



CITY OF DULUTH
Planning Division

411 W 1st St, Rm 208 * Duluth, Minnesota 55802-1197
Phone: 218/730.5580 Fax: 218/723-3559

STAFF REPORT

File Number	PL 14-181	Contact	Jenn Reed Moses, (218) 730-5328	
Application Type	Special Use Permit	Planning Commission Date	January 13, 2015	
Deadline for Action	Application Date	December 17, 2014	60 Days	February 15, 2015
	Date Extension Letter Mailed	December 17, 2014	120 Days	April 16, 2015
Location of Subject	Interstate Island (just west of I-535/Blatnik Bridge)			
Applicant	Minnesota Department of Natural Resources	Contact	Martha Minchak, martha.minchak@state.mn.us	
Agent	N/A	Contact	N/A	
Legal Description	N/A			
Site Visit Date	N/A	Sign Notice Date	December 30, 2014	
Neighbor Letter Date	December 19, 2014	Number of Letters Sent	3	

Proposal

The Minnesota Department of Natural Resources (DNR) is proposing a habitat restoration project on Interstate Island, which is critical habitat for the Great Lakes Piping Plover and a nesting colony for the endangered Common Tern. The project would replace materials lost through erosion with 20,000 - 30,000 cubic yards of material. Placement of this amount of fill in a floodplain requires a Special Use Permit.

	Current Zoning	Existing Land Use	Future Land Use Map Designation
Subject	I-W	Undeveloped island	Preservation
North	I-G	Industrial port activities	Industrial Waterfront
South	N/A (Wisconsin)	Industrial port activities	N/A (Wisconsin)
East	I-W	Industrial port activities	Industrial Waterfront
West	I-W	Industrial port activities	Industrial Waterfront

Summary of Code Requirements (reference section with a brief description):

Section 50-18.1.C.2(b) Special Uses. The following uses involving accessory structures or fill or storage of materials or equipment may be permitted only after the issuance of a special use permit pursuant to Article 5.....Placement of fill or construction of fences

Section 50-18.1.C.2(c) Standards for special use permits (paraphrased). Proposed use will not cause any increase in flood, shall not obstruct the flow of flood waters, and shall be protected from erosion. Use will not include storage or processing of flammable/injurious materials and shall be readily removable from the area after a flood warning.

Section 50-37.10. Special Use Permits. The Planning Commission shall approve the application or approve it with modifications if the commission determines that the application meets the following criteria: 1. The application is consistent with the Comprehensive Land Use Plan; 2. The application complies with all applicable provisions of this Chapter, including without limitation any use-specific standards applicable to the proposed use, development or redevelopment, and is consistent with any approved district plan for the area; 3. Without limiting the previous criteria, the commission may deny any application that would result in a random pattern of development with little contiguity to existing or programmed development or would cause anticipated negative fiscal or environmental impacts on the community.

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III. E-1

Comprehensive Plan Findings (Governing Principle and/or Policies) and Current History (if applicable):

Governing Principle #2: Declare the necessity and secure the future of undeveloped places.

Future Land Use - Preservation: Lands with substantial restrictions. High natural resource or scenic value, or severe development limitations. Primarily public lands, but limited private use is anticipated subject to use and design controls.

Discussion (use numbered or bullet points; summarize and attach department, agency and citizen comments):

Staff finds that:

- 1.) Interstate Island is a Wildlife Management Area jointly owned and managed by the Minnesota and Wisconsin DNRs. This use is consistent with the Comprehensive Plan future land use designation of Preservation.
- 2.) The island was created using dredge material in 1934; in 1986 it was cleared and graded for nesting habitat. Wind, water, and ice erosion within the estuary have significantly reduced the cross section of the island, causing seasonal flooding of the preferred nesting areas. This project would replace materials lost through erosion.
- 3.) The Natural Resources Overlay map shows that about 3.4 acres (over half of the island) is a floodplain. The project will place 20,000-30,000 cubic yards of fill; however, this is a replacement that will raise the island to previous levels, and will not result in any increase in the flood stage.
- 4.) Use will not include storage or processing of flammable/injurious materials.
- 5.) No negative fiscal or environmental impacts are anticipated.
- 6.) No public, agency, or City comments were received.
- 7.) UDC 50-37.1.N states than an approved Special Use Permit will expire if the project or activity authorized by the permit is not begun within 1 year.

