

# NPDES/SDS permits

## Permitting process for surface-water dischargers

### NPDES/SDS permit

A National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit is a document that establishes the terms and conditions that must be met when a facility discharges wastewater to surface or ground waters of the state. The permit is jointly issued under two programs. The NPDES is a federal program established under the Clean Water Act, aimed at protecting the nation's waterways from point and nonpoint sources. In Minnesota it is administered by the Minnesota Pollution Control Agency (MPCA) under a delegation from the U.S. Environmental Protection Agency. The SDS is a state program established under Minn. Stat. § 115. In Minnesota, when both permits are required, they are combined into one NPDES/SDS Permit administered by the state. The permits are issued to permittees discharging to a surface water of the state.

This fact sheet specifically discusses permitting for domestic-strength or industrial process wastewater that is discharged into surface waters. (For groundwater discharges, see separate fact sheet titled [Water-quality Permit Requirements for Wastewater Discharges to Ground Surface and Subsurface](#).)

### Requirements for an NPDES/SDS permit

Any industrial, municipal or private-entity point source which proposes to discharge treated wastewater to surface waters of the state must apply for the permit. It is recommended that the application be submitted at least 180 days prior to starting construction.

### Preparing a permit application

Some facilities and projects, particularly those involving new or expanding discharges, may benefit from a pre-application meeting with the MPCA. If your project requires a preliminary effluent-limit determination, variance request, anti-degradation assessment and review, environmental assessment worksheet or environmental impact statement, or multiple MPCA permits, contact the agency to further discuss a pre-application meeting.

To determine the required application forms, attachments, and other information needed to complete your application, go to the Wastewater permit forms page found here:

<https://www.pca.state.mn.us/water/wastewater-permit-forms>

Permit requirements vary case by case, and information provided on the application helps the MPCA determine which regulatory requirements to apply in the permit. The application requests information on design flows of the facility, the route which treated wastewater will travel to a surface-water body, a description of the existing treatment system or the system to be built, and information on industrial processes for nondomestic facilities.

The application may also request information regarding the design influent concentrations for carbonaceous biological oxygen demand (CBOD), total suspended solids (TSS), total phosphorus and ammonia nitrogen, and a description of industrial flows to the treatment works.

It is important to make the permit application as complete as possible. The MPCA staff may contact the applicant during the process of reviewing and developing the permit to get additional information.

## Effluent limitations

The MPCA sets effluent limitations to protect water-quality standards and the designated uses of waters of the state. (Standards and use classifications are specified in Minn. R. 7050 and 7052). All municipal and other point-source dischargers of sewage are required, at a minimum, to provide secondary treatment. Minimum secondary treatment effluent limits include those in the chart below:

### Minimum effluent limitations for secondary treatment

Substance or characteristic	Limiting concentration or range
5-day CBOD (CBOD <sub>5</sub> )	25 mg/L
Fecal coliform organisms*	200 organisms/100mL
Total suspended solids	30 mg/L
pH range	6.0 - 9.0 SU
Phosphorus**	1 mg/L

Effluent limits, which are more stringent than the minimum secondary treatment requirement, may be assigned to a discharge where stream flows are not adequate to protect water-quality standards and designated uses (for example, seasonal ammonia limits). The MPCA considers a number of factors in developing effluent limits for a particular discharge, including the characteristics of the receiving water (use classification, water-quality standards, flow characteristics) and the discharge (design flow, discharge duration and frequency). Toxic pollutants may also be evaluated to ensure protection of humans, aquatic life, and wildlife. Discharges of industrial process wastewater will be evaluated for applicable technology based effluent limits.

It is important that review of effluent limits be completed as early as possible in the permitting process so that any issues can be addressed in a timely manner. Delays may result if inadequate information is provided, or water-quality concerns, which need additional evaluation, are identified during review.

## Antidegradation assessment

Prior to submitting your permit application, it is important to determine if an antidegradation assessment is necessary for your facility. For new or expanded discharges, an antidegradation assessment might be required; this means that additional submittals with your permit application and review will may be required as specified in Minn. R. 7050.0250 to 7050.0335, and for the Lake Superior Basin, Minn. R. 7052.0300 to 7052.0380. Further guidance can be found here: <https://www.pca.state.mn.us/water/wastewater-permit-forms> in our [Antidegradation Guidance document](#).

## Requesting a preliminary effluent limit review

Preliminary effluent limit requests are submitted before a permit application, when applicants are considering one or more options for wastewater treatment type, discharge type, or discharge location.

