

**CITY OF DULUTH, MINNESOTA**  
**DULUTH CITY PLANNING COMMISSION**

**FINDINGS OF FACT AND RECORD OF DECISION**

**Date:** December 4, 2019  
**RE:** Decision on the Need for an Environmental Impact Statement  
**Project:** Spirit Lake Sediment Remediation Project

**RESPONSIBLE GOVERNMENTAL UNIT**

Duluth City Planning Commission  
Attn: Adam Fulton, Deputy Director of  
Planning and Economic Development  
(Planning Commission Secretary)  
411 West First Street, Room 160  
Duluth, MN 55802  
218-730-5580  
[afulton@duluthmn.gov](mailto:afulton@duluthmn.gov)

**PROJECT PROPOSER**

U.S. EPA, Great Lakes National Program Office  
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**FINAL ACTION**

Based on the Environmental Assessment Worksheet and related documentation for the above Project, the Duluth City Planning Commission, as the Responsible Governmental Unit (RGU) for this environmental review, concluded the following at their November 12, 2019 regular meeting:

1. The Environmental Assessment Worksheet and related documentation for Spirit Lake Sediment Remediation Project were prepared in compliance with the procedures of the Minnesota Environmental Policy Act and Minnesota Rules, Parts 4410.1000 to 4410.1700.
2. The record demonstrates that implementation of this Project does not have the potential for significant environmental effects. Therefore, the Duluth City Planning Commission makes a Negative Declaration and does not require the preparation of an Environmental Impact Statement (EIS) for this Project.

**FINDINGS OF FACT AND RECORD OF DECISION**

The Duluth City Planning Commission is the Responsible Governmental Unit (RGU) for environmental review of the proposed Spirit Lake Sediment Remediation Project. The preparation of the Environmental Assessment Worksheet (EAW) was in accordance with the Environmental Review Rules of the Minnesota Environmental Quality Board (EQB) for a mandatory EAW due to work in wetlands and public waters (MN Rules 4410.4300 Subp. 27) and land conversion in shorelands (MN Rules 4410.4300 Subp. 35)

The EAW was reviewed at the July 9, 2019 regular meeting of the Duluth City Planning Commission and found to be complete for distribution. The EAW was filed with the EQB and circulated for review and comment to the EQB's EAW Distribution List. The notice was published in the EQB Monitor on July 22, 2019 announcing a 30-day comment period that ended on August 21, 2019. Legal ads were published in the Duluth News Tribune on July 22, July 29, and August 12, 2019 in addition to a news release issued July 22, 2019 informing the public that the EAW was available on the City of Duluth's web page or in paper form upon request. The legal ad and news release directed people with comments to file them with the City of Duluth Planning and Economic Development Department or to attend a public hearing on the matter. The news release resulted in a story in the July 23, 2019 Duluth News Tribune.

The Duluth City Planning Commission held a public hearing on Tuesday, August 13, 2019, at 5:00 p.m. where a member of the public asked questions about the EAW process, but made no comments on the EAW document.

The Duluth City Planning Commission was required by MN Rules to make a decision on the need for an Environmental Impact Statement (EIS) by September 20, 2019, but exercised an option to extend that deadline 30 days in order to obtain additional information needed for the RGU to make a reasoned decision as is allowed by MN Rules 4410.1700 Subp. 2a. It was subsequently determined that an additional extension to November 12, 2019 would be needed and the extension was granted by the project proposers (U.S. Environmental Protection Agency and U.S. Steel) in a September 24, 2019 letter and by the EQB via an October 1, 2019 letter as is allowed by MN Rules 4410.1700 Subp. 2a.

At its November 12, 2019 regular meeting the Duluth City Planning Commission reviewed the EAW document and considered written comments and responses to comments before making a negative declaration on the need for an EIS.

Responsible Governmental Unit decision (listed above) attested to by:



Adam Fulton, Deputy Director of Planning and Economic Development



Date

## **BRIEF PROJECT DESCRIPTION**

The Spirit Lake Sediment Remediation Project would remediate chemical constituents of concern and improve habitat in the Spirit Lake area of the Saint Louis River Area of Concern. The project would occur across 226 acres and include 770,000 cubic yards of sediment removal, 107 acres of subaqueous capping, 41 acres of enhanced natural recovery, and over 100 acres of habitat enhancement and restoration. Material removed would be placed in onsite confined disposal facilities. The project would require specific design requirements to protect the Lake Superior & Mississippi Railroad (LSMRR) segment that bisects the remediation area. The project has included tribal consultation, which has continued during the remedial design.

## **COMMENTS RECEIVED, RESPONSES, AND OTHER DOCUMENTS REVIEWS**

During the 30-day comment period from July 22, 2019 to August 21, 2019, one written comment was received from the public (via email) and four agency/organization letters were received:

1. John Green, Professor Emeritus, University of Minnesota-Duluth (July 26, 2019)
2. Amanda Gronhovd, Minnesota Department of Administration, Office of the State Archaeologist, St. Paul (August 23, 2019)
3. Darren Vogt, 1854 Treaty Authority (August 20, 2019)
4. Patty Thielen, Minnesota Department of Natural Resources (August 20, 2019)
5. Patrice Jensen, Minnesota Pollution Control Agency (August 23, 2019)

The RGU held a public hearing on Tuesday, August 13, 2019, 5:00 p.m. where a member of the public asked questions about the EAW process, but made no comments on the EAW document.

Table 1 provides the EAW comments and responses to each.

**TABLE 1. Environmental Assessment Worksheet Record of Decision for the Spirit Lake Sediment Remediation Project**

**Response to Public Comments**

**November 2019**

<b>Com ment Num ber</b>	<b>EAW Content/Section Number</b>	<b>Comment</b>	<b>Response</b>
<b><i>Email Submission Comments- John Green, Professor Emeritus University of Minnesota-Duluth</i></b>			
1.	General	I note in the information distributed about the upcoming Public Hearing for this project that the main creek in the project area is called "Unnamed Creek". Actually, this creek has been known by the Corps of Engineers and the Duluth Area storm water utility since at least 1973 as U. S. Steel Creek, for obvious reasons. I will be glad to forward to you copies of several documents and maps that show it with that name. It would be helpful if you would refer to it by its proper name.	The City of Duluth recognizes that this creek may be referred to as U. S. Steel Creek by certain local entities. This creek is also historically and currently documented as Unnamed Creek by state agencies involved with the project and project stakeholders. To maintain consistency with other project documents in the public record, the name "Unnamed Creek" is maintained.
<b><i>Minnesota Department of Administration, Office of the State Archaeologist, St. Paul</i></b>			
1.	General-Cultural/Tribal	While the archaeological concerns of this office have been met with two negative phase I archaeological surveys, one conducted by R. Christopher Goodwin & Associates and another by EA Engineering, Science, and Technology, Inc., this office would like to express its concern regarding the project's effects to the Traditional Cultural Property of Spirit Island, which is within the viewshed of the Spirit Lake Sediment Remediation Project. Our office recommends the Minnesota Indian Affairs Council (MIAC) be included in the consultation process, as it is a representative body concerned with the wellbeing and integrity of American Indian cultural resources throughout the state.	The City of Duluth appreciates this comment and recognizes the responsibilities of the Minnesota Indian Affairs Council. Significant consultation and coordination through National Historic Preservation Act (NHPA) Section 106 has occurred for this project. The USEPA and USS have notified the State Historic Preservation Office and 16 federally recognized tribes of this project, as required under the NHPA. USEPA has consulted since 2012 with the Fond du Lac Band (who own Spirit Island) and other tribal parties regarding the project's impacts to Spirit Island throughout the full timeline of the project (feasibility study planning to current environmental review phase). A Memorandum of Agreement between the project proposers and the affected parties regarding these impacts is in the final stages of development.
<b><i>1854 Treaty Authority</i></b>			
1.	Cultural Resources	Rights to hunt, fish, and gather have been retained by treaty with the United States. Exercise of these rights continues today. Remedial, mitigation, and restoration	In this EAW Record of Decision, the City of Duluth is including the following additional information on the topic of treaty rights:

		<p>projects must support these treaty rights. The EAW should highlight that these rights exist (we do not see any mention in the document) and ensure that actions support these rights. A clean environment, healthy fish/wildlife/plant populations, and suitable access are all critical for meaningful use of treaty rights.</p>	<p>The rights of native tribes to hunt, fish, and gather within the 1854 Ceded Territory have been retained by treaty with the United States. These rights are to be preserved for present and future member tribes. Meaningful use of these rights is dependent on a clean environment, healthy fish, wildlife, and plant communities, and appropriate access to treaty lands. The proposed project will result in a significant environmental benefit to the Spirit Lake area. Impacted sediment will be remediated, and habitat restoration performed to improve fish habitat, restore healthy wetlands, and provide clean foraging and nesting habitat for wildlife, all of which will support the treaty rights for use of the project area.</p>
2.	Cultural Resources	<p>We recognize the historical and cultural significance of Spirit Island and Spirit Lake to all Ojibwe bands as well as the tribes who preceded the Ojibwe in this region. The EAW mentions importance to the Fond du Lac Band, but it should be adequately characterized in the document that it is more than the one band. The cultural and spiritual importance of Spirit Island simply cannot be overstated.</p>	<p>The City of Duluth recognizes the importance of both Spirit Island and the waters of Spirit Lake to the Ojibwe Bands and all preceding tribal nations of the region. We are including the following clarification on this topic within this EAW Record of Decision for the Project:</p> <p>Spirit Island as well as the waters of Spirit Lake, have immense cultural significance to all Ojibwe Bands as well as bands that preceded the Ojibwe in the region. All Ojibwe Bands consider the spiritual nature of the island along with the views from the island to be of the utmost importance to all band members, including to currently practicing spiritual healers and practitioners.</p>
2.	General- design	<p>Efforts to remediate the contaminants that U.S. Steel discharged to the river should have as a goal the restoration of Spirit Lake to a natural state. Ideally this would include removal of contaminants, but also consider views of disposal facilities and making as "natural" as possible.</p>	<p>The City of Duluth recognizes the importance of the referenced restoration goals for Spirit Lake, and confirms that the design includes the following elements that aim to restore natural function and aesthetics to the project area:</p> <ul style="list-style-type: none"> <li>• Removal or protective covering of impacted material</li> <li>• Inclusion of depth transitions within the estuary and improved/restored habitat throughout the project footprint, creating a more natural environment</li> <li>• Hydrologic exchange improvements between Wire Mill Pond and Spirit Lake to restore the area to a more natural/non-impacted hydraulic state</li> <li>• Planting of a variety of upland tree/shrub species on the CDFs to support a natural aesthetic</li> </ul>

