulated wetlands, the Corps will comply with the Clean Water Act to include the requirements of Nationwide Permit (NWP) 27 for Section 404 discharges where applicable. NWP 27 covers "*activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services*." The Proposed Alternative would result in conditions resembling those prior to agricultural development and would result in an increase to ecological function and service of the area. Applicable general and regional conditions of NWP 27 would be met by the Proposed Alternative as planned. Clean Water Act Section 401 Water Quality Certification is provided for NWP 27 through a December 21, 2020 letter from the Minnesota Pollution Control Agency to the Corps Regulatory Branch. The Corps would comply with all conditions of the Section 401 Water Quality Certification issued by the Minnesota Department of Natural Resources. These would include marking construction area boundaries, washing equipment to avoid invasive

species transport, minimizing sediment transport through incorporated project design, and constructing during low-flow or winter conditions.

The rerouting of a stream through a newly constructed channel carries the potential for erosion and sediment transport due to the freshly disturbed soils and changed hydrologic conditions. Erosion and sedimentation would be temporary and are not expected to be substantially increased by this project. The new alignment would closely mirror the historic, natural alignment that existed approximately 40 years ago, and would reestablish and stabilize itself relatively quickly. The channel alignment flows through a region that is primarily in agricultural use and the increased sediment from this small stream segment would not likely be noticeable in the context of existing stream conditions. The greatest risk of sedimentation is likely to occur during the first year, before vegetation has established. Natural regeneration has been observed in untilled areas of the property and native vegetation planting would speed up establishment. To help counteract any potential effects during the transition period, a small deeper pool would be constructed within the alignment to allow for sediment to settle, from which sediment could be removed if needed.

3.1.4 Habitat Diversity and Interspersion / Biological Productivity

The project area primarily consists of agricultural lands which have been farmed for several decades. The site contains minimal vegetation due to the frequent agricultural disturbances, but foresters on site have noted scattered sedges, rushes, arrowhead, and other native wetland plants throughout the project site, indicating a latent seed bank remains on site.

No Action Alternative – The No Action Alternative would have a minor beneficial effect on habitat diversity and interspersion and biological productivity. Vegetation management at the site would convert the existing plowed agricultural land to a mosaic of emergent and forested wetland. The native vegetation would improve habitat diversity at the site compared to the historical agricultural use and this improved habitat would lead to greater biological productivity.

Proposed Alternative – The proposed alternative would have a substantial beneficial effect on habitat diversity and interspersion and a minor beneficial effect on biological productivity. The Proposed Alternative would result in restoring the historic creek alignment through lands that would be managed for native wetland vegetation. Whereas the No Action Alternative would improve the native vegetation, the Proposed Alternative would also restore a stream, which is not a habitat currently found on the site. This would increase the habitat heterogeneity, a trait associated with higher biological diversity. The stream reconnection is also expected to improve conditions within the overall stream, increasing the biological productivity on the site and downstream of where the creek would leave the site.

3.1.5 Threatened and Endangered Species

3.1.5.1 Federally Listed Species

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website was consulted on May 5, 2025 to identify potential presence of federally listed threatened and endangered species within the action area. Three endangered, one proposed endangered, two proposed threatened, and one experimental population may be found in the action area (Table 1). No designated Critical Habitat exists within the project area. The official species list is provided in Appendix A.

Table 1. Federally listed species

	Common Name	Scientific Name	Status
Mammals	Northern long-eared bat	*Myotis septentrionalis*	Endangered
	Tricolored bat	*Perimyotis subflavus*	Proposed endangered
Birds	Whooping crane	*Grus americana*	Experimental population
Mussels	Higgins eye	*Lampsilis higginsii*	Endangered
Insects	Monarch	*Danaus plexippus*	Proposed Threatened
	Rusty patched bumble bee	*Bombus affinis*	Endangered
	Western Regal Fritillary	*Argynnis idalia occidentalis*	Proposed threatened

The Northern long-eared bat (NLEB) is a medium-sized bat that hibernates in caves and mines in the winter and in the summer roosts singly or in colonies under the bark or in cracks and crevices of trees. NLEB is relatively widespread, and USFWS lists NLEB as a threatened species because a fungal pathogen causing white-nose syndrome is sharply reducing populations.

