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| Minnesota Pollution Control Agency (MPCA), 520 Lafayette Road North, St. Paul, MN 55155-4194 | Contaminated groundwater  pump-out application  NPDES/SDS Permit Program  *Doc Type: Permit Application* |

## Instructions: Complete the application by typing or printing in black ink. ***Attach additional sheets as necessary to fully explain site conditions and justifications for the proposed discharge.*** For more information, please contact Steven Theisen or Robert Kostinec of the Minnesota Pollution Control Agency (MPCA): Steven in the metro area at 651-757-2602; Robert outside the metro area at 507-206-2628.

## **The National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Permit Program regulates wastewater discharges to land and to surface waters.** This application is for the discharge of contaminated groundwater, where toxic or hazardous materials have been released to or leached into the groundwater. This is most commonly associated with cleanup activities, including petroleum-related releases and volatile organic compounds (VOC) associated with solvents and degreasing agents. This application also applies to discharges associated with dewatering in areas where it is known, or can reasonably be expected, that groundwater will be contaminated. Information provided in this application is to be used to establish the most appropriate type of permit, whether general or individual, to apply to the pump-out activity. It is expected that the answers and information provided within this application is based upon adequate site investigation actions along with a review of present and historic information available concerning the potential sources of groundwater contamination. The disposal of any types of wastewater in addition to contaminated groundwater requires permit application form(s) in addition to this form.

## The disposal of any type of additional wastewaters, groundwaters, or stormwater, in addition to contaminated groundwater, requires permit application form(s) in addition to this form. This commonly includes a construction stormwater permit which would be a separate application from this one.

## Review the application to ensure all requested items are submitted with this application.

## Ensure the application is signed by a professional engineer (PE) licensed in Minnesota for all new treatment systems designs. (For reissuances, please resubmit treatment system specifications. If changes to the treatment system are proposed, include a PE signature).

## Refer to the MPCA Transmittal Form for mailing instructions and include a completed form with this application. The Transmittal Form (wq-wwprm-7-03) is located at: <https://www.pca.state.mn.us/sites/default/files/wq-wwprm7-03.doc>.

* The [Permit application checklist for miscellaneous waste types (wq-wwprm7-04c)](https://www.pca.state.mn.us/sites/default/files/wq-wwprm7-04c.docx) must also be submitted along with this application. This checklist provides links to other potentially necessary forms, if applicable to your site. <https://www.pca.state.mn.us/sites/default/files/wq-wwprm7-04c.doc>

