



March 12, 2013

Charles A. Uhlarik, Chief
Environmental Analysis Branch
Department of the Army
Detroit District Corp of Engineers
477 Michigan Avenue
Detroit, Michigan 48226-2550

Re: Environmental Assessment (EA), Dredged Material placement at the 21st Avenue West Channel Embayment, Duluth, Minnesota

Dear Mr. Uhlarik:

The Minnesota DNR Northeast Region has reviewed the Environmental Assessment (EA) for Dredged Material placement at the 21st Avenue West Channel Embayment and has the following comments for your consideration. Comments are listed by Document Section.

Alternatives and the Proposed Action

Section 2.1 – 2.3

It may be beneficial to state how this project fits in with overall long range planning in the Duluth-Superior Harbor relative to the DMMP document including use of the Erie Pier recycling facility.

Section 2.4, Description of Proposed Action

Please explain where placement will be located in the context of the WLSSD outfall, and any potential resultant interactions or impacts with the dredge material. Section 3.15 discusses the WLSSD outfall, but not its interaction with the site.

Section 2.5, Description of Proposed Action

Target locations are identified in Figure 3. It will be important to establish the ownership of the bed of the public water.

Section 2.7, Description of Proposed Action

In regard to depths, capacities and placement areas the document should include reference to how these planned parameters align with the restoration project taking place in this area. Fill elevation plans should provide for coordinated establishment of acceptable depths relative to the ordinary high water level (no creation of upland) and tying into maximizing consistency with ecological design.

Section 2.8, Description of proposed action

Has the dredge material been evaluated for nutrients and other minerals essential for aquatic plant growth or has the material been used in similar applications with expected results?

Section 2.9, Description of proposed action

It is stated that state resource agencies may coordinate to place additional organic medium on top of the navigation channel dredged material in select area to evaluate whether the additional material can improve the establishment of desired submerged and emergent aquatic plant species. How will coordination with state agencies be achieved?

Section 2.10, Monitoring and Adaptive Management

What are the goals for aquatic plant growth such as species and abundance and what kind of vegetation monitoring is planned and who is going to do it?

Section 2.12, Miscellaneous Details

Please explain what sediment control measures will be used to ensure fine sediments remain within the placement area, and do not migrate into other locations within the estuary. Turbidity may be an issue and one that will be of particular interest to MNDNR.

Section 2.12, Miscellaneous Details

Please explain what pollution prevention measures will be taken to mitigate any potential negative effects due to the operation of a bulldozer in the shallow water aquatic environment. (Addressed partly in 3.21, but not specifically for the bulldozer).

Section 3.4, Duluth Superior Harbor

It may be useful to indicate more specifically what the major sources of sediment are to the Duluth Superior Harbor. Are sediment sources originating from certain watersheds, near-shore activities or other sources?

Affected Environment and Environmental Consequences

Section 3.2

Please cite sediment sampling data indicating that cap/cover placement of additional material atop existing contaminated sediments is acceptable and that those sediments will not need to be removed in the future. Section 3.9 (p16) discusses sediment contamination in general, but more specific data regarding the sediments in and around the proposed placement location may be needed.

Section 3.18, Water Quality

Note whether there is a possibility of turbidity becoming a problem and how /when that will be monitored during the placement process (see comment 2.12 above).

Section 3.58, Cumulative Impacts

Is there a need to discuss potential cumulative impacts over a longer time horizon? This project is proposing a 3-year horizon.

Section 3.40, Exotic Species

There is a potential to have invasive plant species to become established at the placement site. A vegetation monitoring plan may help to identify species quickly prior to becoming overly established.

Section 3.49, Federally listed Species

There may also be State Listed Species within the project area. Please contact Lisa Joyal Minnesota DNR Endangered Species Review Coordinator in St. Paul at 651-259-5109 for information on those species.

The Minnesota DNR Northeast Region realizes this is a pilot project; however the success of this project will help to facilitate long-term co-existence of harbor function and maintenance operations with environmental restoration and protection goals of the many involved partners. The DNR looks forward to working through the details with you as this project moves forward. Thanks for the opportunity to comment.

Sincerely,



Craig L. Engwall
Northeast Regional Director
1201 East Hwy 2
Grand Rapids, MN 55744
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craig.engwall@state.mn.us



March 15, 2013

Charles Uhlarik, Chief
Environmental Analysis Branch
Dept. of the Army, Detroit District, Corps of Engineers
477 Michigan Avenue
Detroit MI 48226-2550

Subject: USACE Environmental Analysis (EA) for Open Water Disposal of Dredge Materials in the 21st Avenue West Embayment of Duluth-Superior Harbor

Dear Mr. Uhlarik:

Summarized below are our comments on this EA.

Page 7, Monitoring and Adaptive Management, Section 2.10: Can USACE conduct an analysis and simulation of sediment fate and transport within the 21st Avenue Embayment and estimate the potential transport for parameters of Hg, COD, Zn, and other parameters of concern?

Page 7, Monitoring and Adaptive Management, Section 2.10: This project represents an opportunity for the collection and sharing of information that will garner future support for these types of projects in the harbor. USACE should actively include Wisconsin and Minnesota resource agencies in the design of the monitoring associated with this project. We understand that Pam Horner has been working with Dan Breneman at MPCA and Nate Johnson at UMD to develop a scope of work for mercury. We would like to be part of the design of any mercury monitoring associated with the pilot project. Joe Graham is the Wisconsin DNR contact for this and can be reached at (715) 292-4925 and by e-mail at joseph.graham@wisconsin.gov.

Page 7, Monitoring and Adaptive Management, Section 2.11: Monitoring efforts need to be designed to detect adverse effects. USACE should not rush to implement this project in 2013 and instead focus on working with AOC stakeholders during 2013 on the monitoring and implementation design with a goal for implementation in 2014 at the earliest. Mitigation measures need to be identified along with an implementation schedule in the event adverse effects are found. Will dredged materials be removed or remediated in the event habitat benefits are not realized and/or toxic substances are mobilized?

Page 7, Monitoring and Adaptive Management, Section 2.11: The text states that "adaptive management" will be based on monitoring results or other information. It is important to note that true intent of "adaptive management" requires the establishment of hypotheses prior to project commencement. For example, a simple hypothesis for this project might state that "a series of canals within the wetland complex will encourage a diverse plant assemblage and support a more diverse fish community." Aquatic plant biomass/diversity could then be measured and compared to fish biomass/diversity. Based on the results of the survey work, recommendations can be made for future management actions. We believe that giving more thought to the

scientific design of this experiment will be extremely beneficial to this project, as well as future habitat projects, in the St. Louis River Estuary. Therefore, the text should state that an adaptive management plan will be developed among the stakeholder agencies, including MPCA, MDNR, WDNR, and USFWS.

