

Notable changes to the feedlot general permits

The Minnesota Pollution Control Agency (MPCA) State Disposal System (SDS) and National Pollutant Discharge Elimination System (NPDES) general permits for feedlots are nearing their expiration dates. A concurrent public notice and comment process for new NPDES and SDS general permits concluded September 3, 2024.

Changes to the draft permits were made in response to public comments with notable changes identified below. The new general permits will become effective upon expiration of the current permits. The complete final permits can be found at: <https://www.pca.state.mn.us/business-with-us/npdes-and-sds-feedlot-permits>.

Manure management plan (MMP) development

All applicants for these permits will use the new online Nutrient Management Tool (NMT) to develop their MMP and will submit the MMP electronically to the MPCA as part of the online permit application process.

Although applications for the new permits cannot yet be submitted, feedlots are able to access the NMT to begin creating an MMP. Access to the NMT, along with associated guidance, can be found at: <https://www.pca.state.mn.us/business-with-us/land-application-of-manure>.

The MPCA plans to conduct training events (virtual and in-person) to assist feedlot owners and consultants as they develop MMPs. The MPCA will also provide additional communication when applications for the new permits will begin to be accepted.

Transfer of manure ownership

Manure recipients must follow the land application requirements of the permits.

Existing state feedlot rules require manure recipients to follow the MMP of the facility where manure was generated. Since the MMP includes the land application requirements of the permits, manure recipients must comply with these requirements as well. As a result, all manure generated at NPDES and SDS permitted sites must be land applied in accordance with the permit requirements designed to provide more protection to surface and ground water resources.

Permittees must annually report more information about land application of transferred manure.

Currently, manure application records that include crop information, total nutrients applied, and soil test results are required to be kept by the manure recipient. The Permittee will now be required to obtain this information from manure recipients as part of their required records. This will give the MPCA a complete picture of manure application since this information is submitted as part of the yearly annual reporting process.

The MPCA has developed a form to assist in implementation of manure transfer changes.

Manure transfer prohibitions

Transfer of manure from the facility to a third party is prohibited when that third party intends to:

- Apply liquid manure during winter conditions in December, January, February, or March
- Apply solid manure during winter conditions in March or
- Apply solid or liquid manure to vulnerable groundwater areas during winter conditions in December, January, February, or March. (vulnerable groundwater areas are discussed below)

Land application inspections

Visual inspections for signs of discharge are required wherever manure from a permitted facility is applied, including when manure ownership is transferred.

These inspections must occur at:

- Downgradient field edges
- Tile intakes
- Water features and
- Any other potential point of discharge from the fields.

And the inspections must take place:

- At least once each day manure is applied to the field
- At the end of manure application to the field and
- Within 24 hours of a ½ inch or greater rainfall that occurs within 14 days of the end of application *unless* the manure is injected or incorporated.

If discharge is observed, it must be reported to the Minnesota State Duty Officer. The responsible party must take all actions to minimize the discharge, recover the material that was released and mitigate impacts to state waters.

Nitrogen best management practices

Nitrogen, which is found in manure, is susceptible to environmental losses in the form of nitrate. Some areas of the state are particularly vulnerable to impacts from nitrate loss.

Vulnerable groundwater areas

A vulnerable groundwater area is where nitrate can move easily through soil and into groundwater. The map that delineates these areas of Minnesota is found within the interactive Nutrient Management Planning Map available at:

<https://www.pca.state.mn.us/business-with-us/land-application-of-manure>.

Required best management practices (BMP)

Nitrogen BMPs are required wherever manure from a permitted facility is applied, including when manure ownership is transferred. The requirements are based upon the time of year manure is applied.

June, July, August, and September

One of the following BMPs are required:

- Application to a growing perennial or row crop
- Cover crop planted prior to or within 14 days of application

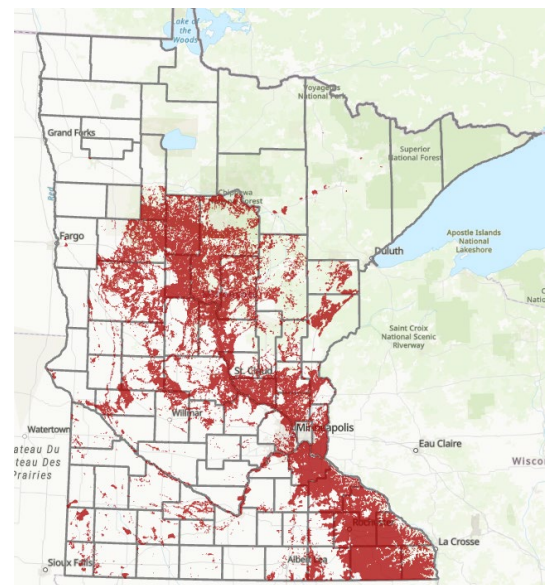
October 1 – 14

Within vulnerable groundwater areas, follow the BMPs for June – September

Outside of vulnerable groundwater areas, one of the following BMPs are required:

- Follow the BMPs for June – September
- Soil temperature has reached 50°F for two consecutive days
- Nitrapyrin-based nitrification inhibitor
- Split application of no more than ½ of the nitrogen needs.

Figure 1. Map of vulnerable groundwater areas



October 15 – 31 (beginning in 2027)

Within vulnerable groundwater areas, one of the following BMPs are required:

- Follow the BMPs for June – September
- Soil temperature has reached 50°F for two consecutive days and a perennial is grown 2 out of 5 years
- Soil temperature has reached 50°F for two consecutive days and
 - Fall all liquid manure, a nitrapyrin-based nitrification inhibitor
 - Fall all solid manure, a split application of no more than ½ of the nitrogen needs.

Outside of vulnerable groundwater areas, BMPs are encouraged but not required.

November (beginning in 2027)

Within vulnerable groundwater areas, one of the following BMPs are required for liquid manure application:

- Follow the BMPs for June – September
- A perennial is grown 2 out of 5 years
- Nitrapyrin-based nitrification inhibitor.

Outside of vulnerable groundwater areas, BMPs are encouraged but not required.

Winter application restrictions

Potential for runoff from land application increases when the field is frozen or snow-covered. All application of manure to frozen or snow-covered fields, including when manure ownership is transferred, must comply with the following measures to limit potential for runoff.

The requirements are based upon the time of year manure is applied.

December, January, and February

Liquid manure application prohibited to frozen or snow-covered fields

Solid manure application to frozen or snow-covered fields allowed if all of the following apply:

- Field is approved in MMP
- Manure is not applied in vulnerable groundwater areas
- 300 ft setback to waters/tile intakes
- Some runoff storage in tillage furrows
- Slope is 6% or less
 - 2% or less in February
- Under 50% chance of ¼ inch or more rainfall within 24 hours of application
 - 24 hours increases to 5 days for application in February
- If 2 or more inches of snow, temperature must be below 40°F for 24 hours after application
 - 24 hours increases to 5 days for application in February

March

Liquid and solid manure application prohibited to frozen or snow-covered fields.

Non-winter conditions

If winter conditions do not exist at the time of application during the months of December through March, land application is allowed provided the manure is injected or incorporated within 24 hours.

More information

More information on the feedlot program can be obtained at: www.pca.state.mn.us/feedlots