3.	Restoration	Efforts to re-establish wild rice should be undertaken in areas with appropriate substrate and water depth. The EAW discusses that the project would create shallow bay habitat and that proper vegetation would be planted yet does not mention wild rice. Wild rice restoration should be a component of the project.	The City of Duluth recognizes the importance of wild rice in the context of the Ojibwe cultural and spiritual history in the project area. The project creates shallow sheltered bay habitat and depth transitions throughout the project footprint; physical habitat that is conducive to wild rice as part of a mosaic of emergent and floating leaf vegetation. As stated in the Wild Rice Implementation Plan for the St. Louis River Estuary (Minnesota Department of Natural Resources, Division of Ecological and Water Resources. Duluth, Minnesota, 2014) and experienced at other wild rice restoration sites within the estuary, the process of restoring wild rice is a three to five-year activity. Unfortunately, this is a time frame outside the scope of what USEPA can participate in under the Great Lakes Legacy Act program. However, the design does not preclude future partnerships to undertake a separate effort for wild rice establishment. At this time the restoration plan focuses on planting known successful emergent, submerged, and floating plant species within the shallow bay and other project areas to quickly establish healthy plant communities capable of supporting diverse fish and wildlife populations, and as noted, this footprint will not preclude future seeding of wild rice to expand its presence in the St Louis River estuary.
4.	Design/Restoration- invasive species management	Non-native Phragmites is located on U.S. Steel property in the project area. These areas have not been treated to date because access has not been allowed to those patches. Best management practices for preventing the spread of invasive species (in general) are included in the EAW, but no mention is made of treatment or removal. As proposed, implementation of the project would dredge and/or cap the areas with known non-native Phragmites, but there is no mention of removal and disposal.	The project includes invasive species removal within project areas to be planted. Additionally, an up to 2-year maintenance period following substantive completion of remediation that includes invasive species management is planned. Invasive species (including non-native phragmites) in the upland planting areas will be removed manually or with herbicides. Expected tools for manual removal include lever-based tools, machetes, power pruners/trimmers, chainsaws, metal blade brush cutters, brush axes/hooks, shovels, spading forks, loppers, hedge shears and associated safety equipment. Any herbicides used will meet Minnesota requirements for near waterway use and the appropriate permit will be obtained. Invasive species disposal and minimization/spread efforts will be submitted by the selected Contractor in the form of both a treatment and maintenance plan that will be reviewed by the project team. The maintenance plan will address the technical requirements listed in the design specifications, drawings, and

			permits to ensure undesired plant species are not establishing in the work areas and the desired species are maintained and replaced.
5.	Restoration-fisheries habitat	Fish habitat needs should be a consideration during remediation, mitigation, and restoration. Shallow shelter bay provides habitat services (perhaps already provided by much of Spirit Lake), but transition zones and deeper habitat are also important.	The City of Duluth recognizes the importance of the need for fish habitat within Spirit Lake; as such, we confirm that the EAW details specific site enhancements to improve fish habitat in Section 11. The EAW notes that the design incorporates planned depth transitions (0 to 2 ft, 2 to 4 ft, and 4 to 6 ft depth zones) throughout the project footprint. Additionally, areas of new deep water (totaling approximately 9 acres) for fisheries habitat are created as part of the restoration design. The shallow sheltered bay is designed to transition between depths from 0 to 6 ft and will be planted with appropriate vegetation to create a mosaic of habitats to support the establishment of healthy fish habitat.
6.	Wildlife/plant/fish species	The EAW states that no fish surveys completed in the last 15 years were identified. The 1854 Treaty Authority has completed bottom-trawling surveys in Spirit Lake, and we believe other fish survey data is available from federal and state agencies and perhaps researchers as well.	The City of Duluth appreciates this clarification on available fish survey data. In consideration of this comment and a comment provided by MNDNR (stating that the 69 fish species documented in the estuary are likely present in the project area), and to be as inclusive as possible when describing the fish community that may utilize the project area, we are including additional summary information in this EAW Record of Decision. This information is included in the response to MNDNR comment #6. Additionally, the Project team will coordinate with the 1854 Treaty Authority to obtain the fish survey data collected by their organization, for reference/use during the permitting and construction phases of the project.
7.	Water access	Finally, access to the resources are important for the exercise of treaty rights and in this case for the cultural importance of Spirit Lake and Spirit Island. We would support any trail access and potential access to the water that could be developed.	The City of Duluth can confirm that the EAW provides information on the inclusion of a pedestrian trail and water access features (likely to include a kayak launch and pier), to be developed on the surface of the Delta CDF depending upon regulatory framework decisions for CDFs by MPCA. The City of Duluth adds the information to this Record of Decision that the design of these features would be compatible with the ability to exercise treaty rights.
<b>Minnesota Department of Natural Resources (MNDNR)</b>			
1.	General	The primary component of this restoration project focuses on the aquatic/wetland habitat. The upland sites are also an important part of the supporting project infrastructure. Please include uplands in all sections of the EAW and address both direct and indirect impacts.	In this EAW Record of Decision, the City of Duluth is including the following additional information related to the direct and indirect impacts to uplands within the project area:

			<p>Uplands within the projects direct and temporary footprints will be impacted in the following ways:</p> <ul style="list-style-type: none"> <li>• Impacted upland currently surrounding the narrow Wire Mill Pond will be excavated to create a shallow, open water wetland community with depths up to 4 ft.</li> <li>• Upland within the footprint of the proposed Upland CDF and proposed OU-J CDF will become part of the CDF structures to cover and contain impacted material</li> <li>• Upland within the borrow area of the site will be used to excavate clean material for cover and capping activities. This will be restored by grading for drainage and seeding after construction and would generally maintain its original upland functions.</li> <li>• Upland adjacent to the project footprint will temporarily serve as access and staging areas during construction. These areas will return to their normal function and uses post construction.</li> <li>• Unnamed Creek structures such as culverts and detention areas will remain or be modified to improve surface water conveyance, which includes wetland and stream restoration features.</li> </ul>
2.	Section 6, Project construction and operation methods	In the sections for construction and operation methods, please describe the specifics for re-vegetation in upland areas, remedial caps, and berms around confined disposal facilities (CDFs); such as seed mixes, species plantings, hardscaping, and ensure to address the expected final conditions for upland areas.	<p>In this EAW Record of Decision, the City of Duluth is including the following clarification related to planting specifics for post-construction upland areas, remedial caps, and CDFs:</p> <p>Planting specifics are included in the specifications within the design package for the project. All current uplands within the project footprint that are permanently or temporarily impacted by the project will be restored to their original condition post-construction or include a betterment. Newly created uplands (within the CDF footprints) will be capped and planted with diverse native upland vegetation to create a natural aesthetic and provide healthy terrestrial habitat. Slopes of the CDFs will be stabilized and planted with transitional vegetation with proven seed mixes used successfully in other comparable projects implemented in the region.</p>

3.	NHIS Review	We noted some potential inconsistencies between the EAW and NHIS review information. Please consult the attached 2019 NHIS letter and 2015 Classification memo and work with our NHIS staff to ensure an accurate interpretation.	The City of Duluth has provided clarification on the EAW information for the NHIS review for the project. This clarification is provided as response to MNDNR comment #8 below.
4.	BMPs and Erosion Control	We encourage using wildlife friendly Best Management Practices (BMP) and other applicable BMPs included in the GP 2004-0001: <a href="https://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_manual.html">https://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_manual.html</a> . Due to entanglement issues with small animals, we recommend the use of erosion control blankets be limited to 'bio-netting' or 'natural netting' types, and specifically not products containing plastic mesh netting or other plastic components. These are Category 3N or 4N in the 2016 & 2018 MnDOT Standards Specifications for Construction. Also, be aware that hydro-mulch products may contain small synthetic fibers to aid in its matrix strength. These loose fibers (polyethylene fibers) could potentially re-suspend and make their way into Public Waters. Research has shown that micro plastic ingestion occurs in fish, birds, and many other organisms. Additionally, more studies are finding chemicals (adsorbed micro pollutants and contained additives) in field specimens. As such, please review mulch products and do not allow any materials with synthetic fiber additives in areas that drain to Public Waters	The City of Duluth appreciates the BMP guidance provided by MNDNR. The current project design includes both erosion control blankets and hydro-mulch. The design and specifications will be reviewed for usage of non-synthetic materials. If necessary, the project team will review any alternative non-synthetic material choices to ensure they will still meet the design criteria for their applications.
5.	Invasive Species	To supplement the invasive species measures listed in the EAW, please survey the project areas for invasive species prior to construction. We recommend using an invasive species management plan for the project area covering all stages of development, including long term monitoring.	The project includes invasive species removal within project areas to be planted. Additionally, an up to 2-year maintenance period following substantive completion of remediation that includes invasive species management is planned. Invasive species (including non-native phragmites) in the upland planting areas will be removed manually or with herbicides. Expected tools for manual removal include lever-based tools, machetes, power pruners/trimmers, chainsaws, metal blade brush cutters, brush axes/hooks, shovels, spading forks, loppers, hedge shears and associated safety equipment. Any herbicides used will meet Minnesota requirements for near waterway use and the appropriate permit will be obtained.

			Invasive species disposal and minimization/spread efforts will be submitted by the selected Contractor in the form of both a treatment and maintenance plan that will be reviewed by the project team. The maintenance plan will address the technical requirements listed in the design specifications, drawings, and permits to ensure undesired plant species are not establishing in the work areas and the desired species are maintained and replaced.
6.	Page 43 Sec. 13a. Fishery Resources.	Please expound on this section. For example, although fish sampling has not taken place within the project area, it is likely that most of the 69 fish species present in the St. Louis River Estuary (SLRE) will utilize these areas at some time throughout the year	<p>In this EAW Record of Decision, the City of Duluth is providing summary information on fishery resources that may be present in the project area:</p> <p>The project site is near the St. Louis River Estuary (SLRE). It is possible that the native fish species (e.g. walleye, lake sturgeon, northern pike, small mouth bass) that utilize the SLRE may utilize parts of the project area during certain life stages. However, the open water area within the project area is currently very shallow; predominated by silt and with few areas of finer sand substrate; contains sediments affected by elevated PAH and metal concentrations; and could have areas of impaired benthic conditions within the project footprint. The successful and timely completion of the Spirit Lake remediation project will improve these conditions and result in better fish habitat for the species that utilize the project area.</p>
7.	Page 43 Sec. 13b. Fishery Resources	The EAW is missing a discussion of potential impacts to state-listed species. Please ensure all of the NHIS features and species (state listed species) identified in the NHIS Letter and Memo are noted in the appropriate sections of the EAW. Fully explain how impacts will be avoided and or minimized for each throughout all stages of the project. For instance, lake sturgeon are a state-listed species of special concern and are found in both Lake Superior and the St Louis River Estuary. There is a high usage of the water adjacent to the project area by this species. During a re-introductory stocking period, juvenile Lake Sturgeon were sampled at much higher frequencies in Spirit Lake than in other habitats within the estuary. Although lake sturgeon are not federally listed under the Endangered Species Act (ESA) the species is listed as threatened at the	<p>In this EAW Record of Decision, the City of Duluth is providing the following description of the state listed species within the project area and the potential impacts:</p> <p>Common tern (<i>Sterna hirundo</i>)- The habitat type for this state-listed threatened bird (sparsely vegetated islands in large lakes) is present within the project area; however, the only optimal nesting site within 1-mile of the project area is Spirit Island. The project remedial activities will not physically impact Spirit Island. Therefore, no adverse impact is expected to occur to the common tern.</p> <p>Creek heel splitter (<i>Lasmigona compressa</i>) and black sandshell (<i>Ligumia recta</i>)- The habitat type for these state-listed threatened mussels is coarse sand and gravel substrate in medium to large rivers. The preferred substrate is not present within the project</p>