Page 7, Section 2.12: The text only implies mitigation during hydraulic placement and does not discuss suspended sediment or its control particularly relative to emigration from the project area. The text should describe provisions for suspended sediment mitigation, such as a turbidity curtain. This could be useful to mitigate to potential impacts from the various potential temporary structures and work noted in Section 2.13.

Page 8, AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES, Section 3.0: Overall the EA lacks specific details on the characteristics of the disposal site. This information is needed to support conclusions made regarding significance of actions related to the open water placement of materials. Specific details are lacking on:

- a. Disturbance and resuspension of underlying sediments. The sediments in the placement area are contaminated according to the EA.
- b. Bottom sediment physical, chemical, and biological characteristics.
- c. Currents and wave conditions
- d. Changes of circulation patterns or erosion patterns related to refraction
- e. Background turbidity (specific ranges) and expected levels during placement and time to return to normal levels
- f. Potential for recolonization of the site and expected recovery rates
- g. Ability to control placement of the material and keep it on the site.

Page 8, Section 3.2: The statement in the second sentence “insofar as vegetation actually results” appears to contradict the primary goal and expected outcome of the Proposed Action, which is to establish aquatic macrophyte communities. The sentence should be revised to indicate what would be done to insure success.

Page 11, Sediment Quality, Section 3.8: We have reviewed the 2011 data supplied by the COE, and although the concentrations are not particularly high, the total mass of mercury could be 6 kg/year for 100 acres of coverage per year. For comparison purposes, this exceeds the background atmospheric deposition by a factor of 1000. Therefore, this project needs to particularly address concerns relative to mercury methylation potential. In addition, we hope the COE can work with all partners to find upland solutions for dredged material placement.

Page 11, Sediment Quality, Section 3.11: Sediment toxicity tests were only 10-day test for amphipod and midge. Can USACE conduct solid phase toxicity testing using a 28-day test duration?

Page 11, Sediment Quality, Section 3.11: USACE is citing pesticide and other organic pollutant data that is over 10 years old as a basis for not monitoring these parameters. Can USACE conduct an analysis for the full list of priority pollutants on sediment and elutriate samples and compare results to sediment quality guidelines and water quality standards?

Page 12 Water Quality, Section 3.12, 3.14: The uncontained placement of dredged material in the St. Louis River Estuary (i.e. Duluth-Superior Harbor) presents a number of water quality concerns for impacts in the water column and potential for water quality standards to be exceeded, as well as uncertainties in the long-term impacts of such practices.

Page 12, Water Quality, Section 3.14: While the concentrations of contaminants appear to be relatively low according to the 2012 USACE evaluation, the cumulative mass of contaminants that will be moved from one

place to another within the St. Louis River Estuary is significant. This is especially a concern for mercury because it is a potent neurotoxin that bioaccumulates through the food chain. We calculated that approximately 59 kilograms (or 130lb) of mercury could be moved from one place to another in ten years, using a simple mass calculation with an average sediment concentration of 0.08ppm of Hg (assumes sediment bulk density of 1,000kg/m³). This may cause or exacerbate exceedances of the water quality criterion for mercury of 1.3 ng/l. Caution needs to be exercised because the placed material and existing sediment within the placement area will be more susceptible to hydrodynamic processes for resuspension and dispersion.

The cumulative mass of mercury (130 pounds/10 yrs) is especially significant when compared to the mass discharged to the harbor from WLSSD and the City of Superior wastewater treatment facilities. Roughly 3 to 5 pounds of mercury will be discharged collectively over 10 years from the WLSSD and Superior facilities using conservative ranges for discharge flow rates and effluent concentrations. Mercury discharges from WLSSD and the Superior WWTF are much lower yet more highly regulated. They need to meet stringent effluent limits and are required to implement pollution prevention programs. USACE is looking to move around/discharge 26 to 43 times more mercury than our largest dischargers with essentially no controls. In addition to disposal on land, are there other actions that USACE can take to minimize the mass movement and potential mobilization of mercury in the estuary?

Page 12-13 Water Quality, Section 3.12, 3.17: Analytical methods used for sediment and elutriate testing need to achieve detection levels that are sufficiently low to enable comparisons with guidance documents such as Wisconsin's Consensus Based Sediment Quality Guidelines, Guidance for the Use and Application of Sediment Quality Targets for the Protection of Sediment-Dwelling Organisms in Minnesota, EPA's Equilibrium Benchmark Toxicity Unit method, as well as Wisconsin and Minnesota water quality standards. The detection levels for several parameters exceed the level of concern for sediment guidelines and water quality standards.

Page 13, Water Quality, Section 3.18: Physical BMPs such as turbidity barriers must be installed prior to placement activities and kept in place until turbidity levels are the same or lower than those outside the placement areas. Can USACE require the contractor to install and maintain turbidity barriers until turbidity levels match areas outside the barrier, and if not why?

Page 13, Water Quality, Section 3.17: The St Louis River is on Wisconsin and Minnesota's lists of impaired waters for toxic pollutants; specifically mercury, lead, PAHs, PCBs, DDT, Dieldrin, and 2,3,7,8, TCDD. The presence of these compounds in the dredged material and mechanisms to prevent further degradation of water quality is not adequately addressed in the EA or the 2012 sediment report. Can USACE explain how this project can be implemented to prevent further degradation of water quality for these substances?

Page 16, Fisheries, Section 3.31: The first sentence significantly moderates the impacts of un-regulated water quality discharges from local industry prior to the passage of the Clean Water Act. The sentence should be revised as follows: *Historically, the fishery in the estuary was severely degraded by habitat loss attributable to over 100 years of shoreline and watershed development, water quality problems due to un-regulated water quality discharges, and by heavy fishing pressure.* Further, please provide a reference for fishing pressure being one of the contributors to a degraded fishery.

Page 17, Fisheries, Section 3.34: In the second sentence, please insert "20th" prior to "century."

Page 19, Birds, Sections 3.45, 3.46, 3.47 3.48: These sections contain a very general and brief summary of bird information for the St. Louis River Estuary and for the general area of the project. These sections completely lack any specific information about:

- * Current bird use of the project area: species, relative abundance, type and season of use
- * Bird species that will be negatively affected by the project, type and season of use that will be impacted
- * Bird species which will benefit from the project, relative abundance, type and season of use

Without specific bird information for the project area it is not possible to evaluate either the negative or positive impacts this project will have on birds.