Staff Recommendation (include Planning Commission findings, i.e., recommend to approve):

Based on the above findings, Staff recommends Planning Commission approve the Special Use Permit subject to the following conditions:

- 1.) The project be limited to, constructed, and maintained according to the submitted "Interstate Island WMA Habitat Restoration" Plan (8 pages).
- 2.) Any alterations to the approved plans that do not alter major elements of the plan may be approved by the Land Use Supervisor without further Planning Commission approval; however, no such administrative approval shall constitute a variance from the provisions of Chapter 50.

E-2

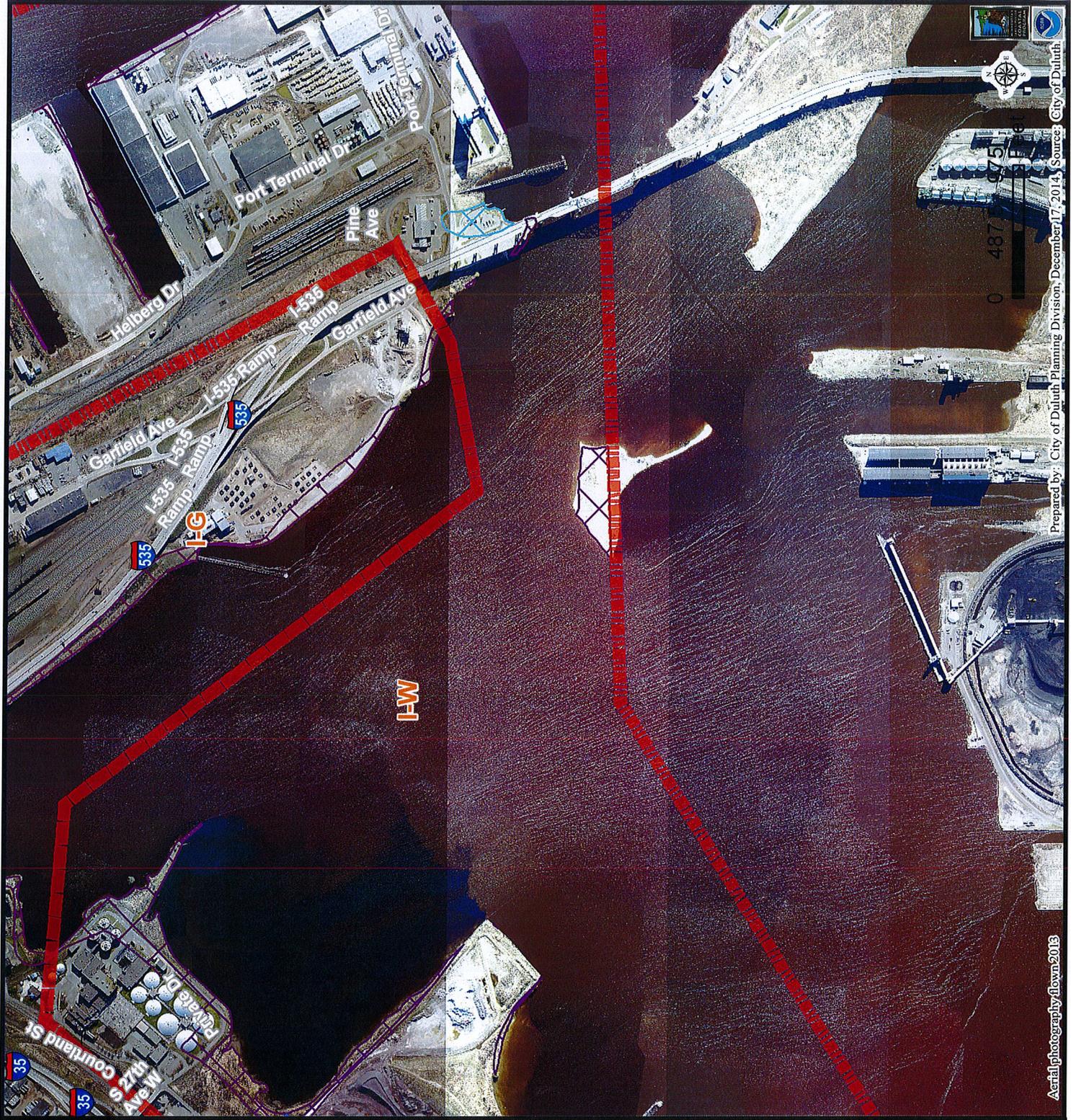
Attachments (aerial photo with zoning; future land use map; site plan; copies of correspondence)



City Planning
 PL 14-181
 Interstate Island
 Special Use Permit

Legend

- Trout Stream (GPS)
- Other Stream (GPS)
- Floodplain (UDC)**
- General Flood Plain
- Flood Way
- Flood Fringe
- Zoning Boundaries



Aerial photography flown 2013

Prepared by: City of Duluth Planning Division, December 17, 2014. Source: City of Duluth.