		<p>state level in 19 of the 20 states it inhabits. This species, along with the other species noted in the NHIS Letter, should be addressed in the EAW.</p>	<p>area. The only recent observations of these species near the project area are documented in the early 2000's and only included a few individual specimens. Therefore, no adverse impact is expected for these mussels.</p> <p>Lake sturgeon (<i>Acipenser fulvescens</i>)- The habitat type for this state-listed species of special concern is large lakes and rivers with firm sand, gravel, or rubble. Lake surgeon are known to inhabit all drainages in Minnesota. There is documentation of lake sturgeon within 1 mile of the project area. However, impacts to shallow water estuary habitat within the direct project boundary will be mitigated by use of management practices to control sedimentation and protect water quality. Remedial actions will create two shallow water sheltered bays (totaling approximately 23 acres) within the project area which cause a net environmental benefit to lake sturgeon habitat and foraging areas, which will offset any temporary disturbance during construction activities. Therefore, no adverse impact is expected for lake sturgeon.</p> <p>Soapberry (<i>Shepherdia canadensis</i>)- One population of this state-listed plant of special concern was observed along the spit of land in 2004. If this population is still present, construction activities along the spit of land related to creation of a CDF may result in disruption or loss of the seed bank depending upon the exact location of the population. Therefore, the project activities may adversely impact soapberry. USEPA and USS will consult with MNDNR during the permitting process to obtain more information on the exact location of this population along the spit of land and on the potential need to conduct a survey for this species.</p>
8.	Pages 43 Sec. 13b. Rare Features and Biodiversity Sites.	<p>(Also noted as dredged area in Figure 12 and referenced in the DNR NHIS report as "critically imperiled, with a portion within the dredge footprint.") To clarify, the project boundary overlaps one Minnesota Biological Survey (MBS) Site of High Biodiversity Significance. Within this MBS Site, the project overlaps four types of native plant communities (NPC). The reclassification of one NPC does not negate the designation of the MBS Site of High Biodiversity Significance. Please clearly identify the</p>	<p>In this EAW Record of Decision, the City of Duluth is including the following clarifications to the EAW information on the NHIS review for the project:</p> <p>The estuary portion of the Project boundary overlaps a Minnesota Biological Survey Site of High Biodiversity significance (St. Louis River Estuary). Within this high biodiversity site, there are four types of classified native plant communities:</p> <ul style="list-style-type: none"> <li>• Estuary Marsh (Lake Superior)</li> </ul>

		<p>specific impacts to the critically imperiled NPC. When comparing the mapped NPC (available from the Minnesota GeoSpatial Commons) to the planned impact zone, it appears that a small amount of this critically imperiled NPC is within the required dredge zone for contaminated sediments. Please clarify and state what conversion is expected for this impact area and if it will be considered restored and/or converted.</p>	<ul style="list-style-type: none"> <li>• Aspen-Birch-Red Maple Forest</li> <li>• Sugar-Maple-Basswood (Bluebead Lily) Forest</li> <li>• Willow-Dogwood Shrub Swamp</li> </ul> <p>NPCs within the footprint will receive an <u>overall net benefit</u> from the ecological impacts of the remediation, as more specifically described below:</p> <ul style="list-style-type: none"> <li>○ The Estuary Marsh (Lake Superior) NPC has a status of “critically imperiled” in Minnesota. This NPC is present along the immediate shoreline of Wire Mill Delta and is within the dredge footprint for this area. Estuary marsh (MRu94a) in Minnesota includes both floating leave and submerged cover. This area of the footprint will be at a post-remedy depth of 2 to 4 feet and will be planted with floating and submerged vegetation, functioning as a shallow, open water wetland community. Post-construction, this NPC area will be returned to a habitat type consistent with the current condition, but with improved ecological function.</li> <li>○ Sugar-Maple-Basswood is not present within the project footprint.</li> <li>○ An approximately 0.2 acre tract of Aspen-Birch-Red Maple Forest is present at the southern point of the Wire Mill Pond dredge footprint. This NPC has a status of “uncommon, but not rare” in Minnesota. This area will remain upland after construction. The design includes restoration of upland areas with native seed mixes. USEPA and USS will consult with MNDNR on the reestablishment of this small portion of Aspen-Birch-Red Maple during the permitting phase of the project.</li> <li>○ Willow-Dogwood Shrub Swamp in the Unnamed Creek Delta is classified as common and abundant and will become a shallow, sheltered bay habitat post-construction, with remediated substrate and new habitat with improved ecological function.</li> </ul>
9.	Page 6 Sec. 6b. Figure 5, Habitat Restoration Areas.	In addition to the areas planned for the Monitored Natural Recovery Area, please include “long-term operation, maintenance, and monitoring activities” for the terrestrial and wetland areas. Also, please identify who will be	The City of Duluth is including the following additional information on the topic of habitat restoration monitoring in this EAW Record of Decision for the project:

		responsible for monitoring and ensuring vegetation success and controlling invasive species, long term.	The project design includes goals for the planting and establishment of vegetation. The requirements for long-term operation, maintenance, and monitoring of upland and wetland areas post-construction will be detailed in the permit authorizations (USACE Section 404/10 Joint Permit for Activities Affecting Water Resources in Minnesota and the Public Waters Permit) for the project. The project partners (USEPA and USS) will have responsibility for monitoring vegetation success using the methodology described in the permit conditions, for 2 years post construction.
10.	Page 16 27 Sec. 7,11 Table 3.	Please use elevation or other delineation criteria for defining wetland and deep water categories	The City of Duluth is including the following clarification on the referenced Table 3 in this EAW Record of Decision for the project:  In Table 3, wetlands acreage refers to habitat which meet the criteria for wetland categorization defined by Minnesota Rules 7050.0186. These habitats range from forested wetlands to shallow, open water wetland with water depth up to 6 feet. Deep water is any water within the Project footprint that is deeper than 6 feet.
11.	Attachment A1, Construction Drawings, Page 22 (CU-303 Rootwad detail) Unnamed Creek.	We recommend rootwads be overlapping to avoid failure. Density displayed in rootwad detail construction specification would be inadequate to retain bank structure at bend.	The City of Duluth appreciates this recommendation. This will be further evaluated as part of the design.
12.	Page 26 Unnamed Creek (at the confluence with Spirit Lake) (S-002-005-B001, S-002-005-D001).	DNR public waters lists an Unnamed Creek at the confluence with Spirit Lake. This should be removed as it is not considered a public water; the ID given comes from the stream routes with kittle number layers.	The City of Duluth understands that Unnamed Creek as a whole is not considered a DNR Public Water. It is referenced in the EAW only because through consultation with MNDNR during the pre-application process for the Public Waters Work Permit, MNDNR noted that they would want to have any impacts to the area where the creek meets the Spirit Lake included in the permit application.
13.	Page 34 Self Mitigating Remedy & Table 7.	We recognize a project goal is to achieve a self-mitigating outcome through design and strives to provide overall ecological lift. As outlined in the EAW, 40.4 acre impacts are proposed (30.1 acres outside of the department's jurisdiction + conversion of 8.8 acres of wetland to deep water). Therefore, we are concerned the project may not be entirely self-mitigating for wetland and open water losses. This aspect will need to be addressed as part of	The City of Duluth recognizes that submission of more information may be required for the MNDNR to evaluate self-mitigation for the project. Since receiving the MNDNR formal comment letter, USEPA and USS held a meeting (on 10/15) with key MNDNR staff to discuss the impacts to wetlands and open waters within the department's jurisdiction. The project team provided additional information on depth regimes changes to help support self-mitigation. Additional information on the self-mitigation position of the project is

		<p>the public water permit process on potential need for mitigation. For example, there may be temporary project impacts or the implementation of 'Enhanced Natural Recovery Thin Cover practice' may result in unanticipated changes to the site or other areas. Because of this, the Department will need to evaluate potential impacts to specific habitat types and the overall ecology to make a final determination.</p>	<p>presented in the Environmental Issues section of this Record of Decision.</p> <p>The project team will continue to be in close coordination with and will provide additional habitat evaluation information as needed to MNDNR. The City of Duluth understands that a final decision on the determination of self-mitigation for the project will be made during the permit review process for issuance of the Public Waters Work Permit from MNDNR. Should the regulatory agencies determine that another mitigation arrangement is more appropriate for the project, USEPA and USS will discuss the potential requirements with the agencies and implement project design changes if changes are necessary to comply with the mitigation arrangement preferred by the agencies.</p>
14.	Page 34 Reference to Table B1 –	We did not find Table B1; please clarify if this should reference table 7 in the EAW.	For clarification, the reference to a Table B1 within the EAW should be to Table 7.
15.	Page 37 Other Surface Water Impacts.	Please note that work in the protected waters (within the OHWL of the estuary) will be restricted to July 1- March 30; no work will be allowed between April 1 - June 30. Please include this in the timeframes outlined.	The City of Duluth recognizes the sensitivity of species and habitats within the estuary during the window of April 1 to June 30 for the protection of fish habitat during spawning. Many proven methods for minimizing sedimentation of adjacent areas during construction have been included in the design for the project. These methods have also been used successfully within the St. Louis River AOC and for similar projects on a national basis, with proven effectiveness. The project team is currently in discussion with MNDNR staff on means and methods that would potentially allow for work to progress during this restriction window, with engineered protections and monitoring systems provided to surrounding areas of the lake.
16.	Page 36, 38 Fisheries Habitat & The information provided in this section and Table 9.	We are looking for analysis of deep (>2 ft.) vs shallow (0-2 ft.) open water habitat lost relative to the 601.9 NAVD 88 elevation. Please include this in the EAW to illustrate the extent of fish habitat lost as a result of the project. The table's narrative states, "A lower average lake level could potentially result in approximately 0.2 fewer acres of water depth greater than 2 ft (permanent open water) across the site." We would like additional information explaining where this loss occurs and also the loss of 0.8 acres to upland also referred to in Table 7. These specific	<p>Upon further discussion with MNDNR, it was clarified that the agency is requesting to evaluate the acreages of pre-construction and post-construction water depths (along with the upland and wetland areas that are above the OHWL) at specific depth intervals, to determine impacts to DNR public waters. The City of Duluth is providing the following clarification related to analysis of open water fish habitat impacts from the project:</p> <p>Preliminary acreages were presented to MNDNR and show a net gain in DNR public waters (approximately 23 acres) as a result of the</p>

		impacts could trigger the need for mitigation as mentioned above (comment page 34) and will be reviewed as part of the permitting process.	project creating a variety of water depth transitions which are currently not present in the largely shallow waters of the project area. The analysis of changes in deep and shallow water is presented in the Environmental Issues section of this Record of Decision.
17.	Page 39 Watercraft Usage.	Additional information on width/depth of watercraft access openings should be provided here.	The City of Duluth is providing the following additional information on watercraft access within this EAW Record of Decision:  The watercraft access opening from the Shallow Sheltered Bay to Spirit Lake is a trapezoidal shaped channel approximately 150 feet wide at the water surface, with 5:1 side slopes, approximately 30 feet wide across the bottom and 5 ft deep water depth from the average water level.
<b>Minnesota Pollution Control Agency (MPCA)</b>			
1.	Page 6	On the surface of the Delta CDF, there is potential for future development of a recreation area/park by the City of Duluth following the Spirit Lake Remediation Project. The remedial design would include a pedestrian trail along the top perimeter of the Delta CDF to facilitate public access, which is compatible with future plans.  Depending on whether the MPCA will require that the CDFs are permitted (MPCA is still waiting for more project information), recreational facilities might not be part of the permitted activities. Permitting of the CDFs has not been resolved.	The City of Duluth recognizes that the permitting requirements for the onsite CDFs is still under review by MPCA. Information on the CDF design has been provided to MPCA as requested. Any changes to the design based on permitting requirements will be fully addressed, in close coordination with MPCA, during the permit review/issuance phase of the project.
2.	Page 8	"Cap material will be sourced from the onsite borrow area and imported from Minnesota or Wisconsin aggregate and sand fill suppliers meeting Minnesota Pollution Control Agency (MPCA) Level I/ Level II midpoint sediment quality target requirements."  Comment: Cap material for in-water placement will need to be evaluated for appropriateness by comparison to MPCA sediment quality targets. Cap material for the CDFs will need to be evaluated for appropriateness by comparison to MPCA Soil Reference Values.	The City of Duluth is providing the following additional information on cap material within this EAW Record of Decision:  A technical memorandum detailing the proposed uses of material from the onsite borrow area and the applicable requirements of the material to be suitable for each use has been provided to MPCA for review and approval.