Page 21, Cumulative Impacts, Section 3.58: Mercury is a contaminant of concern in fish from Duluth-Superior Harbor. The cumulative impacts of this project may be significant if these types of projects are repeated throughout the estuary in the future. This is particularly true without careful consideration of the mechanisms for sediment transport, mobilization of contaminants, and methylation of mercury. How will the USACE ensure that that long-term cumulative impacts are avoided? How will they be corrected if they are discovered?

Page 22, EARLY COORDINATION, Section 4.3- 4.4: **Wisconsin DNR's comments on the early coordination for this project are incorrectly quoted** in section 4.4 of the EA and are reproduced below. The word "placement" was substituted for the word "project" four times in the citation of our comments. We are concerned about the public notice of the EA with these misquotations. Our original comments, transmitted by e-mail on December 28, 2012 from Mr. William Gantz to Mr. Paul Allerding, are also reproduced below. We strongly request that USACE send a specific correction of this matter to all parties that received or commented on the EA document and expect this correction to be included in the official records for this action.

4.4 "We are coordinating on this placement with our Minnesota partners and share in their support and concerns for this placement. We are interested in partnering on placements that make progress towards the delisting of beneficial use impairments for the St Louis River Area of Concern. We would generally support the reuse of dredged material for habitat placements in the harbor if measurable improvements in fish & wild life habitat can be demonstrated without adverse effects such as renewed availability of toxic substances in sediment, particularly bioaccumulating substances like mercury. We are interested in learning through this pilot if there will be any significant changes in mercury methylation and uptake through the food chain when compared to not using dredge material for habitat alterations."

Original WDNR comments sent December 28, 2012 (underlining added with highlighting).

"We are coordinating on this project with our Minnesota partners and share in their support and concerns for this project. We are interested in partnering on projects that make progress towards the delisting of beneficial use impairments for the St Louis River Area of Concern. We would generally support the reuse of dredged material for habitat projects in the harbor if measurable improvements in fish & wild life habitat can be demonstrated without adverse effects such as renewed availability of toxic substances in sediment, particularly bioaccumulating substances like mercury. We are interested in learning through this pilot if there will be any significant changes in mercury methylation and uptake through the food chain when compared to not using dredge material for habitat alterations."

Page 4, Attachment , II. FACTUAL DETERMINATION, d. Contaminant Determinations: The Dredged Material Placement locations at the 21st Avenue West Channel Embayment were not included in the 2011 Assessment which only included placement units in the deep holes of the harbor and Lake Superior.

Page 7, Attachment 1(6): The EA and Section 404 (b)(1) guidelines claim that the dredged material is suitable for open water placement, i.e. meets "federal guidelines". They also assert it will meet water quality standards. However, no specific information on the federal guidelines or numeric water quality standards are mentioned in the documentation. Can USACE provide a summary table comparing the data used to draw these conclusions to

the specific "federal guidelines" and water quality standards? We believe this will be helpful to gain support for these types of projects in the future.

Thank you for opportunity to provide comments. If you have any questions about our comments please call me at 715-635-4227.

Sincerely,

A handwritten signature in cursive script, appearing to read "William L. Gantz".

William L. Gantz
Environmental Review Coordinator
WDNR Northern Region - Spooner

cc: Fred Strand - Superior
Nancy Larson - Ashland
Joe Graham - Ashland
Paul Piszczek - Superior
Steven Galarneau - Madison



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 13 2013

REPLY TO THE ATTENTION OF:

E-19J

Paul Allerding
U.S. Army Corps of Engineers - Detroit District
477 Michigan Ave.
Detroit, Michigan 48226

RE: Draft Environmental Assessment: Pilot Study of Dredged Material Placement within 21st Avenue West Channel Embayment – City of Duluth, St. Louis County, Minnesota

Dear Mr. Allerding:

The U.S. Environmental Protection Agency (EPA) has reviewed a Draft Environmental Assessment (Draft EA) prepared by the U.S. Army Corps of Engineers (USACE) Detroit District for a proposed pilot study of dredged material placement into the embayment of the 21st Avenue West Channel in the St. Louis Bay in Duluth, Minnesota.

The purpose of this pilot study is to “help determine the feasibility of a full scale restoration for this embayment to improve the aquatic ecosystem and to help in delisting the site from being a contaminants area of concern (AOC).” This letter provides our comments on the Draft EA, pursuant to our authorities under the National Environmental Policy Act (NEPA), the Council on Environmental Quality’s NEPA Implementing Regulations (40 CFR 1500-1508), and Section 309 of the Clean Air Act.

Background Information, Alternatives, and Purpose & Need

- While the Draft EA includes information on the St. Louis River Area of Concern (AOC), the Draft EA did not include any baseline information on interagency coordination efforts (of which USACE was a partner) that have been taken to address beneficial use impairments.

Recommendation: In the Final EA, EPA recommends that USACE provide information on the St. Louis River Alliance, the completion of the Lower St. Louis Habitat Plan, the identification of the 21st Avenue embayment area as a “Remediation-to-Restoration” project, and additional information on sampling taken between summer 2011 and fall

2012 by the University of Minnesota – Duluth’s Natural Resources Research Institute (NRRI).¹

- Section 1.3 of the Draft EA states “The proposed dredged material placement will help in determining the feasibility of full scale aquatic ecosystem restoration and help towards delisting the site from being part of a contaminant area of concern (AOC).” However, the document does not discuss how the proposed project would help in delisting the AOC.

Recommendation: In the Final EA, please provide additional information and discussion on how the proposed project would “help towards delisting the site from being part of a(n)...AOC.”

- Section 2.1 of the Draft EA states that Figure 1 depicts “various sites that have potential for future ecosystem restoration efforts.” However, the Draft EA does not discuss how these “various sites” were selected or how it was determined that these sites had potential for future ecosystem restoration efforts.

Recommendation: In the Final EA, please provide additional info on how sites were selected, what the criteria for selection were, and a timetable of when these ecosystem restoration efforts are proposed for implementation.

- In addition to inputs from Miller Creek and Coffee Creek, the 21st Avenue Embayment also receives direct effluent from the Western Lake Superior Sanitary District (WLSSD) Treatment Plant. USFWS has noted that potential issues associated with the effluent from WLSSD include increased temperatures, which result in year-around open water near the plant, as well as potential loading of nutrients and chemicals of emerging concern, such as personal care products and pharmaceuticals. This input and the potential for these issues to affect restoration efforts were not discussed in the Draft EA.

Recommendation: In the Final EA, EPA requests that this potential issue be discussed thoroughly with regard to its potential effects on the success of the proposed project.

