



Erie Pier  
Dredged  
Material  
Management  
Facility Site  
Location  
46.7397492  
-92.1451292



Figure 1 Map displaying excavation Area at Erie Pier. Area 1 shall be removed first then Contractor will move to Area 2

Erie Pier Grain Size - Priority Areas	Area 1	Area 1	Area 1	Area 1	Area 1	Area 1	Area 1	Area 1 Average
Sample ID	EP-6-10	EP-7-10	EP-8-10	EP24-B06	EP24-B11	EP24-B12	EP24-B16	
Sample Date	10/22/2010	10/22/2010	10/22/2010	3/21/2012	3/20/2012	3/20/2012	3/20/2012	
Percent Residue (%)	*	*	*	33.3	43.1	32.5	50.8	40
Specific Gravity (%)	*	*	*	2.7	2.7	2.6	2.7	3
Moisture (%)	26.6	21.9	26.8	*	*	*	*	25
>3" (%)	*	*	*	0	0	0	0	0
Coarse Gravel (%)	0	0	0	0	0	0	0	0
Fine Gravel (%)	0	0	0	0.2	0	0.1	0	0
Coarse Sand (%)	0	0	0	0.2	1	0.2	0	0
Medium Sand (%)	30.1	29.9	20.3	2.4	0.6	1.8	8.8	13
Fine Sand (%)	40.3	47.9	48	26	34	24.6	22.8	35
Silt (%)	29.6	22.2	31.7	53	53.9	53.4	46.9	42
Clay (%)				18.3	11.4	20.1	21.5	18

\*Parameter not measured for this sample

Erie Pier Grain Size - Priority Areas	Area 2							
Sample ID	EP24-B17	EP24-B18	EP24-B19	EP24-B20	EP24-B22	EP24-B23	EP24-B24	EP24-B25
Sample Date	3/14/2024	3/15/2024	3/15/2024	3/15/2024	3/15/2024	3/14/2024	3/14/2024	3/14/2024
Percent Residue (%)	57.4	50.4	46.9	39.1	44.4	55.8	46.3	65.9
Specific Gravity (%)	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Moisture (%)	*	*	*	*	*	*	*	*
>3" (%)	0	0	0	0	0	0	0	0
Coarse Gravel (%)	0	0	0	0	0	0	0	0
Fine Gravel (%)	0	0.2	0	0.3	0.1	0	0.1	0
Coarse Sand (%)	0.1	0	0.1	0.1	0.6	0.2	0	0
Medium Sand (%)	1.1	1.4	0.7	1.4	1.4	1.4	5.9	0.5
Fine Sand (%)	19.9	18.7	27.9	34.8	48.3	15.9	22.1	8.8
Silt (%)	57	56.7	54.3	46.1	36	61.6	50.4	64.3
Clay (%)	21.9	23	17	17.5	13.7	20.9	21.6	26.4

\*Parameter not measured for this sample

Erie Pier Grain Size - Priority Areas	Area 2	Area 2	Area 2 AVERAGE						
Sample ID	EP-24-B27	EP-24-B28	EP-24-B29	EP-24-B30	EP24-B33	EP24-B34	EP24-B35		
Sample Date	3/13/2024	3/14/2024	3/13/2024	3/14/2024	3/13/2024	3/13/2024	3/13/2024		
Percent Residue (%)	29.3	33.3	24.1	33.3	26.1	27.5	37.5		41
Specific Gravity (%)	2.7	2.7	2.6	2.7	2.6	2.7	2.7		3
Moisture (%)	*	*	*	*	*	*	*		
>3" (%)	0	0	0	0	0	0	0		0
Coarse Gravel (%)	0	0	0	0	0	0	0		0
Fine Gravel (%)	0	0	0	0.3	1.2	0.1	0		0
Coarse Sand (%)	0.2	0.1	0.2	0.1	1.3	0.4	0		0
Medium Sand (%)	1.9	6.1	3.7	3.1	2.5	2.2	1.1		2
Fine Sand (%)	48.3	51.5	51.9	44.9	60.4	48.8	42.3		36
Silt (%)	34.9	29	34.8	38.8	23.3	35.9	43.7		44
Clay (%)	14.7	13.3	9.4	12.8	11.3	12.6	12.8		17

\*Parameter not measured for this sample



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February 1, 2018

Mr. James Sharrow  
Duluth Seaway Port Authority  
Erie Pier Processing & Reuse Facility  
1200 Port Terminal Rd  
Duluth, Minnesota 55802

RE: Final Reissued NPDES/SDS Permit Erie Pier Processing & Reuse Facility  
Permit No. MN0052612  
T049N, R14W, Section 08, Duluth, St. Louis County, Minnesota

Dear Mr. Sharrow:

Enclosed is the final permit for the facility identified above. The Minnesota Pollution Control Agency (MPCA) has prepared this permit in accordance with Minn. Stat. chs. 115, 115A, and 116, and Minn. R. chs. 7000, 7001, and 7035.

If you have any questions regarding any of the terms and conditions of the draft permit, please contact Emily Schnick at 651-757-2699 or by email at [emily.schnick@state.mn.us](mailto:emily.schnick@state.mn.us).

Sincerely,

A handwritten signature in black ink that reads 'Jeff Udd'.

*This document has been electronically signed.*

Jeff Udd, P.E.  
Supervisor, Water Quality Permits Unit  
Water Section  
Industrial Division

JU/ES:lmg

Enclosure: Final Permit





**National Pollutant Discharge Elimination System/State Disposal System**

**MN0052612**

**Permittee:** Duluth Seaway Port Authority  
**Facility name:** Erie Pier Processing & Reuse Facility  
**City or Township:** Duluth **County:** St. Louis  
**Issuance date:** February 1, 2018  
**Expiration date:** January 31, 2023

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to operate a disposal system at the facility named above in accordance with the requirements of this permit.

The goal of this permit is to reduce pollutant levels in point source discharges and protect water quality in accordance with the U.S. Clean Water Act, Minnesota statutes and rules, and federal laws and regulations.

This permit is effective on the issuance date identified above. This permit expires at midnight on the expiration date identified above.

*Signature:* 

*This document has been electronically signed.*

*for the Minnesota Pollution Control Agency*

Jeff Udd, P.E.  
Supervisor, Water Quality Permits Unit  
Water Section  
Industrial Division

**Submit eDMRs**

Submit via the MPCA e-Services at  
[https://rsp.pca.state.mn.us/TEMPO\\_RSP/Orchestrate.do?initiate=true](https://rsp.pca.state.mn.us/TEMPO_RSP/Orchestrate.do?initiate=true)

**Questions on this permit?**

For eDMR and other permit reporting issues, contact:  
Jennifer Satnik, 651-757-2692

**Submit other WQ reports to:**

Attention: WQ Submittals Center  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, MN 55155-4194

**For specific permit requirements, please refer to:**

Craig Weingart, 218-302-6650

**Wastewater Permit Program general questions, contact:**

MPCA, 651-282-6143 or 1-800-657-3938.

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## 1. Permitted facility description

The Erie Pier Processing & Reuse Facility facility (facility) is located at 1200 Port Terminal Dr, Duluth, Minnesota 55802-2609, St. Louis County.

Erie Pier has been used as a Confined Disposal Facility (CDF) since 1979. The Facility owner is the Duluth Seaway Port Authority (Permittee) and the City of Duluth is a co-sponsor with certain responsibilities after closure of the Facility (1978 Agreement on file). It was constructed and operated by the United States Army Corps of Engineer (USACE) as a place to dispose of dredge material from the federal navigable channel within the Duluth/Superior Harbor and also from private slips if approved by USACE. In recent years, the facility focus has not only been on disposal but also on beneficial reuse of dredge material. This permit defines the procedures and evaluations necessary for the beneficial reuse of dredge material and it also authorizes the disposal of dredge material at the site under the conditions described.

This is a non-discharging wastewater disposal system regulated by the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) through the water quality program of the Minnesota Pollution Control Agency. This permit does not authorize or otherwise regulate dredging activity. However, dredging activity is subject to the water quality standards specified in Minn. R. chs. 7050 and 7060. Surface water discharge, except storm water and incidental discharges as specified by this permit, is not authorized under the terms of this permit.

2. Location map of permitted facility

**Topographic Map of Permitted Facility**

MN0052612: Erie Pier Processing & Reuse Facility  
T49N, R14W, Section 8  
Duluth, St. Louis County, Minnesota



Map produced by: MPCA Staff, 12/7/2017  
Scale: 1:15,783,890

0 0.15 0.3 0.6 Miles

**Permit issued: February 1, 2018**  
**Permit expires: January 31, 2018**

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**3. Flow diagram**

There is no flow diagram to display.

4. Summary of stations and station locations

Station	Type of station	Local name	PLS location
WS 001	Solids to Land Disposal/Non-application	Dredge Material	T49N, R14W, S08, NE Quarter of the NE Quarter

5. Permit requirements

MN0052612	Erie Pier Processing & Reuse Facility	
		<b>Waste Stream Station General Requirements</b>
	5.1.1	Representative Samples. [Minn. R. 7001]
	5.1.2	Grab and composite samples shall be collected at a point representative of total influent flow to the system. [Minn. R. 7001]
		<b>Dredged Material Management</b>
	5.2.3	Authorization. [Minn. R. 7001]
	5.2.4	This permit authorizes the Permittee to store, dispose, and/or reuse dredged material in accordance with the provisions of this permit. [Minn. R. 7001]
	5.2.5	This permit authorizes the discharge of stormwater originating from the project site as delineated and described by the requirements of the Storage and/or Reuse of Dredged Material section of this chapter, as well as incidental discharges associated with re-handling, off-loading and/or transportation activities when managed in accordance with the Rehandling, Off-loading and Transportation of Dredged Material section of this chapter.  Other discharges of wastewater are not authorized by this permit. [Minn. R. 7001]
	5.2.6	This permit does not authorize or otherwise regulate dredging activity. However, dredging activity is subject to the water quality standards specified in Minnesota Rules chs. 7050 and 7060.  Receipt of dredge material shall not commence until all federal, state and/or local approvals that may be required for a particular project, including but not limited to state permits regulating activities in the bed of public waters as defined in Minn. Stat. sec. 105 from the Minnesota Department of Natural Resources (DNR), federal permits for dredged or fill material from the US Army Corps of Engineers (USACE), and local permits from the appropriate Soil and Water Conservation District, county or local unit of government (LUG). [Minn. R. 7050, Minn. R. 7060]
	5.2.7	The following activities are not authorized by this permit:  a. The discharge of wastewater or stormwater into waters of the state, except as provided by the Authorization section of this permit. b. The discharge of dredged material to surface water from the storage, disposal and/or reuse facility (Erie Pier).  c. Permit coverage at sites for which Environmental Assessment Worksheets or Environmental Impact Statements are required, in accordance with Minn. R. ch. 4410, until that environmental review is completed. d. The discharge of sewage, wash water, scrubber water, spills, oil, hazardous substances, or equipment/vehicle cleaning and maintenance wastewaters to ditches, wetlands nor other surface waters of the state. e. The routing of pollutants from the dredging activity or the dredged material storage, disposal, and/or reuse facility to a municipal wastewater treatment system in any manner unless authorized by the municipal authority (WLSSD). In the case of Erie Pier, the Western Lake Superior Sanitary District approved the discharge of up to 72,000 gallons per day provided there is no visual sign oil, grease, or other petroleum

