



**Minnesota Pollution  
Control Agency**

520 Lafayette Road North  
St. Paul, MN 55155-4194

# Industrial Dredged Material Management Application

NPDES/SDS Permit Program

*Doc Type: Permit Application*

The National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Permit Program regulates wastewater discharges to land and surface waters. This application applies to Dredged material (material that is excavated at or below the Ordinary High Water Level (OHWL) of waterbasins, watercourses, public waters, or public waters wetland) that requires a NPDES/SDS Permit.

Complete the application by typing or printing in black ink. Attach additional sheets as necessary. For more information, please contact the Minnesota Pollution Control Agency (MPCA) at: In Metro Area: 651-296-6300 or Outside Metro Area: 800-657-3864.

**Permittee name:** \_\_\_\_\_ **Permit number:** MN

## Basic Information

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1. Principal facility activity: \_\_\_\_\_  
Products produced: \_\_\_\_\_  
Raw material consumed: \_\_\_\_\_  
Average and maximum amount per Unit Time (such as tons/year, kilograms/day) of product: \_\_\_\_\_

Standard Industrial Classification (SIC) Code Number: \_\_\_\_\_

2. Description of project.

- a. Provide a detailed textual description of the proposed dredging project, including a description of how the dredged material is to be managed in both the short- and long-term.

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- b. Location of the activity: in \_\_\_\_\_ ☐ lake ☐ river ☐ wetland,  
at river mile: \_\_\_\_\_ and/or at elevation(s): \_\_\_\_\_ msl/nvgd.

- c. Type of activity (dredging, cable placement, etc.): \_\_\_\_\_

d. Estimated frequency of dredging:

☐ One-time only (indicate the estimated duration of the project): \_\_\_\_\_

☐ On-going/maintenance (check only one):

☐ Semi-annually ☐ Annually ☐ Biennially ☐ Other (specify): \_\_\_\_\_

- e. Projected volume of material to be dredged: \_\_\_\_\_ yd<sup>3</sup> (total), \_\_\_\_\_ yd<sup>3</sup> per \_\_\_\_\_  
(time period)

f. Method or equipment used:

☐ Hydraulic Dredge: pumping rate: \_\_\_\_\_ gpm; \_\_\_\_\_ # of hours of operation/day.

☐ Mechanical Dredge by: ☐ backhoe ☐ dragline ☐ clamshell

☐ Other (describe): \_\_\_\_\_

3. Other permits required.

- a. Is the project site now covered by an MPCA storm water NPDES/SDS permit? ☐ Yes ☐ No

If yes, indicate the permit number, or date applied for: \_\_\_\_\_

- b. Does this project require a federal permit for dredging or filling activity? ☐ Yes ☐ No

If yes, indicate permit number or date applied for, and the name(s) of the U.S. Army Corps of Engineers (USCOE) staff person(s) involved in the issuance of this permit. Attach a copy of the permit or permit application.

Permit number or date applied for: \_\_\_\_\_ Staff name: \_\_\_\_\_

- c. Does this project require a state permit for work in the bed of public waters? ☐ Yes ☐ No

If yes, indicate permit number or date applied for, and the name(s) of the Minnesota Department of Natural Resources (MDNR) staff person(s) involved in the issuance of this permit. Attach a copy of the permit or permit application.

Permit number or date applied for: \_\_\_\_\_ Staff name: \_\_\_\_\_

- d. Does this project require a state permit for the appropriation of water? ☐ Yes ☐ No

If yes, indicate permit number or date applied for, and the name(s) of the MDNR staff person(s) involved in the issuance of this permit. Attach a copy of the permit or permit application.

Permit number or date applied for: \_\_\_\_\_ Staff name: \_\_\_\_\_

- e. Does this project require an Environmental Assessment to be completed? ☐ Yes ☐ No

If yes, attach a copy of the completed Environmental Assessment Worksheet.

## Effluent Characterization

4. Does this project involve hydraulic dredging? ☐ Yes ☐ No

5. Does this project involve the discharge of water from the project site or a management unit? ☐ Yes ☐ No

*If No to questions 4 and 5, skip to 'Dredged Material Characterization' section.*

6. Indicate how the water from the hydraulic dredging process and/or management unit will be managed.

☐ Discharged to surface water (e.g., ditch, stream, lake, wetland, municipal storm sewer, drain tile system).

☐ Discharged to a municipal sanitary sewer system.

