

NPDES and SDS permits for feedlots

Determining when a permit is required

A National Pollutant Discharge Elimination System (NPDES) permit is required for any facility that currently has capacity, or is proposing to have capacity, that meets or exceeds any one of the federal large confined animal feeding operation (CAFO) thresholds and discharges to waters of the United States. Discharge means the addition of a pollutant to waters. Common discharges include the release of animal manure or manure-contaminated runoff or process wastewater from an open lot, manure storage area, land application site, or feed storage area.

A State Disposal System (SDS) permit is required for any facility that currently has capacity, or is proposing to have capacity, for a total of 1,000 or more animal units (AU). A facility that is required to obtain an SDS permit may choose to obtain an NPDES permit in lieu of the SDS permit. The following table and chart will help you decide if an NPDES or SDS permit is required.

Table: Common large CAFO and 1,000 animal unit feedlots

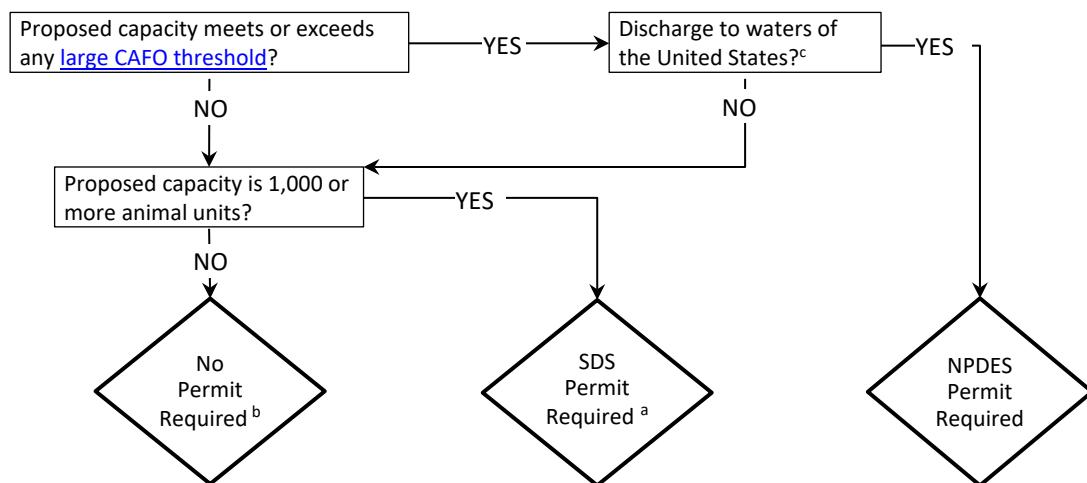
Animal type	Large CAFO threshold (Head count)	Animal unit factor (AU per head)	1,000 animal units ^a (Head count)
Mature Dairy Cows	700	1.4	715
Beef Cattle (steers) ^b	1,000	1.0	1,000
Heifer or Background Feeder ^b	1,000	0.7	1,429
Swine - Finishing	2,500	0.3	3,334
Broiler Chickens >5 lb.	125,000	0.005	200,000
Turkeys >5 lb.	55,000	0.018	55,556

a The AU numbers from multiple animal types are counted in aggregate to determine the total AU of the facility.

b All cattle, other than mature dairy cows, are counted in aggregate for the large CAFO threshold.

Flow chart to determine if NPDES or SDS permit coverage is required

(Local permits also may be required; check with local zoning authorities.)



a An NPDES permit can be issued in lieu of an SDS permit

b A construction short form (CSF) permit or interim permit may be required – see Minn. R. 7020.0405

c Common discharges include a release from an open lot, manure storage area, land application site, or feed storage area

Comparison of NPDES and SDS permits

Similarities

In general, NPDES and SDS permits have similar construction, operation, and maintenance permit conditions. They also have similar application processing procedures, including:

- Thirty day public notice required prior to issuance and major modifications.
- Permit modification for substantial changes to a Manure Management Plan (MMP) including:
 - The addition of new acreage to the MMP;
 - The addition of any crop, and its corresponding rates of application for nitrogen and phosphorus, not included in the methodology portion of the MMP;
 - The addition of application methods not accounted for in the methodology portion of the MMP;
 - Changes to the methodology portion of the MMP that will result in an increase to the maximum field-specific annual rates for nitrogen and phosphorus derived from all sources for each crop, or;
 - Changes in handling, storage, or treatment of manure that affects rates of application.
- Permit application fees and annual fees as outlined in the chart below:

	General permit	Individual permit
Issuance	\$620	\$1,860
Re-issuance (no changes to the facility)	\$620	\$620
Major and minor modifications ^a	\$620	\$1,860
Substantial MMP modifications ^a	\$620	\$1,860
Annual permit fee	\$345	\$1,230

a See [Modification of NPDES and SDS Feedlot Permits](#) for more information about major, minor, and MMP modifications

Differences

The table below summarizes some of the differences between the NPDES and SDS permits.

NPDES permit	SDS permit
Contains both state and federal requirements for construction, operation, and maintenance	Contains only state requirements for construction, operation, and maintenance
Issued for a 5-year term	Issued for a 10-year term
Authorizes a discharge to waters of the United States due to excessive rainfall events	No discharge to waters of the United States in any circumstance
Compliance with the permit assures that a discharge related to land application activities will qualify for the agricultural stormwater exemption afforded within federal rule.	No assurance that a discharge related to land application activities will qualify for the agricultural stormwater exemption afforded within federal rule.
Separate NPDES construction stormwater permit coverage is not required. <ul style="list-style-type: none">• Stormwater requirements are included within feedlot permit. (no additional fee)	NPDES construction stormwater permit required for disturbance of five or more acres. <ul style="list-style-type: none">• Separate permit application and application fee required.• For construction that disturbs less than five acres the permittee is automatically granted coverage under the general NPDES stormwater permit and must follow all applicable requirements.
14-day public notice required for substantial MMP changes	No public notice required for substantial MMP changes

Why choose an NPDES permit when not required

The owner of a large CAFO should consider maintaining coverage under an NPDES permit even when not required as the NPDES permit offers some considerable benefits.

- An NPDES permit contains all necessary requirements to allow the owner to qualify for an exemption (agricultural stormwater) within federal law for any discharges related to land application activities.
 - An owner of a large CAFO that does not obtain an NPDES permit will be responsible for determining and ensuring with proper documentation that the facility qualifies for this exemption.
- An NPDES permit offers protection from citizen lawsuits under the Clean Water Act.
 - An owner of a large CAFO that does not obtain an NPDES permit would be subject to citizen lawsuits in response to a discharge to water of the United States under any circumstances, including those instances related to chronic or extreme rainfall events. Additionally the owner would also be subject to legal action for failure to obtain a permit to authorize the discharge.
- An NPDES permit eliminates confusion between waters of the United States and waters of the State.
 - An SDS permit does not authorize discharge to waters of the United States under any circumstances.
 - An NPDES permit allows discharges resulting from chronic rainfall events or runoff from a field that has received manure are allowed regardless if the discharge is to waters of the United States or waters of the State. This eliminates any potential confusion between the two types of waters.
- A NPDES permit for feedlots with 1,000 or more AU does not increase annual permit fees.
 - Feedlots with 1,000 or more AU that do not obtain an NPDES permit are still required to comply with the federal effluent limitations, including the requirement that the feedlot be designed and operated to contain all manure, litter, and process wastewater including the runoff and direct precipitation from a 25-year, 24-hour rainfall event.
 - Given the identical discharge standards, the NPDES permit provides the aforementioned benefits without an increase in annual permit fees, compared to the SDS permit.

Options for sites that need to re-apply for NPDES or SDS permit coverage

Owners of existing feedlots with NPDES or SDS permit coverage may desire to change the type of permit coverage they maintain or even terminate permit coverage when it comes time to re-apply for continued NPDES or SDS permit coverage.