		related products (see March 28, 2005 letter for details).
		f. The transport of pollutants to a municipal wastewater treatment system that will interfere with the operation of the treatment system or cause pass-through violations of effluent limits or water quality standards. [Minn. R. 7001]
	5.2.8	Compliance with the terms and conditions of this permit releases the Permittee from the requirement to obtain a separate permit for industrial activities at the storage, disposal and/or reuse site that would otherwise require the Permittee to obtain an industrial stormwater permit in accordance with the Clean Water Act and Agency rules, except where the use or reuse of dredged material is occurring at a location separate from other activity covered by this permit. The requirement to obtain a construction stormwater permit for land disturbing activities, where otherwise required, is not waived by this permit. Note that the requirement for a construction stormwater permit only applies to areas outside of the diked disposal area (where sediment is contained). [Minn. R. 7001]
	5.2.9	Re-handling, Off-Loading and Transportation of Dredged Material. [Minn. R. 7001]
	5.2.10	Dredged materials shall be managed in a manner so as to minimize the amount of material returned by spillage, erosion or other discharge to waters of the state during re-handling, off-loading and/or transportation activities. [Minn. R. 7001]
	5.2.11	Areas for the re-handling and/or off-loading of dredged material shall be sloped away from surface water, or otherwise designed to prevent runoff from the area. In cases where the topography of the project does not physically allow for a slope away from surface water, the Permittee shall otherwise manage the area to minimize the amount of material returned by spillage, erosion or other discharge to waters of the state. [Minn. R. 7001]
	5.2.12	Dredged material hauled on federal, state, or local highways, roads, or streets shall be hauled in such a way as to prevent dredged material from leaking, spilling, or otherwise being deposited in the right-of-way. Dredged material deposited on a public roadway shall be immediately removed and properly disposed. [Minn. R. 7001]
	5.2.13	The Permittee shall minimize vehicle tracking of soil or dredged material off-site at locations where vehicles exit the dredging, storage, disposal and/or reuse facility onto impervious surfaces by BMPs such as stone pads, concrete or steel wash racks, or equivalent systems. [Minn. R. 7001]
	5.2.14	Tracked soil and/or dredged material shall be removed from impervious surfaces that do not drain back to the dredged material storage, disposal and/or reuse facility within 24 hours of discovery, and placed in the storage, disposal and/or reuse facility site. [Minn. R. 7001]
	5.2.15	Storage, Disposal and/or Reuse of Dredged Material. [Minn. R. 7001]
	5.2.16	Authorization. Prior to the use of a site for the storage, disposal, and/or reuse of dredged material, the Permittee shall obtain written MPCA approval for such use. The Erie Pier site has been an MPCA-approved dredge disposal and storage site since its construction in 1979. [Minn. R. 7001]
	5.2.17	General. Any site used for the storage, disposal and/or reuse of a dredged material shall be operated and maintained by the Permittee to control and prevent runoff, including stormwater and snowmelt, from the facility to prevent the exceedance of water quality standards specified in Minnesota Rules, chs. 7053 and 7060. [Minn. R. 7001]
	5.2.18	The Permittee shall limit and control the use of materials at the facility that may cause exceedances of ground water standards specified in Minnesota Rules, ch. 7060. These materials include, but are not limited to, detergents and cleaning

		agents, solvents, chemical dust suppressants, lubricants, fuels, drilling fluids, oils, fertilizers, explosives and blasting agents. [Minn. R. 7001]
5.2.19		The Permittee may dispose of dredged material at a permitted solid waste landfill, through on-site disposal, or through reuse for a beneficial purpose, as follows:  a. Temporary storage and/or treatment of dredged material at the dredge project site. Temporary storage of dredged material is subject to the requirements of the Temporary Storage and/or Treatment of Dredged Material section of this chapter. b. Disposal of dredged material at the dredge project site. Disposal of dredged material is subject to the Disposal of Dredged Material section of this chapter. c. Reuse of dredged material for beneficial purposes. Reuse of dredged material is subject to the Beneficial Use of Re-Use of Dredged Material section of this chapter. [Minn. R. 7001]
5.2.20		A. Temporary Storage and/or Treatment of Dredged Material. [Minn. R. 7001]
5.2.21		All of the following requirements apply to the temporary storage and/or treatment of dredged material (at harbor location other than Erie Pier):  a. Temporary storage shall not exceed 1 year. Storage or accumulation of dredged material for more than 1 year constitutes disposal, and is subject to the disposal facility requirements of the Disposal of Dredged Material section of this chapter. b. The quantity of dredged material to be stored at the site shall not exceed the quantity of material authorized for disposal at the site, as specified by the Disposal of Dredged Material section of this chapter. c. Dredged materials shall be managed in a manner so as to minimize the amount of material returned by spillage, erosion or other discharge to waters of the state. Best management practices for the management of dredged materials are outlined in the MPCA fact sheet, "Best Management Practices for the Management of Dredged Material", (wq-qen2-02, 3/14). d. If dikes, berms or silt fences have been constructed to contain temporary stockpiles of dredged material, they shall not be removed until all material has been removed from the stockpile. [Minn. R. 7001]
5.2.22		B. Disposal of Dredged Material. [Minn. R. 7001]
5.2.23		Notification. Notification of a new or existing dredge disposal facility shall be to the MPCA for review and approval with permit application for modification. [Minn. R. 7001]
5.2.24		Disposal facilities shall be constructed/operated in accordance with local requirements, including the requirement to obtain a permit, license, or other governmental approval to initiate construction. [Minn. R. 7001]
5.2.25		Initial Site Plan (already completed for Erie Pier). An initial site plan shall be prepared and submitted for MPCA review and approval with permit application. The initial site plan shall consist of volume calculations for the final permitted capacity and a map of the facility. The map of the facility shall include the permitted boundaries, dimensions, site contours (at contour intervals of two feet or less), soil boring locations with surface elevations and present and planned pertinent features, including but not limited to roads, screening, buffer zone, fencing, gate, shelter and equipment buildings, and surface water diversion and drainage. The initial site plan shall be signed by a land surveyor registered in Minnesota or a professional engineer registered in Minnesota. [Minn. R. 7001]
5.2.26		Delineation and Identification of Permitted Waste Boundary. The perimeter or outer limit of a dredged material disposal facility shall be indicated by permanent signage. In addition, a permanent sign, identifying the operation and showing the permit

	number of the site, shall be posted at the dredged material disposal facility. [Minn. R. 7001]
5.2.27	Design Requirements. [Minn. R. 7001]
5.2.28	Design Capacity. The maximum quantity of dredged material authorized for disposal at the dredged material disposal facility (final permitted capacity) is limited to the volume of material contained by the permitted footprint of the facility and the maximum slope requirement of twenty percent unless otherwise approved. [Minn. R. 7001]
5.2.29	<p>The following design standards apply to a facility used for the disposal of dredged materials:</p> <p>a. An earthen containment dike, or other MPCA approved embankment and/or other sediment control measure(s), shall be established around the perimeter of the dredged material disposal facility (permitted waste boundary).</p> <p>b. Site preparation shall allow for orderly development of the site. Initial site preparations shall include clearing and grubbing, topsoil stripping and stockpiling, fill excavation, if appropriate, drainage control structures, and other design features necessary to construct and operate the facility.</p> <p>c. The site shall be developed in phases in accordance with a 'Operational Plan', as specified in this chapter, to achieve final fill elevations as rapidly as possible. The design of each phase shall take into account weather conditions, site drainage, and the waste flow pattern into the site.</p> <p>d. Surface water runoff shall be diverted around dredged materials disposal facilities to prevent erosion, and protect the structural integrity of exterior embankments from failure.</p> <p>e. Slopes and drainageways shall be designed to prevent erosion. Slopes longer than 200 feet shall be interrupted with drainageways.</p> <p>f. Final slopes for the fill area shall be a minimum two percent and a maximum 20 percent, and shall be consistent with the planned ultimate use for the site.</p> <p>g. Final cover shall consist of at least 18 inches of soil with the top 12 inches capable of sustaining vegetative growth.</p> <p>h. For a system that will impound water (e.g. hydraulic dredging) with a constructed dike over 6 feet in height, or that impound more than 15 acre-feet of water, the system is subject to Minn. R. parts 6115.0300 through 6115.0520 [state Dam Safety Program]. Contact state Dam Safety Program staff at (651) 296-0521 for more information. [Minn. R. 7001]</p>
5.2.30	<p>Site Stabilization. The Permittee shall stabilize the dredged material disposal facility before any disposal in the facility is allowed, as follows:</p> <p>a. The exterior slope of all permanent dikes or berms shall be no steeper than 3 to 1 (horizontal to vertical). The exterior slopes of all permanent dikes or berms shall be seeded and a soil fixative (e.g. mulch, blanket) applied within 72 hours of the completion of any grading work on the slopes.</p> <p>b. If grading work is completed too late in the growing season to seed or plant the desired species, then the Permittee shall propagate an annual cover crop that can be dormant seeded or planted and shall apply a soil fixative to the site. At the very minimum, the Permittee shall apply a soil fixative to the exterior slopes of all permanent dikes or berms prior to the first snowfall.</p> <p>c. Silt fences, if used, shall be properly installed. The silt fences shall be tall enough and installed at a sufficient distance from the base of the permanent dikes/berms or temporary stockpiles to create a reasonable secondary containment area. [Minn. R.</p>

		7001]
	5.2.31	Operational Plan. An Operational Plan of the site and immediately adjacent area shall be developed and implemented, and shall show progressive development of trench and/or area fills and any phase construction. The scale of the development plan shall not be greater than 200 feet per inch. The existing Erie Pier Management Plan covers this requirement. [Minn. R. 7001]
	5.2.32	Facilities for the disposal of dredged material shall be designed by a professional engineer registered in the state of Minnesota, and in accordance with the criteria in this chapter. The Permittee shall construct the facility in accordance with these design plans and specifications under the direct supervision of a professional engineer registered in the state of Minnesota. [Minn. R. 7001]
	5.2.33	Certification Required. Prior to use of a facility for the disposal of dredged material under this part, the Permittee shall obtain and submit written certification from an engineer licensed in Minnesota stating that the disposal facility meets the requirements in this chapter, and has been constructed in accordance with the design plans and specifications. [Minn. R. 7001]
	5.2.34	Site Management, Limitations, and Restrictions for Disposal Facilities. [Minn. R. 7001]
	5.2.35	<p>New or Expanded Facilities. All of the following requirements apply to the construction of new or expanded facilities used for the disposal of dredged material:</p> <ul style="list-style-type: none"> <li>a. The Permittee shall plan for and implement construction practices that minimize erosion and maintain dike integrity.</li> <li>b. Erosion control measures shall be established on all downgradient perimeters prior to the initiation of any upgradient land-disturbing construction activities.</li> <li>c. Surface runoff shall be directed around and away from the storage and/or disposal facility site, until the site is stabilized, usually by assuring that vegetative cover is well-established.</li> <li>d. Sediment control practices shall be designed and implemented to minimize sediment from entering surface waters. The timing of the installation of sediment control practices may be adjusted to accommodate short-term activities such as equipment access. Any short-term activity shall be completed as quickly as possible and the sediment control practices shall be installed immediately after the activity is completed. However, sediment control practices shall be installed before the next precipitation event even if the activity is not complete.</li> <li>e. All erosion and sediment control measures shall remain in place until final stabilization has been established. Permanent cover or final stabilization methods are used to prevent erosion, such as the placement of rip rap, sodding, or permanent seeding or planting. Permanent seeding and planting shall have a uniform perennial vegetation cover of at least 70 percent density to constitute final stabilization.</li> <li>f. The facility shall be stabilized, as specified in this chapter, before any disposal in the facility is allowed. [Minn. R. 7001]</li> </ul>
	5.2.36	<p>Management of Disposal Facilities. The following standards apply to a facility used for the disposal of dredged material:</p> <ul style="list-style-type: none"> <li>a. A permanent benchmark shall be installed on-site and show its location on the facility as-built plan.</li> <li>b. Run-on and run-off of stormwater shall be controlled. The owner or operator shall implement management practices designed to control run-on and run-off of stormwater from the disposal facility.</li> <li>c. Vegetative cover shall be established within 120 days of reaching the final</li> </ul>