Aquatic Habitat/Spawning Areas/Water Quality

- In our scoping comment letter, EPA recommended that USACE provide factual data on existing habitat types and quality, as well as specific information on how aquatic habitat is expected to increase due to project implementation, and how USACE proposes to provide substantive measurement of embayment restoration with regard to “fish use.” The response to this request provided in the Draft EA did not substantively address these requests.

Recommendation: In the Final EA, EPA requests that USACE provide information as requested above, with specific emphasis on how aquatic habitat is expected to increase due to project implementation and how substantive measurements of embayment restoration due to “fish use” will be undertaken.

¹ In cooperation with USFWS, EPA, USACE, MPCA, and MnDNR. The intent of field sampling was to establish baseline information on vegetation, benthos, birds, sediment contamination and types, and ecotoxicology.

Use of Dredged Material as Fill

- Figure 3 (Proposed Dredged Material Discharge Locations and Three-Year Sequencing) has a notation for Area 2 and Area 4 that the “top 6” of material is non-Corps.” Why is this not mentioned in the Draft EA? Who will be providing this material and from where is it coming?

Recommendation: In the Final EA, EPA requests that you provide additional information (in narrative portions of the document) regarding these two areas and the proposal for topping of dredged material with non-Corps material. Responses to the questions noted above are also requested.

- The Draft EA did not discuss the source location for the proposed dredged materials to be used as fill. The only location information provided was from Section 2.12, where the Draft EA states that fill materials “...would be dredged from shoaled areas of the Federal Navigation Project and placed into the Phase I areas.”

Recommendation: In the Final EA, please include narrative information and a map showing the source location of the dredged materials.

- From scoping information provided to EPA, USACE’s descriptions of future (proposed) conditions at the three identified phased locations included a statement that approximately 100,000 cubic yards of dredged material would be necessary for construction of each phase of the project. EPA previously requested information on where dredging will occur (including maps of specific dredging locations), how dredged materials were or will be tested to ensure they are both suitable for open water disposal and also meet Minnesota Water Quality Standards, and how dredged material will be transported to the project sites; it was requested that this information be included in the Draft EA. USACE’s responses to these recommendations in Section 4.51 of the Draft EA stated, “the dredged material can come from any of the currently maintained areas of the Federal project” and, “elutriate testing was conducted on the dredged material in 2011, (and)...test results show that placement of the dredged material in water will meet state water quality standards.”

Recommendations: EPA understands that dredged material may come from any of the maintained areas of the Federal channel; however, testing as noted above occurred in specific locations of the channel and it is not clear if these areas that were tested are the areas proposed for dredging and placement as per the project proposal. EPA requests clarification on areas that will be (or likely will be) dredged, including a figure showing their location(s), be included in the Final EA.

- The project cover letter states that “sediment, elutriate, biological, and bioaccumulation testing indicate that in-water placement of these dredged materials will not cause an adverse impact on biota or water quality.”

Recommendation: EPA requests that written confirmation of this statement from MPCA be included in the Final EA.

Diagrams/Illustrations/Maps

- In scoping comments provided to USACE in January 2013, EPA requested that the Draft EA include a cross-section of each proposed fill area and that the cross-sections properly notate the specific ends of the cross-sections (e.g. A1-A1'). While a "typical cross-section" was included in the Draft EA, the use of a differentiating side, such as A-A', was not used.

Recommendation: In the Final EA, please modify the cross-sections in the document to notate A to A'.

- In scoping comments provided to USACE in January 2013, EPA requested that a map of specific dredging locations be included in the Draft EA; no map was provided.

Recommendation: In the Final EA, please include a figure (with aerial backdrop) outlining specific dredging locations.

- In scoping comments provided to USACE in January 2013, EPA requested that bathymetric maps/surveys completed for the restoration areas be included as an enclosure with the Draft EA. The Draft EA states in Section 4.58 that bathymetric surveys are available upon request.

Recommendation: EPA reiterates our request for bathymetric maps for the project; they can either be added to the Final EA as an appendix or sent to our office under separate cover.

Management/Monitoring

- EPA previously requested that the Draft EA include narrative information on the type of proposed metric to be utilized for management/monitoring. EPA still expects that baseline measurements will be taken and utilized for comparison during monitoring. Section 4.60 of the Draft EA states that MPCA will be developing a monitoring plan.

Recommendation: EPA requests that additional information on the status of, and proposal for, MPCA's monitoring plan be included in the Final EA.

- Section 4.62 of the Draft EA states that "the dredged material placement is being done under the authority of our Operations and Maintenance Program. Under this authority we are limited in our monitoring efforts to items specific to the actual operation and maintenance activity such as performing bathymetric surveys of the area before and after each placement activity. However, the Minnesota Pollution Control Agency plans to conduct biological monitoring of the placed material and to evaluate sediment stability."

Recommendation: In the Final EA, EPA requests that USACE coordinate with MPCA to provide additional narrative information on MPCA's proposal to conduct "biological monitoring" of the proposed project. Furthermore, USACE's cover letter and the Draft EA both state that prime objectives of the study will be "to evaluate the sediment stability and vegetation establishment, with fish use and invertebrate colonization being important measures of success." It is unclear to EPA how USACE plans to evaluate these "important measures of success" if, under your authority to undertake the proposed project, USACE limited its monitoring efforts to "items specific to the actual

operation and maintenance activity.” In the Final EA, please include additional information and reconciliation of these statements.

- The EA did not discuss how wind fetch may affect the ability for vegetation to take hold and succeed in proposed discharge areas. EPA is concerned that wind fetch, which is a surrogate for wave energy, in combination with other potentially expected limitations to expected vegetation growth in restoration areas – such as bird herbivory (which was not discussed in the Draft EA) - may contribute to low levels of vegetative restoration success.

Recommendation: In the Final EA, EPA requests that wind fetch and bird herbivory of aquatic plants be discussed with regard to their potentials to affect restoration success.

Construction Impacts

- Dredged material placement details in Section 2.12 state that “a small bulldozer may be temporarily required to operate in areas with shallow water to reposition the placed material.”

Recommendation: USEPA hereby reiterates comments made in our previous scoping letter that construction equipment should work from barges in the waterway, and that dewatering measures such as temporary portable dams or cofferdams be installed to isolate active work areas during construction. These details were not provided in the Draft EA; please provide additional details in the Final EA.

Permitting/Agency Coordination

- The Draft EA states that USACE has applied for Section 401 Water Quality Certification from the Minnesota Pollution Control Agency (MPCA).

Recommendation: In the Final EA, please provide an update on the status of the application review by MPCA.