The City of Duluth has tried to ensure that the information contained in this map or electronic document is accurate. The City of Duluth makes no warranty or guarantee concerning the accuracy or reliability. This drawing/data is neither a legally recorded map nor a survey and is not intended to be used as one. The drawing/data is a compilation of records, information and data located in various City, County and State offices and other sources affecting the area shown and is to be used for reference purposes only. The City of Duluth shall not be liable for errors contained within this data provided or for any damages in connection with the use of this information contained within.

E-3

Interstate Island WMA Habitat Restoration

Reason for this Request:

Project description

Interstate Island is a small island located in the St. Louis River estuary on the Minnesota-Wisconsin border in the Duluth/Superior metropolitan area. It was created using dredge material when the St Louis River navigation channel was dredged in 1934. It was designated as a Wildlife Management Area (IIWMA) in 1979. It is jointly owned and managed by Minnesota & Wisconsin Departments of Natural Resources. The island was heavily vegetated until 1986 when it was cleared and graded for nesting habitat and the north side stabilized with rap-rap.

Interstate Island is federally listed as critical habitat for the Great Lakes Piping Plover (*Charadrius melodus*), and is also used as a nesting colony by the Common Tern (*Sterna hirundo*), which is listed as Endangered in Wisconsin and Threatened in Minnesota. Interstate Island is also a nesting site for Ring-billed gulls. This WMA is protected as a Bird Sanctuary and closed to public access March 1st – August 30th annually. The island is one of only two Common Tern nesting colonies in the Lake Superior watershed.

Wind, water and ice erosion within the large estuary have significantly reduced the cross section of the island, causing seasonal flooding of preferred nesting areas. This project would replace materials lost through erosion with granular materials that are preferred by Piping Plovers and Common Terns and improve critical colonial water bird nesting and young-rearing habitat on Interstate Island. (Figure 1). The project would replace 20-30000 yd³ of clean sandy material; anchor it with stone cobble to prevent future erosion, cover the new surface with scattered stones (rounded coarse gravel to small cobble), driftwood, and sparse native vegetation; and reconstruct gull exclosures. Work associated with this project will take place on the Minnesota side of the island only. (Figure 2).

Preliminary technical specifications

We anticipate that the successful bidder will likely barge granular material to the island, off load it with a crane and grade the material with equipment mobilized to the site by barge.

Preliminary construction specifications are included below:

- i. Amount of material to be placed on island
 - a. A WI DNR memo from 1997 estimates that a 6-8 foot thick layer of sand can be placed over the Minnesota portion of the island. This would accommodate 20-30,000 yd³.
- ii. Where it will be placed
 - a. Materials will be placed only on the Minnesota side of the island. The State of Minnesota owns this property.
 - b. Materials will be placed entirely within the current footprint of the island. All material will be placed in an upland setting within the 50 ft. shoreline setback. Material will not be placed below the current waterline, with the majority of the material being placed above the Ordinary High Watermark (OHW) of 605 ft. (Figures 3 & 4).

