DEPARTMENT OF THE ARMY
DETROIT DISTRICT, CORPS OF ENGINEERS
BOX 1027
DETROIT, MICHIGAN 48231-1027

JUN 1 4 2010

IN REPLY REFER TO:

Planning Office
Environmental Analysis Branch

TO ALL INTERESTED AGENCIES, PUBLIC GROUPS, AND CITIZENS

The enclosed Environmental Assessment (EA)—*Beneficial Use of Dredged Material, Duluth-Superior Harbor, Minnesota and Wisconsin*—is provided for your review. The EA addresses the potential environmental impacts associated with beneficial use of dredged material, both fine grained and coarse grained, from the Erie Pier Diked Disposal Facility in Duluth, Minnesota. Alternatives considered include 1) No Action, 2) Beneficial Use of Dredged Material, 3) Expand Erie Pier, and 4) Develop New Dredged Material Placement Site. The proposed action is Alternative 2, Beneficial Use of Dredged Material.

Any comments you may have concerning the proposed beneficial use of dredged material should be made within thirty (30) days from the date of this letter. If no comments are received by the end of the thirty (30) day review period, we will assume that you have no comment. Please direct your comments to:

U.S. Army Engineer District, Detroit
ATTN: CELRE-PL-E (Les E. Weigum)
P.O. Box 1027
Detroit, Michigan, 48231-1027

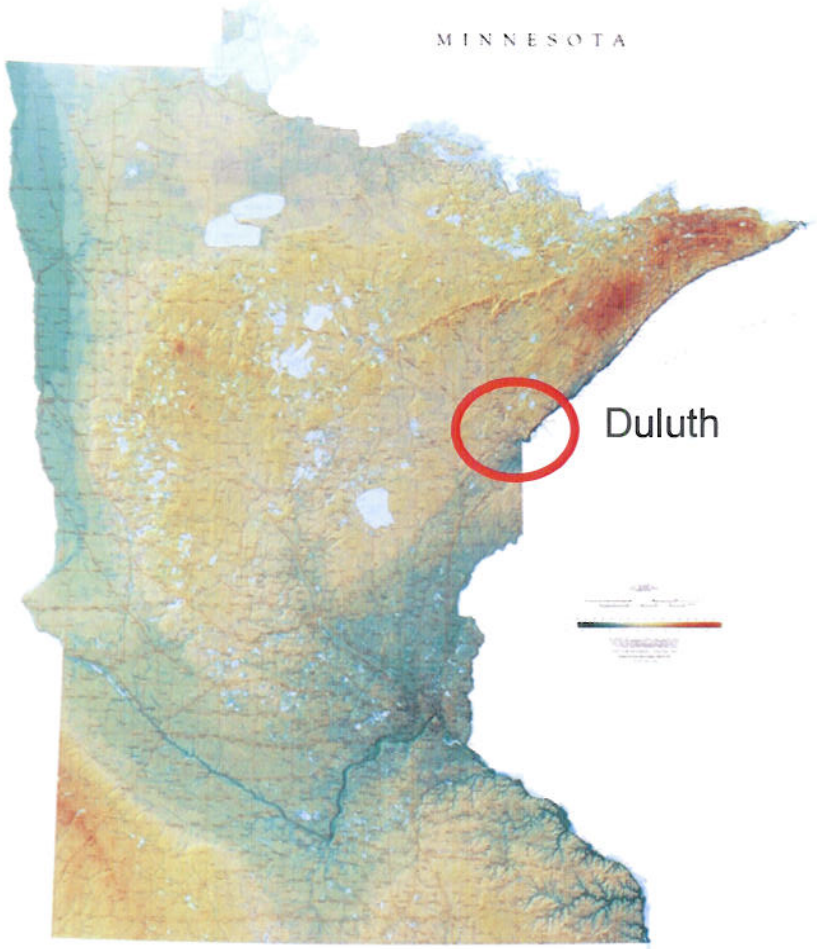
Following the comment period and a review of the comments received, a final decision will be made regarding the necessity of preparing an Environmental Impact Statement (EIS) for the proposed beneficial use of dredged material. Based on the conclusions of this EA, it appears that preparation of an EIS will not be required.