- Section 3.49 of the Draft EA states, “USACE has determined that the proposed...(project) would have no effect on Federally listed species or their critical habitats.” However, the Draft EA did not include concurrence from the U.S. Fish and Wildlife Service regarding this statement.

Recommendation: In the Final EA, please provide USFWS concurrence on USACE’s determination.

- Multiple permits and coordination requirements are necessary for project implementation, including, but not limited to, permits from the MPCA and the Minnesota Department of Natural Resources, and coordination with USFWS under the Fish and Wildlife Coordination Act (FWCA). USFWS, in their comments to USACE in December 2012, noted that coordination under the FWCA would be required.

Recommendation: In the Final EA, please provide additional information regarding the status of coordination under the FWCA.

- Section 4.75 of the Draft EA states that the Minnesota State Historic Preservation Office (SHPO) did not concur with USACE's finding of "no historic properties affected." EPA understands that USACE has undertaken additional review and mapping as directed by the SHPO and that an updated evaluation and determination was provided to the SHPO on February 1, 2013.

Recommendation: In the Final EA, please provide updated information regarding the status of ongoing coordination with the SHPO.

- In our scoping letter, EPA requested that is construction plans were available, that they be included with the Draft EA.

Recommendation: We reiterate our prior request that construction plans be included with the Final EA. EPA understands that construction plans may be draft or at less than 100% design.

Thank you for the opportunity to review and comment upon this scoping document. We are available to discuss our comments with you in further detail if requested. We look forward to reviewing future NEPA documents prepared for this project. If you have any questions about this letter, please contact Ms. Liz Pelloso, PWS, of my staff at 312-886-7425 or via email at pelloso.elizabeth@epa.gov.

Sincerely,



Kenneth A. Westlake, Chief
NEPA Implementation Section
Office of Enforcement and Compliance Assurance

cc: Zach Jorgenson, USFWS-Twin Cities Field Office
Josh Fitzpatrick, USACE-Two Harbors Field Office
Kevin Molloy, MPCA
Diane Desotelle, MPCA
Cliff Bentley, MnDNR
Rian Reed, MnDNR
Patricia Fowler, MnDNR
Cherie Hagen, WDNR
Rick Gitar, Fond du Lac Reservation



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Twin Cities Field Office
4101 American Blvd E.
Bloomington, Minnesota 55425-1665

March 15, 2013

U.S. Army Engineer District, Detroit
Attn: CELRE-PPPM-E (Charles A. Uhlarik)
477 Michigan Avenue
Detroit, Michigan 48226-2550

Re: Environmental Assessment
Dredge Material Placement
21st Avenue West Channel Embayment
Duluth, Minnesota
FWS TAILS No. 03E19000-2013-CPA-0018

Dear Mr. Uhlarik:

This letter is in response to the Public Notice (PN) and Environmental Assessment (EA) for the Dredge Material Placement – 21st Avenue West Channel Embayment in Duluth, Minnesota Project released on February 14, 2013, by the U.S. Army Corps of Engineers (Corps) for review and comment.

As you are aware from previous discussions and correspondence, the U.S. Fish and Wildlife Service (Service) is working closely with conservation partners to address remedial and restoration needs in the >600-acre 21st Avenue West embayment in a coordinated iterative approach. Specifically, through the Great Lakes Restoration Initiative, the Service is supporting the development of an ecological design for this area as an initial step to evaluate a variety of factors (including contaminated sediments) which may be limiting the full potential of high quality fish and wildlife habitat in this important part of the Lower St. Louis River.

The Service has reviewed the subject EA, and is providing the following comments and recommendations to help guide the proposed dredged material placement project in contributing towards the collective goal of establishing desired habitat types in the 21st Avenue embayment, and to ensure that ecological resources in the project area are sufficiently protected from exposure to harmful concentrations of environmental contaminants.

Threatened and Endangered Species

The EA identifies the piping plover (Endangered and Critical Habitat) and Canada lynx (Threatened and Critical Habitat), both protected under the Endangered Species Act (ESA) and found within St. Louis County, Minnesota. The “no effect” determination by

the Corps as it pertains to proposed project actions described in the EA appears appropriate at this time, and is a determination within the purview of the Corps as the action agency. As project plans are further developed or revised, and/or if new information or data become available which indicate that the project may affect piping plover and/or Canada lynx, the Service recommends initiation of consultation with the Twin Cities Field Office (TCFO) under Section 7 of the ESA to address potential affects to federally-protected species.

Migratory Birds

The Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA) implements four treaties that provide for international protection of migratory birds. The MBTA prohibits taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. Unlike the Endangered Species Act, neither the MBTA nor its implementing regulations at 50 CFR Part 21, provide for permitting of "incidental take" of migratory birds.

The Service does not believe that the proposed project activities, as presented in the EA, will have direct detrimental effects on migratory birds as identified by the MBTA. It is the responsibility of the Corps, including any and all hired contractors or sub-contractors, to ensure that migratory birds resources are identified, and impacts to these resources are avoided during all phases of the proposed project. If project activities change, or if nesting migratory birds are identified in close proximity to dredging sites or at the 21st Avenue dredge placement site, the TCFO should be contacted prior to project commencement.

The EA does not address Executive Order 13186 (EO 13186), which specifically identifies the responsibilities of federal agencies to protect migratory birds. EO 13186 includes a directive to federal agencies to restore and enhance the habitat of migratory birds as practicable, which provides a basis and a rationale for mitigating for the loss of migratory bird habitat that result from developing the proposed project. As we note in our comments below regarding wildlife habitat goals in the 21st Avenue West embayment, establishing high quality migratory bird habitat (including food resources) is a high priority for the Service. Therefore, Service recommendations related to these comments are to be considered by the Corps in addressing the conservation needs of migratory birds in the Lower St. Louis River.

Fish and Wildlife Habitat Goals

As noted above, the Service is providing support and technical assistance to develop an ecological design for the overall 21st Avenue West embayment area. The ecological design is considered the first step in a "Remediation-to-Restoration" process recommended by St. Louis River Area of Concern State and Tribal Coordinators to address historical contamination in select areas of the St. Louis River estuary while also restoring fish and wildlife habitat in the most cost-efficient manner. Utilizing a cooperative and partnership-based approach, the ecological design work is addressing

current chemical, physical, and biological characteristics (e.g., chemical concentrations in sediments and biota, bathymetry, substrate types, plant communities, benthic invertebrate communities, etc.) in the area. Through the evaluation of these data and the corresponding development of site-specific hydrodynamic modeling and a submerged aquatic vegetation modeling system, the ecological design is intended to guide subsequent feasibility studies and construction actions to remediate contaminated sediments and address other limiting factors necessary to develop the desired type and quality of fish and wildlife habitat for the area. A final "Ecological Design Report" for the 21st Avenue West area is anticipated to be available May 15, 2013. In the interim, the Service would like to clarify that the "United States Fish and Wildlife Service study" referenced in EA Sections 3.27 and 4.49 (and cited as "NRRI, 2012") is a preliminary report associated with the ecological design which characterizes select biological and hydrodynamic aspects of the 21st Avenue West embayment.

