

Notable changes to the feedlot NPDES general permit

A new National Pollutant Discharge Elimination System (NPDES) general permit for animal feedlots is effective from February 1, 2021, through January 31, 2026. The new general permit, and permit development materials, are available at: www.pca.state.mn.us/water/2021-npdes-general-permit. Notable changes from the previous permit are summarized below. Refer to the new general permit for more detailed requirements.

Mitigation of nitrate leaching

The permit includes requirements that not only address concerns over manure application contributing to elevated nitrate levels in groundwater resources but also help ensure fall applied nitrogen remains in the soil profile and available to the upcoming crop for maximum profitability. The permit language was adapted from existing University of Minnesota best management practices (BMPs) to limit nitrate leaching.

Application during June, July, August, or September

- A cover crop must be planted to harvested fields either prior to manure application (interseeded into standing primary crop) or within 14 days of manure application.

Note: Applications in June, July, and August currently require a cover crop, the inclusion of September is the notable change.

Application from October 1 to October 15

One of the four nitrogen BMPs below must be implemented.

- The soil temperature is below 50 degrees at the start of manure application;
- A nitrogen stabilizing agent/product is added at the recommended inclusion rates;
- A cover crop is established in accordance with the requirements for September manure applications; or
- A split application of nitrogen where no more than 1/2 of the recommended nitrogen rate is applied before October 15. Winter application of the remaining recommended nitrogen rate is prohibited.

Prevention of manure contaminated runoff

The permit also contains requirements to address concerns with manure contaminated runoff from winter time manure applications. “Winter application” means manure application to frozen or snow covered soils except when those conditions occur in the months of October and November or when the manure is immediately incorporated or injected.



Winter application during December and January

- Liquid manure application is prohibited.
- Solid manure application must comply with the following:
 - Occurs to fields approved within the manure management plan (MMP);
 - Observe a 300-foot setback to sensitive features;
 - Field conditions allow some retention of runoff within tillage furrows or depressions;
 - Low risk of phosphorus loss as indicated by the Minnesota Phosphorus Index;
 - Field slope is equal to or less than 6%;
 - Less than a 50% chance of rainfall in excess of ¼ inch within 24 hours of the application; and
 - When the field is covered with 2 or more inches of snow, air temperature must be less than 40°F during, and for at least 24 hours after, application.

*These are the current requirements and remain unchanged. They are summarized here for reference.

Winter application during February

- Liquid manure application is prohibited. (this is an existing requirement)
- In 2021 solid manure application must comply with the requirements for December and January.
- Beginning in 2022, solid manure application must comply with the following:
 - Occurs to fields approved within the MMP;
 - Observe a 300-foot setback to sensitive features;
 - Field conditions allow some retention of runoff within tillage furrows or depressions;
 - Low risk of phosphorus loss as indicated by the Minnesota Phosphorus Index;
 - Field slope is equal to or less than 2%;
 - Less than a 50% chance of rainfall in excess of ¼ inch within 5 days of the application; and
 - When the field is covered with 2 or more inches of snow, air temperature must be less than 40°F during, and for at least 5 days after, application.

Winter application during March

- Liquid manure application is prohibited. (this is an existing requirement)
- In 2021 solid manure application must comply with the requirements for December and January.
- Beginning in 2022, solid manure application is prohibited.

Allowance for snow removal activities

The permit allows for winter application of snow removed from animal holding areas even though an incidental amount of manure will be present in the snow.

Winter application of the snow-manure mix is allowed provided it complies with the following:

- Occurs to fields approved within the MMP;
- Observe a 300-foot setback to sensitive features; and
- March application is limited to the amount necessary to ensure animal welfare.

This does not allow winter application of manure packs or manure accumulation from animal holding areas. The amount of manure within the removed snow and subsequently land applied should be an incidental amount.

Transfer of manure ownership

The permit prohibits the transfer of manure from the facility to a third party when that third party intends to:

- Perform winter application of liquid manure; or
- Perform winter application of solid manure during the month of March.

Public notice of substantial MMP changes

The permit reduces the public comment period for substantial MMP changes to 14 days instead of the previous 30 days. The most common substantial change is the addition of a new field to the MMP. Refer to the permit for more details on changes that are considered to be substantial.

Requirements removed

The following requirements are no longer part of the NPDES general permit.

- Notification to the Minnesota Pollution Control Agency (MPCA) 30 days prior to the start-up of an anaerobic digester.
- Notification to the MPCA 3 days prior to the start of construction of a vegetated infiltration basin (VIB).
- Notification to the Minnesota Duty Officer for instances of emergency winter liquid manure application. The requirement to notify the MPCA still remains.

More information

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