Jim E. Galloway
Chief, Planning Office

Enclosure

ENVIRONMENTAL ASSESSMENT

Beneficial Use of Dredged Material
Duluth-Superior Harbor
Minnesota and Wisconsin



June 2010

U.S. Army Engineer District, Detroit
Corps of Engineers, CELRE-PL-E
PO Box 1027
Detroit, MI 48231-1027
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ENVIRONMENTAL ASSESSMENT

Beneficial Use of Dredged Material
Duluth-Superior Harbor
Minnesota and Wisconsin

1.0 INTRODUCTION

The U.S. Army Corps of Engineers Detroit District proposes beneficial use of dredged material, both fine grained and coarse grained, from the Erie Pier Diked Disposal Facility (Erie Pier)[1] in Duluth, Minnesota. Dredged material would be tested for contaminants, classified, and provided for beneficial use according to the following State of Minnesota reuse categories: Tier I, which is material suitable for use at residential and recreational sites, and Tier II, which is material suitable for use at industrial sites.

Duluth-Superior Harbor is located at the western end of Lake Superior between Duluth, Minnesota, and Superior, Wisconsin (Figure 1). The harbor is formed by the waters of the St. Louis River, which is the second largest tributary of Lake Superior. The harbor includes 17 miles of Federally authorized navigation channels, anchorage areas, and maneuvering basins, with channel depths ranging from 20 to 27 feet.

Erie Pier, which occupies approximately 82 acres along the northwest shore of Duluth-Superior Harbor, was constructed in 1979 to hold up to one million cubic yards of material dredged from the Federal navigation project over a 10 year period. A mooring facility at Erie Pier provides for dredged material off-loading. Erie Pier has no outlet to decant carriage water, so typically only mechanically dredged material is placed into Erie Pier.

The majority of the material dredged from the Federal channels is placed in Erie Pier. Approximately every six years, when maintenance dredging occurs in the Federal navigation channels in the vicinity of the Superior Entry, the material is placed directly as shoreline nourishment along eroding areas of Minnesota Point. The shoal material in the vicinity of the Superior Entry has historically been sandier than material in the rest of the harbor and thus has been eligible for use in shoreline nourishment activities. Since 1988, a washing operation has been employed at Erie Pier to separate the coarser grained fraction of the dredged materials for beneficial use[2] such as in highway construction projects. The washing operation has helped

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[1] U.S. Army Engineer District, St. Paul, Minnesota. "Final Supplement, Final Environmental Impact Statement, Duluth-Superior Harbor Operation and Maintenance Diked Dredge Disposal Facility." July 1977.

[2] U.S. Army Engineer District, Detroit, Michigan. "Environmental Assessment, Transfer and Storage of Dredged Material at Erie Pier, Duluth, Minnesota." April 1988.