Lower St. Louis River natural resource managers have identified several general habitat features desired in the 21st Avenue West embayment. These include: (1) an increase in shallow aquatic habitats in some areas of the bay, including in the southwest portion, near the mouths of Miller and Coffee Creek, and in the northeast portion of the bay; (2) "softening" hardened shorelines in the northeast portion of the embayment; and (3) retaining a deep water habitat in the Miller and Coffee Creek Bay for fish and other wildlife during winter months. These habitat features are expected to benefit shorebirds, song birds, and waterfowl; such as mallard and blue-winged teal; as well as fish species such as walleye and smallmouth bass. These habitat features are also expected to help reduce current exotic species populations such as gobies. Specific targeted habitat types and potential locations to be developed throughout the embayment will be presented in the Ecological Design Report. While the proposed locations for this project appear to be generally consistent with those actions that would be beneficial towards achieving the desired habitat goals, the Service provides comments and recommendations for the following select habitat aspects of the project to ensure that the proposed project is designed and constructed to help achieve the type and quality of fish and wildlife habitat envisioned for the 21st Avenue West embayment:

Substrates and Bathymetry

For the successful establishment of aquatic vegetation, as well as to support benthic macroinvertebrates and fish, specific bathymetric and substrate elements need to be considered prior to placement of dredged materials. Section 2.8 of the EA states that multiple variables can affect the establishment of vegetation. The Service recommends further evaluation of some of these variables as noted below. Additional considerations relating to bathymetry and substrate should also be addressed to provide the optimal conditions for vegetation to become established. The EA proposes the placement of material at surface water depths in excess of one foot, in reference to Low Water Datum (LWD). Because the establishment of specific vegetation types is closely related to surface water depths, the Service recommends evaluation of future surface water depths that may be affected by global climate change. The Service recommends continued

coordination with Lower St. Louis River natural resource managers as remedial and restoration designs are planned and implemented in the 21st Avenues West embayment.

As noted above, Lower St. Louis River natural resource managers have identified the desire to maintain a deep channel in the Miller and Coffee Creek Bay. The EA has proposed the placement of dredged materials in the 21st Avenue West Channel to raise the current depth of around 23 feet up to 10 feet surface water depth. This depth may not be sufficient to provide all the deep water benefits identified. We recommend further discussions with the Minnesota Department of Natural Resources to determine the desired depth needed in this area.

The Service recommends further consideration of the nutrient content of the dredged material prior to placement in the project area. Unless suitable levels and compositions of nutrients are available in the dredged material, vegetation will be unable to become established from the placement of dredged materials only. Further coordination with State agencies on future placement of additional organic material, as is mentioned in Section 2.9 of the EA, could provide resources to address possible nutrient limitations in the dredged material.

Substrate type, including grain size and composition, need to also be considered before placement of dredged material to ensure fish and wildlife habitat goals can be achieved. Along with nutrient level considerations, sediment type can affect the ability for vegetation to become established. Additionally, the proposed placement Area 6 is located where natural resource managers have identified a desire for a "softened" shoreline. The Service recommends further consideration before placement of dredged material in this area to support future loading of the material type and depth necessary to create the desired softened shoreline.

Aquatic Vegetation

The EA indicates that dredged material placement within the 21st Avenue West Channel site will improve substrate and provide the potential for development of aquatic vegetation. The Service notes that improvements to fish and wildlife habitat within the 21st Avenue site are dependent on the development of a community of diverse native aquatic vegetation, and believes that additional consideration and planning is required for the proposed project to achieve stated goals.

Section 3.25 of the EA indicates that the proposed shallow water areas to be created within the 21st Avenue site will be revegetated by seed stock from adjacent fresh meadow and shrub swamp habitats and seed stock within the shoal material. The shallow water area proposed to be created will have surface water depths in excess of one foot, which would not match the preferred hydrologic regime of fresh meadow or shrub swamp species. However, as noted in Section 3.43 of the EA, creating too shallow of an environment could cause the establishment of exotic plant species. To ensure development of a preferred aquatic vegetative community, the Service recommends that after the placement of material within the 21st Avenue site, a mixture of native aquatic

plant species be planted on the new material. The Service recommends the Corps consult with the Minnesota Department of Natural Resources (MDNR) to develop an appropriate list of native aquatic vegetation species to utilize at the 21st Avenue project site, specific to final bathymetric and substrate conditions resulting from material placement.

Section 2.8 of the EA identifies that multiple variables can have an effect on the success of the establishment of vegetation, including wave energies, seed stock, and physical characteristics of the dredged material. Evaluations completed to date as part of the ecological design work in the 21st Avenue West embayment have noted that in addition to bathymetry and wind fetch considerations, there are unknown variable(s) affecting the ability of aquatic vegetation to become established. Accordingly, the Service recommends additional considerations need to be evaluated before the placement of dredged material in the project area, as well as part of the post-project monitoring. For example, evaluations completed to date as part of the ecological design work for the 21st Avenue West embayment have also noted avian herbivory as a possible limiting factor to the establishment of vegetation. Warm water that is released from Western Lake Superior Sanitary District's (WLSSD) outfall creates an open water area in 21st Avenue West Complex which results in a large and persistent bird population throughout the winter. These bird populations continue when spring begins as vegetation first starts to become established. The Service recommends that the Corps consider this possible limitation to vegetation establishment, and further coordinate with the Service and the Minnesota Department of Natural Resources to develop appropriate management actions as necessary. The Service recommends additional evaluation of these limitations through a more comprehensive monitoring plan.

To ensure successful establishment of aquatic vegetation resulting from Phases 2 and 3 of the proposed project, it is essential that design and construction follow a careful evaluation of information derived from the monitoring from Phase 1, as well as through the continued coordination with State, Federal, and Tribal agencies. Such an evaluation may result in recommended changes to the implementation of Phase 2 and 3 in the proposed project schedule. For example, if it is determined that State resource agencies will place additional organic material on top of the dredged material, it may be necessary for the Corps to adjust the timing or plans for additional dredged material placement so as not to disrupt planned placement or monitoring of the organic material placement. In Sections 2.5 and 2.11, the Corps already acknowledges this possibility, and the Service supports this position of continued collaboration and adaptive management to help provide the best scenarios possible for this area.

