

The statement of scope for this rule, SS 077-19, was approved by the Governor on August 9, 2019, published in Register No. 764A3 on August 19, 2019, and approved by the Natural Resources Board on December 10, 2019. This rule was approved by the Governor on insert date.

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
AMENDING AND CREATING RULES

The Wisconsin Natural Resources Board proposes an order to **create** NR 151.015 (4m), (8r), (13r) and (Note), 151.078, 243.144, and to **amend** NR 243.14 (2) (c), 243.14 (4) (a) (intro.), and 243.14 (7) (intro.) relating to runoff management and non-point source performance standards and Concentrated Animal Feeding Operation (CAFO) rule revisions to incorporate by reference those performance standards, and affecting small business.

WT-19-19

Analysis Prepared by the Department of Natural Resources

1. Statute Interpreted: ss. 160.19, 281.15, 281.16 and 283.31, Stats.

2. Statutory Authority: ss. 281.16(3)(a), 283.11(3)(a), 283.31(3)(d)1., 160.19(4)(b) and 227.11(2)(a), Stats.

3. Explanation of Agency Authority: Section. 281.16(3)(a), Wis. Stat. For nonpoint sources, the department, in consultation with the department of agriculture, trade and consumer protection (DATCP), is directed to promulgate by rule performance standards and prohibitions for agricultural facilities and agricultural practices that are designed to comply with state groundwater quality standards and surface water quality standards. Chapter NR 151, Wis. Adm. Code, establishes, among other things, performance standards and prohibitions for agricultural facilities and practices designed to achieve these state water quality standards.

Section. 283.31(3), Wis. Stat. For point sources including Concentrated Animal Feeding Operations (CAFOs), the department is required to include conditions in WPDES permits that are necessary to achieve compliance with groundwater and surface water quality standards. Under s. 283.31(3)(d)1. the department may only issue a WPDES permit on condition that any discharge complies with state groundwater quality standards.

Pursuant to s. 160.19, Wis. Stat., the department is authorized to promulgate rules for facilities, activities and practices affecting groundwater which are designed to minimize the level of substances in groundwater and to maintain compliance with preventive action limits for groundwater standards to the extent technically and economically feasible. Section 160.19(4), Wis. Stat., directs the agency to review and revise its rules, if necessary, to achieve the objectives of s. 160.19(2) and (3), Wis. Stat., regarding compliance with preventive action limits and enforcement standards.

Pursuant to s. 227.11(2)(a), Wis. Stat., the department has general authority to promulgate rules to administer the explicit statutory authority granted in chs. 281 and 283, Wis. Stat.

4. Related Statutes or Rules: Section NR 151.004, Wis. Adm. Code, authorizes the department to promulgate targeted performance standards if statewide performance standards and prohibitions are insufficient to achieve surface water and groundwater quality standards in the defined targeted areas and targeted performance standards would attain surface water and groundwater quality standards in those areas.

The department has found that in groundwater nitrogen targeted performance standard areas of Wisconsin, the groundwater quality standard for nitrate has been exceeded or will not be attained, and the statewide performance standards and prohibitions are insufficient to achieve the groundwater quality standard for nitrate. The proposed rules contain a targeted performance standard for nitrate to attain the groundwater quality standard for nitrate in those areas.

Pursuant to s. 281.16(3), Wis. Stat., DATCP shall develop or specify the best management practices, conservation practices or technical standards used to demonstrate compliance with a performance standard developed under s. NR 151.004, Wis. Adm. Code. Section NR 151.002(45) defines “technical standard” as a document that specifies design, predicted performance and operation and maintenance specifications for a material, device or method. The department has consulted with DATCP in the development of the proposed rules and DATCP is expected to promulgate its related implementation rules in ch. ATCP 50, Wis. Adm. Code, Soil and Water Resource Management Program.

Section 283.13(5), Wis. Stat., provides authority to include more stringent limitations in WPDES permits when necessary to meet water quality standards or other federal or state requirements.

Section 92.15(2), Wis. Stat., provides that a local unit of government may enact regulations of livestock operations that are consistent with and do not exceed the performance standards, prohibitions, conservation practices and technical standards under s. 281.16(3), Wis. Stat.

Section 281.16(3)(e), Wis. Stat., provides that an existing facility is not required to comply with the agricultural performance standards or prohibitions unless cost sharing is made available and states that the department shall promulgate criteria for determining whether cost sharing is available under s. 281.65, Wis. Stat.

