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| Minnesota Pollution Control Agency (MPCA), 520 Lafayette Road North, St. Paul, MN 55155-4194 | Industrial Dredged Material Management Application  NPDES/SDS Permit Program  *Doc Type: Permit Application* |

## **Purpose: 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.

## **Instructions:** Complete the application by typing or printing in black ink. Attach additional sheets as necessary. 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. 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.

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| **Permittee name:** |  | **Permit number:** | MN |

## **Basic Information**

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| 1. | 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/ngvd. |
|  |  |  | | | | | | | | | *(msl = Mean Sea Level; ngvd = National Geodetic Vertical Datum)* | | | | | | | | | | | | |
|  | 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: | | | | | |  | | | | | yd3 (total), | | | | |  | | | | yd3 per |  |
|  |  |  | | | | | | *(yd3 = cubic yards)* | | | | | | | | | | | | | |  | *(time period)* |
|  | f. | Method or equipment used: | | | | | | | | | | | | | | | | | | | | | |
|  |  | Hydraulic Dredge: pumping rate: | | | | |  | | | | | | | gpm; | | |  | | number of hours of operation per day. | | | | |
|  |  | *(gpm = gallons per minute)* | | | | | | | | | | | | | | | | | | | | | |
|  |  | Mechanical Dredge by:  backhoe  dragline  clamshell | | | | | | | | | | | | | | | | | | | | | |
|  |  | Other (describe): | |  | | | | | | | | | | | | | | | | | | | |
| 2. | Other permits required. | | | | | | | | | | | | | | | | | | | | | | |
|  | a. | Is the project site currently covered by an MPCA stormwater 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 (USACE) 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 of 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. | | | | | | | | | | | | | | | | | | | | | |

## **Dredged Material Characterization**

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| 3. | 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. | |
| 4. | Type of material to be dredged (for example, sand, silt, clay): |  |
| 5. | **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. | |

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| **Analyte** | **Reporting Unit1** | **Number of Samples2** | **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 | % |  |  |  |

*1 Report the results as dry weight, unless noted otherwise. (mg/kg = milligrams per kilogram)*

*2 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 (wq-gen2-02).”*

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| 6. | **Additional Analytes.** Using the MPCA guidelines and factors described in the MPCA document “Managing Dredged Materials in the State of Minnesota (wq-gen2-02),” 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. |

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| **Analyte** | **Reporting Unit1** | **Number of Samples2** | **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 |  |  |  |

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| **Analyte** | **Reporting Unit1** | **Number of Samples2** | **Date of Analysis** (mm/dd/yy) | **Results** |
| Polycyclic Aromatic Hydrocarbons (PAHs) | ug/kg |  |  |  |
| Naphthalene | ug/kg |  |  |  |
| Pyrene | ug/kg |  |  |  |
| Fluorene | ug/kg |  |  |  |
| Acenapthene | ug/kg |  |  |  |
| Anthracene | ug/kg |  |  |  |
| Fluoranthene | ug/kg |  |  |  |
| Benzo (a) pyrene (BAP)/BAP equivalent3 | ug/kg |  |  |  |

1 *Report the results as dry weight, unless noted otherwise.*

2 *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.”*

3 *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. 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, Dibenz (a,j) acridine, Dibenz (a,h) acridine, 7,12 Dimethylbenz-anthracene, Dibenz (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-Nitrochyrsene, 2-Nitrofluorene, and Quinoline.*

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| 7. | Certified laboratory analyzing sediment samples: | | |  | |
|  | Minnesota Department of Health Certification Number: | | | |  |
| 8. | 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 (wq-gen2-02),” 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,** |  | **yd3** | | |
|  | **Level 2,** |  | **yd3** | | |
|  | **Level 3,** |  | **yd3** | | |

## **Dredged Material Management**

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| 9. | 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 USACE placement site, indicate the USACE site identification number and the name of the USACE 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. |

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| **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) | | | | | | | Site name or ID#: | |  | | | | | |
| On-site, |  | | | yd3 | | | Location city: |  | | | | | | |
| Off-site, |  | | | yd3 | | | Public land survey (PLS) coordinates: | | | | | | T       N. R       W, Section | |
| Discharge from management unit. *If yes, complete ‘Effluent Characterization’ section.* | | | | | | | Placement site is owned by: | | | |  | | | |
| Placement site is operated by: | | | |  | | | |
|  | | | | | | |  | | | |  | | | |
| Beneficial use of dredged material | | | | | | | Description of proposed project (s): | | | | | | |  |
| On-site, |  | | | | yd3 | |  | | | | | | | |
| Off-site, |  | | | | yd3 | |  | | | | | | | |
|  | | | | | | |  | | | | | | | |
| Deep water disposal or other in- | | | | | | | Name of water body: | | |  | | | | |
| water disposal, | |  | | | | yd3 |  | | | | | | | |
| Beach nourishment, | | |  | | | yd3 | Name of water body: | | |  | | | | |
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| 10. | **Initial Site Plan.** If proposing to use storage, attach a site plan for MPCA review and approval. The initial site plan consists of volume calculations for the 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. |
| 11. | **Site selection and use.** If proposing to use storage, locational prohibitions and setbacks apply; indicate by checking the appropriate box(es) whether the facility/proposed facility meets these standards. |
|  | 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, unless specific approval is granted.  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. |