## Please make and retain a copy for your records.

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

|  |  | **Yes** | **No** | |
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| **1.** | **Remediation Dewatering Project: Is the contaminated groundwater from a site currently under MPCA remediation program oversight?**  *MPCA remediation programs include the Superfund, Leaking Underground Storage Tank, Voluntary Investigation and Cleanup, and Brownfields programs. Answer “No” if the site was under past MPCA remediation program oversight, but is not currently under MPCA remediation program oversight. For active AND/OR inactive remediation sites, provide the assigned MPCA project identification number(s) and MPCA staff involved with the facility.* |  |  | |
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| **2.** | **Long Term Dewatering Projects: Is the groundwater discharge going to last for more than twelve months?** *Examples of long term projects include ongoing dewatering for building foundations, vaults, and remediation dewatering.* |  |  | |
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| **3.** | **Short Term Construction Dewatering: Is the groundwater discharge only associated with a building foundation or construction/ redevelopment that will last less than twelve months?**  *Construction dewatering does not include discharges associated with groundwater cleanup activities, whether active or pending, including bailing, aquifer monitoring or investigating.* |  |  | |
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| **4.** | **Treatment Technology: Will the contaminated groundwater be treated by Best Available Technology Economically Achievable (BAT) before discharge, to meet applicable NPDES/SDS permit limits?**  *BAT treatment of contaminated groundwater includes, but is not limited to, multi-stage activated carbon, air stripping (packed tower, multiple tray, etc.), ultraviolet/oxidation, and biological treatment systems, any of which may be used in conjunction with in-situ bioremediation. BAT does not include flow augmentation, mixing zones, and in-stream mechanical aerators.* |  | |  |
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| **5.** | **Land Application: Will the contaminated groundwater be discharged, at least in part, through an on-land disposal system?**  *Examples include infiltration systems, seepage basins, land application, in-situ operations.* |  | |  |
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| **6.** | **Agricultural Chemicals: Is the groundwater contaminated by agricultural chemicals?**  *Agricultural chemicals include pesticides, fertilizers, plant amendments and soil amendments.* ***Pesticide*** *means a substance or mixture of substances intended to prevent, destroy, repel, or mitigate a pest, and a substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.* ***Fertilizer*** *means a substance containing one or more recognized plant nutrients that is used for its plant nutrient content and designed for use or claimed to have value in promoting plant growth.* |  | |  |
| **If Yes, will the discharge(s) be related to any agricultural chemical remediation projects (Agriculture Related Remediation)?** At any point, has the proposed contaminated groundwater pump-out waters been part of a Minnesota Department of Agriculture (MDA) remediation program? If the answer is *Yes*, then the site will most likely need to be an individual NPDES/SDS permit with the MPCA and/or may need a permit or approval from the MDA.  *Resource: MDA provides a mapping resource to search for sites with agricultural contamination reports:* [*https://www.mda.state.mn.us/chemicals/spills/incidentresponse/disclaimer*](https://www.mda.state.mn.us/chemicals/spills/incidentresponse/disclaimer) |  | |  |
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| **7.** | **Heavy Metals: Does the groundwater have, or believed to have, heavy metal contaminants due to past or current pollutant discharges?**  *Metal contaminants may include, but are not limited to, aluminum, antimony, arsenic, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tin, vanadium and zinc.* |  | |  |
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| **8.** | **Does the groundwater have the potential to contain polychlorinated biphenyls (PCBs), dioxins, or furans?** |  | |  |
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| **9.** | **Contaminants of Emerging Concern: Does the groundwater have the potential to contain emerging contaminants, including but not limited to per- and polyfluoroalkyl substances (PFAS)?** |  | |  |
| **Resources: Is the dewatering site potentially subject to sources of PFAS contamination due to such activities as the use or handling of firefighting foam, electro platting, or Closed landfills?**  Closed Landfills Resource:<https://www.pca.state.mn.us/waste/pfas-landfills>  MPCA PFAS Resource: <https://www.pca.state.mn.us/waste/pfas-pollution> |  | |  |
| **10.** | **Petroleum Related Contaminants: Are the groundwater contaminants limited to gasoline, diesel fuel, kerosene, or heating oil, volatile and semi-volatile organic compounds?**  If yes, provide a list of the source(s) and associated contaminants here: |  | |  |
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| **11.** | **Volatile Organic Contaminates: Are the groundwater contaminants related to organic solvent compounds?** Example of common sources include**:** industrial solvents, degreasing agents, dry cleaning agents, and paint thinners and removers.  If yes, provide a list of the source(s) and associated compounds here: |  | |  |