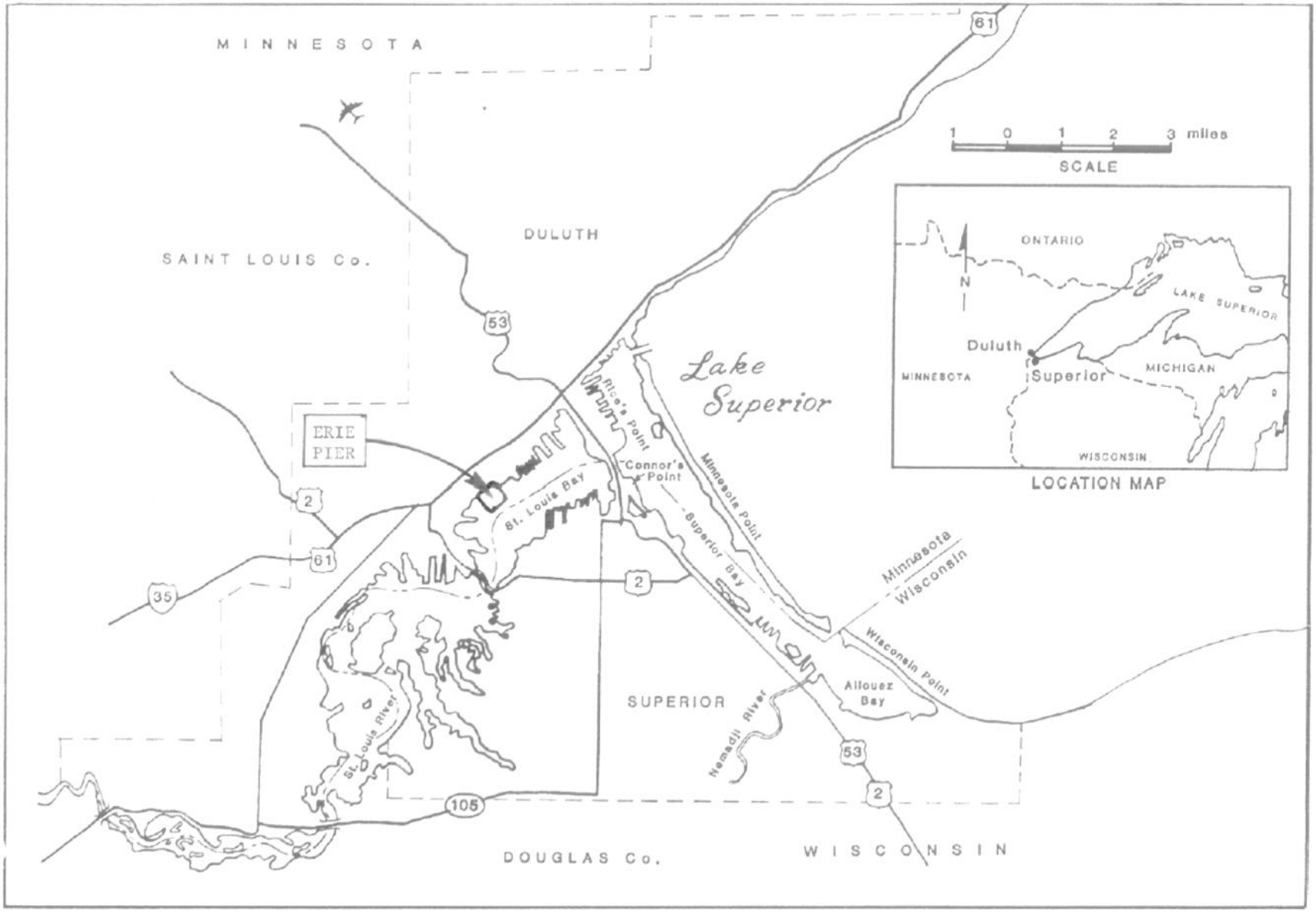

Figure 1. Duluth-Superior Harbor

extend the operational term of Erie Pier. In the 1990s interior dikes were raised at Erie Pier to provide additional capacity.[3]

A Management Plan was recently developed for Erie Pier to "facilitate a dredged material reuse program at Erie Pier."[4] The Management Plan discusses suitability of the dredged material, processing the dredged material, testing and categorizing the dredged material for beneficial reuse, various beneficial reuse categories, state regulations relative to beneficial reuse of dredged material, etc. The Management Plan was widely coordinated among interested parties and both states (Wisconsin and Minnesota).

2.0 PROPOSED ACTION

The proposed action is to conserve capacity at Erie Pier by removing dredged material from Erie Pier for beneficial use purposes. This provides for the beneficial reuse of any suitable material (fine grained, coarse grained, or mixed) in addition to the existing beneficial reuse of coarse grained material through the washing operation as described in the April 1988 Environmental Assessment.[2] Dredged material typically will be stockpiled within Erie Pier to allow for dewatering the material prior to release for beneficial use.

Suitability of dredged material proposed for removal from Erie Pier for beneficial use will be determined in accordance with guidelines set forth in the State Disposal System (SDS) Permit for Erie Pier[5], which delineates three categories of use based on contaminant character of the dredged material:

1) Tier I—Suitable for Residential/Recreational Sites: Material that is either greater than 93 percent sand (which does not hold contaminants) or, for finer grained material, where contaminants testing has been conducted and the results show that the material meets State standards for residential/recreational properties.

2) Tier II—Suitable for Industrial Sites: Material that has a contaminant level meeting State standards for industrial properties.

3) Tier III—Not Suitable For Reuse: Material that has a contaminant level exceeding the State standards for industrial use category and is not authorized for reuse under the SDS Permit.

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3 U.S. Army Engineer District, Detroit, Michigan. "Environmental Assessment, Upward Expansion of the Erie Pier Confined Disposal Facility, Duluth, Minnesota." November 1996.