The tricolored bat is one of the smallest bats native to North America. During the winter, tricolored bats are found in caves and mines. During the spring, summer and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves. Female tricolored bats exhibit high site fidelity, returning year after year to the same summer roosting locations. Female tricolored bats form maternity colonies and switch roost trees regularly, whereas males roost singly.

The whooping crane breeds, migrates, winters and forages in a variety of habitats, including coastal marshes and estuaries, inland marshes, lakes, open ponds, shallow bays, salt marsh and sand or tidal flats, upland swales, wet meadows and rivers, pastures, and agricultural fields. Summer foods include large nymphal or larval forms of insects, frogs, rodents, small birds, minnows, and berries. Whooping crane is designated as a non-essential experimental population and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park.

Higgins eye is a freshwater mussel that occurs in the UMR and several of the UMR's larger tributaries. Suitable habitat for Higgins eye typically includes deep and shallow water areas of various stable substrates in large streams and rivers with moderate current. There is no suitable habitat in the project area.

Monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The bright coloring of a monarch serves as a warning to predators that eating them can be toxic. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant, and larvae emerge after two to five days. Larvae develop over a period of 9 to 18 days, feeding on milkweed and sequestering toxic chemicals as a defense against predators. The larva then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately two to five weeks. Monarch butterflies live mainly in prairies, meadows, grasslands and along roadsides.

Rusty patched bumble bees (RPBB) live in colonies and have been observed in prairies, woodlands, marshes, as well as agricultural and residential sites. It is assumed that nesting occurs in upland grassland and shrubland areas close to floral resources. Nests have also been reported as far as 30 meters into forest and woodland edges. Nests are typically 1 to 4 feet underground in abandoned rodent or other mammal burrows/cavities. RPBB can also utilize clumps of grasses above ground as nesting sites and undisturbed soil for hibernating queens to overwinter.

Western regal fritillary is a large, distinctively marked butterfly found solely in native prairie habitats. Adults are rarely found outside of native prairie habitat and can be found in both upland and wet prairies; however larval development is likely restricted to upland prairies. Larvae only feed on violet species which are typically dispersed within prairies, therefore the density of violets is critical to the success of the species. Nectar sources to support females into fall and tall prairie vegetation to provide shelter for all life stages are also critical for survival. (MNDNR 2024).

No Action Alternative – The No Action Alternative would have no effect on federally listed species.

Proposed Alternative – The Proposed Alternative would have no effect on any federally listed species. The proposed project would not include tree clearing, herbicide or pesticide application, or other activities that would affect listed bat species. No habitat suitable for the endangered Higgins eye mussel would be affected by the Proposed Alternative. The Proposed Alternative is taking place within habitat that is previously developed agricultural lands and artificially constructed berms, which would not currently support the listed insect species. Technical Assistance letters from the USFWS IPaC system supporting these determinations of no effect on listed species are provided in Appendix A.

3.1.5.2 State Listed Species

The Minnesota Natural Heritage Information System was searched January 2025 within a one mile radius of the project site. Several species that are listed by the State of Minnesota as endangered or threatened have been documented in the vicinity of the project area. These species are listed in Table 2. These species include plants and reptiles.

Table 2 – State-listed species records within 1-mile of the project area

	Common Name	**Scientific Name**	**Status**
Plants	Sweet-smelling Indian plantain	*Hasteola suaveolens*	Endangered
	Clasping milkweed	*Asclepias amplexicaulis*	Threatened
Reptiles	Blanding's turtle	*Emydoidea blandingii*	Threatened
	Wood turtle	*Glyptemys insculpta*	Threatened

The sweet-smelling Indian plantain is a perennial forb that inhabits moist riverbanks, wet meadows, and riparian edges. The project area is on the extreme northwestern edge of the species historical range.