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| **12.** | **Will the discharge be to a Prohibited Outstanding Resource Value Water (ORVW)?**  *ORVWs are defined and listed in Minn. R. 7050.0335 subpart 3 (*[*https://www.revisor.mn.gov/rules/7050.0335/*](https://www.revisor.mn.gov/rules/7050.0335/)*, previously in Minn. R. 7050.0180.*  Information Resource: MPCA [ORVW - MN RULE 7050.0335 (arcgis.com)](https://mpca.maps.arcgis.com/apps/webappviewer/index.html?id=8358fe79d8e14403a28fe3451aa7f48b) Mapping: <https://mpca.maps.arcgis.com/apps/webappviewer/index.html?id=8358fe79d8e14403a28fe3451aa7f48b> |  | |  |
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| **13.** | **Are you applying for coverage under Groundwater Pump-Out General Permit MNG790000?**  *Do not answer* ***Yes*** *unless you have determined that you believe you qualify for coverage under this general permit.* |  | |  |
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| **14.** | **Tribal Land**: Will the discharge be within or near a Tribal land?  NOTE: If the discharge will be within a Tribal land, then the discharge activity must be permitted by the U.S. EPA.  Resources:  General Information Resource: [MPCA and environmental justice | Minnesota Pollution Control Agency (state.mn.us)](https://www.pca.state.mn.us/about-mpca/mpca-and-environmental-justice) <https://www.pca.state.mn.us/about-mpca/mpca-and-environmental-justice>  Resource: MPCA Mapping Application for Environmental Justice (Tribal Areas included): <https://mpca.maps.arcgis.com/apps/MapSeries/index.html?appid=f5bf57c8dac24404b7f8ef1717f57d00>  Provide a description of the distance between the discharge and the tribal land as well as a discussion of the potential for the discharge to impact down gradient Tribal resources: |  | |  |
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| **15.** | **Please indicate the discharge category applicable to the facility:**  Category I – Groundwater pump and treat discharge systems that have oversight by an MPCA Remediation Program.  Category II – Long-term discharge of treated groundwater associated with dewatering for foundations or construction.  Category III – Short-term discharge of groundwater for dewatering from construction projects not associated with remediation. | | | | | | | | | | | | | | | | | | | |
| **16.** | **Identify facility pollutant category or categories:** *Select all pollutants that apply to the facility including pollutants known, or reasonably thought to be present due to current or past activities near the area of influence for dewatering. (MPCA’s* [*What’s in My Neighborhood*](https://www.pca.state.mn.us/data/whats-my-neighborhood) *tool may be a resource to identify historic pollutants at the adjacent to properties that may influence groundwater at the facility):*  Gasoline Only Site (ex. Contaminated groundwater from gasoline release at a gas station)  Fuel Oils and Other Oils Sites (ex. Contaminated groundwater from fuel oil, diesel fuel, jet fuel, kerosene, heating oil, heavier residual fuel oils, lube oils, machine oils, hydraulic fluids, mineral oils, hydraulic fluid, mineral oil, and other oil products excluding waste oil)  Mixed Petroleum Sites Containing Other Contaminants (ex. Contaminated groundwater primarily from petroleum release, but may include waste solvents, heavy metals, or waste oils)  VOC Only Sites (ex. Contaminated groundwater from solvents, de-greasers, cleaners, paint removers, etc. or from industrial operations, chemical blending, transportation, or other sources.)  VOC Sites with Other Contaminants (ex. Contaminated groundwater primarily impacted by release of chlorinated solvent, other chemicals may be present in small amounts; petroleum hydrocarbons, metals, etc.) | | | | | | | | | | | | | | | | | | | |
| **17**. | Include a United States Geological Service 7.5-minute topographic map showing the location of the pump-out well, groundwater sampling locations, flow route to receiving water, and if applicable where the discharge enters a stormwater sewer system. If applicable, identify the pump-out well local name and Minnesota Department of Health unique well number (<http://www.health.state.mn.us/divs/eh/cwi/>): | | | | | | | | | | | | | | | | | | | |
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| **18**. | In a summary statement, identify and discuss the suspected source(s) of groundwater contamination. Describe the contamination source(s) history, extent, area groundwater and surface drainage flow direction(s), and contamination plume characteristics. For permit reissuance or modification, include an updated discussion of the groundwater investigation and remediation activities including any changes to the treatment system and any potential changes to the groundwater conditions (i.e., Condition of water, extraction rate, etc.). | | | | | | | | | | | | | | | | | | | |
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| **19**. | Water Treatment System: Provide here, or in an attachment, a **summary statement** of the current or proposed water treatment system. Include design criteria and details such as: treatment components, primary pollutant(s) upon which treatment component(s) are designed, maximum contaminant level(s) anticipated, anticipated flows, system sizing, flow controls, filter capacity and backflush or swap out frequency, and any other considerations. | | | | | | | | | | | | | | | | | | | |