4 Duluth-Superior Metropolitan Interstate Council. "Erie Pier Management Plan." 2007. The Erie Pier Management Plan is cited for informational purposes. It was prepared by local and regional interests as a planning tool and provides useful information on the background of Erie Pier and dredged material handling options.

5 The State Disposal System (SDS) permit for Erie Pier was issued to the Duluth Seaway Port Authority by the Minnesota Pollution Control Agency on February 12, 2009.

Materials in the first two categories (Residential/Recreational and Industrial) would be released from Erie Pier for applicable uses upon Corps approval of the recipient's removal plan and applicable State approvals[6] and permits, such as runoff/erosion control permits, floodplain permits, National Pollutant Discharge Elimination System (NPDES) permits, etc. Agency and Tribal coordination would be conducted, as applicable, on a case by case basis.

All proposals for beneficial use of dredged material would also have to meet the requirements of the Federal Endangered Species Act, the Clean Water Act, the National Historic Preservation Act, and other applicable legislation. Material cannot be placed in wetlands or waterways unless specific permits are obtained from applicable regulatory agencies, including the Corps' Regulatory Office (St. Paul District) and the state.

Typical beneficial uses that removed material may be used for include mine land reclamation, landfill cover, restoration of marginal lands, and highway right of way topsoil. For example, an initial beneficial use is proposed where up to 70,000 cubic yards of stockpiled fine grain dredged material that already has been tested for contaminant levels would be transported by truck from Erie Pier to the United States Steel Corporation's Keetac mine facility in Keewatin (Figure 2), Minnesota, northwest of Duluth (approximately 75 miles by road), for mine land reclamation (additional material may be trucked to the Keetac mine in future years).