Clasping milkweed is a perennial forb that inhabits dry, sandy, and sparsely vegetated soil in savannas and upland prairies.

The Blanding's turtle lives in wetland complexes with adjacent sandy upland areas for nesting.

The wood turtle tends to inhabit aquatic areas, remaining close to the river or stream while nesting or foraging.

No Action Alternative – The No Action Alternative would have no effect on state listed species.

Proposed Alternative – The Proposed Alternative would not have any adverse effects on state listed species. The affected habitat has been repeatedly disturbed by agricultural use, and therefore does not provide suitable habitat for any of the listed species. Construction should have no effect on any of the listed species. Once complete, the restored creek and wetland may provide suitable habitat for the sweet-smelling Indian plantain and the two turtle species.

Despite the lack of habitat on site and the planned late winter construction, turtles are a motile species and do likely occur off-site near the project area. Therefore, a Best Management Practice (BMP) is included to address incidental occurrence of turtles. If a turtle is observed in the project area during construction, project staff would carefully move the turtle to a safe location.

3.1.6 Invasive Species

The majority of the site has been in agricultural production for several decades. Common agricultural weeds, such as crown vetch and cow vetch have been noted on the site, alongside native wet meadow vegetation. The berm currently diverting Gorman Creek is infested with reed canarygrass.

Neither the No Action or Proposed Alternatives are anticipated to result in the spread of invasive species not currently present within the study area. Equipment would be cleaned before bringing it onto the project site and prior to removing it from the site to prevent the spread of invasive species. Equipment would be inspected to ensure they are free from soil residuals, egg deposits from plant pest, noxious weeds, plant seeds, aquatic plants and animals and residual water. If at any point, equipment is found to be contaminated with invasive species, they would immediately be decontaminated until all invasive species have been removed. By preventing the spread of invasive species during construction, the Action Alternatives are in compliance with EO 13112 and EO 13751.

Vegetation management would occur under both the No Action and Proposed Alternatives to monitor and treat invasive species, and to encourage native vegetation success.

3.2 Socio-economic Resources

3.2.1 Recreation

The area surrounding the Rolling Prairie site contains many recreational opportunities. The adjacent McCarthy Lake WMA contains over 3,200 acres of mixed upland and lowland hardwood forests, upland fields of native warm and cool season grasses, and a long stretch of Gorman Creek and wetlands with wild rice populations. Recreational uses of the area include

hunting, trapping, fishing, and general wildlife observations. The WMA has six parking lots and could be accessed from the Rolling Prairie site. Nearby the Rolling Prairie site are many other lands open to recreation including the Richard J. Dorer Memorial Hardwood State Forest, the Whitewater WMA, the Kellogg Weaver Dunes Scientific and Natural Area, and Pool 5 of the Mississippi River.

No Action Alternative – The No Action Alternative would have minor beneficial effects on recreational opportunities. Under the No Action Alternative, recreation in the Gorman Creek area will likely continue to improve to some degree from vegetation management efforts. However, stream quality of Gorman Creek and the wetlands would remain as they are at present or continue to deteriorate.

Proposed Alternative – The Proposed Alternative would have minor beneficial effects on recreational opportunities. The Proposed Alternative would share any beneficial effects from the No Action Alternative. Recreational opportunities at the Rolling Prairie site and the McCarthy Lake WMA are linked to the habitat quality and support of wildlife populations. The additional improvements to wetland and aquatic habitat quality, habitat diversity, biological productivity, and surface water quality under the Proposed Alternative would further improve the recreational opportunities in the area.

3.2.2 Aesthetic Values

The Rolling Prairie Dredged Material Placement site is set within a rural farming community where developed land typically consists of large farm fields which stretch across a fairly flat landscape. The area is surrounded by bluffs, interspersed with windrows of trees, and adjacent to some larger prairie, wetland, forest, and natural areas. The portion of the Rolling Prairie site where the historic Gorman Creek channel is located has been in agricultural production for several decades. The site has the general character of a farm field (Figure 4). Most recently the field was planted with corn (*Zea mays*) but likely would be rotated through other crops such as soybeans (*Glycine max*).