3.	Page 8 Implementation areas.	This list of areas does not include the Concrete Disposal Area, which is also planned to be capped during the sediment remediation project. See the 2015 Feasibility Study Addendum and the 2018 Basis of Design Report.	<p>The City of Duluth is including the following clarification on the Concrete Disposal Area (CDA) in this EAW Record of Decision:</p> <p>While discussion about remedial actions at the CDA have been included in past project documents to inform stakeholders about activities at the site, the work associated with those efforts are not part of the Great Lakes Legacy Act project detailed by USEPA and USS in this EAW. USS will be submitting a separate Response Action Plan (RAP) to the MPCA for approval prior to initiating any remedial action for this upland area. The implementation of the RAP may or may not coincide with the project activities defined in the EAW as they are independent activities.</p>
4.	Page 15 f.	<p>Is this project a subsequent stage of an earlier project? Yes X No</p> <p>Comment: This statement is incorrect. Previous remedial action has occurred at the Wire Mill Pond area. U. S. Steel was required by MPCA to take additional response actions at Wire Mill Pond, and the work was conducted under a Response Action Plan approved by MPCA in 1996.</p>	<p>The City of Duluth understands that previous work has been performed at the site in the form of response actions issued by MPCA. The goal of the response actions was to remove the immediate contamination in the specified locations. While the Spirit Lake Sediment Remediation project is a project occurring within the same site as previous response actions, the previous actions were conducted under a separate framework and were not part of a Great Lakes Legacy Act restoration and remediation project aimed at removing beneficial use impairments and restoring habitat. Therefore, we do not believe it is accurate to state that this specific project is a direct subsequent stage of an earlier project.</p>
5.	Page 16	<p>Upland areas required to support the estuary remediation under Great Lakes Legacy Act (GLLA) have been transferred to GLLA regulatory authority for the remediation and will be reverted back to USEPA Region 5 Superfund and/or MPCA for the long-term operation maintenance and monitoring phase, following the remediation work addressed in this EAW."</p> <p>Comment: The upland OUs and estuary OUs that are part of the sediment remediation have been deferred to GLLA by USEPA Superfund. GLLA is a non-regulatory program, and as such, this cleanup is occurring as a non-regulatory (voluntary) action. After sediment remediation is complete, either USEPA Superfund or MPCA Superfund will require U. S. Steel to conduct long-term monitoring to</p>	<p>In this EAW Record of Decision, the City of Duluth is including the following clarification on the topic of regulatory authority within the project footprint:</p> <p>Upon completion of the remediation project, USEPA Superfund or MPCA Superfund will require U. S. Steel to conduct monitoring to evaluate long-term remedy performance in the upland and estuary areas.</p>

		ensure remedy protectiveness, under their respective regulatory authorities.	
6.	Page 25-26	<p>"Stewart Creek is a designated trout stream within one mile of the project boundary; however, the location of this creek is upstream."</p> <p>Comment: This is incorrect. Stewart Creek is downstream of the site.</p>	<p>In this EAW Record of Decision, the City of Duluth is including the following corrected information on the topic of Stewart Creek:</p> <p>Stewart Creek is a designated trout stream located downstream within one mile of the project site. This stream is located closest to the northern portion of the site where dredging will occur. The project construction will not impact this creek, as turbidity controls will be used for all in-water work dredging and capping areas. If additional BMPs outside of those already included in the design are suggested by MPCA, these controls will be discussed with the agency during review of the conditions for the Section 401 Water Quality Certification.</p>
7.	Page 28 ii. Groundwater - aquifers, springs, seeps	<p>The Site is within the Cambrian-Ordovician Aquifer System. This is a U.S Geological Survey principal aquifer system that consists of a complex multi-aquifer system of individual aquifers separated by leaky confining units (USGS 1992). The top of the aquifer is located at an elevation of approximately 1,000 ft. The Site is not located within a wellhead protection area."</p> <p>Comment: This is incorrect. The underlying site geology and aquifer are not Cambrian-Ordovician. The underlying geology is Duluth Complex Precambrian rocks, with overlying soils consisting of red-brown clay that is sometimes interbedded with fine to medium sand units. Groundwater is typically encountered from 24-34 feet below the ground surface. There are multiple monitoring wells at the site as part of a MPCA-required groundwater monitoring program.</p>	<p>In this EAW Record of Decision, the City of Duluth is including the following corrected information (as provided in the MNDNR comment) on the topic of groundwater in this EAW Record of Decision for the project:</p> <p>The Site underlying geology is Duluth Complex Precambrian with overlying soils consisting of red-brown clay that is sometimes interbedded with fine to medium sand units. Groundwater is typically encountered from 24-34 feet below the ground surface. There are multiple monitoring wells at the site as part of a MPCA-required groundwater monitoring program.</p>
8.	Page 34	<p>Because of the below described overall net benefit to habitats within the Project footprint, this Project can be viewed as self-mitigating and ecological improvements as a whole serve as the mitigation for the Project."</p>	<p>The City of Duluth recognizes that submission of more information may be required for the MPCA to evaluate self-mitigation for the project. The project team is in close coordination with both MNDNR and MPCA regarding the self-mitigating position of the project and is providing information requested to support this position. Further response to this comment is provided in the response to MPCA comment #11 and MNDNR comment #13. Additional information on</p>

		Comment: In the project proposer's view, the project is self-mitigating. This has not been determined by the permitting and regulatory authorities.	the self-mitigation position of the project is presented in the Environmental Issues section of this Record of Decision.
9.	Figure 4 - Spirit Lake Design Summary	This figure does not depict the Concrete Disposal Area. This area is depicted in Figure 2-1, Alternative 8b, of the 2015 Feasibility Study Addendum, which depicts the remedial components associated with alternative 8b. It is also depicted on Figure 1-4 Spirit Lake Design Summary, of the 2016 Basis of Design Report. There is no discussion in the narrative explaining why this remedial component of alternative 8b is not included in the EAW.	The City of Duluth is including the following clarification on the Concrete Disposal Area (CDA) in this EAW Record of Decision:  While discussion about remedial actions at the CDA have been included in past project documents to inform stakeholders about activities at the site, the work associated with those efforts are not part of the Great Lakes Legacy Act project detailed by USEPA and USS in this EAW. USS will be submitting a separate Response Action Plan (RAP) to the MPCA for approval prior to initiating any remedial action for this upland area. The implementation of the RAP may or may not coincide with the project activities defined in the EAW as they are independent activities.
10.	Item 8	A Section 401 Water Quality Certification (401 Certification) is correctly identified in this section. As MPCA staff explained previously to a consulting firm working on this project (see attached April 29, 2019, email), if the USACE determines this project is required to obtain an Individual Section 404 Permit (not a USACE Nationwide or Regional General Permit), then the applicant must also acquire an Individual MPCA 401 Certification. Projects that are required to obtain an Individual MPCA 401 Certification must also complete an antidegradation analysis. There is also an associated required public comment period, so the applicant will need to plan accordingly.	The City of Duluth notes this comment and understands MPCAs guidance on the Section 401 process and requirements.
11.	Item 11b	The EAW states that the project will result in a net loss of wetlands and deep-water habitat. It also states, while providing various tables and interpretations, that the net loss of these aquatic resources, to facilitate the overall remediation project, should be considered self-mitigating.  In light of how, based on the table in EAW Item 7, the project will result in a net loss of 18.4 acres of wetlands, together with a net loss of 12.7 acres of deep water, the assertion that this project should be considered "self-	The City of Duluth recognizes that submission of more information may be required for the MPCA to evaluate self-mitigation for the project. Since receiving the MPCA formal comment letter, USEPA and USS held a conference call (on 9/11/19) with key MPCA staff to discuss the impacts to aquatic habitats within the project footprint and discuss any agency concerns on the project's anticipated success in restoring ecological function to impaired wetlands and open waters within the project footprint. The project team will continue to conduct coordination with and provide additional habitat evaluation and post-construction documentation coordination with

		<p>mitigating," meaning no additional mitigation should be required to compensate for the net loss of these waters to facilitate the remediation project, will need further justification. The EAW did not provide enough information related to the ecological function and quality of the existing wetlands and deep water in the project area, other than noting there is contaminated sediment in them. It is, therefore, difficult to understand whether the identified aquatic restoration activities will genuinely offset the net loss of wetlands and deep water. Please address this more comprehensively in the RGU's response to comments received on this EAW. For example, what, specifically, is known about the present condition of the ecological function and quality of the wetlands and deep water in the project site? Has any data been collected to demonstrate this? Without first identifying the ecological functions and quality of the existing wetlands and deep water, as a basis of comparison, it is difficult to comprehend how the project's overall proposed improvements to the aquatic resources will, as stated, genuinely compensate for the project's detrimental impacts (i.e., the net loss of acreage) to them. Responses to these questions will also help facilitate regulatory determinations related to aquatic resource compensatory mitigation requirements.</p>	<p>MPCA. As suggested in this comment, part of the additional information that USEPA and USS will be providing MPCA will include evaluation (using Minnesota Rapid Assessment Method data and other available data) of the current ecological quality and function of aquatic habitat at the site to better support a self-mitigation position for the project. Additional information on the self-mitigation position of the project is presented in the Environmental Issues section of this Record of Decision.</p> <p>The City of Duluth understands that a final decision on the determination of self-mitigation for the project will be made during the permit review process for issuance of the Section 401 Water Quality Certification and the USACE Section 404/10 Joint Permit Application for Activities Affecting Water Resources in Minnesota. Should the regulatory agencies determine that another mitigation arrangement is more appropriate for the project, USEPA and USS will discuss the potential requirements with the agencies and implement project design changes if changes are necessary to comply with the mitigation arrangement preferred by the agencies.</p>
12.	Item 11b	<p>The EAW appropriately acknowledges (on pages 38-39) that multiple best management controls must be used to limit the resuspension of sediment during this project's in-water construction activities. The aforementioned 401 Certification will require the deployment of these controls to protect the designated uses of the surface waters outside of the project site during these in-water construction activities. Further, if the project requires an Individual 401 Certification (see Item 8 comment above), more specific information regarding these controls (e.g., specific location, type, timing, etc.) will likely need to be furnished to the MPCA during the application process. The proposed best management controls must ensure</p>	<p>The City of Duluth appreciates this information and guidance on requirements of the Section 401 process. We confirm that, as stated in the EAW, all appropriate best management controls will be used to limit the resuspension of sediment during in-water work. Upon receipt of the 401 Water Quality Certification requirements, the design will implement all necessary measures at the appropriate construction timing to reduce sedimentation impacts from the project on surrounding areas in the lake. If required, detail on resuspension controls will be provided to MPCA during the permitting process.</p>

		<p>turbidity is controlled so it will not result in an exceedance of the applicable water quality standards (identified above) outside of the project site.</p> <p>In addition, any material proposed to be used to place caps over contaminated sediment in the water will need to be screened to ensure additional pollutants are not inadvertently released in the water. For example, if the on-site borrow area identified on page 8 of the EAW will be used for this purpose, the MPCA will need to review the sampling methodology and results and may require additional analysis prior to authorizing for in-water placement.</p>	
13.	Item 11a.i	<p>The EAW did not list all of the applicable WQ standards on page 25. To clarify, the applicable MPCA state WQ standards are listed below.</p>	<p>The City of Duluth recognizes that the following clarifications related to WQ standards should be included in this EAW Record of Decision:</p> <p>Class 2B (as documented in the EAW) should be Class 2Bg; this includes a more restrictive water quality standard for the parameters listed at Minn. R. 7052.0100, subp 5 for the total mercury limit of 1.3 ng/L and subp. 6 because the project is located within the Lake Superior Basin.</p> <p>Information on Class 3C, while documenting the correct resource protections found in subp. 1 and 4 in the EAW, should note that these resources are also defined in subp. 6 of Minn. R. 7050.0223.</p>

## COMPARISON OF POTENTIAL IMPACTS WITH EVALUATION CRITERIA UNDER MN RULES:

In deciding whether a project has the potential for significant environmental effects and whether an Environmental Impact Statement (EIS) is needed, the RGU (in this case, the Duluth City Planning Commission) must compare the impacts that may be reasonably expected to occur from the project with the four criteria by which potential impacts must be evaluated (Minn. Rules, Part 4410.1700, Subp. 7.A through 7.D)

**A. Type, extent, and reversibility of environmental impacts:**

Based upon information provided in the EAW and the Responses to Comments, including the comments and responses received by 1854 Treaty Authority, MNDNR and MPCA, the City of Duluth concludes that the potential environmental effects of the project, will be limited in extent when considered in light of the overall environmental betterment provided to over 126 acres of aquatic habitat in the project area. The loss of some wetland habitat, while not temporary or reversible, is balanced by the creation of other wetland habitat types and water depths for fish habitat that are desired by Minnesota natural resource managers. Additionally, the project will include recreational features desired by the City of Duluth that will improve community access to a newly restored area of Spirit Lake.