	permitted capacity of the dredged material disposal facility, or within 120 days of the inactivation or completion of a phase of the facility thereof. d. If the disposal facility contains any particulate matter that may be subject to wind dispersion, the owner or operator shall manage the dredged material to control wind dispersion. e. Nuisance conditions resulting from the disposal of dredged material shall be controlled and managed by the facility owner or operator. f. Final closure of a dredged material disposal facility shall be completed in accordance with this chapter, and requires MPCA approval. [Minn. R. 7001]
5.2.37	Inspection and Maintenance. [Minn. R. 7001]
5.2.38	The Permittee shall operate and maintain the integrity of the dike system, embankment and/or other erosion control equipment in compliance with the design requirements of this chapter at all times. [Minn. R. 7001]
5.2.39	Periodic Site Inspections. The Permittee shall inspect the disposal facility to ensure integrity of the erosion control measures, system stability and dredged material containment. At a minimum, the facility shall be inspected:  a. prior to the initial placement of any dredged material in the facility; and, b. at least once per month if a is not occurring. [Minn. R. 7001]
5.2.40	Recordkeeping. The Permittee shall record the date of each inspection, any problem identified with the facility, and the action(s) taken to correct any identified problem. The Permittee shall keep these inspection records on site and available to MPCA staff upon request. [Minn. R. 7001]
5.2.41	Nonfunctioning erosion and sediment control measures shall be repaired, replaced or supplemented with functioning erosion and/or sediment control measures. This repair shall be initiated within three days of discovery. [Minn. R. 7001]
5.2.42	Where dredging and disposal have been suspended due to frozen ground conditions, the inspections and maintenance shall begin as soon as weather conditions warrant, or prior to resuming dredged material placement in the disposal facility, whichever occurs first. [Minn. R. 7001]
5.2.43	The Permittee shall continue inspections required by this part until final closure of the site has been completed as specified in this chapter. [Minn. R. 7001]
5.2.44	Sediment Removal and Disposal. [Minn. R. 7001]
5.2.45	Dredged material shall be removed from disposal facilities in a manner so as to not damage the integrity and effectiveness of the containment structure or area. [Minn. R. 7001]
5.2.46	Dredged material removed from a storage, disposal, and/or reuse facility shall be managed in accordance with of this chapter. [Minn. R. 7001]
5.2.47	Recordkeeping. The Permittee shall record the dates, the volume of dredged material removed from the disposal facility, and the method and location of the disposition (disposal or reuse) of such materials. This information shall be submitted with the annual 'Dredged Material Report', as specified in the 'Annual Report' part of this chapter. [Minn. R. 7001]
5.2.48	Closure and Post-Closure Requirements. [Minn. R. 7001]
5.2.49	The Permittee shall cease to dispose of dredged materials and immediately close the dredged material disposal facility when:  a. the Permittee declares the dredged material disposal facility closed; b. all fill areas reach final permitted capacity, as specified by this permit; c. an agency permit held by the facility expires, and renewal of the permit is not applied for, or is applied for and denied;

		d. an agency permit for the facility is revoked; and/or, e. an agency order to cease operations is issued. [Minn. R. 7001]
5.2.50		Closure Plan. The Permittee shall prepare and submit a 'Closure Plan' for the final closure of a dredged material disposal facility for MPCA review and approval with permit application. [Minn. R. 7001]
5.2.51		If repairs are necessary as a result of the professional engineer's inspection, a detailed proposal for restoration shall be submitted to the Agency for review within 180 days of discovery, and at least 60 days prior to initiation of restoration work. [Minn. R. 7001]
5.2.52		A copy of the approved 'Closure Plan' and all revisions to the plan shall be kept at the facility until closure is completed and certified in accordance with this chapter. At the time of closure, the Agency will issue a closure document in accordance with Minn. R. part 7001.3055. [Minn. R. 7001]
5.2.53		Amendment of Plan. The Permittee may amend the 'Closure Plan' (plan) any time during the life of the facility. The Permittee shall amend the plan whenever changes in the operating plan or facility design affect the closure procedures needed, and whenever the expected year of closure changes. Required amendments shall be completed within 60 days of any change or event that affects the closure plan. [Minn. R. 7001]
5.2.54		Notification of Final Facility Closure. The Permittee shall notify the MPCA at least 90 days before final facility closure activities are to begin, except if the permit for the facility has been revoked. [Minn. R. 7001]
5.2.55		Closure Performance Standard. The Permittee shall close the dredged material disposal facility in a manner that eliminates, minimizes, or controls the escape of pollutants to ground water or surface waters, to soils, or to the atmosphere during the post closure period. [Minn. R. 7001]
5.2.56		Completion of Closure Activities. Within 30 days after receiving the last shipment of dredged material for disposal, the Permittee shall begin the final closure activities outlined in the approved 'Closure Plan' for the dredged material disposal facility. Closure activities shall be completed according to the approved 'Closure Plan'. The MPCA may approve a longer period if the owner or operator demonstrates that the closure activities will take longer due to adverse weather or other factors not in the control of the Permittee. [Minn. R. 7001]
5.2.57		Closure Procedures. If one or more of the conditions of the Closure and Post-Closure Requirements section of this chapter exists, the Permittee shall:  a. Complete the appropriate activities outlined in the approved 'Closure Plan'. b. Complete final closure activities consisting of submitting to the county recorder and the MPCA a detailed description of the waste types accepted at the facility and what the facility was used for, together with a survey plat of the site. The plat shall be prepared and certified by a land surveyor registered in Minnesota. The landowner shall record a notation on the deed to the property or on some other instrument normally examined during a title search, that will in perpetuity notify any potential purchaser of the property of any special conditions or limitations for use of the site, as set out in the 'Closure Plan' and closure document. [Minn. R. 7001]
5.2.58		Certification of Closure. When final facility closure is completed, the Permittee shall submit to the commissioner certification by the Permittee and an engineer registered in Minnesota that the facility has been closed in accordance with this chapter.  The certification shall contain the following elements:

		<p>a. a completed and signed 'Site Closure Record';                  b. documentation of closure, such as pictures, showing the construction techniques used during closure; and,                  c. a copy of the notation carrying the recorder's seal which has been filed with the county recorder. [Minn. R. 7001]</p>
5.2.59		<p>Post-Closure Care. After final closure, the Permittee shall comply with the following requirements:</p> <p>a. restrict access to the facility by use of gates, fencing, or other means to prevent further disposal at the site, unless the site's final use allows access;                  b. maintain the integrity and effectiveness of the final cover, including making repairs to the final cover system as necessary to correct the effects of settling, subsidence, gas and leachate migration, erosion, root penetration, burrowing animals, or other events;                  c. prevent run-on and run-off from eroding or otherwise damaging the final cover;                  d. protect and maintain surveyed benchmarks used in complying with the Site Management, Limitation, and Restrictions: Management of Disposal Facilities section of this chapter; and,                  e. complete corrective action necessary to meet the requirements of the Site Management, Limitations, and Restrictions: Management of Disposal Facilities section of this chapter within 30 days of discovery. [Minn. R. 7001]</p>
5.2.60		<p>C. Beneficial Use or Re-Use of Dredged Material. [Minn. R. 7001]</p>
5.2.61		<p>Prior to the use or reuse of a dredged material, the Permittee shall determine the appropriate "suitable reuse category" of the dredged material to be used or reused, as described below. [Minn. R. 7001]</p>
5.2.62		<p>Suitable Reuse Categories. The suitable reuse category of a dredged material is based on the analyzed characteristics of the dredged material and appropriately applied Soil Reference Values (SRVs), which are listed in Table 1 in the Appendices section of this permit.</p> <p>For the purposes of this permit, dredged material intended for the beneficial use or reuse is categorized into three tiers: Level 1, Level 2, and Level 3.</p> <p>a. Level 1 material is authorized to be used or reused at/on sites with a residential or recreational property use category. Level 1 material is characterized by:</p> <p>i. a contaminant level that is at or below all respective analyte concentrations listed in the Residential SRV column for any contaminant that can be reasonably expected to be present in the dredged material; or,                  ii. having more than 93% sand, as demonstrated by the grain size analysis described by the Sampling and Analysis section of this chapter and available laboratory analysis does not show contamination above Level 1 concentrations.</p> <p>b. Level 2 material is authorized to be used or reused on/at sites with an industrial use category. Level 2 material is characterized by a contaminant level that is at or below all respective analyte concentrations listed in the Industrial SRV column for any contaminant that can be reasonably expected to be present in the dredged material.</p> <p>c. Level 3 material is NOT authorized to be used, reused or placed in permanent disposal at the facility under this permit. Level 3 material is characterized by a contaminant level that is greater than any respective analyte concentrations listed in the Industrial SRV column for any contaminant that can be reasonably expected to</p>

		be present in the dredged material. [Minn. R. 7001]
	5.2.63	The use or reuse of dredged material as beach nourishment is not authorized by this permit. [Minn. R. 7001]
	5.2.64	Storage Prior to Reuse. Storage of dredged material prior to reuse or use is subject to the temporary storage or disposal requirements of this chapter, as applicable. [Minn. R. 7001]
	5.2.65	Sampling and Analyses. [Minn. R. 7001]
	5.2.66	Timing of sediment evaluation. Dredged material shall be evaluated for pollutant contamination prior to removal of sediment, and in accordance with the terms and conditions of this permit. Evaluation need not be repeated prior to final disposition, except in the case where co-mingling with other material has occurred at the treatment, storage, disposal and/or reuse site, and/or if additional analysis is specified by the MPCA. [Minn. R. 7001]
	5.2.67	Sampling location. Sample locations shall properly characterize the dredged sediment. [Minn. R. 7001]
	5.2.68	Number of samples. Except for sieve grain size analysis, refer to Table 3 of Appendix 1 to this permit to determine the minimum number of samples required for sediment evaluation. Analysis shall be conducted on samples that are representative of, and in consideration of the dredged material and surrounding current and historical activities at the project site. In some cases, the minimum number of samples indicated on Table 3 will not be adequate to obtain representative samples, and additional analysis may be required. For samples demonstrating sediment composition equal to or greater than 93% sand, as evidenced by the analyte results for "Particle Size .05-2.0 mm Sand, Dry Weight", analysis of remaining analytes in Table 1 of the Appendix is not required. [Minn. R. 7001]
	5.2.69	Based on the evaluation of historical land uses and the reasonable likelihood for pollutants in the sediment to be dredged, analysis of analytes beyond the baseline analytes (Table 1 of the Appendix) may be required. These additional analytes are listed in Table 2 of the Appendix. [Minn. R. 7001]
	5.2.70	All of the following apply to sediment sampling at dredge project sites:  a. Samples shall be managed in accordance with ASTM E1391-03 Standard Guide for Collection, Storage, Characterization, and Manipulation of Sediments for Toxicological Testing and for Selection of Samplers Used to Collect Benthic Invertebrates. b. All samples shall be taken with a core sampler, or another MPCA approved method such as composite grab samples. c. All sampling equipment shall be properly cleaned prior to and following each sample collection. d. Samples collected for PCB, pesticide and other organic analyses shall be collected and processed using metallic (stainless steel preferred) liners, tubs, spoons and spatulas. Samples collected for other chemical analysis, including heavy metals, shall be collected and processed using non-metallic liners, tubs, spoons and spatulas. e. Samples from the dredging site shall be taken to the proposed dredging depth plus 2 feet, and shall be analyzed from each distinct layer observed in the material to be dredged. If no strata formation exists, core samples shall be divided into 2-foot segments, and each segment shall be analyzed for the required chemicals and characteristics. For cores extending into parent material, analysis of only the top 2-foot segment of parent material is required. f. Samples shall be visually inspected for the existence of strata formation, and a written description including position, length, odor, texture and color of the strata

		shall be provided to the Agency. [Minn. R. 7001]
5.2.71		<p>Grain Size Analysis. To demonstrate that dredged material from a given project or site is predominantly sand, and is therefore unlikely to be contaminated, 93% of the dredged material shall be coarser than silt. To make this determination, the following procedure shall be used:</p> <p>a. Conduct a sieve grain analysis using ASTM Method C-136 for the gradation analysis and ASTM Method D-2487 for classification.</p> <p>b. Determine the minimum number of samples required using Table 3 in the Appendices section of this permit, based on the total amount of material to be dredged.</p> <p>c. Conduct the analysis using the following US Standard sieves: 1", 1/2", 3/8", #4, #10, #100 and #200.</p> <p>d. Report the results for each of the discrete sample locations as a mass percentage of retained sediments. [Minn. R. 7001]</p>
5.2.72		Annual Report. [Minn. R. 7001]
5.2.73		The Permittee shall submit an annual dredged material report : Due by February 1 of each year following permit issuance, for the preceding calendar year on the form provided by the MPCA, or another MPCA approved form. [Minn. R. 7001]
5.2.74		The Permittee shall provide this report even if no dredging occurred during the preceding calendar year. [Minn. R. 7001]
5.2.75		<p>The annual 'Dredged Material Report' shall be on a form provided by the MPCA, or another MPCA approved form, and shall include the following elements:</p> <p>a. Dates of dredging;</p> <p>b. Volume of material placed into storage or disposal facility;</p> <p>c. Any incidents, such as spills, unauthorized discharge and/or other permit violations which may have occurred;</p> <p>d. Such information as the MPCA may reasonably require of the Permittee pursuant to Minn. R. 7001 and Minn. Stat. chap. 115 and 116 as amended;</p> <p>e. For disposal facilities, the dates of 'Periodic Site Inspections' required by this chapter, and the status of erosion control measures at the disposal facility;</p> <p>f. For disposal facilities, the dates, the volume of dredged material removed from the disposal facility, and the method and location of the disposition (disposal or reuse) of such materials.</p> <p>g. For facilities that used or reused dredged material during the previous calendar year, the following information shall also be provided:</p> <p>i. A written description of the use or reuse of the dredged material;</p> <p>ii. A written determination of the use category and appropriate Soil Reference Values (SRVs), as described by this chapter; and,</p> <p>iii. The results of an evaluation of the level of contaminants in the dredged material proposed for reuse for the respective SRVs, as described in this chapter. [Minn. R. 7001]</p>
5.2.76		Where a spill, unauthorized discharge and/or other violation occurred during the previous calendar year, a copy of the report generated or information submitted in accordance with the 'Total Facility Requirements' chapter shall be included in the annual 'Dredged Material Report'. [Minn. R. 7001]
5.2.77		Definitions. [Minn. R. 7001]
5.2.78		"Agency" means the Minnesota Pollution Control Agency (MPCA). [State Definitions]
5.2.79		"Beach Nourishment" means the disposal of dredged material on the beaches or in the water starting at or above the Ordinary High Water Level (OHWL) for the