Section 281.65(1), (4)(e) and (8), Wis. Stat., provides authority for the department to promulgate rules regarding eligible costs related to compliance with agricultural nonpoint source performance standards, specifications and best management practices.

Chapters NR 153 and 154, Wis. Adm. Code, identify grant programs, best management practices and cost share conditions to implement the performance standards in ch. NR 151, Wis. Adm. Code.

Pursuant to s. 160.15, Wis. Stat., the department shall set water quality standards to be applicable to groundwater. Those water quality standards appear in ch. NR 140, Wis. Adm. Code.

5. Plain Language Analysis: The purpose of the proposed rule is to establish agricultural nonpoint source performance standards targeted to abate nitrate pollution in groundwater in areas of the state which are susceptible to groundwater contamination such that compliance with the nitrate groundwater standard can be achieved. These targeted areas are called groundwater nitrogen targeted performance standard areas in the proposed rule.

The department has found that in the groundwater nitrogen targeted performance standard areas the groundwater standard for nitrate will not be attained by implementing the statewide agricultural performance standards and prohibitions in ch. NR 151, Wis. Adm. Code. This is because soils in the targeted areas are susceptible to nitrate leaching to groundwater. These areas are located throughout the state, with greater concentrations in the Central Sands, Chippewa River Valley, and southcentral areas of the state.

The rule proposes water quality standards to prevent excessive leaching of nitrogen from agricultural fields to groundwater that will cause or contribute to an exceedance of the groundwater quality standard for nitrate-nitrogen of 10 mg/L, which is established in ch. NR 140.

Within the targeted areas, the rule proposes to limit nitrate leaching from fields identified in a producer's nutrient management plan (NMP) by an amount that is less than the groundwater quality standard. The nitrogen leaching amount must be calculated using a method approved by the department or the department of agriculture, trade, and consumer protection following the completion of a technical standard. A producer's nutrient management plan must meet the nitrate leaching limit annually across all fields in the NMP and by each field over the accounting period. Producers may seek approval from the department to use an alternative nitrogen leaching amount in an NMP if the proposed amount can be shown to achieve compliance with groundwater quality standards.

A producer's NMP must account for all sources of nitrogen, including nitrogen that is applied to fields through irrigation water.

Technical standards will be developed to establish nutrient application practices which limit nitrate leaching from the soil and can be included in nutrient management plans.

The proposed rule seeks to prohibit application of commercial nitrogen fertilizer and liquid manure to fields in the fall and winter when there is no crop need for the nitrogen. Doing so will prevent significant leaching of nitrate from the soil in spring before crops are established.

The proposed rule prohibits applications of commercial nitrogen fertilizer after September 1 with exceptions for fall seeded crops, fall cover crops in potato rotations, and established perennial crops. The proposed rule prohibits applications of liquid manure after September 1 to high permeability soils, rock soils, soils within 1,000 feet of community wells, and municipal wellhead protection areas with exceptions for establishment of fall seeded crops, established crops, or one fall application at a reduced application rate. Producers may seek approval from the department to use an alternative liquid manure application rate in a NMP if the proposed rate can be shown to achieve compliance with groundwater quality standards.

CAFOs in the targeted areas will be required to comply with the standards in the rule through their WPDES permit, regardless of any local ordinance and absent cost sharing. Large CAFOs are not eligible for cost sharing under chs. NR 153 and 154, but they are required to comply with the livestock performance standards in ch. NR 151. A cross reference to the targeted performance standard language will be added to ch. NR 243, Wis. Adm. Code.

Non-permitted farms in the targeted areas will be required to comply with the standards in the rule when cost sharing is made available. Where best management practices are needed for compliance and the appropriate practices are eligible for cost share under chs. NR 153 and 154, Wis. Adm. Code, non-permitted farms will be required to comply only where cost share is offered. Certain practices are not eligible for cost share under chs. NR 153 and 154, Wis. Adm. Code. Non-permitted farms may be required to adopt certain changes absent cost share if a local unit of government adopts a local ordinance requiring farms to adopt changes consistent with the rule.

6. Summary of, and Comparison with, Existing or Proposed Federal Statutes and Regulations: The federal government does not directly regulate discharges to groundwater nitrogen targeted performance standard areas.