Wave Energies

Evaluations completed to date as part of the ecological design work in the 21st Avenue West embayment have noted that wave energy is a major limiting factor within the complex. After subsequent submerged aquatic vegetation modeling in which the bathymetry was changed to varied depths, and island developments were modeled in different locations, wave energy continued to be a major consideration. In Section 2.8, the EA also identifies wave energy as a possible limiting factor to vegetation

establishment. The EA states that “Preliminary evaluation of the potential for sediment movement indicates that in these locations the dredged material will not move any substantial amount.” Please provide references of this “preliminary evaluation”; the Service is concerned that possible limitations of sediment movement in the proposed project have not been adequately addressed in proposed project planning to date.

Wave energies have the potential to create disturbances in the sediment, affecting the ability for vegetation to become established and benthic macroinvertebrates to survive. Additional possible sedimentation from Miller and Coffee Creek could also exacerbate other limiting variables. The Service acknowledges the Corps’ intention to initiate this proposed project as a way to evaluate sediment movement upon placement of dredged material, as is described in Section 2.10. However, the Service recommends additional monitoring actions to accurately measure sediment movement beyond bathymetric surveys post placement. Continued coordination with State, Federal and Tribal agencies to determine supportive monitoring actions would be beneficial, as it may help identify one or more limiting factors that are currently unknown or less understood. Monitoring information is expected to be beneficial to additional future restoration projects in the 21st Avenue West embayment complex. The Service again recommends close coordination with State Federal, and Tribal agencies prior to Phases 2 and 3 placement, as information gained from Phase 1 monitoring, as well as other resources, may provide information that would indicate that changes to Phases 2 and 3 placement may be desired.

Contaminated Sediments and Water Quality

The types of habitat to be developed in the 21st Avenue West embayment are only beneficial in contributing to overall ecological goals in the area to the extent that environmental quality aspects of the project area are also addressed. The Service notes the following concerns and uncertainties related to contaminated sediment issues associated with the Corps’ proposed project:

Sediment Quality in the Proposed Project Area

The Service continues to evaluate sediment chemistry and ecotoxicological data available for the 21st Avenue West area, and identifies concerns with the placement of material in the proposed project area. Elevated levels of certain contaminants in surficial and deep sediments are documented throughout the 21st Avenue West embayment. The primary contaminants of concern include PCBs, PAHs, mercury, and toxaphene. Because sediment chemistry and bioassay data specific to the proposed project areas appear to be limited, are partially compromised due to detection limit and other protocol issues, and are further unclear as to their exact spatial relationship to the proposed project area, the Service strongly recommends further evaluation of these data to determine the extent to which proposed actions in the project area may present contaminant-related risks to fish and wildlife. The Service notes that aquatic organisms may become exposed to PCBs, PAHs, mercury, and toxaphene in sediments via ingestion and direct contact; further, because these chemicals can bioaccumulate, greater concentrations may result in fish and wildlife species higher in the food chain. For example, the Service collected white

suckers from the 21st Avenue West embayment area as part of the ecological design characterization work in 2011; following chemical analysis of whole body samples, maximum wet weight concentrations of PCBs and mercury were reported to be 323ppb and 0.201ppm, respectively. As part of the same ecotoxicological characterization, sediment from a single sample collected from the proposed project area (based on our visual interpretation of EA figures) did not result in any bioaccumulation of mercury in an aquatic worm bioassay; however, substrate disturbance and additional contaminated material placement could create conditions affecting results in similar testing. Because this exposure pathway may be exacerbated by disturbing contaminated sediments in the project area, and given the limited site-specific data available, the Service is concerned with the potential for adverse impacts to ecological receptors resulting from this increased exposure through suspended sediments and the water column. These impacts can include mortality, cancer, lowered immune system responses, neurological effects, endocrine disruption, and reproductive impairments.

The Service also recommends that further consideration be directed towards anticipated concentrations of contaminants in “bioactive zones” (as defined by the Minnesota Pollution Control Agency) following placements of dredged material. Based on our review of the proposed placement, it appears that following placement of dredged material in the shallow water area, the bioactive zone in the project area may still include original sediment. Therefore, it is very important that sediment quality in these areas be further evaluated.

Based on these concerns, the Service recommends additional sediment samples be collected from the proposed placement areas and analyzed with appropriate detection limits. Bioassays should also be conducted on a subset of these samples. The Service is available to assist with sampling design and evaluation of analytical results.

The Service understands that these and other water quality issues are to be addressed through the 401 Water Quality Certification process. By copy of this letter, the Service is requesting the Minnesota Pollution Control Agency consider these concerns and recommendations to ensure fish and wildlife habitat and resources in the project area are not compromised by exposure to contaminants in the sediments.

Dredged Material Contaminant Issues

Based on our review of the information provided in the EA presenting sediment sampling, analysis, and interpretation of samples collected in dredged areas, the Service has concerns about the suitability of these materials for subsequent placement at the 21st Avenue West project area. Our concerns include the following:

Sampling Method Issues

- The depth to which dredging operations will extend into river and harbor substrates is not clear.

- The actual number of samples analyzed after compositing the initial number of samples collected is not clear.

Laboratory Method Issues

- Analytical methods resulted in poor detection limits, and therefore, poor data quality. For example, as stated in the attachment Clean Water Act Section 404(b)(1) Evaluation (2)(a): “PCB Aroclors—PCB concentrations in the Federal navigation channel sediments, as well as at open-water placement area sediments, were non-detectable at detection limits ranging from 81 µg/kg to 210 µg/kg at most sites.”
- It is not clear if American Society for Testing and Materials (ASTM) guidelines were followed during toxicity and bioaccumulation tests.

Data Interpretation Issues

- It is unclear if the following statement is an appropriate definition of “clean”: in the attachment Clean Water Act Section 404(b)(1) Evaluation 2.6. “Because the dredged material is suitable for open-water placement, with the restrictions noted above, the material is characterized as clean and would be a suitable cap material for the 21st Avenue West site.”
- Tables 4-5 and 4-6 (Futurenet Group report) seem to indicate that dredge material had greater PCB concentrations than the 21st Ave W Restoration Area.
- When indicating that results were not significantly different, *p* values and sample sizes were not defined, so it was difficult to interpret the information provided.
- Data results (e.g., sediment contaminant concentrations) were compared to placement sites and other inappropriate reference sites, instead of a true reference site.
- It was sometimes unclear whether the contaminant concentrations were expressed as dry weight or wet weight.
- It is unclear if a control sediment sample was used for toxicity tests and bioaccumulation tests. Endpoint results (e.g., survival) should be compared to endpoint results of control sediment, instead of placement area.