		purpose of adding to, replenishing, or preventing the erosion of, beach material. [State Definitions]
	5.2.80	"Beneficial Re-use" means the re-use of dredged material, after the material has been dewatered, in projects such as, but not limited to: road base, building base or pad, etc. [State Definitions]
	5.2.81	"Best Management Practices" (BMPs) means practices to prevent or reduce pollution of the waters of the state, including schedules of activities, prohibitions of practices, and other management practices and also includes treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge, or waste disposal or drainage from material storage, as defined in Minnesota Rules pt. 7001.1020, subp.5. [State Definitions]
	5.2.82	"Carriage, or Conveyance, Water" means the water portion of a slurry of water and dredged material. [State Definitions]
	5.2.83	"Carriage Water Return Flow" means the carriage water which is returned to a receiving water after separation of the dredged material from the carriage water in a disposal, re-handling or treatment facility. [State Definitions]
	5.2.84	"Construction Activity" means a disturbance to the land that results in a change in the topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography that may result in accelerated stormwater runoff, leading to soil erosion and movement of sediment into waters of the state. Examples can include clearing, grading, filling and excavating. [State Definitions]
	5.2.85	"Design capacity" means the total volume of compacted dredged materials, along with any topsoil, intermittent, intermediate, and/or final cover, as calculated from final contour and cross-sectional plan sheets that define the areal and vertical extent of the fill area. [State Definitions]
	5.2.86	"Discharges of Dredged Material" means any addition of dredged material into waters of the state and includes discharges of water from dredged material disposal operations including beach nourishment, upland, or confined disposal which return to waters of state. Material re-suspended during normal dredging operations is considered "de minimis" and is not a dredged material discharge. [State Definitions]
	5.2.87	"Disposal Facility" means a structure, site or area for the disposal of dredged material. [State Definitions]
	5.2.88	"Dredged Material" means any material removed from the bed of any waterway by dredging. [State Definitions]
	5.2.89	"Dredging" means any part of the process of the removal of material from the beds of waterways; transport of the material to a disposal, re-handling or treatment facility; treatment of the material; discharge of carriage or interstitial water; and disposal of the material. [State Definitions]
	5.2.90	"Erosion Control" means methods employed to prevent erosion. Examples include: soil stabilization practices, horizontal slope grading, temporary or permanent cover, and construction phasing. (look for SW definition). [State Definitions]
	5.2.91	"Final Stabilization" means that all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover (a density of 70 percent cover for unpaved areas and areas not covered by permanent structures) has been established or equivalent permanent stabilization measures have been employed. Examples of vegetative cover practices can be found in Supplemental Specifications to the 1988 Standard Specifications for Construction (Minnesota Department of Transportation, 1991). [State Definitions]
	5.2.92	"Flood Event" means that the surface elevation of a waterbody has risen to a level that causes the inundation or submersion of areas normally above the Ordinary High Water Level. [State Definitions]

5.2.93	"Grain Size Analysis" means a method to determine dredged material and disposal site sediment particle size distribution. [State Definitions]
5.2.94	"Hazardous Waste" has the meaning given in Minn. Stat. section 116.06, subd. 11. [State Definitions]
5.2.95	"Impervious Surface" means a constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to development. Examples include: rooftops, sidewalks, patios, driveways, parking lots, storage areas, and concrete, asphalt, or gravel roads. [State Definitions]
5.2.96	"Impoundment" means a natural or artificial body of water or sludge confined by a dam, dike, floodgate, or other barrier. [State Definitions]
5.2.97	"Interstitial, or Pore, Water" means water contained in the interstices or voids of soil or rock in the dredged material. [State Definitions]
5.2.98	"MPCA" means the Minnesota Pollution Control Agency, or Minnesota Pollution Control Agency staff as delegated by the Minnesota Pollution Control Agency. [State Definitions]
5.2.99	"Ordinary High-Water Level (OHWL)" means the boundary of water basins, watercourses, public waters, and public waters wetlands, and shall be an elevation delineating the highest water level which has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. For watercourses, the ordinary high water level is the elevation of the top of the bank of the channel. For reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool. (Minn. Stat. chap. 103G.005 Subd. 14 and MN Rule 6120.2500 Subp. 11.). [State Definitions]
5.2.100	"Permittee" means the entity identified as Permittee on the cover letter authorizing coverage under this permit. [State Definitions]
5.2.101	"Pollutant" means any sewage, industrial waste, or other wastes, as defined in Minnesota Statutes permit 115.01, discharged into a disposal system or to waters of the state. [State Definitions]
5.2.102	"Re-handling Facility" means a temporary storage site or facility used during the transportation of dredged material to a treatment or disposal facility. [State Definitions]
5.2.103	"Run-off" means any liquid that drains over land from any part of a facility. [State Definitions]
5.2.104	"Run-on" means any liquid that drains over land onto any part of a facility. [State Definitions]
5.2.105	"Sediment" means the unconsolidated inorganic and organic material that is suspended in and being transported by surface water, or has settled out and has deposited into beds. [State Definitions]
5.2.106	"Significant Storm Event" means a storm event that is greater than 1.0 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 1.0 inch rainfall) storm event. The 72-hour storm event interval may be waived where:  a. the preceding measurable storm event did not result in a measurable discharge from the facility; or, b. the Permittee documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted. [State Definitions]
5.2.107	"Stabilized" means staked sod, riprap, wood fiber blanket, or other material that

		prevents erosion from occurring has covered the exposed ground surface. Grass seed is not stabilization. [State Definitions]
	5.2.108	"Storage Facility" means a structure, site or area for the holding of dredged material for more than 48 hours in quantities equal to or greater than ten cubic yards. Storage for more than 1 year constitutes disposal. [State Definitions]
	5.2.109	"Treatment Facility" in this permit means a natural or artificial confinement structure, site or area used for the separation of dredged material solids from the interstitial or carriage water. [State Definitions]
	5.2.110	"Unconfined Disposal" means the deposition of dredged material, in water, on the bed of a waterway. [State Definitions]
	5.2.111	"Upland Disposal" means the disposal of dredged materials landward from the ordinary high-water level of a waterway or waterbody. [State Definitions]
	5.2.112	"Waters of the State" means all streams, lakes, ponds, marshes, wetlands, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof. [State Definitions]
	5.2.113	"Water table" means the surface of the ground water at which the pressure is atmospheric. Generally this is the top of the saturated zone. [State Definitions]
	5.2.114	"Wetlands" means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Constructed wetlands designed for wastewater treatment are not waters of the state. Wetlands shall have the following attributes:  a. a predominance of hydric soils; b. inundated or saturated by surface water or groundwater at a frequency and duration to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition; and, c. under normal circumstances support a prevalence of such vegetation. [State Definitions]
		<b>Total Facility Requirements (NPDES/SDS)</b>
	5.3.115	Definitions. Refer to the 'Permit Users Manual' found on the MPCA website ( <a href="http://www.pca.state.mn.us">www.pca.state.mn.us</a> ) for standard definitions. [Minn. R. 7001. ]
	5.3.116	Incorporation by Reference. The following applicable federal and state laws are incorporated by reference in this permit, are applicable to the Permittee, and are enforceable parts of this permit: 40 CFR pts. 122.41, 122.42, 136, 403 and 503; Minn. R. pts. 7001, 7041, 7045, 7050, 7052, 7053, 7060, and 7080; and Minn. Stat. ch. 115 and 116. [Minn. R. 7001]
	5.3.117	Permittee Responsibility. The Permittee shall perform the actions or conduct the activity authorized by the permit in compliance with the conditions of the permit and, if required, in accordance with the plans and specifications approved by the Agency. [Minn. R. 7001.0150, subp. 3(E)]
	5.3.118	Toxic Discharges Prohibited. Whether or not this permit includes effluent limitations for toxic pollutants, the Permittee shall not discharge a toxic pollutant except according to Code of Federal Regulations, Title 40, sections 400 to 460 and Minnesota Rules 7050, 7052, 7053 and any other applicable MPCA rules. [Minn. R. 7001.1090, subp. 1(A)]
	5.3.119	Nuisance Conditions Prohibited. The Permittee's discharge shall not cause any

	nuisance conditions including, but not limited to: floating solids, scum and visible oil film, acutely toxic conditions to aquatic life, or other adverse impact on the receiving water. [Minn. R. 7050.0210, subp. 2]
5.3.120	Property Rights. This permit does not convey a property right or an exclusive privilege. [Minn. R. 7001.0150, subp. 3(C)]
5.3.121	Liability Exemption. In issuing this permit, the state and the MPCA assume no responsibility for damage to persons, property, or the environment caused by the activities of the Permittee in the conduct of its actions, including those activities authorized, directed, or undertaken under this permit. To the extent the state and the MPCA may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act. [Minn. R. 7001.0150, subp. 3(O)]
5.3.122	The MPCA's issuance of this permit does not obligate the MPCA to enforce local laws, rules, or plans beyond what is authorized by Minnesota Statutes. [Minn. R. 7001.0150, subp. 3(D)]
5.3.123	Liabilities. The MPCA's issuance of this permit does not release the Permittee from any liability, penalty or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. [Minn. R. 7001.0150, subp. 3(A)]
5.3.124	The issuance of this permit does not prevent the future adoption by the MPCA of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the Permittee. [Minn. R. 7001.0150, subp. 3(B)]
5.3.125	Severability. The provisions of this permit are severable and, if any provisions of this permit or the application of any provision of this permit to any circumstance are held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. [Minn. R. 7001]
5.3.126	Compliance with Other Rules and Statutes. The Permittee shall comply with all applicable air quality, solid waste, and hazardous waste statutes and rules in the operation and maintenance of the facility. [Minn. R. 7001]
5.3.127	Inspection and Entry. When authorized by Minn. Stat. ch. 115.04; 115B.17, subd. 4; and 116.091, and upon presentation of proper credentials, the agency, or an authorized employee or agent of the agency, shall be allowed by the Permittee to enter at reasonable times upon the property of the Permittee to examine and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit; and to conduct surveys and investigations, including sampling or monitoring, pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit. [Minn. R. 7001.0150, subp. 3(I)]
5.3.128	Control Users. The Permittee shall regulate the users of its wastewater treatment facility so as to prevent the introduction of pollutants or materials that may result in the inhibition or disruption of the conveyance system, treatment facility or processes, or disposal system that would contribute to the violation of the conditions of this permit or any federal, state or local law or regulation. [Minn. R. 7001.0150, subp. 3(F)]
5.3.129	Sampling. [Minn. R. 7001]
5.3.130	Representative Sampling. Samples and measurements required by this permit shall be conducted as specified in this permit and shall be representative of the discharge or monitored activity. [40 CFR 122.41(j)(1)]
5.3.131	Additional Sampling. If the Permittee monitors more frequently than required, the results and the frequency of monitoring shall be reported on the Discharge