7. Summary of Comments Received During Preliminary Comment Period and at Public Hearing on the Statement of Scope:

The department solicited comments regarding the proposed statement of scope for proposed rule changes to NR 151 and NR 243. Comments were collected during preliminary public hearings held in Hancock, Janesville, and Fond du Lac from November 4-8, 2019 and by emails submitted to the department during the comment period. The department received approximately 150 comments and indications of support or opposition from over 700 individuals and organizations. The majority of comments received were in favor of the statement of scope. Some industry groups expressed concerns that the department had not met the legal threshold to propose a targeted performance standard and that a new standard was not necessary. Comments focused on several issues, including public health concerns, protecting drinking water sources from nitrate contamination, farmer acceptance, costs associated with well replacement and treatment, geographic extent of the targeted area, ensuring effective implementation, the cost of implementation, and the need for legislative action in addition to the proposed rule.

8. Comparison with Similar Rules in Adjacent States: A review of other states' requirements for commercial nitrogen fertilizer and manure applications on soils susceptible to groundwater nitrate contamination found similarities with the proposed rule. These efforts focus on managing nutrients in ways that are intended to protect groundwater and surface water which is used as a drinking water source. Most Wisconsin residents use groundwater as their drinking water source. Some adjacent states use surface water as their primary source of drinking water. Either way, there are similarities to nutrient management practices such as timing and rates of commercial nitrogen fertilizer or manure applications and setback distances to public drinking water supplies. Most adjacent states take a targeted approach to nutrient management that includes regulation and voluntary recommendations. Minnesota, Iowa, Indiana, Michigan, and Nebraska target practices to limit leaching of nitrate in areas susceptible to groundwater contamination. Minnesota and Nebraska have comprehensive rules with the goal of protecting groundwater from nitrate contamination. Iowa has a groundwater protection fee tacked onto the cost of nitrogen fertilizers.

- Minnesota enacted regulations in 2019 to protect groundwater from nitrate contamination. Commercial nitrogen fertilizer, and not manure, is subject to requirements in areas of the state targeted using groundwater data, including areas that contribute to drinking water supplies. Fall applications of commercial nitrogen fertilizer are prohibited in targeted areas with exceptions for establishing certain crops or when applying to established crops. Additional best management practices are required in drinking water supply areas with nitrate data that exceed 8.0 mg/L within the last ten years or statistics showing the drinking water well is projected to exceed the "health risk limit" in the next ten years.
- Iowa has a voluntary framework that established a goal to reduce nitrogen contamination of surface waters, which are the primary source of public drinking water systems in the state. Practices focus on the timing and method of nitrogen applications, establishment of cover crops and living mulches, and buffering the edge of fields. Land applications of manure are required to be setback 200 feet from sinkholes and wells. Iowa includes a groundwater protection fee in sales of nitrogen fertilizers. Rural Water Associations manage groundwater drinking water supplies locally with the goal of meeting drinking water standards by targeting best management practices to land areas that contribute recharge to drinking water wells.
- Illinois established a framework that focuses on regulatory and voluntary efforts to reduce nitrate-nitrogen loading to surface waters by 15% by 2025 and 45% by 2040. Illinois identifies best management practices for reducing nutrient runoff from agriculture and targets critical watersheds. Land applications of manure are required to be setback 100 feet from conduits to surface waters in the absence of a 35-foot vegetative buffer.

