Stormwater Requirements at Feedlot Construction Sites

All feedlot construction activities that disturb one or more acres must comply with construction stormwater regulations. To simplify the permitting process, in most situations, an owner of a feedlot that is constructing is not required to apply for a construction stormwater permit.

Need for a construction stormwater permit

Minnesota rules automatically grant permit coverage under the current national pollutant discharge elimination system (NPDES) construction stormwater general permit to all feedlots that disturb 1 or more but less than 5 acres even though an application for permit coverage is never made. When feedlot construction activity will disturb 5 or more acres, the owner must apply for a construction stormwater permit; unless the feedlot has obtained coverage under a feedlot NPDES permit. A feedlot NPDES permit incorporates the requirements of the general construction stormwater permit; therefore coverage under a feedlot NPDES permit eliminates the need to obtain a NPDES construction stormwater permit regardless of the amount of area that is disturbed. For more information on obtaining a construction stormwater permit for feedlot sites that disturb 5 acres or more and do not have coverage under a feedlot NPDES permit, visit the MPCA website at: http://www.pca.state.mn.us/wfhya5b.

General construction stormwater permit

When feedlot construction sites are automatically granted permit coverage or when the feedlot has coverage under a feedlot NPDES permit, the construction activities must take place in accordance with the current general construction stormwater permit. The current general construction stormwater permit is available on the MPCA website at: http://www.pca.state.mn.us/index.php/view-document.html?gid=18984.

Stormwater pollution prevention plan

One of the conditions of the general construction stormwater permit is to develop a stormwater pollution prevention plan (SWPPP). The SWPPP identifies the practices that will be employed to comply with the permit conditions. The SWPPP must be completed prior to the commencement of land disturbing activities and must be available at the construction site. The SWPPP is not required to be included with the application for a feedlot permit unless the feedlot is proposing to disturb 50 or more acres and is applying for a feedlot NPDES permit.

A form has been developed to assist a feedlot owner develop a SWPPP, it is available on the MPCA website at: http://www.pca.state.mn.us/index.php/view-document.html?gid=3485.

Best management practices

The following are erosion prevention and sediment control BMPs that must be followed by any feedlot construction site that disturbs one or more acres. Other feedlot sites should consider utilizing these BMPs as well even though not required.

Minimize size of disturbed area

Limit the area of disturbance to the minimum required for the project.

Sediment controls

Sediment control practices, such as silt fence, rock checks, bio rolls, drainage swales, sediment traps or perimeter controls must be established on down gradient perimeters of the feedlot or manure storage area before beginning construction activities. These practices shall remain in place until final stabilization practices have been established. Perimeter controls are used to trap sediment prior to leaving the site, but alone are not considered soil stabilization practices. For more on perimeter sediment controls visit the MPCA website at: http://www.pca.state.mn.us/index.php/view-document.html?gid=7420.

Soil stockpiles

Place topsoil or other temporary stockpiles of soil in locations where they will not be subject to erosion from channelized flow (e.g. avoid grassed waterways, tile inlets, gullies, road ditches, drainage ditches, intermittent streams or other water conveyance systems). If stockpiles are placed within 300 feet and up-slope of a water of the state or tile inlet for more than three days, or when precipitation and runoff are imminent, use a grass buffer or use equivalent sediment control measures between the soil stockpile and surface water or tile inlet (e.g. silt fences or properly keyed and staked hay bales).

Immediately seed and temporarily stabilize disturbed areas

Seed and temporarily stabilize disturbed areas until the seed establishes a permanent vegetative cover. All exposed soil areas must be stabilized no later than 14 days after the construction activity has temporarily or permanently ceased. The exposed soil areas need to be stabilized within 7 days if stormwater from the disturbed land flows to special waters or waters impaired for phosphorus, turbidity, dissolved oxygen or biotic impairment that are within one mile of the disturbed land.

Temporary stabilization practices include the following:

- Grade along the contour and use surface roughing techniques such as slope tracking and tracked equipment;
- Compact the soil surface of concentrated flow areas to reduce soil erodibility;
- Apply mulch or erosion control blanket; and/or
- Install fiber rolls, sand or gravel filled berms (can be filled bags for removal), and/or geotextile erosion barriers across concentrated flow areas such as waterways.

If construction is completed after the fall seeding cutoff date, apply dormant seeding and/or implement any of the temporary stabilization BMPs listed above that are effective and appropriate for the site conditions. Implement seeding and final stabilization as soon as feasible during the following spring.

Final Stabilization

Disturbed areas must be protected by permanent erosion control materials or other BMPs that achieve the equivalent of 70 percent uniform vegetative cover.

For more information

Visit the stormwater program homepage at: http://www.pca.state.mn.us/stormwater or the feedlot program homepage at: http://www.pca.state.mn.us/feedlots for more information.