		Monitoring Report (DMR) or another MPCA-approved form for that reporting period. [Minn. R. 7001.1090, subp. 1(E)]
5.3.132		Certified Laboratory. A laboratory certified by the Minnesota Department of Health and/or registered by the MPCA shall conduct analyses required by this permit. Analyses of dissolved oxygen, pH, temperature, specific conductance, and total residual oxidants (chlorine, bromine) do not need to be completed by a certified laboratory but shall comply with manufacturers specifications for equipment calibration and use. [Minn. R. 4740.2010, Minn. R. 4740.2050 through 2120]
5.3.133		Sample Preservation and Procedure. Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and Minn. R. 7041.3200. [40 CFR 136, Minn. R. 7041.3200]
5.3.134		Equipment Calibration: Flow meters, pumps, flumes, lift stations or other flow monitoring equipment used for purposes of determining compliance with permit shall be checked and/or calibrated for accuracy at least twice annually. [Minn. R. 7001.0150, 2(B and C)]
5.3.135		Maintain Records. The Permittee shall keep the records required by this permit for at least three years, including any calculations, original recordings from automatic monitoring instruments, and laboratory sheets. The Permittee shall extend these record retention periods upon request of the MPCA. The Permittee shall maintain records for each sample and measurement. The records shall include the following information:  a. the exact place, date, and time of the sample or measurement; b. the date of analysis; c. the name of the person who performed the sample collection, measurement, analysis, or calculation; d. the analytical techniques, procedures and methods used; and e. the results of the analysis. [Minn. R. 7001.0150, 2(C)]
5.3.136		Completing Reports. The Permittee shall submit the results of the required sampling and monitoring activities on the forms provided, specified, or approved by the MPCA. The information shall be recorded in the specified areas on those forms and in the units specified.  Required forms may include DMR Supplemental/Sample Value Form Individual values for each sample and measurement shall be recorded on the DMR Supplemental/Sample Value Form which, if required, will be provided by the MPCA. DMR Supplemental/Sample Value Forms shall be submitted with the appropriate DMRs. You may design and use your own supplemental form; however it shall be approved by the MPCA. Note: Required summary information shall also be recorded on the DMR. Summary information that is submitted ONLY on the DMR Supplemental/Sample Value Form does not comply with the reporting requirements. [Minn. R. 7001.1090, 1(D), Minn. R. 7001.150, 2(B)]
5.3.137		Submitting Reports. DMRs, DMR supplemental forms and related attachments must be electronically submitted via the MPCA Online Services Portal after authorization is approved.  DMRs and DMR Supplemental Forms shall be electronically submitted by the 21st day of the month following the sampling period or as otherwise specified in this permit. Electronic DMR submittal shall be complete on or before 11:59 PM of the 21st day of the month following the sampling period or as otherwise specified in this permit. A DMR shall be submitted for each required station even if no discharge

	<p>occurred during the reporting period.</p> <p>Other reports required by this permit shall be postmarked by the date specified in the permit to: MPCA, Attn: WQ Submittals Center, 520 Lafayette Road North, St Paul Minnesota 551554194. [Minn. R. 7001..0150, Subp. 2(B), Minn. R. 7001..0150, Subp. 3(H)]</p>
5.3.138	<p>Incomplete or Incorrect Reports. The Permittee shall immediately submit an electronically amended report or DMR to the MPCA upon discovery by the Permittee or notification by the MPCA that it has submitted an incomplete or incorrect report or DMR. The amended report or DMR shall contain the missing or corrected data along with a cover letter explaining the circumstances of the incomplete or incorrect report. If it is impossible to electronically amend the report or DMR, the Permittee shall immediately notify the MPCA and the MPCA will provide direction for the amendment submittals. [Minn. R. 7001.0150, 3(G)]</p>
5.3.139	<p>Required Signatures. All DMRs, forms, reports, and other documents submitted to the MPCA shall be signed by the Permittee or the duly authorized representative of the Permittee. Minn. R. 7001.0150, subp. 2, item D. The person or persons that sign the DMRs, forms, reports or other documents shall certify that he or she understands and complies with the certification requirements of Minn. R. 7001.0070 and 7001.0540, including the penalties for submitting false information. Technical documents, such as design drawings and specifications and engineering studies required to be submitted as part of a permit application or by permit conditions, shall be certified by a registered professional engineer. [Minn. R. 7001.0540]</p>
5.3.140	<p>Detection Level. The Permittee shall report monitoring results below the reporting limit (RL) of a particular instrument as "&lt;" the value of the RL. For example, if an instrument has a RL of 0.1 mg/L and a parameter is not detected at a value of 0.1 mg/L or greater, the concentration shall be reported as "&lt;0.1 mg/L." "Non-detected," "undetected," "below detection limit," and "zero" are unacceptable reporting results, and are permit reporting violations.</p> <p>Where sample values are less than the level of detection and the permit requires reporting of an average, the Permittee shall calculate the average as follows:</p> <ol style="list-style-type: none"> <li>a. If one or more values are greater than the level of detection, substitute zero for all nondetectable values to use in the average calculation.</li> <li>b. If all values are below the level of detection, report the averages as "&lt;" the corresponding level of detection.</li> <li>c. Where one or more sample values are less than the level of detection, and the permit requires reporting of a mass, usually expressed as kg/day, the Permittee shall substitute zero for all nondetectable values. [Minn. R. 7001.0150, 2(B)]</li> </ol>
5.3.141	<p>Records. The Permittee shall, when requested by the Agency, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. [Minn. R. 7001.0150, 3(H)]</p>
5.3.142	<p>Confidential Information. Except for data determined to be confidential according to Minn. Stat. ch. 116.075, subd. 2, all reports required by this permit shall be available for public inspection. Effluent data shall not be considered confidential. To request the Agency maintain data as confidential, the Permittee shall follow Minn. R. 7000.1300. [Minn. R. 7000.1300]</p>
5.3.143	<p>Noncompliance and Enforcement. [Minn. R. 7001]</p>

5.3.144	Subject to Enforcement Action and Penalties. Noncompliance with a term or condition of this permit subjects the Permittee to penalties provided by federal and state law set forth in section 309 of the Clean Water Act; United States Code, title 33, section 1319, as amended; and in Minn. Stat. ch. 115.071 and 116.072, including monetary penalties, imprisonment, or both. [Minn. R. 7001.1090, 1(B)]
5.3.145	Criminal Activity. The Permittee may not knowingly make a false statement, representation, or certification in a record or other document submitted to the Agency. A person who falsifies a report or document submitted to the Agency, or tampers with, or knowingly renders inaccurate a monitoring device or method required to be maintained under this permit is subject to criminal and civil penalties provided by federal and state law. [Minn. R. 7001.0150, 3(G), Minn. R. 7001.1090, 1(G and H), Minn. Stat. ch. 609.671, 1]
5.3.146	Noncompliance Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [40 CFR 122.41(c)]
5.3.147	<p>Effluent Violations. If sampling by the Permittee indicates a violation of any discharge limitation specified in this permit, the Permittee shall immediately make every effort to verify the violation by collecting additional samples, if appropriate, investigate the cause of the violation, and take action to prevent future violations. If the permittee discovers that noncompliance with a condition of the permit has occurred which could endanger human health, public drinking water supplies, or the environment, the Permittee shall within 24 hours of the discovery of the noncompliance, orally notify the commissioner and submit a written description of the noncompliance within 5 days of the discovery. The written description shall include items a. through e., as listed below. If the Permittee discovers other non-compliance that does not explicitly endanger human health, public drinking water supplies, or the environment, the non-compliance shall be reported during the next reporting period to the MPCA with its Discharge Monitoring Report (DMR). If no DMR is required within 30 days, the Permittee shall submit a written report within 30 days of the discovery of the noncompliance. This description shall include the following information:</p> <ul style="list-style-type: none"> <li>a. a description of the event including volume, duration, monitoring results and receiving waters;</li> <li>b. the cause of the event;</li> <li>c. the steps taken to reduce, eliminate and prevent reoccurrence of the event;</li> <li>d. the exact dates and times of the event; and</li> <li>e. steps taken to reduce any adverse impact resulting from the event. [Minn. R. 7001.150, 3(K)]</li> </ul>
5.3.148	<p>Upset Defense. In the event of temporary noncompliance by the Permittee with an applicable effluent limitation resulting from an upset at the Permittee's facility due to factors beyond the control of the Permittee, the Permittee has an affirmative defense to an enforcement action brought by the Agency as a result of the noncompliance if the Permittee demonstrates by a preponderance of competent evidence:</p> <ul style="list-style-type: none"> <li>a. the specific cause of the upset;</li> <li>b. that the upset was unintentional;</li> <li>c. that the upset resulted from factors beyond the reasonable control of the Permittee and did not result from operational error, improperly designed treatment</li> </ul>

	<p>facilities, inadequate treatment facilities, lack of preventative maintenance, or increases in production which are beyond the design capability of the treatment facilities;</p> <p>d. that at the time of the upset the facility was being properly operated;</p> <p>e. that the Permittee properly notified the Commissioner of the upset in accordance with Minn. R. 7001.1090, subp. 1, item I; and</p> <p>f. that the Permittee implemented the remedial measures required by Minn. R. 7001.0150, subp. 3, item J. [Minn. R. 7001.1090]</p>
5.3.149	Release. [Minn. R. 7001]
5.3.150	Unauthorized Releases of Wastewater Prohibited. Except for discharges from outfalls specifically authorized by this permit, overflows, discharges, spills, or other releases of wastewater or materials to the environment, whether intentional or not, are prohibited. However, the MPCA will consider the Permittee's compliance with permit requirements, frequency of release, quantity, type, location, and other relevant factors when determining appropriate action. [40 CFR 122.41, Minn. Stat. ch. 115.061]
5.3.151	<p>Discovery of a release. Upon discovery of a release, the Permittee shall:</p> <p>a. Take all reasonable steps to immediately end the release.</p> <p>b. Notify the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 or (651)649-5451 (metro area) immediately upon discovery of the release. You may contact the MPCA during business hours at 1(800)657-3864 or (651)296-6300 (metro area).</p> <p>c. Recover as rapidly and as thoroughly as possible all substances and materials released or immediately take other action as may be reasonably possible to minimize or abate pollution to waters of the state or potential impacts to human health caused thereby. If the released materials or substances cannot be immediately or completely recovered, the Permittee shall contact the MPCA. If directed by the MPCA, the Permittee shall consult with other local, state or federal agencies (such as the Minnesota Department of Natural Resources and/or the Wetland Conservation Act authority) for implementation of additional clean-up or remediation activities in wetland or other sensitive areas. [Minn. R. 7001.1090]</p>
5.3.152	<p>Sampling of a release. Upon discovery of a release, the Permittee shall:</p> <p>a. Collect representative samples of the release. The Permittee shall sample the release for parameters of concern immediately following discovery of the release. The Permittee may contact the MPCA during business hours to discuss the sampling parameters and protocol. In addition, Fecal Coliform Bacteria samples shall be collected where it is determined by the Permittee that the release contains or may contain sewage. If the release cannot be immediately stopped, the Permittee shall consult with MPCA regarding additional sampling requirements. Samples shall be collected at least, but not limited to, two times per week for as long as the release continues.</p> <p>b. Submit the sampling results on the Release Sampling Form (<a href="http://www.pca.state.mn.us/index.php/view-document.html?gid=18867">http://www.pca.state.mn.us/index.php/view-document.html?gid=18867</a>). The Release Sampling Form shall be submitted to the MPCA with the next DMR or within 30 days whichever is sooner. [Minn. R. 7001.1090]</p>
5.3.153	Bypass. [Minn. R. 7001]
5.3.154	Anticipated bypass. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if the bypass is for essential maintenance to assure efficient operation of the facility. The permittee shall submit