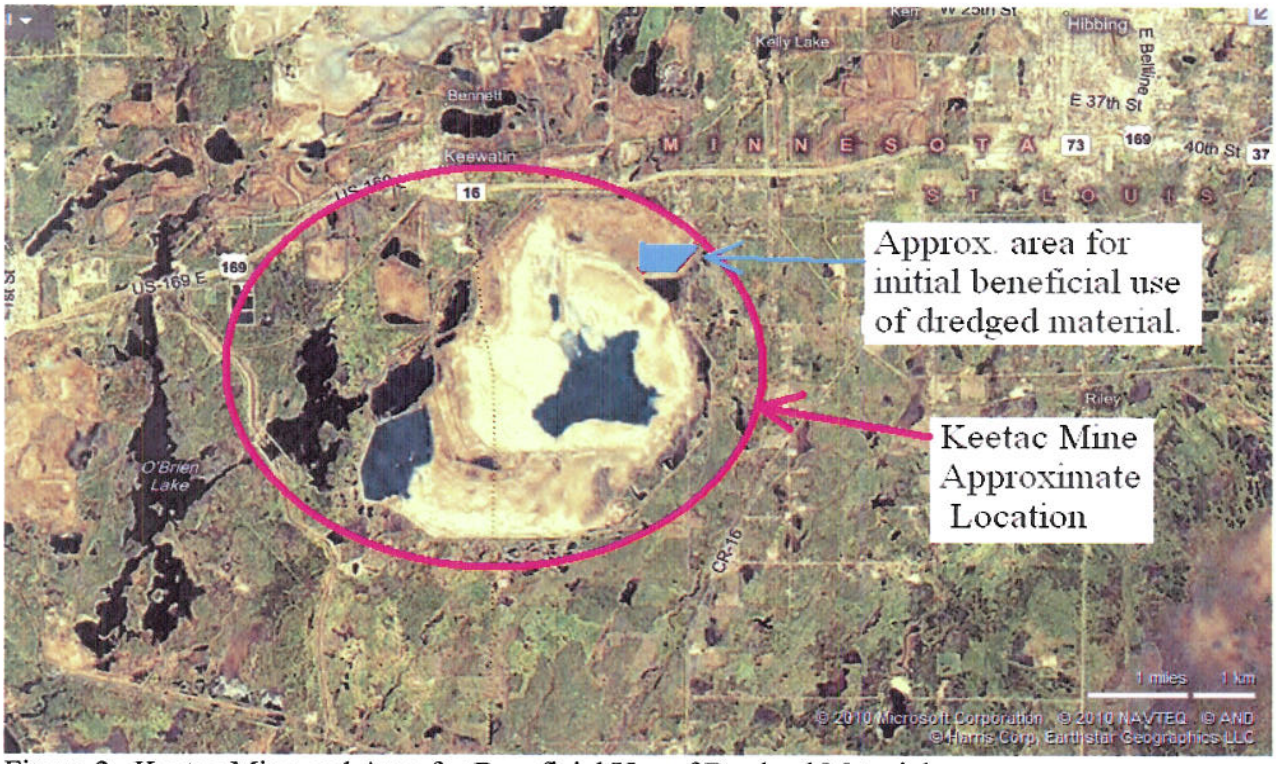

Figure 2. Keetac Mine and Area for Beneficial Use of Dredged Material.

[6] Beneficial uses in States other than Minnesota would require the approval of the subject state, as well as meeting the removal requirements of the SDS Permit for Erie Pier issued by the State of Minnesota. Beneficial uses in Minnesota require individual review and approval pursuant to the Erie Pier SDS Permit, and any site specific permits, such as NPDES permits for mine activities.

To aid in the planning of future movements of dredged material for beneficial uses, the U.S. Army Corps of Engineers proposes to contract with a non-Federal entity to obtain up to 2,000 cubic yards of dredged material from Erie Pier and transport it to several sites among disturbed mine lands and/or marginal lands (locations to be determined and approvals to be obtained by the non-Federal entity). The non-Federal entity will evaluate the feasibility of moving large volumes of dredged material via rail and will evaluate various methods for containing viable seed during transportation, and monitoring of the reclaimed area at the U.S. Steel Keetac facility.

3.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

The proposed action is to conserve capacity at Erie Pier by removing suitable dredged material from Erie Pier for beneficial use purposes. While capacity at Erie Pier has been conserved through the past removals of coarse grained material for beneficial use activities and expanded through raising the dike elevation of the facility, only coarse grained material has been removed for beneficial use, resulting in an accumulation of fine grained dredged material in Erie Pier. The proposed action is necessary because there is limited remaining space for dredged material placement at Erie Pier and there are no other established dredged material placement sites at Duluth-Superior Harbor. Beneficial use of appropriate dredged material would ensure continued dredging of critical shoals at Duluth-Superior Harbor to prevent disruption of navigation (shipping).

4.0 ALTERNATIVES

Alternatives considered include 1) No Action, 2) Beneficial Use of Dredged Material, 3) Expand Erie Pier, and 4) Develop New Dredged Material Placement Site. The proposed action is Alternative 2, Beneficial Use of Dredged Material.

Alternative 1, No Action, was rejected because it would result in Erie Pier eventually being filled. Since sediments in some areas of the harbor are not suitable for unrestricted placement, maintenance dredging of those areas would have to be postponed until a new long-term dredged material placement plan can be implemented. Postponement of maintenance dredging would result in shoal build-up, which could force the larger, deep draft vessels to carry partial loads. Some negative economic impacts to shipping and shipping related industry and employment would likely occur.

Alternative 2, Beneficial Use of Dredged Material, is the proposed action because beneficial use of suitable dredged material would conserve capacity at Erie Pier, thereby helping to ensure continued dredging of critical shoals at Duluth-Superior Harbor to prevent disruption of navigation.

Alternative 3, Expand Erie Pier, is under evaluation by the Corps of Engineers, but the study is not complete at this time. Any future expansion would likely be vertical, because a lateral

expansion would require acquisition of private property that is currently in use, or encroachment into the St. Louis River.

Alternative 4, Develop New Dredged Material Placement Site, has been studied by the Corps of Engineers since the 1990s. Various upland sites in the Duluth-Superior Harbor vicinity, as well as in-water and open-water sites have been considered. To date, a Federally approved 20-year plan for dredged material placement has not been developed. Continued study of long-term dredged material placement alternatives is ongoing.

5.0 PROJECT AUTHORITY

The proposed beneficial use of suitable dredged material from Erie Pier would be done under the Corps operation and maintenance of Erie Pier. See generally, Section 123 of the River and Harbor Act of 1970 (Public Law 91-611) and Section 24 of the Water Resources Development Act of 1988 (Public Law 100-676).