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- iii. How to place it
 - a. A temporary berm will be used to control site runoff. Final site grading will include removal of the berm to achieve final grade specs.
 - b. Large cobbles will be placed around the perimeter of the finer sandy material to anchor it and prevent future erosion into the floodplain.
 - c. Final slopes will be 30:1 where possible. No slope in the project area will be greater than 3:1
 - d. Shoreline protection and stabilization will not be used except for minimal temporary improvement of the equipment landing area, if needed.
- iv. When to place it
 - a. Sand and gravel/cobble shall be placed on the site in the early spring and final grading shall be completed before tern and gull nesting begins (May 15th) to allow for settling and consolidation.
 - b. Placement of surface amendments and gull enclosure, tern colony perimeter fence, and any planting necessary will be between ice out and May 15.
- v. Material specs: physical composition
 - a. Clean "Beach Quality" sand, consisting of at least 90% sand shall be used
 - b. Where possible, coarser sand (0.5-2mm) will be used. If limited coarse or very coarse sand is available, it will be placed on top of fine and medium sands.
 - c. Larger cobble (>128 mm) will be placed around the perimeter to anchor finer sediments and prevent future erosion.
- vi. Material Specs: chemical composition
 - a. Clean material from a certified, contaminant and weed-free source is preferred. Sediment obtained from harbor dredging must be tested prior to placement. All materials placed on the project site must meet State of Minnesota upland unconfined disposal standards.
- vii. Material specs: surface amendments, inorganic
 - a. Rounded (not crushed) gravel (coarse: > 16mm to very coarse: ≤ 64 mm) and small cobble (≤ 128 mm) will be placed in scattered, randomly distributed patches to cover 15% - 20% of the surface to be included in the tern colony perimeter fence.
 - b. Gravel and/or cobble will be placed only after final grading is complete.
- viii. Material specs: surface amendments, coarse woody debris/driftwood
 - a. Coarse woody debris (driftwood) will be incorporated for optimization of nesting habitat enhancement.
 - b. Driftwood or driftwood-like pieces of woody debris will be added to cover approximately 1% of the surface area within the tern colony perimeter fence. Driftwood pieces will be between 15 to 60 inches long and between 1.5 to 6 inches in diameter.
 - c. Driftwood pieces will have an even gradation of various sizes within the specified size range.
 - d. Driftwood will be added only after gravel/cobble placement is complete.
- ix. Gull Exclosure Grid and Fencing
 - a. Gull exclosures includes: 1) string grid, 2) fence around the 'tern nesting area', and 3) perimeter fence around the tern nesting buffer area.