Figure 4 - Rolling Prairie Dredged Material Placement Site; Gorman Creek Historic Channel Area

No Action Alternative – The No Action Alternative would result in minor beneficial effects to aesthetics. Although aesthetic values are somewhat subjective, the native wetland vegetation would be perceived as pleasing to most viewers, with various types and heights of foliage and seasonal flowers. The native vegetation would also likely maintain ground cover for more of the year compared to barren fields during the fall, winter, and early spring periods.

Proposed Alternative – The Proposed Alternative would result in minor beneficial effects to aesthetics. In addition to the benefits described under the No Action Alternative, the Proposed Alternative would also integrate a restored stream channel into the viewshed. Although aesthetic values are somewhat subjective, water features like streams tend to be considered aesthetically pleasing to most.

3.2.3 Noise

The Rolling Prairie Dredged Material Placement site is located at the edge of a large tract of land currently used for agricultural purposes and state-owned lands used for Wildlife Management. Noise in the direct area is currently generated by vehicles traversing local roads, farm machinery, and railroad traffic.

No Action Alternative – The No Action Alternative would have no effect on local noise levels.

Proposed Alternative – The Proposed Alternative would result in temporary, minor adverse increases in noise in the project vicinity. During construction, heavy equipment would be operating in the area. Impacts would be short-term and negligible due to the minimal equipment needed and short construction timeframe described in Section 2.2. Once complete, noise levels would return to normal.

3.3 Cultural Resources

The No Action Alternative and the Proposed Alternative would each have no effect on cultural resources. The Corps entered into *Programmatic Agreement between the U.S. Army Corps of Engineers, St. Paul District, and the Minnesota State Historic Preservation Office Regarding the Purchase of Lands for the Mississippi River Navigation Pool 5 Dredged Material Management Plan, Wabasha County, Minnesota*, executed 30 October 2019. The PA was closed out 7 March 2024 with a finding of No Effect to Historic Properties and the completion of all stipulations within the PA.

3.4 Cumulative Effects

Cumulative effects are those effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

Cumulative effects analysis recognizes that the most serious environmental impacts may result from the combination of individually minor effects of multiple actions over time, rather than the direct or indirect effects of a particular action (Council on Environmental Quality, 1997).

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. The scope of the cumulative effects analysis is the Rolling Prairie Dredged Material Placement site and directly adjacent lands or those with close hydrologic connections.

3.4.1 Past, Present and Future Actions

3.4.1.1 Agricultural Land Use

Much of the Rolling Prairie site and surrounding developed land is regularly used for agricultural production. Agricultural uses will continue on the Rolling Prairie site via lease until parcels are removed for project implementation. Farming activities on the surrounding properties are also likely to continue.

3.4.1.2 Rolling Prairie Dredged Material Management Site Development and Implementation

The November 2024 document describes the plan for implementing dredged material placement throughout the Rolling Prairie site. In general, as areas are used for placement, agricultural use would be ceased, topsoil would be scraped and stockpiled, sand would be placed, and then topsoil replaced on top. Most areas would be planted with native prairie following placement. Studies of agricultural use following dredged material placement are anticipated. At full

implementation, the area is anticipated to consist of a mosaic of upland sand prairie and maintained or restored wetlands.

3.4.1.3 McCarthy Lake Wildlife Management Area

The Minnesota DNR has established and manages the 3,129 acre McCarthy Lake WMA which lies immediately adjacent to the southern border of the Rolling Prairie site. The site is managed with an emphasis on maintaining a rich, diverse interspersion of numerous communities throughout the wildlife area. Timber management, prescribed burning, nesting cover development and maintenance practices are utilized. The WMA contains mixed upland and lowland hardwoods of oak, maple, ash, birch, cottonwood and willow. Upland fields consists of native warm and cool season grasses. The former channel of the Zumbro River dissects the unit and has created numerous wetlands including wild rice. Recreation is dominated by hunting, trapping, fishing and general wildlife observations. Sandhill cranes, eagles, tundra swans and numerous shore birds may be commonly observed.