**B. Cumulative potential effects. The RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project:**

The Spirit Lake Sediment Remediation project would not contribute to any negative cumulative potential effects when viewed in connection with other projects slated for implementation, or previously implemented in or near the project site. The overall environmental betterment achieved through remediating and improving substrates to enhance and create healthy wetland communities and fish habitat aligns with the key goals/strategies of other projects that have recently been implemented or are planned for implementation within the St. Louis River AOC. The project directly contributes significant cumulative benefits necessary to advance the removal of the Loss of Fish and Wildlife Habitat BUI within the AOC. This beneficial contribution to cumulative impacts is significant when considered with the similar contributions of other AOC restoration efforts. Strengthen the language here

**C. The extent to which environmental effects are subject to mitigation by ongoing public regulatory authority. The RGU may rely only on mitigation measures that are specific and that can be reasonably expected to effectively mitigate the identified environmental impacts of the project:**

Mitigation of any adverse environmental impacts from the project will be achieved through design and inclusion of best management practices (BMPs) and through regulations currently in place, including permit approvals, enforcement of regulations or other programs as listed here:

**Table 5. Required Permits**

<b>Unit of Government</b>	<b>Type of Application</b>
U.S. Army Corps of Engineers	Section 10/Section 404 Permit
U.S. Fish and Wildlife Service	Endangered Species Act – Section 7 Consultation
	Migratory Bird Treaty Act Compliance
	Bald and Golden Eagle Protection Act Compliance
	Fish and Wildlife Coordination Act Compliance
Minnesota Historical Society	National Historic Preservation Act Section 106 Consultation
Minnesota Department of Natural Resources	Coastal Zone Consistency Certification
	Public Waters Work Permit
	Water Appropriation Permit
	Aquatic Plant Management Control Permit
	Invasive Aquatic Plant Management Permit
	Natural Heritage Review
Minnesota Pollution Control Agency	Section 401 Water Quality Certification
	Solid Waste Facility Permit/NPDES Dredged Material Management Permit
	Construction Stormwater General Permit
City of Duluth	Wetland Conservation Act Determination/Wetland Replacement Plan (if necessary)
	Tree Preservation Report
	Erosion and Sediment Control Permit
	Fill and Grading Permit
	Shoreland and Floodplain Permit
	Transportation Permit
	Obstruction to Watercourses
	Stormwater Pollution Prevention Plan and MS4 Statement

***D. The extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer including other EIS's:***

No use of any other EA's, EIS's or other public agency documents would be needed to anticipate/control environmental effects. Environmental effects from the project would be

controlled using Minnesota specific best management practices (when appropriate) during construction. The habitat restoration plan, which is proposed to serve as mitigation for the project impacts to aquatic habitat, has been developed in consultation with project stakeholders and is designed to minimize and offset environmental impacts to the maximum practicable extent, and still achieve the overall project goal of site remediation and environmental betterment.

## **DECISION ON THE NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT**

Minnesota Rules 4410.0300 Subp. 3. Purpose states (in part)

*Environmental documents shall not be used to justify a decision, nor shall indications of adverse environmental effects necessarily require that a project be disapproved. Environmental documents shall be used as guides in issuing, amending, and denying permits and carrying out other responsibilities of governmental units to avoid or minimize adverse environmental effects and to restore and enhance environmental quality.*

Minnesota Rules 4410.0300 Subp. 4. Objectives further sets forth:

*The process created by parts 4410.0200 to 4410.6500 is designed to:*

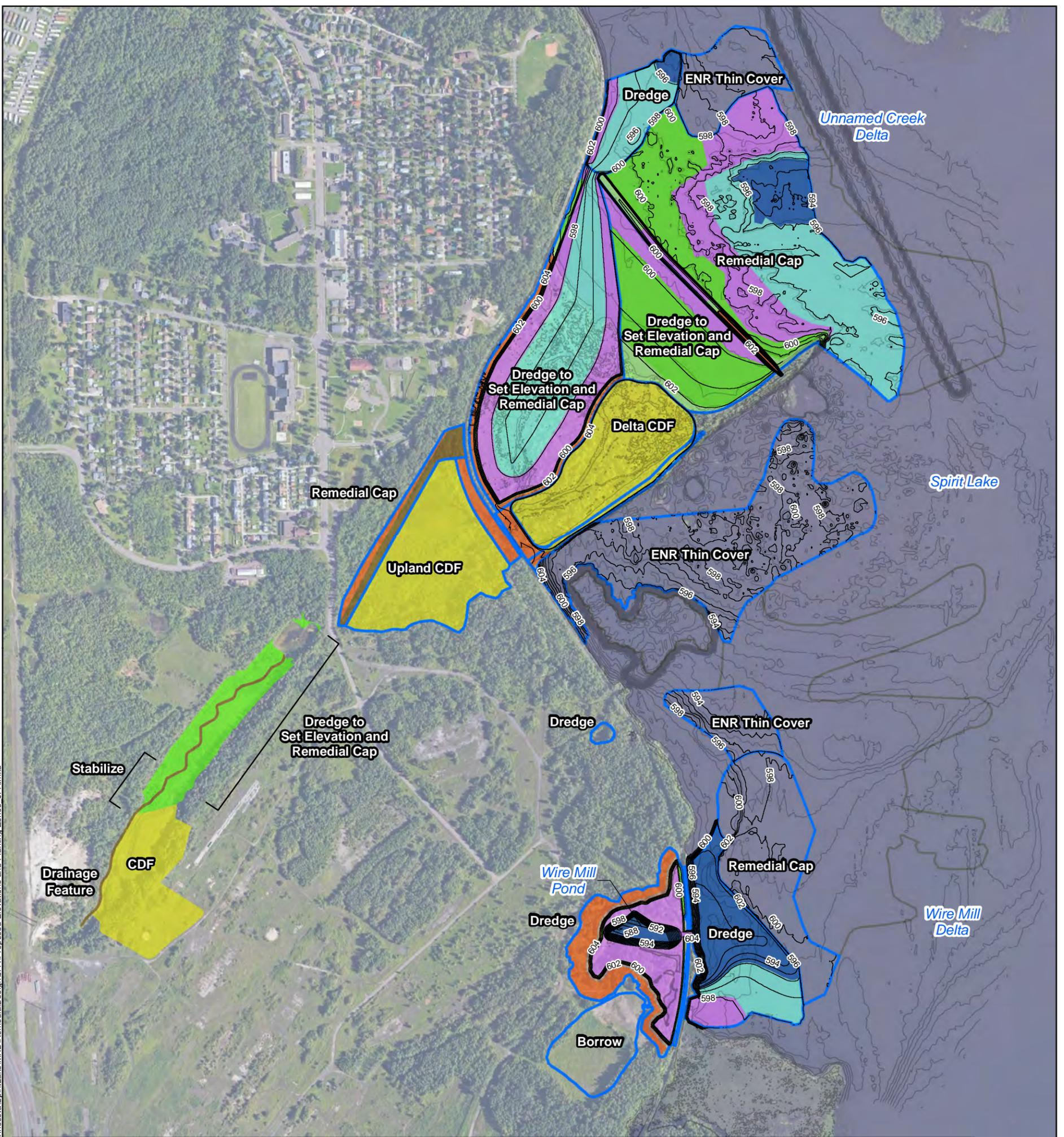
- A. provide usable information to the project proposer, governmental decision makers and the public concerning the primary environmental effects of a proposed project;*
- B. provide the public with systematic access to decision makers, which will help to maintain public awareness of environmental concerns and encourage accountability in public and private decision making;*
- C. delegate authority and responsibility for environmental review to the governmental unit most closely involved in the project;*
- D. reduce delay and uncertainty in the environmental review process; and*
- E. eliminate duplication.*

Based on the Environmental Assessment Worksheet and related documentation for this Project, the Duluth City Planning Commission, as the Responsible Governmental Unit (RGU) for this environmental review, concluded the following at their November 12, 2019 regular meeting:

1. The Environmental Assessment Worksheet and related documentation for the Spirit Lake Sediment Remediation Project were prepared in compliance with the procedures of the Minnesota Environmental Policy Act and Minnesota Rules, Parts 4410.1000 to 4410.1700.
2. The record demonstrates that implementation of this Project does not have the potential for significant environmental effects. Therefore, the Duluth City Planning Commission makes a Negative Declaration and does not require the preparation of an environmental impact statement (EIS) for this Project.

## **ATTACHED EXHIBITS**

- A. Figure 5 Proposed Elevations and Planting Zones
- B. Public Comments



\\ovetongis\GIS\State\Federal\Midwest\Minnesota\SpiritLake\MXD\RemedialDesign\JPA\Proposed Elevations and Planting Zones - JPA.mxd

**Planting Zones**

- Zone 1 - Deep Water  
>6' Depth, No Plantings Proposed
- Zone 2 - Submerged Aquatic Vegetation  
4'-6' Depth, Hard or Soft Substrate
- Zone 3 - Mixed Vegetation  
2'-4' Depth, Hard or Soft Substrate
- Zone 4 - Emergent Marsh  
0'-2' Depth, Hard or Soft Substrate
- Zone 4a - Shoreline Fringe Marsh
- Zone 5 - Upland Planting for CDF, Topsoil
- Zone 6 - Upland Planting, Topsoil
- Zone 7 - Riparian Zone, Stream Channel Gradation,  
Topsoil/Bioretenion Mix in Floodplain

**Notes:**

"Soft Substrate" areas include organic matter in the substrate mixture and are envisioned for Shallow Sheltered Bay, Wire Mill Pond, and protected shorelines. "Hard Substrate" areas are sand substrate, with some subareas potentially requiring erosion resistant materials based on upcoming hydrodynamic modeling. Shoreline protection areas, to be designed during upcoming pre-final design, will be armored or equivalent.