6.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

No significant cumulative or long-term adverse environmental impacts would be expected as a result of the proposed beneficial use of suitable dredged material from Erie Pier. Impacts would be minor and temporary, consisting primarily of noise and air emissions from equipment and trucking operations. The proposed beneficial uses would provide habitat and land reclamation benefits at the individual beneficial use sites and would benefit navigation by conserving capacity at Erie Pier to help ensure continued dredging of the harbor to prevent shoal build-up from disrupting shipping in the harbor.

Each proposed removal for beneficial reuse would be reviewed by the Corps and a memorandum prepared and kept on file, documenting the suitability of the proposed use under this EA, and compliance with applicable laws and regulations, such as the Clean Water Act, Endangered Species Act, National Historic Preservation Act, etc.

Wetlands and Water Quality

No significant adverse impacts on wetlands or water quality are expected to result from the beneficial uses, since no material would be placed (discharged) into the wetlands or waterways unless applicable local, State and/or Federal permits are obtained, in which case the potential impacts would be addressed and mitigated as necessary through the permit process.

Two studies of use of dredged material from Duluth-Superior Harbor at mine reclamation sites were conducted in the late 1990s and early 2000s by the Minnesota Department of Natural Resources. One study concluded that the "dredged material produced no adverse impacts on water quality. No trace elements were released and all water quality data met water quality

standards."[7] The other study concluded similarly, noting that the dredged material "did not produce any adverse impacts on water quality or plant tissue."[8]

Sediment Quality

Bottom sediments in Duluth-Superior Harbor are comprised of silts, sands, and fine clays. Contaminant concentrations have come down over the past 20+ years as pollution controls and better management practices have come into effect, and past dredging has removed older, more contaminated dredged material. Corps-contracted sediment testing within the past 5 years (both in-situ within the Federal channels and of recently stockpiled fine-grained material at Erie Pier) shows that the material is suitable for beneficial use under the State Tier I classification for residential or recreational sites.[9] Other dredged material previously placed in Erie Pier since its construction, could be removed for beneficial use if it is tested and shown to be suitable. Corps-contracted sediment test data since the mid-1970s[10] suggests that much of the material previously placed and retained in Erie Pier would classify under the Tier II industrial site use category of reuse, possibly with some Tier III (not permitted for removal under the SDS Permit).

Exotic Species

A variety of invasive exotic species have entered the Great Lakes. A number of invasive exotic plant species have become established along the Lake Superior shoreline and in harbors, in some cases displacing native plant species and resulting in diminished wildlife habitat values. Some of the more aggressive invasive species include giant reed grass, reed canary grass, purple loosestrife, Eurasian milfoil, and glossy buckthorn. Rocky shorelines and breakwaters provide habitat for the invasive exotic zebra and quagga mussels, the round goby, and the Eurasian ruffe. The spiny water flea is found in open and protected waters. The impact of these exotic animal species in the colder waters of Lake Superior has been limited to date.

The only exotic species that has been a problem at Erie Pier is purple loosestrife, which enters Erie Pier from adjacent wetlands, and it not typically found in dredged material coming from the harbor channels. Use of the dredged material for beneficial use does not present a high risk of spreading purple loosestrife because the beneficial use sites are typically upland and purple loosestrife, a wetland plant, does not grow well in dryer environments. State invasive species transport permits are required because of the potential for spread to wetter habitats during transport and typically include precautionary measures to ensure no material is released along the transportation route.

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[7] Minnesota Department of Natural Resources, Division of Lands and Minerals. "The Use Of Dredged Material As An Organic Substrate To Create Wetlands In Taconite Tailings Basins." Final Report, January 2000.

[8] Minnesota Department of Natural Resources, Division of Lands and Minerals. "Mined Land Reclamation with Dredge Material from Duluth-Superior Harbor." Final Report, May 2004.

[9] See Section 2.0 of this Environmental Assessment for description of the dredged material reuse classifications.

[10] Periodic testing of samples collected throughout the Federal navigation project has been conducted approximately every 5 years since the mid 1970s.

