

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.

Applicant/Project Name: USACE Detroit District's Minnesota Point Proposed Beach Nourishment Project.

Date: 09 July 2018

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.

The EAW/EIS process for the proposed project was completed on May 18, 2018. The USACE and MPCA acquired answers from the RGU's (City of Duluth & Minnesota Department of Natural Resources) in regards to Minnesota Rules 4410.4300. The relevant subparts of Minnesota Rules 4410.4300 to this project were: Subp. 27, Subp. 30, and Subp. 36a. Attachment 1 includes confirmation from the RGU's in relation to this proposed project not requiring a mandatory EAW, and that a discretionary EAW is not being requested. A 1998 Environmental Assessment with a Statement of Findings and Finding of No Significant Impact dated January 24, 2000 was also previously completed for the proposed project (U.S. Army Corps of Engineers, 2000).

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.

- 1) The dredged material could be placed into the Erie Pier Confined Disposal Facility (CDF). There would be no surface water quality impacts with the use of Erie Pier as it is a contained facility with no discharge. Placement into Erie Pier would avoid water quality impacts; however, the capacity of Erie Pier is considered critical. The United States Army Corps of Engineers Detroit District (USACE) is striving to prolong its service life by emphasizing the beneficial uses of dredged material when feasible and environmentally acceptable. Section 148 of Public Law 94-587 requires the Corps to use and encourage the use of management practices to extend the useful life of CDFs such that the need for construction of new facilities is kept to a minimum. This law, along with the high construction costs for a new CDF in Duluth/Superior harbor requiring both federal and nonfederal sources of capital funding, has focused the USACE to maximize methods of dredged material management that do not negatively impact the capacity of Erie Pier as a CDF. Given the likelihood that this material would be reused out of Erie Pier, it is not cost effective to place it there when it could be taken directly to a beneficial reuse site, such as the shoreline of Minnesota Point.
- 2) Minnesota Point could be nourished by the purchase and placement of sand from local providers to be placed on the Point. This could avoid water quality impacts by placement of material above the OHWM, and allow for natural erosion and littoral drift to redistribute the material along the point. This alternative though would result in increased costs due to material, trucking, and placement costs. This would also result in the potential need to find other placement areas in the harbor for USACE maintenance dredging material which could reduce the amount of dredging performed yearly in the Harbor.
- 3) The no action alternative would leave the channels lacking necessary maintenance to the degree that other dredged material needs in the harbor cannot take sufficient quantities. Under no action, Minnesota Point would continue to erode under high lake levels during storm events. As the current eroded shoreline is close to the special pine forest, damages to valued resources could occur.

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.

The preferred alternative is to place dredged material from USACE maintenance dredging activities along Minnesota Point throughout the length of the point from the Duluth Ship Canal to the Superior Entry as addressed in the USACE Environmental Assessment (2000). The use of this material along Minnesota Point is important because high lake levels combined with storms have resulted in substantial erosion of the Lake Superior side of the Point. By placing the dredged material along Minnesota Point, additional buffering from storms and high water, along with restoration of highly eroded areas will be achieved, protecting features of the point, such as residential neighborhoods, recreational areas, state scientific and natural areas, and the Sky Harbor airport. Effects on surface water for this alternative include temporary turbidity at the time of placement, and subsequent turbidity events when storms occur. The site already is subject to substantial storm-induced turbidity as indicated by the eroded condition of the point and the nourishment material would produce less turbidity because of its sandy nature compared to the more diverse soil material currently being eroded in some areas of the point.

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>

The primary current beneficial uses of the surface waters along the Lake Superior side of Minnesota Point are for scenic, recreational boating, and public swimming activities. The dredged material placement activities may degrade these values temporarily; however scenic impacts would be minimal and recreational boating, and public swimming activities can be sheltered by selective placement of material to avoid active beach areas. Areas could also be nourished in the post swimming season or the material could be placed away from swimming areas and allowed to naturally redistribute along the Point.

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.

The project does not result in alteration of a surface water as it is simply nourishment of an eroding shoreline using dredged material to restore eroded areas and maintain the point against losses from high lake levels combined with storms.

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.

Turbidity effects in the nearby adjacent surface waters would occur during placement of material; however, this turbidity is similar to but on a smaller scale than that generated naturally by storms and would dissipate quickly after being placed. BMP's would be employed similar to those used by USACE in other areas of the Duluth-Superior Harbor, where deflectors are used to focus the placement and limit turbidity potential, so as to minimize temporary degradation of surface waters during placement of dredged material.

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.

There would be no measurable change to water quality after the project vs. before the project, once the temporary turbidity settles.

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

No change in economic conditions or social services. Insofar as the nourishment prevents a breach of the Point (a theoretical, but not likely imminent possibility), it would be providing benefits in both of these areas.

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).

No mitigation is needed as the shoreline nourishment will be achieved using material that is primarily sand. No material with substantial content of fines would be used. This will minimize the extent and duration of turbidity generated during placement, and will ensure suitable material for public swimming beaches and scenic values.

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.

N/A