		<p>prior notice, if possible at least ten days before the date of the bypass to the MPCA.</p> <p>The notice of the need for an anticipated bypass shall include the following information:</p> <ul style="list-style-type: none"> <li>a. the proposed date and estimated duration of the bypass;</li> <li>b. the alternatives to bypassing; and</li> <li>c. a proposal for effluent sampling during the bypass. Any bypass wastewater shall enter waters of the state from outfalls specifically authorized by this permit. Therefore, samples shall be collected at the frequency and location identified in this permit or two times per week for as long as the bypass continues, whichever is more frequent. [40 CFR 122.41(m)(2 and 3), Minn. R. 7001.1090, 1(J)]</li> </ul>
5.3.155		<p>All other bypasses are prohibited. The MPCA may take enforcement action against the Permittee for a bypass, unless the specific conditions described in Minn. R. Ch. 7001.1090 subp. 1, K and 122.41(m)(4)(i) are met.</p> <p>In the event of an unanticipated bypass, the permittee shall:</p> <ul style="list-style-type: none"> <li>a. Take all reasonable steps to immediately end the bypass.</li> <li>b. Notify the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 or (651)649-5451 (metro area) immediately upon commencement of the bypass. You may contact the MPCA during business hours at 1(800)657-3864 or (651)296-6300 (metro area).</li> <li>c. Immediately take action as may be reasonably possible to minimize or abate pollution to waters of the state or potential impacts to human health caused thereby. If directed by the MPCA, the Permittee shall consult with other local, state or federal agencies for implementation of abatement, clean-up, or remediation activities.</li> <li>d. Only allow bypass wastewater as specified in this section to enter waters of the state from outfalls specifically authorized by this permit. Samples shall be collected at the frequency and location identified in this permit or two times per week for as long as the bypass continues, whichever is more frequent. The permittee shall also follow the reporting requirements for effluent violations as specified in this permit. [40 CFR 122.41(m)(4)(i), Minn. Stat. ch. 115.061]</li> </ul>
5.3.156		<p>Operation and Maintenance. [Minn. R. 7001]</p>
5.3.157		<p>The Permittee shall at all times properly operate and maintain the facilities and systems of treatment and control, and the appurtenances related to them which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible Minn. R. 7001.0150. subp. 3, item F. [Minn. R. 7001.0150, 3(F)]</p>
5.3.158		<p>In the event of a reduction or loss of effective treatment of wastewater at the facility, the Permittee shall control production or curtail its discharges to the extent necessary to maintain compliance with the terms and conditions of this permit. The Permittee shall continue this control or curtailment until the wastewater treatment facility has been restored or until an alternative method of treatment is provided.</p>

		[Minn. R. 7001.1090, 1(C)]
5.3.159		Solids Management. The Permittee shall properly store, transport, and dispose of biosolids, septage, sediments, residual solids, filter backwash, screenings, oil, grease, and other substances so that pollutants do not enter surface waters or ground waters of the state. Solids should be disposed of in accordance with local, state and federal requirements. [40 CFR 503, Minn. R. 7041]
5.3.160		Scheduled Maintenance. The Permittee shall schedule maintenance of the treatment works during non-critical water quality periods to prevent degradation of water quality, except where emergency maintenance is required to prevent a condition that would be detrimental to water quality or human health. [Minn. R. 7001.0150, 3(F), Minn. R. 7001.150, 2(B)]
5.3.161		Control Tests. In-plant control tests shall be conducted at a frequency adequate to ensure compliance with the conditions of this permit. [Minn. R. 7001.0150, 3(F), Minn. R. 7001.150, 2(B)]
5.3.162		Changes to the Facility or Permit. [Minn. R. 7001]
5.3.163		<p>Permit Modifications. Except as provided under Minnesota Statutes, section 115.07, subdivisions 1 and 3, no person required by statute or rule to obtain a permit may construct, install, modify, or operate the facility to be permitted, nor shall a person commence an activity for which a permit is required by statute or rule until the agency has issued a written permit for the facility or activity.</p> <p>Permittees that propose to make a change to the facility or discharge that requires a permit modification shall follow Minn. R. 7001.0190. If the Permittee cannot determine whether a permit modification is needed, the Permittee shall contact the MPCA prior to any action. It is recommended that the application for permit modification be submitted to the MPCA at least 180 days prior to the planned change. [Minn. R. 7001.0030]</p>
5.3.164		<p>Plans, specifications and MPCA approval are not necessary when maintenance dictates the need for installation of new equipment, provided the equipment is the same design size and has the same design intent. For instance, a broken pipe, lift station pump, aerator, or blower can be replaced with the same design-sized equipment without MPCA approval.</p> <p>If the proposed construction is not expressly authorized by this permit, it may require a permit modification. If the construction project requires an Environmental Assessment Worksheet under Minn. R. 4410, no construction shall begin until a negative declaration is issued and all approvals are received or implemented. [Minn. R. 7001.0030]</p>
5.3.165		Report Changes. The Permittee shall give advance notice as soon as possible to the MPCA of any substantial changes in operational procedures, activities that may alter the nature or frequency of the discharge, and/or material factors that may affect compliance with the conditions of this permit. [Minn. R. 7001.0150, 3(M)]
5.3.166		<p>Chemical Additives. The Permittee shall receive prior written approval from the MPCA before increasing the use of a chemical additive authorized by this permit, or using a chemical additive not authorized by this permit, in quantities or concentrations that have the potential to change the characteristics, nature and/or quality of the discharge.</p> <p>The Permittee shall request approval for an increased or new use of a chemical additive at least 60 days, or as soon as possible, before the proposed increased or new use. This written request shall include at least the following information for the</p>

		<p>proposed additive:</p> <ul style="list-style-type: none"> <li>a. The process for which the additive will be used;</li> <li>b. Safety Data Sheet (SDS) which shall include aquatic toxicity, human health, and environmental fate information for the proposed additive. The aquatic toxicity information shall include at minimum the results of: a) a 48-hour LC50 or EC50 acute study for a North American freshwater planktonic crustacean (either Ceriodaphnia or Daphnia sp.) and b) a 96-hour LC50 acute study for rainbow trout, bluegill or fathead minnow or another North American freshwater aquatic species other than a planktonic crustacean;</li> <li>c. a complete product use and instruction label;</li> <li>d. the commercial and chemical names and Chemical Abstract Survey (CAS) number for all ingredients in the additive (If the MSDS does not include information on chemical composition, including percentages for each ingredient totaling to 100%, the Permittee shall contact the supplier to have this information provided); and</li> <li>e. The proposed method of application, application frequency, concentration, and daily average and maximum rates of use.</li> </ul> <p>Upon review of the information submitted regarding the proposed chemical additive, the MPCA may require additional information be submitted for consideration. This permit may be modified to restrict the use or discharge of a chemical additive and include additional influent and effluent monitoring requirements. Approval for the use of an additive shall not justify the exceedance of any effluent limitation nor shall it be used as a defense against pollutant levels in the discharge causing or contributing to the violation of a water quality standard. [Minn. R. 7001.0170]</p>
5.3.167		<p>MPCA Initiated Permit Modification, Suspension, or Revocation. The MPCA may modify or revoke and reissue this permit pursuant to Minn. R. 7001.0170. The MPCA may revoke without reissuance this permit pursuant to Minn. R. 7001.0180. [Minn. R. 7001.0170, Minn. R. 7001.0180]</p>
5.3.168		<p>TMDL Impacts. Facilities that discharge to an impaired surface water, watershed or drainage basin may be required to comply with additional permits or permit requirements, including additional restriction or relaxation of limits and monitoring as authorized by the CWA 303(d)(4)(A) and 40 CFR 122.44.l.2.i., necessary to ensure consistency with the assumptions and requirements of any applicable US EPA approved wasteload allocations resulting from Total Maximum Daily Load (TMDL) studies. [40 CFR 122.44(l)(2)(i)]</p>
5.3.169		<p>Permit Transfer. The permit is not transferable to any person without the express written approval of the Agency after compliance with the requirements of Minn. R. 7001.0190. A person to whom the permit has been transferred shall comply with the conditions of the permit. [Minn. R. 7001.0150, 3(N)]</p>
5.3.170		<p>Facility Closure. The Permittee is responsible for closure and post-closure care of the facility. The Permittee shall notify the MPCA of a significant reduction or cessation of the activities described in this permit at least 180 days before the reduction or cessation. The MPCA may require the Permittee to provide to the MPCA a facility Closure Plan for approval.</p> <p>Facility closure that could result in a potential long-term water quality concern, such as the ongoing discharge of wastewater to surface or ground water, may require a permit modification or reissuance.</p> <p>The MPCA may require the Permittee to establish and maintain financial assurance</p>

		<p>to ensure performance of certain obligations under this permit, including closure, post-closure care and remedial action at the facility. If financial assurance is required, the amount and type of financial assurance, and proposed modifications to previously MPCA-approved financial assurance, shall be approved by the MPCA. [Minn. Stat. ch. 116.07, 4]</p>
	5.3.171	<p>Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for permit reissuance : Due by 180 days prior to permit expiration. If the Permittee does not intend to continue the activities authorized by this permit after the expiration date of this permit, the Permittee shall notify the MPCA in writing at least 180 days before permit expiration.</p> <p>If the Permittee has submitted a timely application for permit reissuance, the Permittee may continue to conduct the activities authorized by this permit, in compliance with the requirements of this permit, until the MPCA takes final action on the application, unless the MPCA determines any of the following (Minn. R. 7001.0040 and 7001.0160):</p> <ul style="list-style-type: none"><li>a. The Permittee is not in substantial compliance with the requirements of this permit, or with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this permit;</li><li>b. The MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the expiration date of the permit;</li><li>c. The Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies. [Minn. R. 7001.0160]</li></ul>

6. Submittal action summary

MN0052612	Erie Pier Processing & Reuse Facility	
		<b>Dredged Material Management</b>
	6.1.1	The Permittee shall submit an annual dredged material report : Due by February 1 of each year following permit issuance, for the preceding calendar year on the form provided by the MPCA, or another MPCA approved form. [Minn. R. 7001]
		<b>Total Facility Requirements (NPDES/SDS)</b>
	6.2.2	<p>Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for permit reissuance : Due by 180 days prior to permit expiration. If the Permittee does not intend to continue the activities authorized by this permit after the expiration date of this permit, the Permittee shall notify the MPCA in writing at least 180 days before permit expiration.</p> <p>If the Permittee has submitted a timely application for permit reissuance, the Permittee may continue to conduct the activities authorized by this permit, in compliance with the requirements of this permit, until the MPCA takes final action on the application, unless the MPCA determines any of the following (Minn. R. 7001.0040 and 7001.0160):</p> <ul style="list-style-type: none"> <li>a. The Permittee is not in substantial compliance with the requirements of this permit, or with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this permit;</li> <li>b. The MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the expiration date of the permit;</li> <li>c. The Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies. [Minn. R. 7001.0160]</li> </ul>

7. Appendices

Tables for Dredged Material Management

Table 1. Baseline Sediment Parameter List

<b>Parameter</b>	<b>Analytical Method</b>	<b>Method Detection Limit</b> <i>(mg/kg, dry weight unless noted)</i>	<b>Residential Soil Reference Value (SRV)</b> <i>(mg/kg, dry weight unless noted)</i>	<b>Industrial Soil Reference Value (SRV)</b> <i>(mg/kg, dry weight unless noted)</i>
<b>Inorganics – Metals</b>				
Arsenic	SW-846 3050B/6010B EPA 6010 or 7060	0.42	9	20
Cadmium	SW-846 3050B/6010B EPA 7131	0.02	25	200
Chromium III	SW-846 3050B/6010B EPA 6010 or 7191	0.058	44,000	100,000
Chromium VI	SW-846 3050B/6010B EPA 6010 or 7191	0.058	87	650
Copper	SW-846 3050B/6010B EPA 6010 or 7211	0.1	100	9,000
Lead	SW-846 3050B/6010B EPA 6010 or 7421	0.22	300	700
Mercury	SW-846 7471A EPA 7471	0.02	0.5	1.5
Nickel	SW-846 3050B/6010B EPA 6010	0.36	560	2,500
Selenium	SW-846 3050B/6010B	0.43	160	1,300
Zinc	SW-846 3050B/6010B EPA 6010 or 7951	0.35	8,700	75,000
<b>Inorganics – Nutrients</b>				
Total Phosphorus	EPA 365.2/365.3	50		
Nitrate + Nitrite				
Ammonia-Nitrogen				
Total Kjeldahl Nitrogen				
<b>Organics</b>				
PCBs (Total)	SW-846 8082 EPA 8082, 3540B, 3541, 3545	0.02	1.2	8
Total Organic Carbon	SW846-EPA 9060	0.2%		
<b>Physical Tests</b>				
Sieve Analysis	ASTM Method C-136 for the gradation analysis and ASTM Method D-2487 for classification			
Moisture Content	ASTM D-2216			