Fish and Wildlife

No significant wildlife species or habitat are expected to occur at the beneficial use sites, which would include sites such as mine tailings basins (Figure 3), landfills, roadsides, and other marginal lands. No impacts would occur to fisheries or aquatic organisms, since the beneficial use sites do not include wetlands or water ways, unless regulatory permits are issued, in which case effects and any required mitigation would be addressed through the permit process.[11]

Figure 3. Example (and initial proposal) Mine Tailings Beneficial Use Application Area.

Federally Listed Species

The proposed beneficial uses of dredged material are to improve or create habitat at marginal lands such as mine tailings basins, roadsides, etc. In their current state, such sites typically provide little habitat. Habitat for Federally listed species is not expected to occur at such sites and therefore the project is expected to have no effect on Federally listed species. Each beneficial use proposal would be evaluated for potential presence of Federally listed species and coordinated as applicable under the Endangered Species Act.

Flood Plain

The proposed beneficial uses would be evaluated for compliance with the Federal Executive Order on Flood Plain Management (E.O. 11988). Any proposed beneficial uses within a floodplain would require applicable approvals from the State office regulating floodplains.

[11] Keetac desires to place approximately 4000 cubic yards around and in a wetland they created in response to a Corps of Engineers regulatory permit, which placement, if it is to occur, would require the approval of the St. Paul District, Corps Regulatory Office, and therefore is not addressed in this EA.

Air Quality

Effects on air quality will arise from emissions from equipment used to load, transport, and spread the dredged material at the beneficial use site. All equipment involved in the movement of dredged material to beneficial use sites would be required to meet emissions standards and emissions are expected to be minor. Dredged material transport impacts are considered short term. Thus, the project impacts are exempt as *de minimis* (Latin for 'of minimal importance') and meet the conformity requirements under Section 176 (c) of the Clean Air Act, and 40 C.F.R. 93.153.

Recreation, Noise, Aesthetics

Beneficial use of dredged material will not have significant adverse effects on recreation or aesthetics. Most of the beneficial use sites would not be recreational in nature, and in the case where material may be proposed for use at a recreational site, it would be for restoration of land or development of recreational facilities and would represent a long-term improvement to recreation.

Cultural Resources

Proposed beneficial use sites would be reviewed by the Corps of Engineers and coordinated as applicable with the State Historic Preservation Office and/or interested Indian Tribes. Work in mine tailings and other marginal lands that have been previously and substantially disturbed and would not present cultural resource concerns. Beneficial use on culturally sensitive lands would require applicable reviews for compliance with the National Historic Preservation Act.

Transportation of Dredged Material

Traffic impacts are minor, consisting of higher traffic volumes on haul routes during dredged material transport activities. All hauling of dredged material would be in accordance with applicable permitting and hauling requirements, including state invasive species transport permits, as applicable. Transport of dredged material would use fuel and add vehicle emissions to the atmosphere, but would not have significant adverse effects. Transport by rail would result in reduced emissions and fuel use per unit weight of dredged material transported compared to transport by truck.

Coastal Zone Management

Some of the beneficial use sites may be within the coastal zone, but would have no adverse effects on the waters of Lake Superior since erosion control measures are required for each beneficial use site. Therefore, since the proposed action has no adverse effect on the coastal zone, it would be "consistent to the maximum extent practicable" with the Coastal Zone Management Act, and Minnesota's Lake Superior Coastal Program.

Cumulative Impacts

Cumulative impacts of beneficial use of dredged material as described in this Environmental Assessment are minor, including fuel use and air emissions from equipment operations and dredged material transport to various sites, improvement to marginal lands in various locations, and conservation of dredged material holding capacity at Erie Pier and associated navigation benefits. Soil erosion and runoff are restricted to the individual sites. These cumulative impacts are minor and generally positive.

Other Resources

The proposed beneficial use of suitable dredged material from Erie Pier would not be expected to adversely impact community cohesion, desirable community growth, tax revenues, property values, public facilities, public services, recreation, aesthetics, regional growth, employment or the labor force, business and industrial activity, farmlands, or man-made resources. Nor would the proposed action be expected to cause displacement of people.