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| **20**. | **Attach** a summary of the laboratory analysis results collected from the groundwater samples collected from pump-out well or other investigative activities. Also, **attach** the laboratory data sheets.  Analysis of U.S. Environmental Protection Agency Priority Pollutants, 40 CFR Part 423, Appendix A, is required for General Permit MNG790000 Category II and III coverage, and the results for these pollutants must be **attached** with the initial application for permit coverage.  If this is an application for reissuance of coverage under General Permit MNG790000, those parameters detected in the previous Priority Pollutant analyses must be resampled and the results **attached**. | | | | | | | | | | | | | | | | | | | |
| **21.** | **(Individual Permits Only):** Review your existing NPDES/SDS permit to verify if it has additional special testing requirements to be conducted as part of the permit reissuance application. If so, **attach** those results. | | | | | | | | | | | | | | | | | | | |
| **22**. | Indicate the name of the laboratories that analyze your samples and their certification IDs: | | | | | | | | | | | | | | | | | | | |
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| **23**. | Describe the treatment system(s) selected and used for the treatment of the contaminated groundwater. BAT treatment (such as oil/water separation followed by air stripping and/or granular activated carbon) is required for General Permit MNG790000 coverage. *(Category III may be an exception as determined by the MPCA.)* For permit reissuance or modification, also note any changes to the treatment system since this permit was last issued. Provide a brief description of the treatment system(s) operational and maintenance requirements and other best management practices that are important components of the total treatment system. | | | | | | | | | | | | | | | | | | | |
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| **24**. | Go to the MPCA chemical additive webpage at: <http://www.pca.state.mn.us/a6krka9> to find the documents necessary to complete the approval process. Your additives will **not** be approved for use until you complete this process. MPCA Effluent Limits approval is required for any additives that are new, increasing in usage, or not previously approved using this process. List below the chemical additives that are used or proposed to be used in the groundwater remediation and treatment system. This includes the process reagents, flocculants, descalants, corrosion inhibitors, biocides, wastewater treatment chemical additives, chlorine or other disinfectants, detergents, cleaning products, freeze conditioning agents, etc. Note that the chemical additive guidance provides a list of pre-approved chemical additives that will not have to go through the full chemical review process. If a proposed chemical additive is on the pre-approved list, then indicate it in with the chemical additive information below.  Product name & Reason(s) for use, Use rate, indicate if it is a pre-approved additive, and other relative information: | | | | | | | | | | | | | | | | | | | |
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| **25.** | Have you already obtained a Minnesota Department of Natural Resources (DNR) water appropriations permit for this pump-out? | | | | | | | | | | | | | | | | | | | |
|  | Yes  No | | | | If yes, what is the DNR permit number: | | | | | | | | |  | | | | | | |
| **26.** | | The groundwater pump-out water will be routed to (check those that apply): | | | | | | | | | | | | | | | | | |
|  | | Storm water retention basin or pond  Municipal storm sewer\*  Municipal sanitary sewer\*  Drain tile system\* | | | | | | Surface waters (ditches, streams, lakes, wetlands, etc.) *(Indicate the water body below\*)*  Septic tank/drainfield  On-land disposal or land application (including infiltration gallery or irrigation of croplands or lawns) | | | | | | | | | | | |
|  | | \*If so, do you have approval from the local sewer district or local unit of government?  Yes  No | | | | | | | | | | | | | | | | | |
|  | | Name of receiving water body and use class <https://www.pca.state.mn.us/water/impaired-waters-viewer-iwav> | | | | | | | | | |  | | | | | | | |
| **27.** | | Have you obtained a Minnesota Pollution Control Agency (MPCA) construction stormwater permit for this project? | | | | | | | | | | | | | | | | | |
|  | | Yes  No  N/A | | | If yes, what is the MPCA permit number: | | | | | | | | | |  | | | | |
| **28.** | | Complete the table below for each discharge point that includes the pump-out water. Discharge points include, for example, pipes, culverts and spray nozzles. | | | | | | | | | | | | | | | | | |
| **Station ID/ Outfall number** | **Discharge flow rate, million gallons per day** | | | | | | | **Flow duration and frequency** (Note if there are only certain months when the discharge would occur) | | | | | | **Where will the treated wastewater go? What route will it take to surface receiving waters and/or land application sites?** | | | |
| **Average** | | | **Maximum** | | | |
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|  | | *If the pump-out will be routed to a storm sewer, contact the sewer authority to confirm where the sewer discharges. Include this sewer route information in the right-hand box above.* | | | | | | | | | | | | | | | | | |