**Table 2. Additional Sediment Parameter List**

<b>Parameter</b>	<b>Analytical Method</b>	<b>Residential Soil Reference Value (SRV) (mg/kg)</b>	<b>Industrial Soil Reference Value (SRV) (mg/kg)</b>
Barium	SW-846 3050B/6010B	1,100	18,000
Cyanide	SW-846 9012A	60	5,000
Manganese	SW-846 3050B/6010B	3,600	8,100
Oil & Grease	SW-846 9070		
Aldrin	SW-846 8081 EPA 8081, 354440B, 3541	1	2
Chlordane	SW-846 8081 EPA 8081, 354440B, 3541	13	74
Endrin	SW-846 8081 EPA 8081, 354440B, 3541	8	56
Dieldrin	SW-846 8081 EPA 8081, 354440B, 3541	0.8	2
Heptachlor	SW-846 8081 EPA 8081, 354440B, 3541	2	3.5
Lindane (Gamma BHC)	SW-846 8081 EPA 8081, 354440B, 3541	9	15
DDT	SW-846 8081 EPA 8081, 354440B, 3541	15	88
DDD	SW-846 8081 EPA 8081, 354440B, 3541	56	125
DDE	SW-846 8081 EPA 8081, 354440B, 3541	40	80
Toxaphene	SW-846 8081	13	28
2,3,7,8-dioxin, 2,3,7,8-furan and 15 2,3,7,8- substituted dioxin and furan congeners	EPA 8290	0.00002	0.00003
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>			
Naphthalene	SW-846 EPA 8270	10	28
Pyrene	SW-846 EPA 8270	890	5,800
Fluorene	SW-846 EPA 8270	850	4,120
Acenaphthene	SW-846 EPA 8270	1,200	5,260
Anthracene	SW-846 EPA 8270	7,880	45,400
Fluoranthene	SW-846 EPA	1,080	6,800

	8270		
Quinoline	SW-846 EPA 8270	4	7
Benz(a) anthracene	SW-846 EPA 8270	The results for these carcinogenic PAHs should be added together using the benzo(a)pyrene (BAP) equivalent calculation. Residential SRV = 2mg/kg, Industrial SRV = 3mg/kg	
Benzo (a) pyrene	SW-846 EPA 8270		
Benzo (b) fluoranthene	SW-846 EPA 8270		
Benzo (k) fluoranthene	SW-846 EPA 8270		
Chrysene	SW-846 EPA 8270		
Dibenz(a,h)anthracene	SW-846 EPA 8270		
Indeno[1,2,3,-c,d]pyrene	SW-846 EPA 8270		
Benzo(j)flouranthene	SW-846 EPA 8270		
Dibenz[a,h]acridine	SW-846 EPA 8270		
Dibenz[a,j]acridine	SW-846 EPA 8270		
7H-Dibenzo[c,g]carbazole	SW-846 EPA 8270		
Dibenzo[a,e]pyrene	SW-846 EPA 8270		
Dibenzo[a,h]pyrene	SW-846 EPA 8270		
Dibenzo[a,i]pyrene	SW-846 EPA 8270		
Dibenzo[a,l]pyrene	SW-846 EPA 8270		
7,12 Dimethylbenzanthracene	SW-846 EPA 8270		
1,6-Dinitropyrene	SW-846 EPA 8270		
1,8-Dinitropyrene	SW-846 EPA 8270		
3-Methylcholanthrene	SW-846 EPA 8270		

5-Methylchrysene	SW-846 EPA 8270	
5-Nitroacenaphthene	SW-846 EPA 8270	
6-Nitrochrysene	SW-846 EPA 8270	
2-Nitrofluorene	SW-846 EPA 8270	
1-Nitropyrene	SW-846 EPA 8270	
4-Nitropyrene	SW-846 EPA 8270	

**Table 3. Minimum number of samples for sediment characterization and evaluation.**

<b>VOLUME PLANNED FOR REMOVAL in CUBIC YARDS</b>	<b>NUMBER OF CORE SAMPLE SITES</b>	<b>NUMBER OF SIEVE ANALYSIS SITES</b>
<=1,000	1	3
1,000-30,000	3	6
30,000-100,000	5	10
100,000-500,000	6	12
500,000-1,000,000	8	16
>1,000,000	>8	>16



**LEGGETTE, BRASHEARS & GRAHAM, INC.**  
**Professional Groundwater & Environmental Engineering Services**



302 West Superior Street, Suite 70 Duluth, MN 55802 218-336-2280 FAX 218-336-2290

August 4, 2016

Steven Brossart  
USACE, Detroit District, Duluth Area Office  
600 Lake Ave S  
Duluth, MN 55802

Jim Sharrow  
Duluth Seaway Port Authority  
1200 Port Terminal Drive  
Duluth, MN 55802

RE: ERIE PIER NOXIOUS WEED AND INVASIVE PLANT SURVEY

Dear Mr. Brossart and Sharrow:

On behalf of the U.S. Army Corps of Engineers, Detroit District, Duluth Area Office and the Duluth Seaway Port Authority, Leggette, Brashears & Graham, Inc. (LBG) completed a survey for noxious weeds and invasive plant species at the Erie Pier Confined Disposal Facility. This letter report presents the survey results and recommendations for control of the identified noxious weed and invasive plant species.

## 1 Introduction

Erie Pier is an 89 acre Placement and Reuse Facility for dredge materials from the Duluth-Superior Harbor **Appendix I, Figure 1**. Dredged materials are sorted at Erie Pier and used in various projects in Minnesota and Wisconsin. The dynamic nature of the land disturbance from the placement and reuse of dredge material makes controlling invasive species difficult. The use and transport of dredge materials from Erie Pier can distribute noxious weed and invasive plant seed. The Minnesota Department of Agriculture (MDA) regulates noxious weeds under the Minnesota Noxious Weed Law. Minnesota and Wisconsin regulate non-native plant species through Minnesota Statute 84D and Wisconsin Administrative Code Chapter NR 40. The purpose of the survey was to identify which noxious weeds and invasive plants occur at Erie Pier so that they can be properly managed. The primary goal of invasive species control at Erie Pier should be to prevent the spread of invasive species into new areas.

## 2 Minnesota Department of Agriculture Noxious Weeds

The survey identified populations of the following plant species that are identified by the Minnesota Department of Agriculture (MDA) as noxious weeds. Noxious weeds are regulated under the Minnesota Noxious Weed Law because they can cause harm to people, animals, food supply, and/or the environment. These species are also identified by the Minnesota Department of Natural Resources

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(MNDNR) and the Wisconsin Department of Natural Resources (WDNR) as plants that can be invasive in natural areas. These species are in large enough populations to pose a threat to native plant communities and should be managed to prevent further spread. The survey locations of MDA noxious weeds and MNDNR/WDNR invasive plants are included in **Appendix I, Figure 2**.

## **2.1 Common Tansy (*Tanacetum vulgare*)**

The survey identified significant populations of common tansy within the survey area, particularly along the slopes of the containment cell berms. Common tansy is highly invasive forming dense colonies that outcompete native species. Common tansy is listed by the MDA as a Prohibited – Control noxious weed. Efforts must be made to prevent the spread, seed maturation, and dispersal of plants into new areas (MDA 2015).

### **2.1.1 Control Method**

Chemical: Spraying with a selective broadleaf herbicide such as metsulfuron-methyl according to manufacturer's instructions. Mowing several weeks prior to treatment can be effective to remove old canes and stimulate vegetative growth. Treatment should be completed in the summer before flowering.

Mechanical: Mow in June prior to flowering. Remove as needed to prevent seed set.

Recommended Control Method at Erie Pier: Mow in June prior to flowering. Remove in August to prevent seed set. Explore herbicide control in stabilized areas that will not be reworked for an extended period of time.

## **2.2 Canada Thistle (*Cirsium arvense*)**

The survey identified significant populations of Canada thistle within the survey area, particularly along the slopes of the containments cell berms and in large colonies in the north cell. Canada thistle spreads quickly (10-12 feet in one season) replacing native plants and diminishing diversity (MNDNR 2015). Canada thistle is listed by the MDA as a Prohibited – Control noxious weed. Efforts must be made to prevent the spread, seed maturation, and dispersal of plants into new areas (MDA 2015).

### **2.2.1 Control Method**

Chemical: Spraying with a selective broadleaf herbicide such as metsulfuron-methyl according to manufacturer's instructions. Treat in early summer before flowering and/or to rosettes in the fall.

Mechanical: Repeated mowing close to the ground can reduce an infestation within a few years. Mow in June prior to flowering. Remove as needed to prevent seed set typically in August.

Recommended Control Method at Erie Pier: Mow in June prior to flowering. Remove as needed to prevent seed set typically in August. Consider herbicide control of the large colonies in the northcentral portion of the property with replacement seeding of native grasses.

## **2.3 Purple Loosestrife (*Lythrum salicaria*)**

The survey identified several populations of purple loosestrife within the survey area primarily along the water's edge within the containment cells. The purple loosestrife at Erie Pier were observed to be stressed due to predation from biological control insects. Purple loosestrife invades marshes and lakeshores, forming dense colonies replacing wetland plants and degrading wildlife habitat. Purple loosestrife is listed by the MDA as a Prohibited – Control noxious weed. Efforts must be made to prevent the spread, seed maturation, and dispersal of plants into new areas (MDA 2015).

### 2.3.1 Control Method

Chemical: Spraying with a herbicide such as glyphosate formulated for use over water. Hand spray a 30% a.i. glyphosate to freshly cut stems after removing flowers. Cut and bag any flower heads. Hand spraying individual plants with 1.5-3% a.i. glyphosate or hand wiping plants with 5% a.i. glyphosate is also effective. Treatment should be completed in the summer before flowering.

Mechanical: Hand pulling being careful not to leave any roots behind.

Biological: Biological control is currently considered the best option for large-scale control.

**Recommended Control Method at Erie Pier:** Continue contracting herbicide control while exploring biological control. Biological control of purple loosestrife from insects was observed to be taking place at Erie Pier. The MDNR is actively controlling purple loosestrife throughout the St. Louis River corridor. Additional insects may be available to be released at Erie Pier.

## 2.4 Spotted Knapweed (*Centaurea stoebe* spp. *micranthos*)

The survey identified populations of spotted knapweed within the survey area, particularly along the outside edge of the Erie Pier perimeter access road. Spotted knapweed is highly invasive replacing native plants and diminishing diversity. Spotted knapweed is listed by the MDA as a Prohibited – Control noxious weed. Efforts must be made to prevent the spread, seed maturation, and dispersal of plants into new areas (MDA 2015).

### 2.4.1 Control Method

Chemical: Spraying with a herbicide such as glyphosate formulated for use over water. Treat in early spring before flowering or in the fall.

Mechanical: Hand-pulling alone can be effective in sandier soils. Dig out and remove as much of the long tap root as possible. Mowing before flowering can reduce seed production. However, because the plants continue to bloom throughout the summer/early fall, repeated mowing throughout the season is required to keep the plants from re-sprouting and producing seeds

Biological: Biological control is an option for reducing large infestations.

**Recommended Control Method at Erie Pier:** The populations of spotted knapweed were limited to the outside edge of the Erie Pier perimeter access road. The spotted knapweed could be controlled with a herbicide application in conjunction with the purple loosestrife. Hand pulling is feasible with the limited size of the population. Explore the option of biological control for long-term management.

## 2.5 Common Reed (*Phragmites australis*, spp. *australis*)

The survey identified a couple significant populations of common reed within the survey area. Non-native common reed can become very dense eliminating native wetland plant communities. Common reed is listed by the MDA as a Restricted noxious weed. The importation, sale, and transportation of their propagating parts in the state is prohibited. Plants designated as Restricted noxious weeds may be reclassified if effective means of control are developed (MDA 2015).

### 2.5.1 Control Method

Chemical: Spraying with a herbicide such as glyphosate formulated for use over water. Treat in early spring before flowering or in the fall.

Mechanical: Mechanical control methods have not been very effective in controlling common reed. Mowing may reduce the population. Digging the massive root system is also difficult. Flooding may be effective where feasible.

Recommended Control Method at Erie Pier: The populations of common reed were limited to a few areas. Common reed is being controlled throughout the St. Louis River corridor including Erie Pier under the direction of the MDNR and the St. Louis River Alliance. Continue working with the St. Louis River Alliance to control the nonnative phragmites at Erie Pier.

### 3 MNDNR and WDNR Invasive Plants

#### 3.1 Reed Canary Grass (*Phalaris arundinacea*)

The survey identified populations of reed canary grass within the survey area, particularly along the slopes of the containments cell berms. Reed canary grass invades wetlands where it outcompetes native vegetation and forms dense monotypic plant communities. Stands of reed canary grass are hard to eradicate because of the large seed bank they create. Reed canary grass has a reputation for being hard to control because it is perennial, rhizomatous, and effectively excludes other vegetation. Effective control methods typically require multiple treatments, successful replacement, and maintenance.