If checked, indicate the name(s) of the system and the staff person(s) involved in approval of the discharge; attach a copy of the letter granting authorization to discharge to the system. *Skip to 'Dredged Material Characterization' section.*

Name of sanitary sewer system: \_\_\_\_\_ Staff name: \_\_\_\_\_

☐ Discharged to an on-site septic tank/drainfield system. *If checked, skip to 'Dredged Material Characterization' section.*

☐ Discharged to storm water retention basin or pond with no outlet. *If checked, skip to 'Dredged Material Characterization' section.*

☐ Managed by on-land disposal via spray irrigation or land application. *If checked, skip to 'Dredged Material Characterization' section, and complete and submit an Industrial Land Application of Industrial By-Product Application for each proposed land application or spray site.*

☐ No discharge, all carriage water will filter into the ground at and/or evaporate from the placement site. *If checked, skip to 'Dredged Material Characterization' section*

☐ Other (explain in detail): \_\_\_\_\_

7. Indicate the information requested for each discharge point. Discharge points include, for example, pipes and culverts. Type of wastewater refers to, for example, stormwater, pit dewatering, sand and gravel washing wastewater, scrubber wastewater, vehicle wash wastewater, contaminated ground water pumpout, boiler blowdown, non-contact cooling water or sewage. Route to receiving waters is, for example, "to unnamed wetlands adjacent to Black Lake", "to an unnamed ditch to the Cottonwood River", "to Twin Lakes" or "to an unnamed pond adjacent to Lake Cornelia via storm sewer."

Discharge Point/ Outfall #	Discharge flow rate, million gallons per day		Type of wastewater	Flow duration and frequency			Where will discharge go? What route will it take to surface receiving waters?
	Average	Maximum		Months of flow	Days/ week	Hours/ day	

8. Attach test results for total suspended solids, pH and all other pollutants known or reasonably believed to be present at each of the facility discharge points. Such pollutants may include biochemical oxygen demand, fecal coliform, temperature (heat), nutrients (phosphorus, ammonia, nitrate, nitrite), metals, salts, cyanide, residual chlorine, fluoride, oil and grease, polychlorinated biphenyls, phenols, polynuclear aromatic hydrocarbons, volatile organic compounds, pesticides, and/or radioactivity.

If this is an application for reissuance of an existing permit, review your existing NPDES/SDS permit to see if it has special testing requirements for the application for reissuance of the permit.

9. Describe the proposed treatment for the discharge from the dredged material placement site. Explain in detail the extent to which this treatment system will reduce the levels of the potential pollutants, which includes the dredged material itself as well as the contaminants identified in the discharge. For permit reissuance or modification, note any changes to the treatment system since this permit was last issued. Attach plans and flow diagrams for the treatment system and equipment.

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10. List below all chemical additives that are used or proposed to be used in the treatment system. This must include all process reagents, flocculants, biocides, wastewater treatment chemical additives, chlorine or other disinfectants, detergents, cleaning products, chemical dust suppressants, freeze conditioning agents, etc.

Product Name	Location of chemical addition	Frequency of addition	Average rate of use (weight or volume per year)

Attach the *Material Safety Data Sheets*, complete product labels and any other information on chemical composition, aquatic toxicity, human health, and environmental fate for each chemical additive.

An *Additional Chemical Additives Attachment* form is available on the MPCA Web site at <http://www.pca.state.mn.us/water/permits/index.html> if more space is needed.

11. Certified laboratory analyzing samples: \_\_\_\_\_  
Minnesota Department of Health Certification Number: \_\_\_\_\_

## Dredged Material Characterization

12. Will 93% of dredged material be retained on a #200 sieve? ☐ Yes ☐ No

If yes, attach the results from at least six representative sediment samples using ASTM Method D-422 and US Standard sieve numbers 10, 40, 100, and 200. Report the results for each of the discrete sample locations as a mass percentage of retained sediments.

If yes, additional analysis is not required; skip to the "Dredged Material Management" section of this application. If no, additional analysis is required; continue completing this section.

13. Type of material to be dredged (for example, sand, silt, clay): \_\_\_\_\_

14. Baseline Analytes. Dredged material not excluded from additional analysis, as determined using the grain size analysis described above, must be analyzed for the baseline analytes indicated in the table below.

Complete the following table with analytical results from a sample that is representative of the dredged material; attach lab sheets for all analytical data. The sampling date(s), location(s) and method(s) must be included with all of the analysis results.

Analyte	Reporting Unit <sup>1</sup>	Number of Samples <sup>2</sup>	Date of Analysis (mm/dd/yy)	Results
Arsenic	mg/kg			
Cadmium	mg/kg			
Chromium III	mg/kg			
Chromium VI	mg/kg			
Copper	mg/kg			
Lead	mg/kg			
Mercury	mg/kg			
Nickel	mg/kg			
Selenium	mg/kg			
Zinc	mg/kg			
Total Phosphorus	mg/kg			
Nitrate + Nitrite	mg/kg			
Ammonia Nitrogen	mg/kg			
Total Kjeldahl Nitrogen	mg/kg			
PCBs (Total)	mg/kg			
Total Organic Carbon	%			
Sieve and Hydrometer Analysis	%			
Moisture Content	%			

<sup>1</sup> Report the results as dry weight, unless noted otherwise.