| **29**. | | Has the groundwater remediation system already been installed?  Yes  No | | | | | | | | | | | | | | | | | |
|  | | If the pump-out has begun, what date did it start (existing facilities) (mm/dd/yyyy)? | | | | | | | | | | | | | | | |  | |
|  | | If the pump-out has not begun, what date is proposed for it to start (mm/dd/yyyy)? | | | | | | | | | | | | | | | |  | |
|  | | What date do you anticipate the pump-out ending (mm/dd/yyyy)? | | | | | | | | | | |  | | | | | | |
| **30**. | | Describe how and where the sediments, residual solids and sludges removed from the wastewater treatment systems at the facility will be disposed of: | | | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | | | |
| **31**. | | Will the proposed groundwater pump-out/appropriation require a Minnesota Department of Natural Resources (DNR) water appropriations permit? | | | | | | | | | | | | | | | | | |
|  | | Yes  No | | If yes, what is the DNR permit number or the anticipated date of approval? | | | | | | | | | | | | | | |  |
| **32.** | | The groundwater pump-out water will be routed to the discharge point by what means? (check those that apply): | | | | | | | | | | | | | | | | | |
|  | | Storm water retention basin or pond  Municipal storm sewer\*  Municipal sanitary sewer\*  Drain tile system\* | | | | | | | Surface waters (ditches, streams, lakes, wetlands, etc.) *(Indicate the water body below)*  Septic tank/drainfield  On-land disposal or land application (including infiltration gallery or irrigation of croplands or lawns) | | | | | | | | | | |
|  | | \*If so, do you have approval from the local sewer district or local unit of government?  Yes  No | | | | | | | | | | | | | | | | | |
|  | | Name of receiving water body: | | | | |  | | | | | | | | | | | | |
|  | | Name of governing unit(s): | | | | |  | | | | | | | | | | | | |
| **33.** | | Complete the table below for each discharge point that includes the pump-out water. Discharge points include, for example, pipes, culverts and spray nozzles. | | | | | | | | | | | | | | | | | |
| **Station ID/ Outfall number** | **Discharge flow rate, million gallons per day** | | | | | | | **Flow duration and frequency** (Note if there are only certain months when the discharge would occur) | | | | | | **Where will the treated wastewater go? What route will it take to surface receiving waters and/or land application sites?** | | | |
| **Average** | | | **Maximum** | | | |
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|  | | *If the pump-out will be routed to a storm sewer, contact the sewer authority to confirm where the sewer discharges. Include this sewer route information in the right-hand box above.* | | | | | | | | | | | | | | | | | |
| **34**. | | Has the groundwater remediation system already been installed?  Yes  No | | | | | | | | | | | | | | | | | |
|  | | If the pump-out has begun, what date did it start (mm/dd/yyyy)? | | | | | | | | |  | | | | | | | | |
|  | | If the pump-out has not begun, what date is proposed for it to start (mm/dd/yyyy)? | | | | | | | | | | | | | | |  | | |
|  | | What date do you anticipate the pump-out ending (mm/dd/yyyy)? | | | | | | | | | | |  | | | | | | |
| **35**. | | Describe how and where the sediments, residual solids and sludges removed from the wastewater treatment systems at the facility will be disposed of: | | | | | | | | | | | | | | | | | |
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| **36.** | | Describe how the receiving water or land area will be protected from erosion, wash-out, or nuisance conditions created from the discharge flows (i.e. Flow dispersion, energy dissipation, rip-rap, sheet flow, etc.): | | | | | | | | | | | | | | | | | |
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| **37.** | | Analytical Results Reporting: Provide a summary report for the laboratory reports that lists the contaminants that were above the detection limit and provide any additional discussion as to the how the detected parameters were considered in the treatment system design. The following information shall be included:   * Parameter name with CAS# * Number of tests, Maximum and Average concentrations * Test Sensitivity, EPA accepted (40 CFR 136) method, MDL, ML * Additional notes or comments may include such items as: potential sampling or testing issue, background source(s), or other relative information to the site. | | | | | | | | | | | | | | | | | |

## **Certification**

The applicant shall certify the adequacy of each component of the proposed treatment facility through review by a professional engineer licensed in Minnesota. By signing this document, the design engineer certifies that accepted engineering practices were used in determining the process and physical design of the treatment works, that the treatment works will ensure compliance with the applicable effluent limitations and that effluent sampling location(s) and port(s) are located in an area(s) where samples representative of the waste stream to be can be obtained. The design engineer shall affix his/her signature and professional engineering license number to the certification report.

**Engineer**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Print name: |  | | Title: |  | |
| Signature: |  | | Date (mm/dd/yyyy): | |  |
| Minnesota Professional Engineer License number: | |  | | |  |