A preliminary effluent limit review can be requested for the following reasons:

- New facilities with a surface water discharge.
- Existing facilities with a surface water discharge where the design flow, outfall location, or quality of effluent is changing.
- Existing facilities with a surface water discharge where changes to treatment type would impact the quality of the effluent.

A preliminary effluent limit review is optional; please note that there is an additional fee associated with this request. The request form and fee information can be found here:

<https://www.pca.state.mn.us/water/wastewater-permit-forms>

## Public participation

Prior to submitting your permit application, it is important to determine if environmental review is necessary for your facility. Environmental review requirements can be found in Minn. R. 4410.1000 and 4410.2000. For example, in some cases, an Environmental Assessment Worksheet (EAW) will be required (it is mandatory if the wastewater treatment system design flow is greater than 200,000 gallons per day). You may contact the MPCA if you need further help determining if there should be an environmental review process for your facility. If a project triggers the environmental review process (e.g., an EAW), there will be a 30-day public notice and comment period on the results of the EAW. You can submit a permit application for processing in parallel with environmental review. The comments generated during the environmental review process, along with any information collected during the permit application process, will be considered in developing the draft permit. It is important to note that a draft permit cannot be final issued until the environmental review process is complete.

After the draft permit is completed, it is put on public notice (60 days for publically-owned treatment works [POTWs] and 30 days for non-POTWS) for review by any interested parties. Comments received during this period may result in revisions to the draft permit. When all concerns are adequately addressed, a final permit is issued and its conditions become effective upon issuance.

The process of permit application and public participation can be quite lengthy. To ensure timely permit issuance, applicants should contact the MPCA as early as possible to start the exchange of information. More information on ways in which you can participate in the permitting process can be found here:

<https://www.pca.state.mn.us/sites/default/files/wq-wwprm1-32.pdf>

## Certified operator

The NPDES/SDS Permit also requires that the permittee employ a certified operator to operate the treatment facility for domestic wastewater. The certification level required for the operator will depend on the complexity of the facility's operation. Proof that a certified operator is on board must be submitted to the MPCA.

## Permit application and annual permit fees

The permit application fee must be submitted for your permit application. The fee for your application will depend on the type of permit you are applying for and any additional actions required to develop your permit (e.g., an expansion, modification, antidegradation review, etc.). Any fees not assessed with your permit application will be invoiced during the public notice period.

Annual permit fees are charged for most NPDES/SDS Permits. The statute covering application and annual fees is Minn. Stat. 116.07, subd. 4d. Basic permit fee requirements are in Minn. R. ch. 7002. Annual fees begin once a permit application has been submitted and the fee invoice mailing occurs in the spring each year.

More information on application and annual fees can be found here:

<https://www.pca.state.mn.us/water/wastewater-permit-fees>

## Permit monitoring requirements

The permittee will be required in the NPDES/SDS Permit to monitor the treatment system and submit electronic discharge monitoring reports (eDMRs) to the MPCA. The monitoring requirements will vary depending on the waste-stream characteristics, size of the facility, receiving water concerns, and the type of treatment being proposed. The following requirements are standard for many municipal and/or domestic treatment facilities currently permitted by the state.

Other parameters, which municipal permittees frequently are required to monitor, include phosphorus and ammonia nitrogen. The monitoring listed below will vary depending on site-specific information. The chart is intended to provide an example of what to expect in terms of monitoring.

### Typical monitoring requirements

Monitoring location	Parameter	Frequency for minor mechanical	Frequency for ponds
<b>Influent</b>	Flow	Daily	Daily
	CBOD	Weekly	Quarterly
	TSS	Weekly	Quarterly
	pH	Daily	Quarterly
	Total phosphorus	Weekly	Quarterly
<b>Effluent</b>	CBOD	Weekly	Weekly
	TSS	Weekly	Weekly
	pH	Daily	Weekly
	Dissolved oxygen	Daily	Weekly
	Chlorine residual	Daily	N/A
	Fecal coliform	Weekly	Weekly
	Total phosphorus	Weekly	Weekly

### For more information

For further information on NPDES/SDS permits, contact the assigned permit writer which can be found here: <https://www.pca.state.mn.us/water/wastewater-permit-writers> or by calling the MPCA's main line at 651-296-6300 or 800-647-3864, or email the MPCA information center at [info.pca@state.mn.us](mailto:info.pca@state.mn.us).