<sup>2</sup> Analysis must be conducted on samples that are representative of, and in consideration of the dredged material and activities at the project site. At a minimum, the number of samples to be collected at a proposed dredge site is specified in Table 6 of the MPCA document "Managing Dredged Materials in the State of Minnesota, 4/06."

15. Additional Analytes. Using the MPCA guidelines and factors described in the MPCA document "Managing Dredged Materials in the State of Minnesota, 4/06," complete a risk assessment for the dredge project site and determine the reasonable potential of pollutants to be present in sediment to be dredged. Dredged material must be analyzed for the additional analytes indicated in the table below, as appropriate, based on a risk assessment and the "reasonable potential" for a pollutant to be present in the dredged material.

Complete the following table with analytical results from a sample that is representative of the dredged material; attach lab sheets for all analytical data. The sampling date(s), location(s) and method(s) must be included with all of the analysis results.

Analyte	Reporting Unit <sup>1</sup>	Number of Samples <sup>2</sup>	Date of Analysis (mm/dd/yy)	Results
Barium	mg/kg			
Cyanide	mg/kg			
Manganese	mg/kg			
Oil & Grease	%			
Aldrin	mg/kg			
Chlordane	mg/kg			
Endrin	mg/kg			
Dieldrin	mg/kg			
Heptachlor	mg/kg			
Lindane (Gamma BHC)	mg/kg			
DDT	mg/kg			
DDD	mg/kg			
DDE	mg/kg			
Toxaphene	mg/kg			
2,3,7,8-dioxin, 2,3,7,8-furan and 15 2,3,7,8-substituted dioxin and furan congeners	pg/kg			

Analyte	Reporting Unit <sup>1</sup>	Number of Samples <sup>2</sup>	Date of Analysis (mm/dd/yy)	Results
Polycyclic Aromatic Hydrocarbons (PAHs)	ug/kg			
Naphthalene	ug/kg			
Pyrene	ug/kg			
Fluorene	ug/kg			
Acenaphthene	ug/kg			
Anthracene	ug/kg			
Fluoranthene	ug/kg			
Benzo (a) pyrene (BAP)/BAP equivalent <sup>3</sup>	ug/kg			

<sup>1</sup> Report the results as dry weight, unless noted otherwise.

<sup>2</sup> Analysis must be conducted on samples that are representative of, and in consideration of the dredged material and activities at the project site. At a minimum, the number of samples to be collected at a proposed dredge site is specified in Table 6 of the MPCA document "Managing Dredged Materials in the State of Minnesota."

<sup>3</sup> The results for the following analytes should be used to calculate the BAP equivalent, as described by the MPCA document Polycyclic Aromatic Hydrocarbons, (p-eao2-03), and the Soil Reference Value (SRV) spreadsheet at [www.pca.state.mn.us/publications/risk-tier2srv.xls](http://www.pca.state.mn.us/publications/risk-tier2srv.xls). The BAP equivalent is compared against the soil reference value for Benzo (a) pyrene, above: Benzo (a) anthracene, Benzo (b) fluoranthene, Benzo (j) fluoranthene, Benzo (k) fluoranthene, Benzo (a) pyrene, Chrysene, Dibenzo (a,j) acridine, Dibenzo (a,h) acridine, 7,12 Dimethylbenz-anthracene, Dibenzo (a,h)anthracene, 7H-Dibenzo(c,g) carbazole, Dibenzo (a,e) pyrene, Dibenzo (a,h) pyrene, Dibenzo (a,i) pyrene, Dibenzo (a,l) pyrene, 1,6-Dinitropyrene, 1,8-Dinitropyrene, Indeno (1,2,3-cd) pyrene, 3-Methylcholanthrene, 5-Methylchrysene, 5-Nitroacenaphthene, 1-Nitropyrene, 6-Nitrochrysene, 2-Nitrofluorene, and Quinoline.

16. Certified laboratory analyzing sediment samples: \_\_\_\_\_

Minnesota Department of Health Certification Number: \_\_\_\_\_

17. Management Level. The management tier for dredged material is used to determine the appropriate management method(s) for dredged material from a given project, or subset of dredged material from a project. The management tier for dredged material is based on the analyzed characteristics of the dredged material in comparison to Soil Reference Values (SRVs) for those analytes.

Using the MPCA document "Managing Dredged Materials in the State of Minnesota," determine the applicable management level for the dredged material. If the dredged material is proposed to be managed in subsets (based on applicable management level), indicate all applicable levels, and the approximate volume proposed to be managed within each level.