6-5

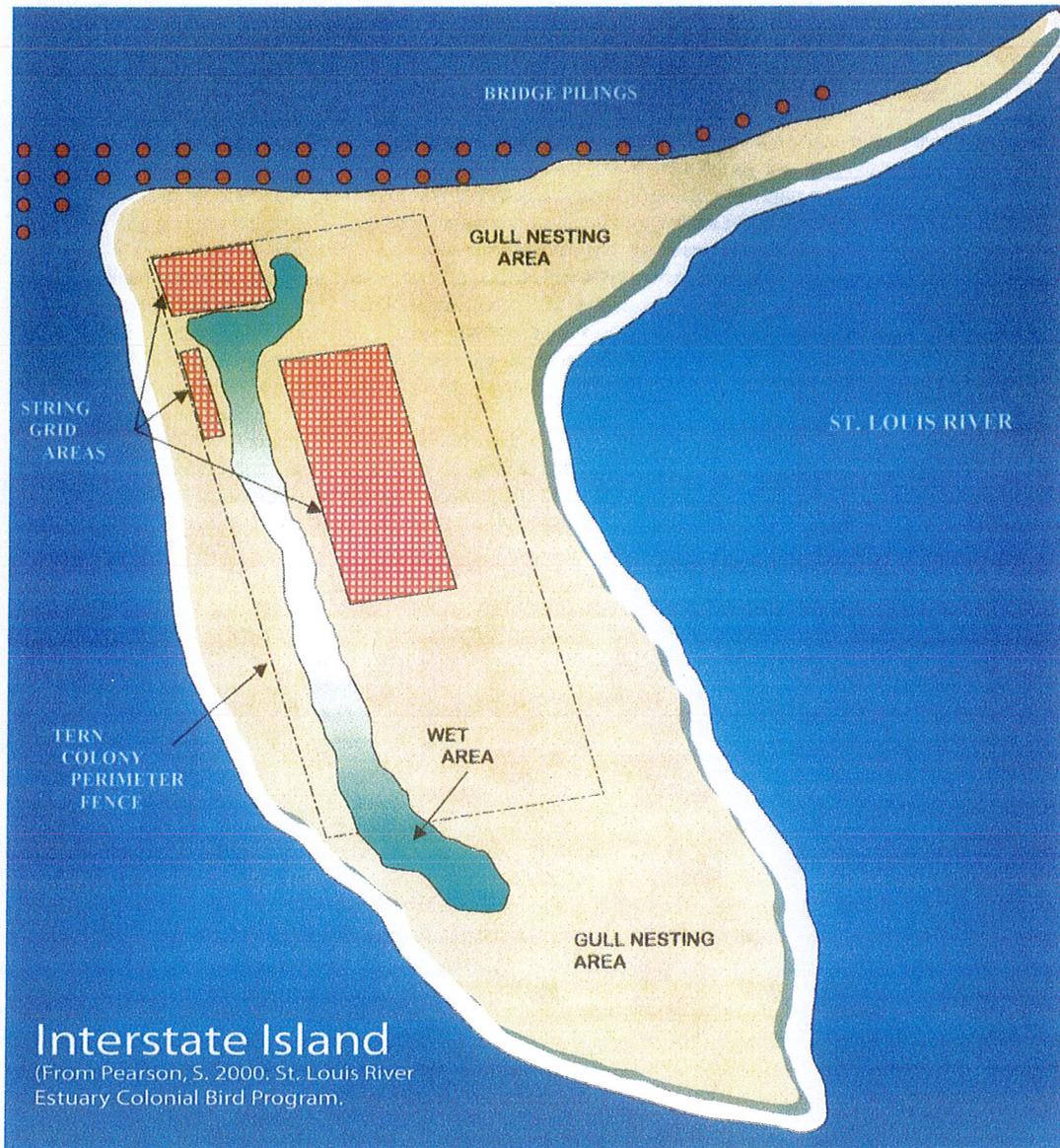
- b. Prior to placement of any material, the existing gull enclosure and perimeter fencing location will be noted and removed from the island for disposal.
- c. A gull enclosure string grid and fence and the perimeter fence will be reconstructed after final grading is completed and surface amendments are added.
- d. The gull enclosure grid and perimeter fencing will be reconstructed in approximately the same area and with approximately the same dimensions as is present pre-construction.
- e. New materials for the enclosure grid and fencing will be used. Materials present pre-construction will not be reused.
- x. Vegetation management
 - a. All live woody vegetation will be cut and removed from the part of the island where the sand and gravel/cobble will be added.
 - b. Native herbaceous plants will be established on-site to cover 5% to 10% of the surface area covered by newly placed sand and gravel/cobble. Plants will be randomly and sparsely distributed throughout the site.
 - c. Planting will occur only after the gull enclosure grid and fencing is complete.
 - d. Suitable species may include the following
 - i. *Potentilla litoralis* (prairie cinquefoil)
 - ii. *Artemisia campestris* (wormwood)
 - iii. *Coreopsos lanceolata*
 - iv. *Anaphalis margaritacea* (pearly everlasting)
 - v. *Euthamia graminifolia* (goldenrod)
 - vi. *Solidago gigantea* (goldenrod)
 - vii. *Lithospermum caroliniense* (Carolina puccoon)
 - viii. *Campanula rotundifolia* (harebell)
 - ix. *Corispermum americanaum* (American bugseed)
 - x. *Prunus pumila* (sand cherry)
 - xi. *Argentina anserine* (silverweed)
 - xii. *Thalictrum dasycarpum* (meadow rue)
 - xiii. *Oenothera biennis* (evening primrose)
 - e. A minimum of 5 different species should be planted.
 - f. Other appropriate native plant species may be included, if approved in advance by the project manager.
 - g. No non-native plant materials may be used.
 - h. Any equipment and tools shall be cleaned and free of non-native plant materials before being brought to the site.

Permits and notifications status:

Environmental Assessment Worksheet (EAW) – not required. See Attachment A.
 State Historic Preservation Office (SHPO) survey – not required. See Attachment B.
 Natural Heritage Information System (NHIS) data request – in process.
 State Public Waters permit – not required. Material will not be placed below the Ordinary High Water mark (OHW).

E-6

Fig. 1. Original Conceptual Site Plan in 2000: (Note that the current site is somewhat different from the conditions in 2000. The two smaller string grids have been removed and the perimeter fence has been moved closer to the string grid.)



L-7

Figure 3. Interstate Island 1 ft. Contours.