- Michigan’s guidelines for farm management provide general recommendations to keep nutrients within the root zone of plants. Farms that follow the guidelines are given a certain level of protection against a nuisance complaint. To reduce nitrogen leaching to groundwater, emphasis is placed on nitrogen fertilizer rates, forms, timing, and placement. Practices are recommended to improve nitrogen recovery by plants and reduce groundwater contamination risks associated with sandy soils and other sensitive areas, including certain crop rotations, forage and cover crops, plant analysis, and soil sampling for nitrate. Cover crops are recommended after harvest to prevent nitrogen leaching to groundwater. Recommendations related to irrigation are intended to avoid applying excess water, increasing potential nitrate leaching to groundwater.
- Ohio regulations are aimed at protecting surface water quality. Nutrient management plans are required in ‘watersheds in distress,’ and manure applications are prohibited between December 15 and March 1. Fertilizer applications are prohibited to frozen or snow-covered soils in designated regions, and statewide, manure may not be applied to frozen or snow-covered soils. Certification is required for fertilizer and manure applications from permitted farms. Ohio has created a water fund for voluntary projects implemented outside of ‘watersheds in distress’ to reduce nutrient runoff from agriculture, including nitrogen.
- Indiana has developed recommendations for best management practices that reduce nitrogen losses to groundwater, such as filter strips, buffers, and nutrient management. Practices are targeted for lands contributing recharge to drinking water wells that exceed the nitrate standard. Indiana requires certification of commercial fertilizer applicators, including when transporting fertilizer from permitted farms and outside the state.
- Although not a neighbor state, Nebraska is a Midwestern state with a lot of similarities to Wisconsin with respect to agriculture and nitrate contamination of groundwater. Nebraska law established Natural Resource Districts (NRD) and provides authority to the NRDs to develop and enforce water management regulations focused on protecting groundwater. Approaches taken by the state’s 23 NRDs range from voluntary to regulatory. Many NRDs require certification to apply nitrogen fertilizer. Some NRDs use a phased system of regulations based on average nitrate levels measured in groundwater over time. As an example, the Central Platte NRD requires different nitrate leaching controls based on soil types, crops, areas that supply municipal drinking water, areas where there is a strong potential for future groundwater quality problems, and areas where groundwater nitrate levels are not declining at an acceptable rate.

9. Summary of Factual Data and Analytical Methodologies Used and How Any Related Findings Support the Regulatory Approach Chosen: The department convened a Technical Advisory Committee to provide input to identifying the groundwater nitrogen targeted performance standard areas and input on the performance standards that will apply in the targeted areas.

10. Analysis and Supporting Documents Used to Determine the Effect on Small Business or in Preparation of an Economic Impact Report: The department has prepared a preliminary draft Economic Impact Analysis that includes cost estimates based on available cost data.

11. Effect on Small Business (initial regulatory flexibility analysis): The department’s draft Economic Impact Analysis includes information on the effect on small business. In discussions with the Technical Advisory Committee, the department considered how the impact on small business could be reduced. The proposed rules allow flexibility for farmers and options for achieving compliance with the targeted performance standards.

12. Agency Contact Person: Mike Gilbertson, Water Resources Management Specialist, Wisconsin Department of Natural Resources, P.O. Box 7921, WT/3, Madison, Wisconsin 53707-7921, mike.gilbertson@wisconsin.gov.

13. Place where comments are to be submitted and deadline for submission:

Written comments may be submitted at the public hearings, by regular mail, fax or email to the contact information listed above.

Comments may be submitted to the department contact person listed above or to DNRAdministrativeRulesComments@wisconsin.gov until the deadline given in the upcoming notice of public hearing. The notice of public hearing and deadline for submitting comments will be published in the Wisconsin Administrative Register and on the department's website, at <https://dnr.wi.gov/calendar/hearings/>. Comments may also be submitted through the Wisconsin Administrative Rules Website at <https://docs.legis.wisconsin.gov/code/chr/active>. The consent of the Attorney General will be requested for the incorporation by reference of Wisconsin Natural Resources Conservation Service ("NRCS") Nutrient Management Standard 590, dated December 2015 at s. NR 151.015 (13r).

RULE TEXT

SECTION 1. NR 151.015 (4m) is created to read:

NR 151.015 (4m) "Cropland" means land used to produce or harvest crops.

SECTION 2. NR 151.015 (8r) is created to read:

NR 151.015 (8r) "Irrigation" means the application of water to land, crops, or plants in order to supply the water needs of plants or to promote plant growth.

SECTION 3. NR 151.015 (13r) and (Note) are created to read:

NR 151.015 (13r) "Nitrogen restricted soils" means N Restricted Soils as provided in NRCS Technical Standard 590, dated December 2015 which is incorporated by reference for this chapter.

Note: Copies of the Wisconsin Natural Resources Conservation Service ("NRCS") Nutrient Management Standard 590, dated December 2015, including the Technical Note (TN-1) referenced in the standard, may be inspected at the offices of the department, the Wisconsin Department of Agriculture, Trade and Consumer Protection, county land conservation departments and the legislative reference bureau, Madison Wisconsin. NRCS 590 (and TN-1) is also available electronically at:

[https://efotg.sc.egov.usda.gov/references/public/WI/590_Standard-\(2015-12\).pdf](https://efotg.sc.egov.usda.gov/references/public/WI/590_Standard-(2015-12).pdf) and https://efotg.sc.egov.usda.gov/references/public/WI/Conservation_Planning-TN-1.pdf.