Neither NPDES nor SDS permit required

When neither NPDES nor SDS permit coverage is required, the owner may terminate their permit using the online notification of permit termination service at: <https://rsp.pca.state.mn.us/>. A termination request is required even if permit coverage has expired, otherwise the MPCA may continue to contact you about your expired permit coverage.

Maintain the same type of permit coverage

When the owner desires to maintain the same type of permit coverage, the owner will simply need to re-apply for the same type of permit coverage 180 days prior to expiration of their current permit coverage. All NPDES and SDS permit actions are required to use the online feedlot permit application service: <https://webapp.pca.state.mn.us/services/login/>.

Convert permit coverage from NPDES to SDS or vice-versa

The owner can apply for issuance of the desired permit at any time; however this most commonly occurs when the owner is required to re-apply for either NPDES or SDS permit coverage. The owner can simply apply for the type of permit they desire to switch to and upon issuance of the new type of permit coverage the previous type of permit coverage will automatically be terminated. All NPDES and SDS permit actions are required to use the online feedlot permit application service: <https://webapp.pca.state.mn.us/services/login/>.

Examples of permit scenarios

The following scenarios identify the permit options for common permitting situations:

Scenario 1

An existing feedlot houses 3000 finishing hogs (900 AU) in total confinement barns with concrete manure storage pits below the barns. There is no discharge from the facility under normal operating conditions. The facility has current coverage under the general NPDES permit.

Required permit: This feedlot is a large CAFO that does not discharge and has less than 1,000 animal units; therefore, neither an NPDES nor SDS permit is required. The owner has the option to either continue coverage under an NPDES permit or terminate permit coverage. Even though there is a limited possibility of discharge from the facility, consideration should be given to maintaining coverage under an NPDES permit to address potential concerns over possible discharges from land application activities.

Scenario 2

The facility is a cattle operation that houses 3,000 steers (3,000 AU) on open lots where runoff is directed to a liquid manure storage area to prevent a discharge to surface waters.

Required permit: This facility is a large CAFO and has more than 1,000 animal units; therefore, an SDS permit is required. The owner may choose to obtain an NPDES permit in lieu of the SDS permit. Consideration should be given to maintaining coverage under an NPDES permit as an extreme rainfall event could lead to a discharge from an overflow of the liquid manure storage area.

Scenario 3

An existing 500-cow (700 animal units) dairy is proposing to add another 500 cows (700 animal units) to the operation, for a total of 1,000 cows, or 1,400 animal units. Manure and process wastewater will be stored in an existing manure storage basin that will also be expanded. There are no open lots and site is designed not to discharge.

Required permit: Currently the feedlot is not a large CAFO and does not exceed 1,000 animal units, so neither an NPDES nor an SDS permit is currently required. However, the feedlot is proposing to expand and will be a large CAFO that also exceeds 1,000 animal units. As a result, the owner is required to apply for an SDS permit, with the option of obtaining an NPDES permit. Consideration should be given to maintaining coverage under an NPDES permit as an extreme rainfall event could lead to a discharge from an overflow of the liquid manure storage area.

Scenario 4

The facility is a 1,200-head heifer raising operation (840 AU) that houses the animals on open lots with runoff leaving the site through vegetation and eventually entering a stream.

Required permit: The proposed site is a large CAFO but not over 1,000 AU. As the runoff is being discharged to waters of the United States, an NPDES permit is required. Only an NPDES permit can authorize a discharge to waters of the United States.

More information

For more information, please contact your regional MPCA office feedlot staff. Contact numbers for MPCA regional office staff are located on the MPCA feedlot program website at <https://www.pca.state.mn.us/water/mpca-feedlot-staff-contacts>.

For additional feedlot program information, including information about applying for a NPDES or SDS permit, visit the MPCA feedlot program homepage at <https://www.pca.state.mn.us/feedlots>.