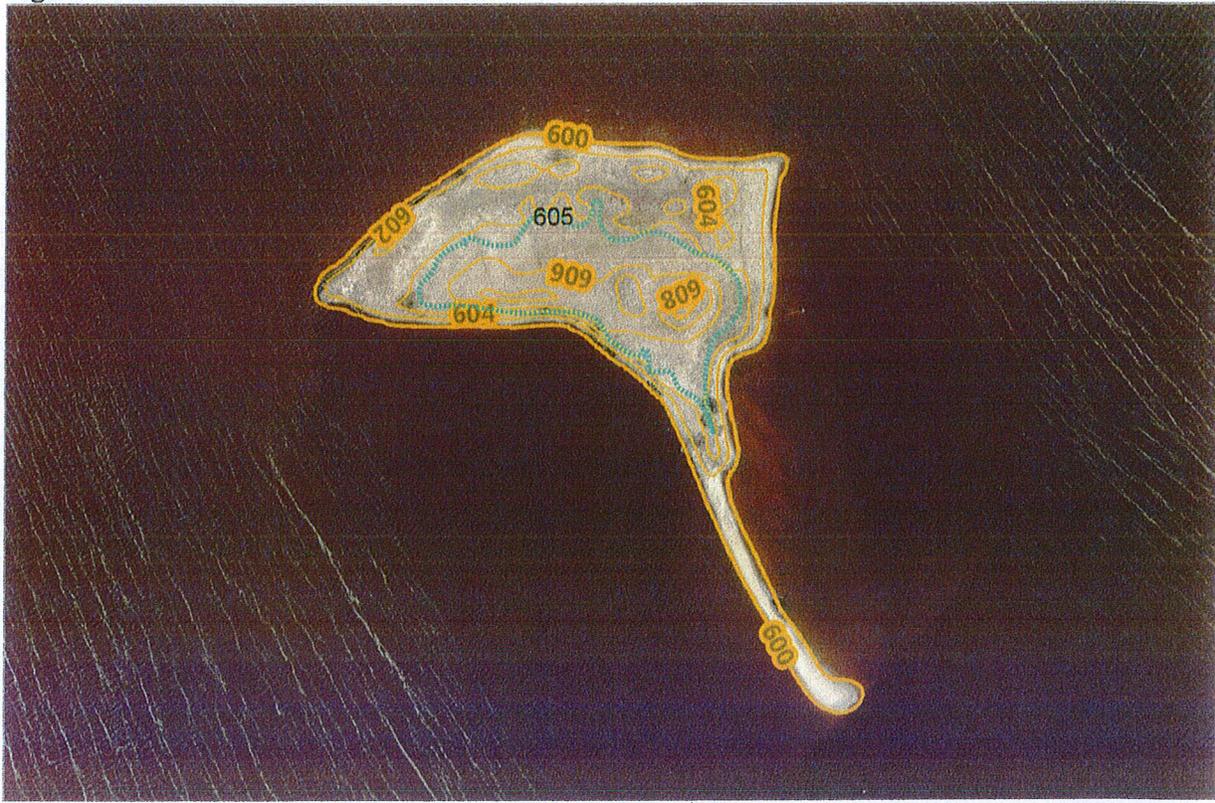


Figure 4. Interstate Island current conditions.