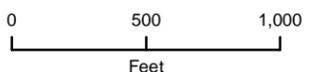


**Legend**

- Existing Elevation (IGLD85 feet)
- Proposed Elevation (IGLD85 feet)
- Shoal Feature
- Remedial Design Area  
(Design Type Labeled in Figure)
- Monitored Natural Recovery (MNR) Area

**Notes:**

Elevation values are in vertical datum IGLD85 US feet  
 OHWL = 602.8 ft  
 OLWL = 601.0 ft  
 CDF = Confined Disposal Facility  
 ENR = Enhanced Natural Recovery



**Figure 5**  
 Proposed Elevations and Planting Zones  
 Spirit Lake EAW  
 St. Louis River, Duluth, Minnesota

Map Date: 6/21/2019  
 Source: Google Earth 2017  
 Projection: NAD 1983 State Plane  
 Minnesota North Foot US



## Pacelli, Courtney

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**From:** Kyle Deming <kdeming@DuluthMN.gov>  
**Sent:** Monday, July 29, 2019 4:11 PM  
**To:** Pacelli, Courtney  
**Subject:** FW: Spirit Lake Legacy Act Cleanup/Spirit Lake Sediment Remediation Project

Courtney,

Our first comment. I have a folder in which I am saving .pdfs of all comments received. I'll forward them as I get them so you can begin to work on responses. I label the comment by the name of the commenter and the date they sent it or when I received it if there isn't a sent date.

--Kyle

---

**From:** Adam Fulton <afulton@DuluthMN.gov>  
**Sent:** Friday, July 26, 2019 2:15 PM  
**To:** Kyle Deming <kdeming@DuluthMN.gov>  
**Subject:** FW: Spirit Lake Legacy Act Cleanup/Spirit Lake Sediment Remediation Project

Kyle,

Please add for the comments.

**Adam Fulton, AICP**  
Deputy Director, Planning & Economic Development  
City of Duluth  
[afulton@duluthmn.gov](mailto:afulton@duluthmn.gov)  
(218) 730-5325

**From:** John Green <[jgreen@d.umn.edu](mailto:jgreen@d.umn.edu)>  
**Sent:** Friday, July 26, 2019 9:51 AM  
**To:** Adam Fulton <[afulton@DuluthMN.gov](mailto:afulton@DuluthMN.gov)>; [murray.williamj@epa.gov](mailto:murray.williamj@epa.gov)  
**Subject:** Spirit Lake Legacy Act Cleanup/Spirit Lake Sediment Remediation Project

I note in the information distributed about the upcoming Public Hearing for this project that the main creek in the project area is called "Unnamed Creek". Actually, this creek has been known by the Corps of Engineers and the Duluth Area storm water utility since at least 1973 as U. S. Steel Creek, for obvious reasons. I will be glad to forward to you copies of several documents and maps that show it with that name. It would be helpful if you would refer to it by its proper name.

Yours,

John C. Green  
Professor emeritus  
Dept. of Earth and Environmental Sciences  
University of Minnesota Duluth



# 1854 Treaty Authority

4428 HAINES ROAD • DULUTH, MN 55811-1524  
218.722.8907 • 800.775.8799 • FAX 218.722.7003  
[www.1854treatyauthority.org](http://www.1854treatyauthority.org)

August 20, 2019

Bill Murray  
Project Manager  
USEPA Great Lakes National Program Office

Adam Fulton  
Deputy Director  
City of Duluth Department of Planning and Economic Development

Re: Environmental Assessment Worksheet (EAW) for Spirit Lake Sediment Remediation Project

The 1854 Treaty Authority is an inter-tribal resource management agency governed by the Bois Forte Band of Chippewa and Grand Portage Band of Lake Superior Chippewa. The organization is charged to preserve, protect, and enhance treaty rights and related resources in the 1854 Ceded Territory. This ceded territory encompasses present-day northeastern Minnesota, including the U.S. Steel site and associated areas of the St. Louis River estuary. These comments are submitted by the 1854 Treaty Authority, with the understanding that each Band may submit comments on their own behalf.

We have remained engaged as this remediation project was being developed and have provided some level of input at various stages of the process. Although we would prefer complete removal of contaminated sediments (versus capping and disposal facilities), our comments here are on the project as proposed.

Rights to hunt, fish, and gather have been retained by treaty with the United States. Exercise of these rights continues today. Remedial, mitigation, and restoration projects must support these treaty rights. The EAW should highlight that these rights exist (we do not see any mention in the document) and ensure that actions support these rights. A clean environment, healthy fish/wildlife/plant populations, and suitable access are all critical for meaningful use of treaty rights.

We recognize the historical and cultural significance of Spirit Island and Spirit Lake to all Ojibwe bands as well as the tribes who preceded the Ojibwe in this region. The EAW mentions importance to the Fond du Lac Band, but it should be adequately characterized in the document that it is more than the one band. The cultural and spiritual importance of Spirit Island simply cannot be overstated. Spirit Island is the sixth stopping place on the Ojibwe tribes' migration journey. It is the place where the prophesy of reunification was fulfilled, and the tribes found the "food that grows on the water" (manoomin, or wild rice). Tribal people still seek to visit or gather together here. Efforts to remediate the contaminants that U.S. Steel discharged to the river should have as a goal the restoration of Spirit Lake to a natural state. Ideally this would include removal of contaminants, but also consider views of disposal facilities and making as "natural" as possible. In addition, it requires that federal agencies implement a pre-decisional Section 106 consultation process under the National Historic Preservation Act that informs

the selection of the preferred alternative. This process was slow to start, and although progress is now ongoing, it has not been completed.

Efforts to re-establish wild rice should be undertaken in areas with appropriate substrate and water depth. The EAW discusses that the project would create shallow bay habitat and that proper vegetation would be planted yet does not mention wild rice. Wild rice restoration should be a component of the project.

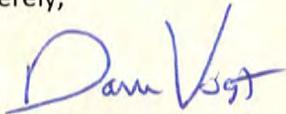
Non-native Phragmites is located on U.S. Steel property in the project area. These areas have not been treated to date because access has not been allowed to those patches. Best management practices for preventing the spread of invasive species (in general) are included in the EAW, but no mention is made of treatment or removal. As proposed, implementation of the project would dredge and/or cap the areas with known non-native Phragmites, but there is no mention of removal and disposal.

Fish habitat needs should be a consideration during remediation, mitigation, and restoration. Shallow shelter bay provides habitat services (perhaps already provided by much of Spirit Lake), but transition zones and deeper habitat are also important. The EAW states that no fish surveys completed in the last 15 years were identified. The 1854 Treaty Authority has completed bottom-trawling surveys in Spirit Lake, and we believe other fish survey data is available from federal and state agencies and perhaps researchers as well.

Finally, access to the resources are important for the exercise of treaty rights and in this case for the cultural importance of Spirit Lake and Spirit Island. We would support any trail access and potential access to the water that could be developed.

Thank you.

Sincerely,



Darren Vogt  
Resource Management Division Director

August 23, 2019

Adam Fulton  
Deputy Director of Planning and Economic Development  
City of Duluth  
411 West First St, Room 160  
Duluth, MN 55802

RE: EAW for Spirit Lake Sediment Remediation Project

Mr. Fulton:

The Office of the State Archaeologist appreciates being given the opportunity to comment on the above listed project. While the archaeological concerns of this office have been met with two negative phase I archaeological surveys, one conducted by R. Christopher Goodwin & Associates and another by EA Engineering, Science, and Technology, Inc., this office would like to express its concern regarding the project's effects to the Traditional Cultural Property of Spirit Island, which is within the viewshed of the Spirit Lake Sediment Remediation Project. Our office recommends the Minnesota Indian Affairs Council (MIAC) be included in the consultation process, as it is a representative body concerned with the wellbeing and integrity of American Indian cultural resources throughout the state.

Please contact me if you have any questions or concerns.

Sincerely,



Amanda Gronhovd  
State Archaeologist  
Kellogg Center  
328 West Kellogg Blvd  
St Paul, MN 55102  
651.201.2263  
Amanda.gronhovd@state.mn.us

Cc: Melissa Cerda, MIAC  
Jennifer Tworzynski, Office of the State Archaeologist

August 23, 2019

Mr. Jim Filby-Williams  
Director, Department of Public Administration  
City of Duluth  
411 West 1<sup>st</sup> Street, Room 403  
Duluth, MN 55802

RE: Spirit Lake Sediment Remediation Project Environmental Assessment Worksheet

Dear Mr. Filby-Williams:

Thank you for the opportunity to review and comment on the Environmental Assessment Worksheet (EAW) for the Spirit Lake Sediment Remediation Project (Project) located along the St. Louis River in St. Louis County. The City of Duluth (City) proposes to remediate known chemical constituents of concern and implement aquatic habitat enhancements in the Spirit Lake area of the St. Louis River Area of Concern. The Project includes excavation of 750,000 cubic yards of sediment, subaqueous capping of 107 acres, enhanced natural recovery of 41 acres, and habitat enhancement and restoration of over 100 acres. The City proposes to use onsite confined disposal facilities (CDFs) for excavated sediment material; the City will cap and restore these facilities following construction. The Project will require specific design and protection requirements for the historic Lake Superior and Mississippi Railroad segment that bisects the remediation area along the western lakeshore. The City included tribal consultation, which has continued during the remedial design phase.

Regarding matters for which the Minnesota Pollution Control Agency (MPCA) has regulatory responsibility or other interests, the MPCA staff has the following comments for your consideration.

Page 6 "On the surface of the Delta CDF, there is potential for future development of a recreation area/park by the City of Duluth following the Spirit Lake Remediation Project. The remedial design would include a pedestrian trail along the top perimeter of the Delta CDF to facilitate public access, which is compatible with future plans."

**Comment:** Depending on whether the MPCA will require that the CDFs are permitted (MPCA is still waiting for more project information), recreational facilities might not be part of the permitted activities. Permitting of the CDFs has not been resolved.

Page 8 "Cap material will be sourced from the onsite borrow area and imported from Minnesota or Wisconsin aggregate and sand fill suppliers meeting Minnesota Pollution Control Agency (MPCA) Level I/Level II midpoint sediment quality target requirements."

**Comment:** Cap material for in-water placement will need to be evaluated for appropriateness by comparison to MPCA sediment quality targets. Cap material for the CDFs will need to be evaluated for appropriateness by comparison to MPCA Soil Reference Values.

Page 8 "Implementation areas."

**Comment:** This list of areas does not include the Concrete Disposal Area, which is also planned to be capped during the sediment remediation project. See the 2015 Feasibility Study Addendum and the 2018 Basis of Design Report.

Page 15 "f. Is this project a subsequent stage of an earlier project? Yes X No...No prior remediation work has been performed within the Site's estuary area."

**Comment:** This statement is incorrect. Previous remedial action has occurred at the Wire Mill Pond area. U. S. Steel was required by MPCA to take additional response actions at Wire Mill Pond, and the work was conducted under a Response Action Plan approved by MPCA in 1996.

Page 16 "Upland areas required to support the estuary remediation under Great Lakes Legacy Act (GLLA) have been transferred to GLLA regulatory authority for the remediation and will be reverted back to USEPA Region 5 Superfund and/or MPCA for the long-term operation maintenance and monitoring phase, following the remediation work addressed in this EAW."

**Comment:** The upland OUs and estuary OUs that are part of the sediment remediation have been deferred to GLLA by USEPA Superfund. GLLA is a non-regulatory program, and as such, this cleanup is occurring as a non-regulatory (voluntary) action. After sediment remediation is complete, either USEPA Superfund or MPCA Superfund will require U. S. Steel to conduct long-term monitoring to ensure remedy protectiveness, under their respective regulatory authorities.

Page 25-26 "Stewart Creek is a designated trout stream within one mile of the project boundary; however, the location of this creek is upstream."

**Comment:** This is incorrect. Stewart Creek is downstream of the site.

Page 28 "ii. Groundwater – aquifers, springs, seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.

The Site is within the Cambrian-Ordovician Aquifer System. This is a U.S Geological Survey principal aquifer system that consists of a complex multi-aquifer system of individual aquifers separated by leaky confining units (USGS 1992). The top of the aquifer is located at an elevation of approximately 1,000 ft. The Site is not located within a wellhead protection area."