Again, our evaluation of the extensive information provided in the EA continues. It would be helpful to have access to sample information and analytical results in electronic spreadsheet or database format.

Based on the above concerns, the Service recommends that the Corps follow the guidance document “Managing Dredge Materials in the State of Minnesota”

(<http://www.pca.state.mn.us/index.php/view-document.html?gid=12959>), specifically addressing those protocols pertaining to sampling methodology, appropriate number of samples to be collected and analyzed, detection limits, and the use of reference areas and negative controls. Other applicable guidance includes:

- American Society for Testing and Materials (ASTM). 2012. Standard test method for measuring the toxicity of sediment-associated contaminants with freshwater invertebrates (E1706-05 (2010)). In ASTM Annual Book of Standards, Vol. 11.06, West Conshohocken, Pennsylvania (<http://www.astm.org/Standards/E1706.htm>)
- American Society for Testing and Materials (ASTM). 2012. Standard guide for conducting bioaccumulation of sediment-associated contaminants by benthic invertebrates (E1688-10). In ASTM Annual Book of Standards, Vol. 11.06, West Conshohocken, Pennsylvania (<http://www.astm.org/Standards/E1688.htm>)
- Crane, J.L. and S. Hennes. 2007. Guidance for the use and application of sediment quality targets for the protection of sediment-dwelling organisms in Minnesota. MPCA Document Number tdr-gl-04. (<http://www.pca.state.mn.us/index.php/view-document.html?gid=9163>)
- USEPA. 2003. Procedures for the derivation of equilibrium partitioning sediment benchmarks (ESBs) for the protection of benthic organisms: PAH mixtures. http://www.epa.gov/nheerl/download_files/publications/PAHESB.pdf

The Service understands that the Minnesota Pollution Control Agency is also identifying proposed sampling and testing requirements for navigational dredged material in the St. Louis River, and supports those requirements. These and other water quality issues may be addressed through the 401 Water Quality Certification process. By copy of this letter, the Service is requesting the Minnesota Pollution Control Agency consider these concerns and recommendations to ensure fish and wildlife habitat and resources in the 21st Avenue West embayment are not compromised by exposure to contaminants in materials placed in the project area.

Continued Coordination

The Service fully recognizes both the economic and environmental importance of the Duluth-Superior harbor, and understands the need for dredging to maintain commercial navigation. As a long-standing member of the Harbor Technical Advisory Committee to the Duluth-Superior Metropolitan Interstate Council, the Service supports planning for the appropriate and beneficial placement of dredged materials. Accordingly, the Service appreciates this opportunity to help coordinate proposed Corps project plans with continuing efforts to restore high quality fish and wildlife habitat in the Lower St. Louis River.

The Service also notes that navigation and ecosystem restoration related projects are subject to the Fish and Wildlife Coordination Act (FWCA). To maximize the fiscal and environmental benefits of coordination between Corps dredging projects and efforts to achieve fish and wildlife habitat goals in the Lower St. Louis River, the Service again recommends the Corps and the Service convene to consider the efficiencies a FWCA Agreement may facilitate in coordinating our respective federal agency missions in the Lower St. Louis River.

Last, the Service and conservation partners working in the estuary recognize the value of Corps expertise in materials and construction management in aquatic environments, and invite the Corps to become more closely and regularly involved in the selection, design, and implementation of local habitat projects. The Great Lakes Restoration Initiative, Great Lakes Legacy Act, the Minnesota Outdoors Heritage Fund, and other funding sources are providing unprecedented opportunities for federal, state, and local partners to work together to advance the St. Louis River Area of Concern towards delisting. In addition to the continued coordination recommended here to complete the proposed project in the 21st Avenue West embayment, we look forward to discussing additional projects, planning forums, and other coordination opportunities with Corps staff to enhance Lower St. Louis River natural resources.

The Service appreciates this opportunity to comment on the Corps' Public Notice and Environmental Assessment for the Dredge Material Placement – 21st Avenue West Channel Embayment in Duluth, Minnesota Project. Please contact Zachary Jorgenson at 612-725-3548 (ext. 2247) if you have any questions about the Service's role and responsibilities in the 21st Avenue West ecological design project and related comments concerning habitat features associated with the Corps' proposed project. For questions concerning Service comments on sediment quality issues associated with the Corps' proposed project, please contact Elissa Buttermore at 612-725-3548 (ext. 2205).

Sincerely,



Tony Sullins
Field Supervisor

cc:

U.S. Army Corps of Engineers
Patrick Olk
Hal Harrington
Paul Allerding
Steven Brossart

U.S. Army Corps of Engineers

Maureen Mahoney
David Bowman
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Wisconsin Department of Natural Resources

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Cherie Hagen
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Fond du Lac Band of Lake Superior Chippewa

Rick Gitar



STATE HISTORIC PRESERVATION OFFICE

March 5, 2013

Charles Uhlarik, Chief
Environmental Analysis Branch
US Army Corps of Engineers, Detroit District
477 Michigan Avenue
Detroit, MI 48226-2550

RE: Superior Harbor 21st Avenue Embayment Pilot Habitat Restoration Project
Duluth, St. Louis County
SHPO Number: 2013-0868

Dear Mr. Uhlarik:

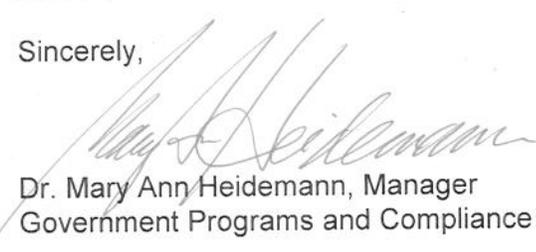
Thank you for providing us with the additional survey and identification information we requested for the project referenced above. The materials you sent have been reviewed according to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and implementing federal regulations at 36 CFR 800.

Based on the information provided, we concur that **no historic properties will be affected by the proposed project, provided that Area 8 is avoided** as stated in the revised project proposal.

In our opinion, the Detroit District Archaeologist who came to our offices to complete the research did a fantastic job. I am amazed that all the necessary survey and evaluation work was pieced together so rapidly and completely, allowing us to clear this project with good speed. Please congratulate your staff for a job well done.

If you have any questions regarding our review, please contact our archaeologist, David Mather, at 651-259-3454.

Sincerely,



Dr. Mary Ann Heidemann, Manager
Government Programs and Compliance

cc: Duluth Heritage Preservation Commission