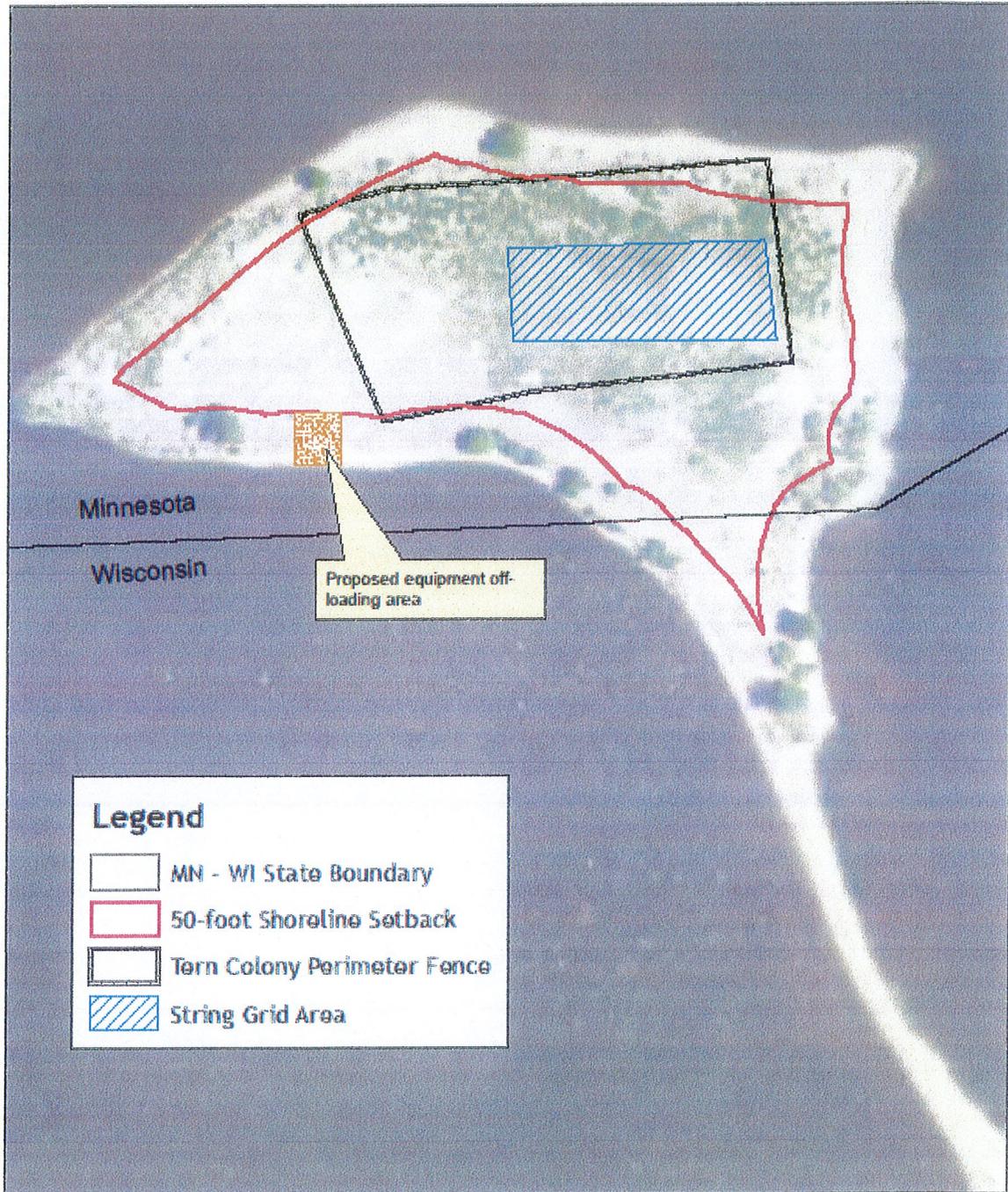


8-7

Fig. 2.

Interstate Island Habitat Improvement

Proposed placement of fill



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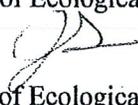
DEPARTMENT OF NATURAL RESOURCES
Division of Ecological Resources

STATE OF MINNESOTA
Memorandum

DATE: June 27, 2013

PHONE: (651) 259-5115

TO: Adam W. Fulton
MDNR, Division of Ecological and Water Resources

FROM: Jamie Schrenzel 
MDNR, Division of Ecological Resources

SUBJECT: Interstate Island Project Environmental Review Need Determination

This memorandum will serve as the Environmental Review Need Determination regarding the proposed Interstate Island Project in St. Louis County, Minnesota.

Materials submitted describing the proposed project were compared to Minnesota Rules, part 4410.4400 Mandatory Environmental Impact Statement (EIS) Categories, Minnesota Rules, part 4410.4600 Exemptions, and Minnesota Rules, part 4410.4300 Mandatory Environmental Assessment Worksheet (EAW) Categories.

None of the mandatory EIS categories in Minnesota Rules, part 4410.4400 applied to the proposed project description.

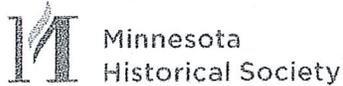
None of the categories of exemptions in Minnesota Rules, part 4410.4600 applied to the proposed project description.

Minnesota Rules, part 4410.4300 includes mandatory categories for projects in which an EAW must be prepared. Minnesota Rules, part 4410.4300, subpart 27, item B states: "For projects that will change or diminish the course, current, or cross-section of 40 percent or more or five or more acres of types 3 through 8 wetland of 2.5 acres or more, excluding public water wetlands, if any part of the wetland is within a shoreland area, delineated flood plain, a state or federally designated wild and scenic rivers district, the Minnesota River Project Riverbed area, or the Mississippi headwaters area, the local government unit shall be the RGU." This mandatory category was reviewed and compared to the project. Materials submitted for this project state that all fill will be placed in upland areas and not in wetlands. Therefore this mandatory category or any mandatory category regarding wetland impacts does not apply.