SECTION 4. NR 151.078 is created to read:

NR 151.078 Groundwater nitrogen targeted performance standard and prohibitions. (1)

APPLICABILITY. This section applies to all crop producers and livestock producers that apply commercial nitrogen fertilizer or manure directly or through contract to croplands, pastures, and winter grazing areas that meet any of the following criteria:

(a) Soils that meet the definition of nitrogen restricted soils under s. NR 151.015 (13r).

(b) Fields that are in nitrogen restricted areas identified in Table 2.

(c) Fields that are in an area identified in a wellhead protection plan for a municipal water system prepared under s. NR 811.12 (6) when the municipal water system is required under s. NR 809.115 (4) to increase monitoring frequency for nitrate.

(2) PROHIBITION ON NITRATE EXCEEDANCES. No crop producer or livestock producer may apply commercial nitrogen fertilizer or manure to croplands, pastures, and winter grazing areas that causes leaching of nitrate to groundwater in a manner that will cause or contribute to an exceedance of the groundwater quality standard for nitrate-nitrogen under s. NR 140.10.

(3) NUTRIENT MANAGEMENT PLANNING. (a) *Nitrogen leaching limit.* In addition to the requirements of s. NR 151.07, crop producers and livestock producers shall apply manure and other nutrients in conformance with a nutrient management plan that meets all of the following requirements:

1. All croplands, pastures, and winter grazing areas identified in the producer's nutrient management plan shall have a nitrogen leaching amount that is calculated using a method approved by the department or the department of agriculture, trade, and consumer protection that meets all of the following requirements:

a. An average annual nitrogen leaching amount over all acreage that is less than 2.2 pounds per acre per inch of groundwater recharge provided that nutrient application rates on any field may not exceed application rates allowed under s. ATCP 50.04 (3).

b. For each individual field, a nitrogen leaching amount that is less than 2.2 pounds per acre per inch of groundwater recharge averaged over the accounting period provided that in no year may nutrient application rates on any field exceed application rates allowed under s. ATCP 50.04 (3).

2. A producer may submit to the department for approval in its nutrient management plan an alternative nitrogen leaching amount to that identified in subd. 1. that the producer demonstrates to the satisfaction of the department will comply with s. NR 151.078 (2).

(b) *Irrigation water.* The nutrient management plan shall account for all sources of nitrogen, including nitrogen applied through irrigation water.

(4) PROHIBITIONS FOR GROUNDWATER NITROGEN TARGETED PERFORMANCE STANDARD AREAS.

(a) *Prohibition on fall application of commercial nitrogen fertilizer.* No crop producer or livestock producer may apply commercial nitrogen fertilizer to croplands, pastures, and winter grazing areas identified in sub. (1) after September 1, except where any of the following applies:

1. The application is needed for fall seeded crops and is applied in accordance with application rates allowed under s. ATCP 50.04 (3).

2. The application is to fall cover crops within a potato rotation to reduce applications of soil fumigants to future potato crops and is applied in accordance with application rates allowed under s. ATCP 50.04 (3).

3. The application is to established perennial crops with a maximum rate of 36 pounds per acre or is in accordance with application rates allowed under s. ATCP 50.04 (3), whichever is less.

(b) Prohibition on fall and winter application of liquid manure.

1. This paragraph applies to croplands, pastures, and winter grazing areas identified in sub. (1) (a), where any of the following apply:

- a. Soil that is within 1,000 feet of a community potable water well.
- b. Soil that is highly permeable soil (P).
- c. Soil that is rock soil with less than 20 inches to bedrock (R).

2. This paragraph applies to all croplands, pastures, and winter grazing areas identified in sub. (1) (c),

3. Except as provided in subds. 4. or 5., crop producers and livestock producers are prohibited from applying liquid manure to soils identified in subd 1. after September 1.

4. Crop producers and livestock producers may make fall mechanical application of liquid manure to soils identified in subds. 1. and 2., where any of the following applies:

a. The application is needed for establishment of fall seeded crops and is applied in accordance with application rates allowed under s. ATCP 50.04 (3).

b. The application is on an established crop in accordance with application rates allowed under s. ATCP 50.04 (3).

c. Application rates for the application are reduced to 25 percent, or less, of the rates allowed under s. ATCP 50.04 (3) with only one application occurring in the fall.