**Comment:** This is incorrect. The underlying site geology and aquifer are not Cambrian-Ordovician. The underlying geology is Duluth Complex Precambrian rocks, with overlying soils consisting of red-brown clay that is sometimes interbedded with fine to medium sand units. Groundwater is typically encountered from 24-34 feet below the ground surface. There are multiple monitoring wells at the site as part of a MPCA-required groundwater monitoring program.

Page 34 "Because of the below described overall net benefit to habitats within the Project footprint, this Project can be viewed as self-mitigating and ecological improvements as a whole serve as the mitigation for the Project."

**Comment:** In the project proposer's view, the project is self-mitigating. This has not been determined by the permitting and regulatory authorities.

Figure 4 – Spirit Lake Design Summary. This figure does not depict the Concrete Disposal Area. This area is depicted in Figure 2-1, Alternative 8B, of the 2015 Feasibility Study Addendum, which depicts the remedial components associated with alternative 8B. It is also depicted on Figure 1-4 Spirit Lake Design Summary, of the 2016 Basis of Design Report. There is no discussion in the narrative explaining why this remedial component of alternative 8B is not included in the EAW.

Item 8. A Section 401 Water Quality Certification (401 Certification) is correctly identified in this section. As MPCA staff explained previously to a consulting firm working on this project (see attached April 29, 2019, email), if the USACE determines this project is required to obtain an Individual Section 404 Permit (not a USACE Nationwide or Regional General Permit), then the applicant must also acquire an Individual MPCA 401 Certification. Projects that are required to obtain an Individual MPCA 401 Certification must also complete an antidegradation analysis. There is also an associated required public comment period, so the applicant will need to plan accordingly.

Item 11a.i. The EAW did not list all of the applicable WQ standards on page 25. To clarify, the applicable MPCA state WQ standards are identified below.

Water Use Classifications

*The reach of the St. Louis River where the project is located is designated by the MPCA, under Minn. R. 7050.0470, as a Class 2Bg, 3C, 4A, 4B, 5, and 6 waterbody. As such, it is protected by the general water quality (WQ) standards defined at Minn. R. 7050.0210, the antidegradation standards (Minn. R. 7050.0250 to 7050.0335), and by the applicable WQ standards governing each classification as identified below: Class 2Bg: Aquatic life and recreation (includes cool and warm water sport fish). The applicable WQ standards are defined in Minn. R. 7050.0222. Further, the more restrictive WQ standards for the parameters listed at Minn. R. 7052.0100, subp. 5 (e.g., total mercury limit of 1.3 ng/L) and subp. 6 apply because the Project is within the Lake Superior Basin.*

*Class 3C: Industrial consumption (includes all waters of the state that are, or industry may use as, a source of supply for industrial process or cooling water, or any other industrial or commercial purposes, and for which quality control is or may be necessary to protect the public health, safety, or welfare). Class 3C also specifies the protection of cool and warm water sport fish, indigenous aquatic life, and wetlands. The applicable WQ standards are defined in Minn. R. 7050.0223, subps. 1, 4 and 6.*

*Class 4A and 4B: Agriculture and wildlife (includes all waters of the state that are, or may be used for, any agricultural purposes, including stock watering and irrigation, or by waterfowl or other wildlife and for which quality control is or may be necessary to protect terrestrial life and its habitat or the public health, safety, or welfare. Class 4A also includes a sulfate limit of 10 milligrams per liter (mg/L) for the protection of wild rice where it is present. Class 4A waters also include cold water sport fish (trout waters) and 4B waters include cool and warm water sport fish. The applicable WQ standards are defined in Minn. R. 7050.0220 and part 7050.0224.*

*Class 5: Aesthetic enjoyment and navigation. The applicable WQ standards are defined in Minn. R. 7050.0220 and part 7050.0225.*

*Class 6: Other uses and protection of border waters. The applicable WQ standards are defined in Minn. R. 7050.0226.*

Item 11b.iv.a. The EAW states that the project will result in a net loss of wetlands and deep water habitat. It also states, while providing various tables and interpretations, that the net loss of these aquatic resources, to facilitate the overall remediation project, should be considered self-mitigating. For example, the following is stated on page 34:

Although wetland loss would occur (through either conversion to upland or deep water), this Project would improve the quality of existing (and create new areas) habitat at the site, resulting in an overall environmental lift of the project area. Because of the below described overall net benefit to habitats within the Project footprint, this Project can be viewed as self-mitigating and ecological improvements as a whole serve as the mitigation for the Project.

In light of how, based on the table in EAW Item 7, the project will result in a net loss of 18.4 acres of wetlands, together with a net loss of 12.7 acres of deep water, the assertion that this project should be considered "self-mitigating," meaning no additional mitigation should be required to compensate for the net loss of these waters to facilitate the remediation project, will need further justification. The EAW did not provide enough information related to the ecological function and quality of the existing wetlands and deep water in the project area, other than noting there is contaminated sediment in them. It is, therefore, difficult to understand whether the identified aquatic restoration activities will genuinely offset the net loss of wetlands and deep water. Please address this more comprehensively in the RGU's response to comments received on this EAW. For example, what, specifically, is known about the present condition of the ecological function and quality of the wetlands and deep water in the project site? Has any data been collected to demonstrate this? Without first identifying the ecological functions and quality of the existing wetlands and deep water, as a basis of comparison, it is difficult to comprehend how the project's overall proposed improvements to the aquatic resources will, as stated, genuinely compensate for the project's detrimental impacts (i.e., the net loss of acreage) to them. Responses to these questions will also help facilitate regulatory determinations related to aquatic resource compensatory mitigation requirements.

Item 11b.iv.b. The EAW appropriately acknowledges (on pages 38-39) that multiple best management controls must be used to limit the resuspension of sediment during this project's in-water construction activities. The aforementioned 401 Certification will require the deployment of these controls to protect the designated uses of the surface waters outside of the project sited during these in-water construction activities. Further, if the project requires an Individual 401 Certification (see Item 8 comment above), more specific information regarding these controls (e.g., specific location, type, timing, etc.) will likely need to be furnished to the MPCA during the application process. The proposed best management controls must ensure turbidity is controlled so it will not result in an exceedance of the applicable water quality standards (identified above) outside of the project site.

In addition, any material proposed to be used to place caps over contaminated sediment in the water will need to be screened to ensure additional pollutants are not inadvertently released in the water. For example, if the on-site borrow area identified on page 8 of the EAW will be used for this purpose, the MPCA will need to review the sampling methodology and results and may require additional analysis prior to authorizing for in-water placement.

MPCA appreciates the opportunity to review and provide comments on the EAW. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions.

Jim Filby-Williams

Page 5

August 23, 2019

If you have any questions concerning our review of this EAW, please contact me by email at [Patrice.jensen@state.mn.us](mailto:Patrice.jensen@state.mn.us) or by telephone at 651-757-2465.

Sincerely,

A handwritten signature in black ink that reads "Patrice Jensen". The signature is written in a cursive, flowing style.

Patrice Jensen  
Planner Principal  
Environmental Review Unit  
Resource Management and Assistance Division

PJ:mb

Enclosure

cc: Courtney Pacelli, EA Engineering, Science and Technology, Inc., PBC  
Dan Card, MPCA, St. Paul  
Kevin Molloy, MPCA, St. Paul  
Dan Breneman, MPCA, St. Paul  
Beth Gawrys, MPCA, St. Paul  
Roberta Getman, MPCA, St. Paul  
Jeff Udd, MPCA, St. Paul  
Erin Endsley, MPCA, St. Paul  
Tom Estabrooks, MPCA, St. Paul  
Emily Schnick, MPCA, St. Paul  
Sherri Nachtigal, MPCA, St. Paul  
Steve Giddings, MPCA, St. Paul  
Suzanne Baumann, MPCA, St. Paul  
Melissa Kuskie, MPCA, St. Paul



## Peterson, Charles V (MPCA)

---

**From:** Molloy, Kevin (MPCA)  
**Sent:** Monday, April 29, 2019 3:19 PM  
**To:** Pacelli, Courtney  
**Cc:** Endsley, Erin (MPCA); Wierzbinski, Daryl W MVP (Daryl.W.Wierzbinski@usace.army.mil)  
**Subject:** MPCA Antidegradation Form [RE: GoToMeeting Invitation - Spirit Lake Bi-weekly Update Call]  
**Attachments:** 7.18.17 Antideg form for Applicants.docx

Hi Courtney, attached is the supplemental form I mentioned, during last week's conference call, I would send you. As a refresher, if USACE determines this project is required to obtain an Individual Section 404 Permit (not a USACE Nationwide or Regional General Permit), which I think Daryl said cannot be determined until after this project's application is filed with his office, then the applicant must also acquire an MPCA Individual 401 WQ Certification (401 Certification). Projects that are required to obtain an Individual MPCA 401 Certification must also complete an antidegradation analysis, which the attached form explains.

Please let me know if you have any associated questions.

Regards,

Kevin Molloy  
Minnesota Pollution Control Agency  
Resource Management & Assistance Division  
520 Lafayette Road North, St. Paul, MN 55155-4194  
Phone: 651-757-2577  
Email: [kevin.molloy@state.mn.us](mailto:kevin.molloy@state.mn.us)  
<http://www.pca.state.mn.us>

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**From:** Pacelli, Courtney <cpacelli@eaest.com>  
**Sent:** Tuesday, April 23, 2019 8:50 AM  
**To:** Daryl Wierzbinski <daryl.w.wierzbinski@usace.army.mil>; Fowler, Patricia L (DNR) <patricia.fowler@state.mn.us>; Molloy, Kevin (MPCA) <kevin.molloy@state.mn.us>; Bares, Mike (MPCA) <mike.bares@state.mn.us>; Endsley, Erin (MPCA) <erin.endsley@state.mn.us>; William J. Murray <Murray.Williamj@epa.gov>; Mark Rupnow <MRupnow@uss.com>; 'Eric Dott' <edott@barr.com>; Ciarlo, Michael <mciarlo@eaest.com>; Hendrickson, Deserae L (DNR) <deserae.hendrickson@state.mn.us>; Beaver, Jamie <jbeaver@eaest.com>  
**Subject:** GoToMeeting Invitation - Spirit Lake Bi-weekly Update Call

Hello all,

Please see below for the webinar access and call-in information for the biweekly Spirit Lake call tomorrow. We look forward to talking with everyone then.

Thanks,

Courtney

Spirit Lake Bi-weekly Update Call

Wed, Apr 24, 2019 11:00 AM - 12:00 PM EDT

Please join my meeting from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/721718301>

Join the conference call:

1-800-768-2983

PIN: 3295216

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Minnesota Pollution Control Agency (MPCA) Antidegradation Assessment for Section 401  
Water Quality Certification Applicants

7.18.17

In addition to completing the Joint Application Form for Activities Affecting Water Resources in Minnesota, applicants whose proposed projects may require an MPCA Individual 401 Water Quality Certification for work in aquatic resources must also provide the information requested below. This will facilitate the MPCA's review of the proposed project for compliance with the antidegradation water quality standards (Minn. R. 7050.0250 to 7050.0335). Section 401 of the Clean Water Act requires any applicant for a federal license or permit to conduct an activity that may result in a discharge to waters of the United States to obtain certification from the state in which the discharge originates to ensure compliance with state water quality standards. The antidegradation assessment is not required for all projects; if you know that your project will qualify for a U.S. Army Corps of Engineers 404 General Permit or Letter of Permission (LOP), you do not need to fill out this form. If the information requested below is already provided in your Joint Permit Application (JPA), please indicate where.

