

**1573.0030 STATEWIDE WATER RESOURCE PROTECTION REQUIREMENTS.****Subpart 1. Prohibitions.**

A. A responsible party must not make:

(1) a fall application of nitrogen fertilizer to cropland located in a drinking water supply management area from a municipal public water supply well with nitrate-nitrogen levels greater than or equal to 5.4 mg/L at any point in the previous ten years;

(2) a fall application of nitrogen fertilizer to cropland located in a quarter section where vulnerable groundwater areas make up 50 percent or more of the quarter section or government lot; or

(3) an application of nitrogen fertilizer to cropland with frozen soil located in:

(a) a vulnerable groundwater area; or

(b) a drinking water supply management area that has nitrate-nitrogen levels greater than or equal to 5.4 mg/L at any point in the previous ten years.

B. The commissioner shall annually develop a fall application restrictions map. The commissioner shall post the fall restrictions map on the department's website by January 15 of each year.

C. Any responsible party in charge of cropland in a vulnerable groundwater area as depicted on the commissioner's vulnerable groundwater area map is subject to item A.

**Subp. 2. Exclusions.**

A. A responsible party in a county or a portion of a county is excluded from the fall application restriction requirements under subpart 1 if the county or the portion of the county meets one of the following conditions:

(1) the spring frost-free date in the county or a portion of the county is on or after May 22 and has a leaching index less than or equal to -12 inches as determined by the commissioner;

(2) the spring frost-free date in the county or a portion of the county is on or after May 29 and the leaching index is less than or equal to -10 inches as determined by the commissioner; or

(3) the spring frost-free date in the county or a portion of the county is on or after June 5 and the leaching index is less than or equal to -6 inches as determined by the commissioner.

B. The exclusion under this subpart applies to an entire county if a condition under item A is represented on 50 percent or more of the land area of the county.

C. For purposes of determining the exclusion under item A, the commissioner may subdivide a county by geographical boundary if there is a clear change in conditions represented in a specific area of the county.

D. The exclusion under this subpart does not apply to a drinking water supply management area with nitrate-nitrogen levels greater than or equal to 5.4 mg/L.

E. If cropland makes up less than three percent of a county's total land area, the county is excluded from the requirements in subpart 1, item A.

F. The commissioner shall exclude responsible parties in a drinking water supply management area from the fall application restrictions in subpart 1 if the commissioner determines there is a point source of nitrate-nitrogen contamination, including but not limited to an improperly sealed well, an animal feedlot, or an agricultural chemical incident, that is a significant source of nitrate-nitrogen contamination in the drinking water supply management area's well. In determining whether there is a significant point source of nitrate-nitrogen contamination, the commissioner shall:

(1) review the evaluation of point sources identified in the wellhead protection plan approved under chapter 4720 for nitrate-nitrogen contributions to the municipal public water supply well; or

(2) conduct a detailed review of potential contaminant sources in the area, evaluate the condition and vulnerability of the municipal water supply well, determine the hydrogeology and groundwater flow paths for groundwater flowing into the municipal public water supply well, and, if necessary, sample soil or other wells in the area; and

(3) based on the information obtained in subitem (1) or (2), determine whether, but for the contamination from the point source, the municipal water supply well would not exceed the reference value of 5.4 mg/L. If the municipal water supply well would not exceed the reference value of 5.4 mg/L but for the contamination from the point source, the responsible parties within the drinking water supply management area are excluded from fall application restrictions under subpart 1, item A.

G. The commissioner shall exclude part of a drinking water supply management area from the fall application restriction if the commissioner determines that the area is not contributing significantly to the contamination of the well in the drinking water supply management area. In determining whether an area is not contributing significantly, the commissioner shall apply the following:

(1) for drinking water supply management areas greater than 100,000 acres, only the designated capture zone and vulnerable groundwater areas are subject to the fall application restrictions under subpart 1, item A;

(2) for drinking water supply management areas that are less than 100,000 acres and for areas within a designated capture zone for drinking water supply management areas greater than 100,000 acres:

(a) areas within the wellhead protection plan as approved by the Department of Health under chapter 4720 that identify an area as low vulnerability are not subject to the fall application restrictions under subpart 1, item A; or

(b) areas within a drinking water supply management area that have a ten-foot or greater confining layer, as defined in part 4725.0100, subpart 24a, are not subject to fall application restrictions under subpart 1, item A, unless computer modeling indicates that leaching and infiltration of nitrate from sources at or near the ground surface is predicted to result in nitrate exceeding 5.4 mg/L in the aquifer being monitored.

The commissioner shall regulate areas under this part by quarter section or by using the boundaries in the wellhead protection plan for the drinking water supply management area.

**Subp. 3. Exceptions.**

A. Notwithstanding subpart 1, a responsible party may make a fall application of nitrogen fertilizer in a vulnerable groundwater area or drinking water supply management area if the responsible party uses applicable nitrogen rates, as defined in item B, in the following situations only:

- (1) when nitrogen fertilizer is required to establish winter grains planted in the fall;
- (2) when nitrogen fertilizer is required for pasture fertilization;
- (3) when nitrogen fertilizer is required for perennial crops;
- (4) when nitrogen fertilizer is required for grass seed production. For purposes of this subitem, grass seed production does not include corn production;
- (5) when nitrogen fertilizer is required for cultivated wild rice; or
- (6) when nitrogen fertilizer is required for growing cover crops for the specific purpose of reducing commercial applications of soil fumigants to the subsequent potato crop.

B. For purposes of item A, "nitrogen rates" means:

- (1) the nitrogen rates included in the nitrogen fertilizer best management practices adopted by the commissioner under Minnesota Statutes, section 103H.151, subdivision 2; or
- (2) if applicable nitrogen rates have not been adopted by the commissioner under Minnesota Statutes, section 103H.151, subdivision 2, the nitrogen rates included in the Fertilizer Guidelines for Agronomic Crops in Minnesota as published by the University of Minnesota Extension.

C. Notwithstanding subpart 1 and in addition to item A, a responsible party may make a fall application in a vulnerable groundwater area in the following situations:

- (1) when applying ammoniated phosphate or micronutrient formulations containing nitrogen, so long as the applied nitrogen rate does not exceed an average of 40 pounds per acre in a field. Fields that have had a soil analysis completed by a certified lab and determined to have low to very low phosphorus levels according to the Fertilizer Guidelines for Agronomic Crops in Minnesota are not subject to the 40 pounds per acre total nitrogen rate;

(2) when making a land application of agricultural-chemical-contaminated soil and other media according to Minnesota Statutes, section 18D.1052; or

(3) when making an application of nitrogen fertilizer for agricultural research and demonstrations for academic purposes. Application of nitrogen fertilizer for agricultural research and demonstrations is limited to 20 acres or less unless a higher acreage amount is approved by the commissioner.

**Statutory Authority:** *MS s 103H.275*

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