5. A crop producer or livestock producer may submit to the department for approval in its nutrient management plan an alternative application rate to those allowed under subd. 4. that the producer demonstrates to the satisfaction of the department will comply with s. NR 151.078 (2).

Note: Mechanical application of manure is prohibited for soils with less than 2 feet to Silurian bedrock under s. NR 151.075 (9), and WPDES permit holders are prohibited from applying manure and process wastewater on soils with less than 2 feet to bedrock under s. NR 243.14 (2) (a) 7.

Table 2. Nitrogen Restricted Areas	
County	Township, Range, Section

Adams	T20N R7E: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, & 36
	T19N R7E: All Sections
	T18N R4E: Sections 12, 13, & 24
	T18N R5E: All Sections
	T18N R7E: All Sections
	T17N R6E: Sections 1, 2, 3, 4, 11, & 12
	T17N R7E: All Sections
	T16N R6E: Sections 9, 13, 16, 21, 24, 28, 32, & 33
	T16N R7E: All Sections
	T15N R6E: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, & 36
	T15N R7E: Sections 2, 3, 4, 7, 8, 17, 18, 20, 30, & 31
	T14N R6E: Sections 12 & 24
	T14N R7E: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33
Barron	T34N R11W: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
	T33N R12W: All Sections
	T33N R11W: All Sections
	T33N R10W: Sections 21, 27, 28, & 34
	T32N R10W: All Sections
Brown	T21N R20E: Sections 1, 25, & 26
	T21N R21E: All Sections
Buffalo	T24N R13W: All Sections
	T24N R12W: All Sections
	T21N R12W: All Sections
	T20N R12W: All Sections
Calumet	T20N R20E: Sections 1, 2, 11, 12, 13, & 14
	T19N R19E: Section 33
	T18N R19E: All Sections
	T18N R20E: All Sections
	*T17N R19E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, & 18
	T17N R20E: All Sections
Chippewa	T31N R10W: All Sections
	T31N R9W: All Sections
	T30N R10W: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 22, 23, 24, 25, 26, 27, 34, 35, & 36
	T30N R9W: All Sections
	T30N R8W: Sections 19, 29, 30, 31, & 32
	T29N R9W: All Sections
	T29N R8W: All Sections
	T29N R7W: All Sections
	T28N R10W: All Sections
	T28N R8W: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33
	T28N R7W: Sections 5 & 6
	T28N R5W: All Sections
Clark	T27N R2W: All Sections

	T26N R2W: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 22, 23, 24, 25, 26, 27, 34, 35, & 36	
	T26N R1W: All Sections	
	T25N R3W: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, & 18	
	T25N R2W: All Sections	
	T25N R1W: All Sections	
	T24N R1E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, & 18	
Columbia	*T13N R7E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33	
	T13N R9E: Sections 22, 25, 26, 27, 34, & 36	
	T13N R10E: All Sections	
	T13N R11E: All Sections	
	T13N R12E: All Sections	
	T12N R9E: Sections 25, 35, & 36	
	T12N R10E: Sections 19, 20, 22, 23, 26, 27, 28, 29, 30, 32, & 33	
	T12N R11E: All Sections	
	T12N R12E: Sections 18 & 19	
	T11N R9E: All Sections	
	T11N R10E: All Sections	
	T11N R11E: All Sections	
	T11N R12E: Sections 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33	
	T10N R8E: Sections 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36	
	T10N R9E: All Sections	
	T10N R10E: All Sections	
	T10N R11E: All Sections	
	T10N R12E: All Sections	
	Dane	*T9N R6E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, & 18
		T9N R8E: All Sections
T9N R9E: All Sections		
T9N R10E: All Sections		
T9N R11E: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36		
T8N R6E: All Sections		
T8N R7E: Sections 13, 14, 15, 23, 24, 25, & 26		
T8N R8E: All Sections		
T8N R9E: All Sections		
T8N R10E: All Sections		
T8N R11E: All Sections		
T8N R12E: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33		
T7N R7E: Sections 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36		
T7N R8E: All Sections		
T7N R10E: All Sections		
T7N R11E: All Sections		
T7N R12E: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33		
T6N R6E: All Sections		
T6N R7E: All Sections		
T6N R8E: All Sections		