##### 3.1.1 Control Method

Chemical: Spraying with a herbicide such as glyphosate formulated for use over water. Treat in early spring before most native species begin to grow. Repeated sprayings in the spring and fall can help control reed canary grass.

Mechanical: Burning is an effective mechanical treatment for cool season grasses. In areas where burning isn't feasible, mowing mid-June and October will reduce seed and favor the growth of native warm season grasses.

Recommended Control Method at Erie Pier: Mow in June prior to flowering and remow in October.

#### 3.1 Smooth Brome (*Bromus inermis*)

The survey identified populations of smooth brome within the survey area, particularly along the slopes of the containments cell berms. Smooth brome is a cool season grass that begins growing in early spring and forms a dense sod outcompeting later growing native warm season grasses. Smooth brome can be hard to control because it is perennial, rhizomatous, and effectively excludes other vegetation. Effective control methods typically require multiple treatments, successful replacement, and maintenance.

##### 3.1.1 Control Method

Chemical: Spraying with a grass specific herbicide such as sethoxydim in early spring before most native species begin to grow or in fall when native species are dormant.

Mechanical: Burning is an effective mechanical treatment for cool season grasses. In areas where burning isn't feasible, mowing mid-June and October will reduce seed and favor the growth of native warm season grasses.

Recommended Control Method at Erie Pier: Mow in June prior to flowering and remow in October.

### 3.2 Bird's-Foot Trefoil (*Lotus corniculatus*)

The survey identified populations of bird's-foot trefoil within the survey area, particularly in the disturbed soils along the access road margins. Bird's-foot trefoil was widely planted along roadsides for erosion control and creates a dense mat of vegetation that crowds out native species.

#### 3.2.1 Control Method

Chemical: Spraying with a selective broadleaf herbicide such as triclopyr or clopyralid plus a surfactant, in the summer before seed production. In small colonies, individual stems can be traced back to the center of the colony and main tap root. A few spritzes in the center will eliminate the whole plant.

Mechanical: Mowing mid-June can reduce seed production. Frequent mowing at a height of less than 2" for several years helps control this plant, but also sets back native species.

**Recommended Control Method at Erie Pier:** Mow in June. If mowing proves to be ineffective consider herbicide treatment along road margins.

### 3.3 Crown Vetch (*Coronilla varia*)

The survey identified populations of crown vetch within the survey area scattered within the containment berms. Crown vetch behaves very similar to bird's-foot trefoil and was also widely planted along roadsides for erosion control and creates a dense mat of vegetation that crowds out native species. Likewise, the control method is the same as for bird's-foot trefoil.

#### 3.3.1 Control Method

Chemical: Spraying with a selective broadleaf herbicide such as triclopyr or clopyralid plus a surfactant, in the summer before seed production. In small colonies, individual stems can be traced back to the center of the colony and main tap root. A few spritzes in the center will eliminate the whole plant.

Mechanical: Mowing in June and late August for several successive years to reduce seed and encourage native species.

**Recommended Control Method at Erie Pier:** Mow in June and remow in August.

### 3.4 White and Yellow sweet clover (*Melilotus albus*, *M. officinalis*)

The survey identified significant populations of common white and yellow sweet clover within the area, particularly within the access roads surrounding and on top of the containment berms as well as in open sparsely vegetated areas. Sweet clover was planted for forage and invades natural areas by overtopping and shading out native plants (MNDNR 2015).

#### 3.4.1 Control Method

Chemical: Sweet clover can normally be managed by using mechanical methods and should not require the use of chemicals.

Mechanical: Burning is the most effective mechanical treatment for sweet clover. In areas where burning isn't feasible, mowing in June for several successive years to reduce seed and encourage native species can be effective.

**Recommended Control Method at Erie Pier:** Mow in June prior to flowering. Remow as needed to prevent seed set.

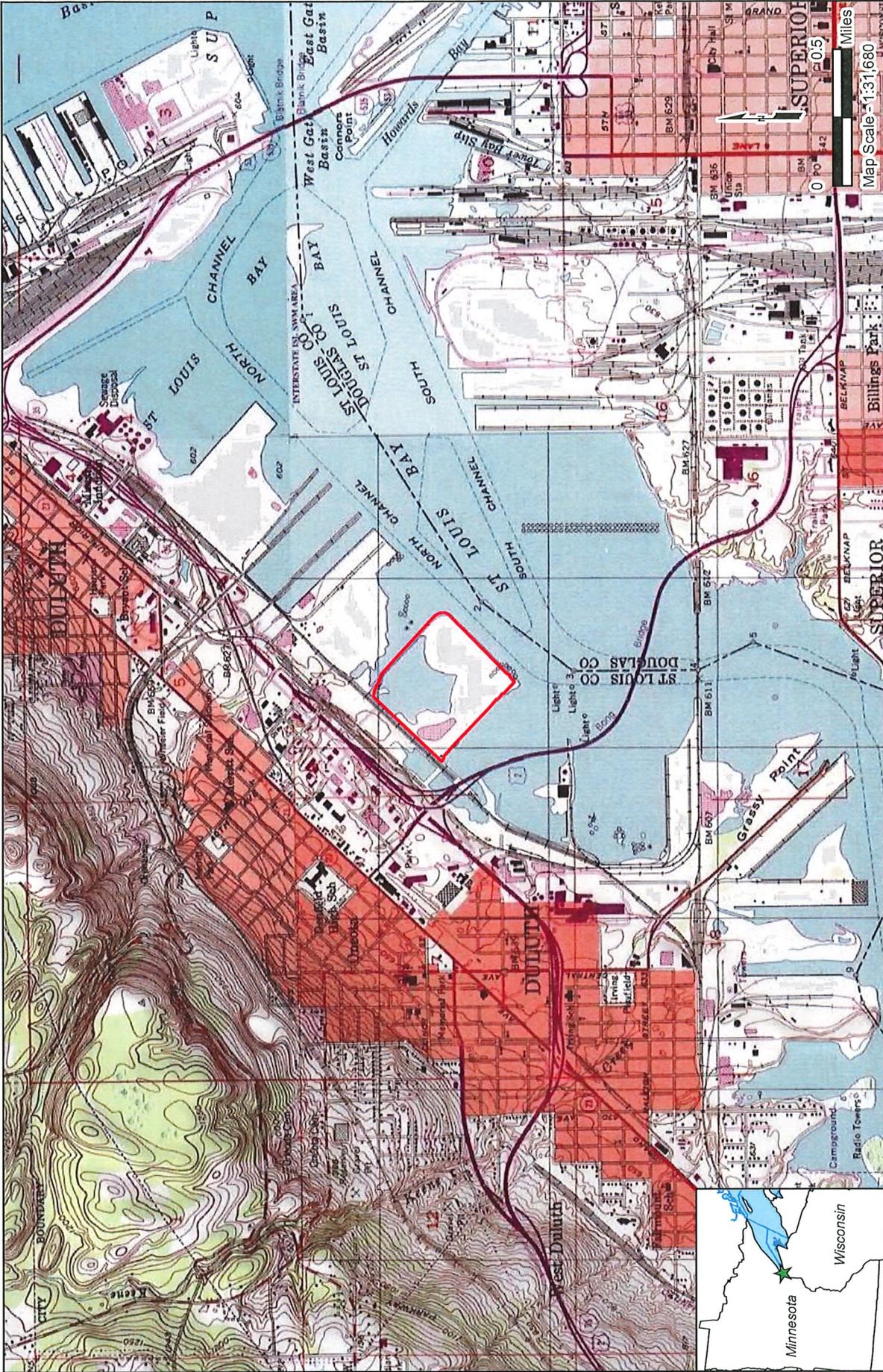
## 4 Recommendation Summary

The primary goal of invasive species control at Erie Pier should be to prevent the spread of invasive species into new areas. The spread of invasive plants from Erie Pier can occur from transport via wind, water, animals, vehicles, and material hauling. Efforts must be made to prevent the spread, seed maturation, and dispersal of the MDA noxious weeds into new areas by Minnesota state law. The dynamic nature of the land disturbance from the placement and reuse of dredge material makes controlling invasive species difficult. For example, it is difficult to establish a stable native plant community when the land is continually being disturbed. Considering the dynamic nature of the site, mowing of the tansy, Canada thistle, reed canary grass, smooth brome, bird's-foot trefoil, crown vetch, and sweet clover in June before they flower with an additional mowing in August will prevent the production of seeds and will go a long way in preventing the spread of invasive species. Areas that cannot be mowed should be considered for chemical treatment. The large colonies of Canada thistle in the northcentral portion of the property should be considered for chemical treatment with replacement seeding of native grasses. Continue chemical treatment of purple loosestrife and Phragmites until eradicated. The spotted knapweed should be included in the chemical treatment with the loosestrife or hand-pulled. For long-term management, explore the biological control of loosestrife and spotted knapweed. Interseeding of native plant species should be considered as invasive species are controlled to increase the competition from native plants. Annual monitoring should be completed to evaluate the effectiveness of the invasive species control. Adaptive management over time should be practiced as site conditions change. Keep in mind that there is an existing seed bank that will take quite a few years to deplete requiring monitoring and control at sites where the dredge material is reused. The table below outlines the suggested timing of the control methods with the preferred treatment outlined in red.

### Suggested Timing of Control Methods

Plant Species	Mowing times for optimal control.						Other treatment methods.		
	May	June	July	Aug	Sept	Oct	May	June	July
Common Tansy ( <i>Tanacetum vulgare</i> )		**						Chemical	
Canada Thistle ( <i>Cirsium arvense</i> )		**						Chemical	
Purple Loosestrife ( <i>Lythrum salicaria</i> )							Biological	Chemical	Biological
Spotted Knapweed ( <i>Centaurea stoebe</i> spp. <i>micranthos</i> )							Biological	Chemical	Biological
Common Reed ( <i>Phragmites australis</i> , spp. <i>australis</i> )								Chemical	
Reed Canary Grass ( <i>Phalaris arundinacea</i> )		**							
Smooth Brome ( <i>Bromus inermis</i> )		**							
Bird's-Foot Trefoil ( <i>Lotus corniculatus</i> )		**							
Crown Vetch ( <i>Coronilla varia</i> )		**						Chemical	
White and Yellow sweet clover ( <i>Melilotus albus</i> , <i>M. officinalis</i> )		**							

\*\* If these species are not mowed in June prior to flowering, do not mow them later in the season. Mowing once flowers mature and/or seed has set will spread these species. Red outline denoted the preferred treatment method.



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<b>USACE/DULUTH SEAWAY PORT AUTHORITY</b> DULUTH, MINNESOTA	
SITE LOCATION	
FILE: g25EnePier01a.MXD	DATE: 7/21/2016
FIGURE: 1	

Site Location  
 Parcel Boundary



**LEGEND**

- Canada Thistle\*
- Crown Vetch
- Birdfoot Trefoil
- Birdfoot Trefoil/Tansy/Brome
- Phragmites Aust. Amer.
- Spotted Knapweed\*
- Line\_gen0701
- Smooth Brome
- Birdfoot Trefoil
- Birdfoot Trefoil/Sweet Clover
- Canada Thistle\*
- Purple Loosestrife\*
- Reed Canary Grass
- Sweet Clover
- Spotted Knapweed\*
- Tansy\*
- Area\_gen0701
- B. Trefoil./S. Clover/Tansy
- Canada Thistle\*
- Crown Vetch
- Phragmites Au. au.\*\*
- Purple Loosestrife\*
- Sweet Clover
- Tansy\*
- Survey Area

\* MN Noxious Control List  
 \*\* MN Noxious Restricted List



Prepared By:  
**LEGGETT, BRASHEARS & GRAHAM, INC.**  
 Professional Groundwater and  
 Environmental Engineering Services  
 302 West Superior Street, Suite 70  
 Duluth, Minnesota 55802  
 (218) 336-2280

**USACE/DULUTH SEAWAY PORT AUTHORITY**  
 DULUTH, MINNESOTA

**ERIE PIER INVASIVE PLANT SURVEY**  
 INVASIVE PLANT OCCURRENCES

FILE: g:\5Erie\Pier\01c.MXD | DATE: 7/28/2016 | FIGURE: 2