Minnesota Rules, part 4410.4300, subpart 36a. (A) states: "For a project that alters 800 feet or more of the shoreline in a sensitive shoreland area or 1,320 feet or more of shoreline in a nonsensitive shoreland area, the local government unit is the RGU." This mandatory category was reviewed and compared to the project. Materials submitted for this project state that the width of impact in the shore impact zone would be 50 feet. Assuming a 50-foot shoreline impact, this impact would be less than the mandatory category threshold. Therefore, this mandatory category does not apply.

Minnesota Rules, part 4410.4300, subpart 36a. (B) states: "For a project that alters more than 50 percent of the shore impact zone if the alteration measures at least 5,000 square feet, the local government unit is the RGU." This mandatory category was also reviewed and compared to the project. Materials submitted for this project state that the area of impact within the shore impact zone would be 1,500 square feet, which is less than the 5,000 square feet threshold for the category. Therefore this mandatory category also does not apply. No other mandatory category descriptions were comparable to the proposed project.

01-9



STATE HISTORIC PRESERVATION OFFICE

July 12, 2012

Mike Magner
DNR Forestry/ Fish & Wildlife Archaeologist
DNR Forestry Resource Assessment Office
483 Peterson Road
Grand Rapids, MN 55744

RE: Habitat Improvements in the Interstate WMA
T49 R14 S10
Duluth, St. Louis County
SHPO Number: 2012-2278

Dear Mr. Magner:

Thank you for the opportunity to comment on the above project. It has been reviewed pursuant to the responsibilities given to the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and implementing federal regulations at 36 CFR 800, and pursuant to the responsibilities given to the Minnesota Historical Society by the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

We have reviewed the cultural resources survey report that was prepared for this project. Based on the results of the survey, we conclude that no historic properties listed in the State Register of Historic Places or listed in or eligible for the National Register of Historic Places will be affected by the proposed project.

Please contact our Compliance Section at (651) 259-3455 if you have any questions on our review of this project.

Sincerely,


Mary Ann Heidemann, Manager
Government Programs and Compliance

E-11



Minnesota Department of Natural Resources

DIVISION OF ECOLOGICAL & WATER RESOURCES

1568 Highway 2, Two Harbors, MN 55616
218-834-1442

January 5, 2015

Charles Froseth
Land Use Supervisor
Planning & Development
411 West First Street, Room 407
Duluth MN 55802

Dear Mr. Froseth,

City of Duluth, St Louis River Estuary, Mapped 100-year Floodplain - Floodway/Flood Fringe Determination

This past November, Martha Minchak with DNR EWR and I met with you, Steven Robertson and Jen Moses, of the City's Planning division to discuss permitting needs for a DNR EWR proposed habitat improvement project on Interstate Island. My purpose in attending the meeting was to discuss and/or provide any necessary clarification on the distinction between floodway and flood fringe of the 100-year mapped floodplain area of St Louis River Estuary to assist the City with decision making for this or other similar projects.

Interstate Island is located in an area of the St Louis River Estuary that is mapped as a Zone A1 (FEMA FIRM Community-Panel Number 270421-0040 D). The A1 zone is an area where 100-year elevation and flood hazard factors have been determined. Our discussion focused on two subjects applicable to the City's administration the floodplain overlay district: 1) The distinction between the floodway and flood fringe of the St Louis River Estuary's mapped floodplain area, and 2) The requirement for hydraulic modeling to identify potential stage increases caused by placement of fill within the flood fringe. As we discussed, the state's FEMA endorsed approach to delineating floodway vs flood fringe on lakes is to consider the area below the ordinary high water level to be floodway and the area between OHW elevation and the 100-year flood elevation as flood fringe. For reference, the OHW elevation in the estuary was recently determined to be 603.0 feet (NAVD 1988 datum). This method is applicable to the St. Louis River Estuary, since the St Louis River Estuary is a backwater area of Lake Superior (which behaves as a lake).

The conclusion is that placement of fill within the flood fringe, which act as storage area within the floodplain, would have a negligible effect on the 100-year flood stage because fill within flood fringe area of the St Louis River Estuary would not result in a measurable stage increase.

I hope this information will be helpful. Please let me know if you have questions.

Sincerely,

Patricia L. Fowler
Area Hydrologist

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