☐ Level 1, \_\_\_\_\_ yd<sup>3</sup>

☐ Level 2, \_\_\_\_\_ yd<sup>3</sup>

☐ Level 3, \_\_\_\_\_ yd<sup>3</sup>

## Dredged Material Management

18. Indicate how dredged material is proposed to be managed (check all that apply). If the dredged material is proposed to be managed in subsets (based on applicable management level or another factor), indicate all applicable management method(s), and the approximate volume proposed to be managed by each method. If storage or disposal is proposed at a USCOE placement site, indicate the USCOE site identification number and the name of the USCOE staff person with whom arrangements for placement are being made. If disposal is proposed at a site or landfill that has an MPCA permit, provide the permit number.

### Management Method

*If proposed to be managed off-site, provide the following information about each placement site, use additional sheets as necessary.*

☐ Short-term storage at a placement site (storage for less than or equal to 1 year)

☐ On-site, \_\_\_\_\_ yd<sup>3</sup>

☐ Off-site, \_\_\_\_\_ yd<sup>3</sup>

☐ Discharge from management unit.  
*If yes, complete 'Effluent Characterization' section.*

Site name or ID#: \_\_\_\_\_

Location city: \_\_\_\_\_

Public land survey (PLS) coordinates: T N. R W, Section

Placement site is owned by: \_\_\_\_\_

Placement site is operated by: \_\_\_\_\_

<input type="checkbox"/> Long-term storage at a placement site (storage for more than 1 year) <input type="checkbox"/> On-site, _____ yd <sup>3</sup> <input type="checkbox"/> Off-site, _____ yd <sup>3</sup> <i>(also complete questions 22-24)</i> <input type="checkbox"/> Discharge from management unit. <i>If yes, complete 'Effluent Characterization' section.</i>	Site name or ID#: _____ Location city: _____ Public land survey (PLS) coordinates: _____ T _____ N. R _____ W, Section _____ Placement site is owned by: _____ Placement site is operated by: _____
<input type="checkbox"/> Permanent disposal <input type="checkbox"/> On-site, _____ yd <sup>3</sup> <input type="checkbox"/> Off-site, _____ yd <sup>3</sup> <i>(also complete questions 22-24)</i> <input type="checkbox"/> Discharge from management unit. <i>If yes, complete 'Effluent Characterization' section.</i>	Site name or ID#: _____ Location city: _____ Public land survey (PLS) coordinates: _____ T _____ N. R _____ W, Section _____ Placement site is owned by: _____ Placement site is operated by: _____
<input type="checkbox"/> Reuse of dredged material <input type="checkbox"/> On-site, _____ yd <sup>3</sup> <input type="checkbox"/> Off-site, _____ yd <sup>3</sup>  <input type="checkbox"/> Deep water disposal or other in-water disposal, _____ yd <sup>3</sup> <input type="checkbox"/> Beach nourishment, _____ yd <sup>3</sup>	Description of proposed reuse project (s): _____ _____ _____ _____ Name of water body: _____ _____ Name of water body: _____

19. Initial Site Plan. If proposing to use a long-term storage or disposal facility on-site, attach a site plan for MPCA review and approval. The initial site plan consists 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 must be signed by a land surveyor registered in Minnesota or a professional engineer registered in Minnesota.
20. Site selection and use. If proposing to use a long-term storage or disposal facility on-site, locational prohibitions and setbacks apply; indicate by checking the appropriate box(es) whether the facility/proposed facility meets these standards.
- ☐ The facility is/proposed to be located in an area entirely above the high water table.
  - ☐ The facility is not/proposed to be located within a shoreland or wild and scenic river land use district governed by Minn. R. chapters 6105 and 6120.
  - ☐ The facility is not/proposed to be located in a wetland, or if located in a wetland, has the appropriate federal, state and/or local approvals required.
  - ☐ The facility is not/proposed to be located in the designated Karst Region in the Southeastern portion of Minnesota that was subject to the 1993 Administrative Order that required preparation of a contingency plan.
  - ☐ The facility is not/proposed to be located in an area which is unsuitable because of topography, geology, hydrology, or soils.
  - ☐ The boundaries of the facility/proposed facility are at least 50 feet from the site property line.
21. Closure Plan. If proposing to use a long-term storage or disposal facility on-site, attach a closure plan for the final closure of a dredged material disposal facility for MPCA review and approval. A "Closure Plan" identifies the steps needed to close the entire site at the end of its operating life, and must include: (a.) A description of how and when the entire facility will be closed, including the estimated year of closure and a schedule for completing each fill phase. (b.) An estimate of the maximum quantity of dredged material in storage at any time during the life of the facility. (c.) A cost estimate including an itemized breakdown for closure of each fill phase and the total cost associated with closure activities at dredged material disposal facilities.

**Review the application and ensure all requested items are submitted with this application.**

**Please make a copy for your records.**

**Refer to the *Transmittal Form* for mailing instructions.**