3.4.2 Cumulative Effects Analysis

Cumulative impacts on the environment are the result of the incremental impacts of past actions, the Proposed Alternative, and reasonably foreseeable future actions. Some of the past actions in the project area have resulted in altered hydrology and altered habitat types. The proposed alternative would restore some of the historic hydrologic conditions and habitats. The project would result in beneficial effects to wetlands, aquatic habitat, and habitat diversity and interspersion, all of which would help offset adverse effects of past actions on those resources.

Table 3. Environmental Assessment Matrix

	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				X								T		
2. Aesthetic Values			X							X				
3. Recreational Opportunities			X							X				
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				X								T		
2. Terrestrial Habitat			X							X				
3. Wetlands		X							X					
4. Aquatic Habitat				X					X					
5. Habitat Diversity and Interspersion			X						X					
6. Biological Productivity			X							X				
7. Surface Water Quality				X						X		T		
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; T = Temporary 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 no known eagle nests in the project vicinity. Therefore, no take is anticipated.

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 Proposed Alternative may involve impacts to Section 404 regulated wetlands, and the Corps will comply with the Clean Water Act to include the requirements of Nationwide Permit (NWP) 27 for Section 404 discharges where applicable. NWP 27 covers "activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services." The Proposed Alternative would result in conditions resembling those prior to agricultural development and would result in an increase to ecological function and service of the area. Applicable general and regional conditions of NWP 27 would be met by the Proposed Alternative as planned. Clean Water Act Section 401 Water Quality Certification is provided for NWP 27 through a December 21, 2020 letter from the Minnesota Pollution Control Agency to the Corps Regulatory Branch. The Corps would comply with all conditions of the Section 401 Water Quality Certification issued by the Minnesota Department of Natural Resources. These would include marking construction area boundaries, washing equipment to avoid invasive species transport, minimizing sediment transport through incorporated project design, and constructing during low-flow or winter conditions.

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. There are four federally listed species that are listed for the action area. The proposed action would have no effect on endangered species.

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 U.S. Fish and Wildlife Service, Minnesota Department of Natural Resources, Wisconsin Department of Natural Resources, and others. A full list of coordination recipients and correspondence can be found in Appendix A.

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 entered into a Programmatic Agreement (PA) with the Advisory Council on Historic Preservation, the Minnesota Historic Preservation Office, Native American groups and other parties for the purchase of the Rolling Prairie Dredged Material Placement site on 30 October 2019. The PA was closed out 7 March 2024 with a finding of No Effect to Historic Properties and the completion of all the stipulations within the PA.

Table 4. 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	Full
Endangered Species Act of 1973, as amended	Full
Farmland Protection Policy Act of 1981	Full
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	Full
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	Full
Noise Pollution and Abatement Act of 1972	Full
Watershed Protection and Flood Prevention Act	Full
Wild and Scenic Rivers Act of 1968, as amended	Full
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 Environmental Quality (E.O. 11514)	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)	Full

[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 (N/A) – Statute, EO, or other policy and related regulations not applicable for the current stage of planning.

5 Summary of Mitigation Measures

- Equipment would be cleaned before bringing it onto the project site and prior to removing it from the site to prevent the spread of invasive species. Equipment would be inspected to ensure they are free from soil residuals, egg deposits from plant pest, noxious weeds, plant seeds, aquatic plants and animals and residual water. If at any point, equipment is found to be contaminated with invasive species, they will immediately be decontaminated until all invasive species have been removed.
- Although unlikely, it is possible that turtles could begin emerging prior to project construction, and may be found at the project site. If turtles of any species are

encountered, work would pause and they would be carefully moved to a safe location away from construction activities.

6 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 sent via email to: 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.

7 References

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