7.0 EARLY COORDINATION COMMENTS

Information regarding the proposed beneficial use of dredged material, including the initial beneficial use proposal at the Keetac Mine, was mailed on May 7, 2010, for review and early comment to the Minnesota Department of Natural Resources (MDNR), Minnesota Pollution Control Agency (MPCA), US Environmental Protection Agency (USEPA), US Fish and Wildlife Service (USFWS), State Historic Preservation Office (SHPO), and various Indian tribes, groups and interested parties. An office of the MPCA noted in an electronic mail message that the SDS Permit for Erie Pier covers beneficial use of suitable material from Erie Pier.

8.0 CONCLUSIONS AND DETERMINATIONS

The proposed beneficial use of suitable dredged material from Erie Pier has been reviewed pursuant to the following Acts and Executive Orders: Fish and Wildlife Act of 1956, Fish and Wildlife Coordination Act of 1958, National Historic Preservation Act of 1966, National Environmental Policy Act of 1969, Clean Air Act of 1970, Executive Order 11593; Protection and Enhancement of the Cultural Environment, May 1971; Coastal Zone Management Act of 1972, Endangered Species Act of 1973, Clean Water Act, Executive Order 11988, Flood Plain Management, May 1977; and Executive Order 11990, Wetlands Protection, May 1977. This proposed beneficial use of dredged material has been found to be in compliance with these Acts and Executive Orders.

This Environmental Assessment has been prepared in accordance with the National Environmental Policy Act (NEPA); the Council on Environmental Quality, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Parts 1500-1508); and the Corps of Engineers, Policy and Procedures for Implementing NEPA (33 CFR Part 230).

This Environmental Assessment concludes that the adverse environmental impacts of the proposed action are minor and local in scope; the benefits of the proposed action outweigh the minor, temporary impacts that would result from the proposed action; and the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment.

9.0 PUBLIC REVIEW

This Environmental Assessment (EA) will be made available for a 30-day agency and public review to state, Federal and local agencies, various Indian tribes, and other interested groups and individuals. Following this period and a review of the comments received, the Corps District Engineer (DE) will make a final determination regarding the necessity of preparing an Environmental Impact Statement (EIS) for the proposed beneficial use of dredged material from Erie Pier.

Based on the conclusions of this EA, it appears that preparation of an EIS will not be required. Therefore, a Preliminary Finding of No Significant Impact (FONSI) is included in the following section of this EA. If, after public review of this EA, the DE determines that an EIS is not necessary, the Preliminary FONSI will be finalized and signed.

10.0 PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, the Detroit District, Corps of Engineers, has assessed the environmental impacts of providing dredged material from the Erie Pier Diked Disposal Facility (Erie Pier), Duluth-Superior Harbor, Minnesota and Wisconsin, for various beneficial uses. Dredged material would be tested for contaminants and classified according to State of Minnesota suitable reuse categories. Tier I material is authorized to be used/reused at residential and recreational sites. Tier II material is authorized to be used/reused at industrial sites. The purpose of the proposed action is to conserve remaining capacity at Erie Pier. This is needed to ensure continued dredging of critical shoals for uninterrupted navigation at the harbor. Alternatives considered include 1) No Action, 2) Beneficial Use of Dredged Material, 3) Expand Erie Pier, and 4) Develop New Dredged Material Placement Site. The proposed action is Alternative 2, Beneficial Use of Dredged Material.

An Environmental Assessment (EA) for the proposed beneficial use of dredged material from Erie Pier has been completed. The EA indicates the project will not result in significant short-term, long-term or cumulative adverse environmental impacts. Impacts would be minor and temporary, consisting primarily of noise and air emissions from equipment and transportation operations. The proposed beneficial uses would provide habitat and land reclamation benefits at the individual beneficial use sites and would benefit navigation by conserving capacity at Erie Pier to help ensure continued dredging of the harbor to prevent shoal build-up from disrupting shipping in the harbor.

The proposed action complies with the Federal Executive Order 11988 (Flood Plain Management), because it will not adversely impact flood plains. The project is within the coastal zone as defined by the Minnesota's Lake Superior Coastal Program, but would have no adverse effects on the coastal zone or the waters of Lake Superior and would be "consistent to the maximum extent practicable" with the Minnesota's Coastal Program.

Review of the proposed action and the comments received during public review of the EA indicates that the project does not constitute a major Federal action significantly affecting the quality of the human environment; therefore, an Environmental Impact Statement will not be prepared.

_____
DATE

_____
James B. Davis
Lieutenant Colonel, U.S. Army
District Engineer