**Environmental Assessment Worksheet (EAW)/Environmental Impact Statement (EIS)**

*Identify whether an EAW or EIS was prepared (or will be required) for this project, and include the EAW/EIS process completion date.*

**Analysis of Non-preferred Alternatives That Avoid and Minimize Degradation**

*Describe prudent and feasible alternatives that would minimize degradation and avoid or minimize surface water impacts (such as wetlands, lakes, streams, etc.). An analysis of each alternative must include a description of how impacts to surface waters are avoided and/or minimized, and include information on any design considerations and constraints, expected performance, construction, operation, and maintenance costs, and reliability for each alternative.*

**Preferred Alternative**

*Provide a description of and justification for the preferred alternative, and verify that the preferred alternative is the least degrading prudent and feasible alternative for surface water. Note: Information in Attachment C of the Joint Application Form for Activities Affecting Water Resources in Minnesota (Application) may be used to help determine if the preferred alternative, relative to other available prudent and feasible alternatives, is appropriate.*

**Beneficial Uses**

*Describe the current existing beneficial uses of the surface waters impacted by the project and how the beneficial uses will be protected during and after the project. Review Minnesota Rules 7050.0410-0430 for the classification that fits the existing beneficial uses of the waters impacted by your project. <https://www.revisor.mn.gov/rules/?id=7050>*

**Indirect Impacts**

*Where partial alteration of a surface water will occur, describe the potential indirect impacts to the remaining surface water, and the potential impact to nearby wetlands, stream, lakes, etc. When the entire function/acreage of a surface water is lost, describe the impacts to nearby wetlands, streams, lakes, etc. Indirect impacts can include changes in hydrology, aquatic species health or population, changes in vegetation or macroinvertebrate (bug) populations, etc.*

**Loading and Degradation to Surface Waters**

*Describe any anticipated net increases in loading and other causes of degradation expected in surface waters that are not directly filled or dredged when your proposed project preferred alternative is fully implemented.*

**Water Quality Comparison Before and After Project**

*Compare and describe the existing water quality at the project site with the anticipated water quality after the project is fully complete and operational. If the surface area of a water resource will be completely filled, this step is not necessary, but must be addressed in the Mitigation Plan below.*

**Comparison of Existing and Expected Economic Conditions and Social Services**

*Provide a comparison of existing and expected economic conditions and social services when the proposed project (preferred alternative) is fully implemented. Include description of economic gains or losses attributable to the proposed activity; contribution to social services; prevention/remediation of environmental or public health threats; trade-offs between environmental media; the value of the water resources; and other relevant environmental, social, and economic impacts of the proposed activity.*

**Description of the Mitigation Plan**

If the applicant will mitigate the project’s permanent surface water impacts via an approved wetland bank AND the mitigation is type-for-type AND located in the same major watershed (<https://www.pca.state.mn.us/water/watersheds>) the applicant does not need to complete this portion.

*Using the project information provided above, describe how the proposed compensatory mitigation will replace existing uses and maintain the current level of water quality at the proposed project site (e.g. wetland types, replacement ratio, water monitoring data if available).*

*Describe how the compensatory mitigation will be maintained and the monitoring activities that will be conducted to ensure the proposed mitigation is viable. Include a timeline for reporting progress and an intervention/remediation plan to be implemented if the mitigation fails.*



**MN DNR Northeast Regional Headquarters**  
**Patty Thielen, NE Regional Director**  
**1201 East Highway 2**  
**Grand Rapids, MN 55744**

**August 20, 2019**

**Correspondence: ERDB # 20150180**

**RGU: City of Duluth Planning Commission**

RGU Contact Person:

Adam Fulton, Deputy Director, Department of Planning and Economic Development

West First Street, Room 160

Duluth, MN 55802

218-730-5580

[afulton@duluthmn.gov](mailto:afulton@duluthmn.gov)

RE: Spirit Lake Sediment Remediation Project EAW Agency Comments and Recommendations;

Dear Mr. Fulton,

The Minnesota Department of Natural Resources (MNDNR) has reviewed the Spirit Lake Sediment Remediation Project Environmental Assessment Worksheet (EAW). We appreciate your early coordination effort to work with our staff and receive comments during project development. There are many positive outcomes from these efforts in the EAW, such as the planning processes to minimize impacts to, or maintain character of DNR public waters and water use; including impacts associated with water appropriation for project activities that we permit. We also respect the need for continued coordination during the permitting process and respect other agencies' considerations to project activities they permit. After completing the full regional review of the final EAW, we have provided additional information, suggestions, and/or requirements. Thank you for your consideration to management aspects that enhance our state's natural resources.

### **General Comments**

The primary component of this restoration project focuses on the aquatic/wetland habitat. The upland sites are also an important part of the supporting project infrastructure. Please include uplands in all sections of the EAW and address both direct and indirect impacts. In the sections for construction and operation methods, please describe the specifics for re-vegetation in upland areas, remedial caps, and berms around confined disposal facilities (CDFs); such as seed mixes, species plantings, hardscaping, and ensure to address the expected final conditions for upland areas.

## NHIS

We noted some potential inconsistencies between the EAW and NHIS review information. Please consult the attached 2019 NHIS letter and 2015 Classification memo and work with our NHIS staff to ensure an accurate interpretation.

### Best Management Practices (BMPs) & Erosion Control Materials

We encourage using wildlife friendly Best Management Practices (BMP) and other applicable BMPs included in the GP 2004-0001:

[https://www.dnr.state.mn.us/waters/watermgmt\\_section/pwpermits/gp\\_2004\\_0001\\_manual.html](https://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_manual.html).

Due to entanglement issues with small animals, we recommend the use of erosion control blankets be limited to 'bio-netting' or 'natural netting' types, and specifically not products containing plastic mesh netting or other plastic components. These are Category 3N or 4N in the 2016 & 2018 MnDOT Standards Specifications for Construction. Also, be aware that hydro-mulch products may contain small synthetic fibers to aid in its matrix strength. These loose fibers (polyethylene fibers) could potentially re-suspend and make their way into Public Waters. Research has shown that micro plastic ingestion occurs in fish, birds, and many other organisms. Additionally, more studies are finding chemicals (adsorbed micro pollutants and contained additives) in field specimens. As such, please review mulch products and do not allow any materials with synthetic fiber additives in areas that drain to Public Waters.

### Invasive Species

To supplement the invasive species measures listed in the EAW, please survey the project areas for invasive species prior to construction. We recommend using an invasive species management plan for the project area covering all stages of development, including long term monitoring.

## Specific Comments

### NHIS

**Page 43 Sec. 13a. Fishery Resources.** Please expound on this section. For example, although fish sampling has not taken place within the project area, it is likely that most of the 69 fish species present in the St. Louis River Estuary (SLRE) will utilize these areas at some time throughout the year.

**Page 43 Sec. 13b-c.** The EAW is missing a discussion of potential impacts to state-listed species. Please ensure all of the NHIS features and species (state listed species) identified in the NHIS Letter and Memo are noted in the appropriate sections of the EAW. Fully explain how impacts will be avoided and or minimized for each throughout all stages of the project. For instance, lake sturgeon are a state-listed species of special concern and are found in both Lake Superior and the St Louis River Estuary. There is a high usage of the water adjacent to the project area by this species. During a re-introductory stocking period, juvenile Lake Sturgeon were sampled at much higher frequencies in Spirit Lake than in other habitats within the estuary. Although lake sturgeon are not federally listed under the Endangered Species Act (ESA) the species is listed as threatened at the state level in 19 of the 20 states it inhabits. This species, along with the other species noted in the NHIS Letter, should be addressed in the EAW.

**Pages 43 Sec. 13b. Rare Features and Biodiversity Sites. (Also noted as dredged area in Figure 12 and referenced in the DNR NHIS report as "critically imperiled, with a portion within the dredge footprint.")** To clarify, the project boundary overlaps one Minnesota Biological Survey (MBS) Site of High Biodiversity Significance. Within this MBS Site, the project overlaps four types of native plant communities (NPC). The reclassification of one NPC does not negate the designation of the MBS Site of High Biodiversity Significance.

Please clearly identify the specific impacts to the critically imperiled NPC. When comparing the mapped NPC (available from the Minnesota GeoSpatial Commons) to the planned impact zone, it appears that a small amount of this critically imperiled NPC is within the required dredge zone for contaminated sediments. Please clarify and state what conversion is expected for this impact area and if it will be considered restored and/or converted.

## Other

**Page 6 Sec. 6b. Figure 5, Habitat Restoration Areas.** In addition to the areas planned for the Monitored Natural Recovery Area, please include “long-term operation, maintenance, and monitoring activities” for the terrestrial and wetland areas. Also, please identify who will be responsible for monitoring and ensuring vegetation success and controlling invasive species, long term.

**Page 16 27 Sec. 7,11 Table 3.** Please use elevation other delineation criteria for defining wetland and deep water categories.

**Attachment A1, Construction Drawings, Page 22 (CU-303 Rootwad detail) Unnamed Creek.** We recommend rootwads be overlapping to avoid failure. Density displayed in rootwad detail construction specification would be inadequate to retain bank structure at bend.

**Page 26 Unnamed Creek (at the confluence with Spirit Lake) (S-002-005-B001, S-002-005-D001).** DNR public waters lists an Unnamed Creek at the confluence with Spirit Lake. This should be removed as it is not considered a public water; the ID given comes from the stream routes with kittle numbers layer.

**Page 34 Self Mitigating Remedy & Table 7.** We recognize a project goal is to achieve a self-mitigating outcome through design and strives to provide overall ecological lift. As outlined in the EAW, 40.4 acre impacts are proposed (30.1 acres outside of the department’s jurisdiction + conversion of 8.8 acres of wetland to deep water). Therefore, we are concerned the project may not be entirely self-mitigating for wetland and open water losses. This aspect will need to be addressed as part of the public water permit process on potential need for mitigation. For example, there may be temporary project impacts or the implementation of ‘Enhanced Natural Recovery Thin Cover practice’ may result in unanticipated changes to the site or other areas. Because of this, the Department will need to evaluate potential impacts to specific habitat types and the overall ecology to make a final determination.

**Page 34 Reference to Table B1** – We did not find Table B1; please clarify if this should reference table 7 in the EAW.

**Page 37 Other Surface Water Impacts.** Please note that work in the protected waters (within the OHWL of the estuary) will be restricted to July 1- March 30; no work will be allowed between April 1 - June 30. Please include this in the timeframes outlined.

**Page 36, 38 Fisheries Habitat & The information provided in this section and Table 9.** We are looking for analysis of deep (>2 ft.) vs shallow (0-2 ft.) open water habitat lost relative to the 601.9 NAVD 88 elevation. Please include this in the EAW to illustrate the extent of fish habitat lost as a result of the project. The table’s narrative states, “A lower average lake level could potentially result in approximately 0.2 fewer acres of water depth greater than 2 ft (permanent open water) across the site.” We would like additional information explaining where this loss occurs and also the loss of 0.8 acres to upland also referred to in **Table 7**. These specific impacts could trigger the need for mitigation as mentioned above (comment page 34) and will be reviewed as part of the permitting process.

**Page 39 Watercraft Usage.** Additional information on width/depth of watercraft access openings should be provided here.

## Conclusion

Thank you for the opportunity to review the EAW. We look forward to receiving responses to our comments. Please ensure the final findings from the EAW process and all NHIS formal review letters for this project are

submitted to the appropriate permitting authorities via the associated permit applications such as, but not limited to: MNDNR Land Crossing requests, WCA, 404, and MPARS permits. For questions, please contact Margi Coyle, MN DNR NE Regional Environmental Assessment Ecologist. Margi can be reached at (218) 328-8826 or [margi.coyle@state.mn.us](mailto:margi.coyle@state.mn.us).

Sincerely,



Patty Thielen  
NE Regional Director

CC:

*Randall Doneen*  
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*Equal Opportunity Employer*