	T6N R9E: All Sections
	T6N R10E: Sections 5, 6, 7, & 8
	T6N R11E: All Sections
	T6N R12E: All Sections
	T5N R6E: All Sections
	T5N R8E: All Sections
	T5N R9E: All Sections
	T5N R10E: All Sections
	T5N R11E: All Sections
	T5N R12E: All Sections
Dodge	T13N R16E: Sections 1, 14, 22, 23, 24, & 25
	T13N R17E: All Sections
	T12N R16E: Sections 1, 2, 3, 10, 11, 12, 13, 14, & 15
Dunn	T31N R11W: All Sections
	T30N R13W: All Sections
	T28N R11W: Sections 14, 23, 24, 25, 26, 27, 34, 35, & 36
	T27N R12W: All Sections
	T27N R11W: All Sections
	T26N R13W: All Sections
	T26N R11W: All Sections
Eau Claire	T26N R7W: All Sections
	T25N R10W: All Sections
	T25N R9W: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
Fond du Lac	T14N R16E: Section 36
	T14N R17E: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
Grant	T8N R2W: All Sections
	T5N R5W: All Sections
Green	T4N R6E: Sections 25, 26, 34, & 36
	T4N R8E: All Sections
	T4N R9E: All Sections
	T3N R6E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 22, 23, 24, 25, 26, 27, 34, 35, & 36
	T3N R7E: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
	T3N R8E: All Sections
	T3N R9E: All Sections
	T2N R6E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 22, 23, 24, 25, 26, 27, 34, 35, & 36
	T2N R7E: Sections 1, 12, 13, 24, 25, & 26
	T2N R8E: All Sections
	T2N R9E: All Sections
	T1N R6E: All Sections
	T1N R7E: All Sections
	T1N R8E: All Sections
	T1N R9E: All Sections
Green Lake	T16N R12E: All Sections
	T16N R11E: Sections 2, 11, 12, 23, 24, & 36

	T15N R11E: Section 1
	T15N R12E: Section 5
	T15N R11E: Sections 34 & 35
	T14N R11E: All Sections
	T14N R12E: Sections 19, 28, 29, 30, 31, & 32
Iowa	*T8N R1E: All Sections
	*T8N R2E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, & 18
	*T8N R3E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, & 18
	*T8N R4E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 22, 23, 24, 25, 26, 27, 34, 35, & 36
	*T8N R5E: All Sections
	T7N R1E: All Sections
	T6N R1E: Sections 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
	T6N R2E: Sections 19, 20, 21, 28, 29, 30, 31, 32, & 33
	T6N R5E: All Sections
	T5N R1E: All Sections
	T5N R3E: Sections 15, 16, 21, 22, 23, 26, 27, 28, & 29
	T5N R4E: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
	T5N R5E: Sections 2, 11, 34, & 35
	*T4N R1E: Sections 4, 5, 6, 7, 8, 9, 16, 17, & 18
	*T4N R3E: All Sections
	*T4N R4E: All Sections
	*T4N R5E: All Sections
Jackson	T23N R5W: All Sections
	T21N R5W: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33
	*T19N R5W: All Sections
Jefferson	T7N R14E: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33
	T6N R13E: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 18, 21, 22, 23, 24, 25, 26, 27, 30, 31, 34, 35, & 36
	T5N R13E: All Sections
	T5N R14E: All Sections
	T5N R15E: Sections 5, 6, 21, 28, 29, & 30
Juneau	T20N R4E: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, & 36
	T20N R5E: Sections 4, 5, 6, 7, 8, 17, 19, 20, & 30
	T16N R3E: Sections 26, 28, 34, & 36
	T15N R3E: All Sections
	T15N R4E: Sections 5, 6, & 7
	T14N R2E: Sections 22, 23, 24, 25, 26, 27, 34, 35, & 36
	T14N R5E: Sections 20, 21, 29, & 32
La Crosse	T17N R8W: All Sections
	T17N R7W: Sections 19, 29, 30, 32, & 33
Lafayette	T3N R1E: All Sections
	T3N R4E: All Sections
	T3N R5E: All Sections
	T2N R1E: Sections 5 & 8

	T2N R3E: All Sections
	T2N R4E: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
	T2N R5E: All Sections
	T1N R2E: Sections 12, 13, & 14
	T1N R3E: All Sections
	T1N R4E: All Sections
	T1N R5E: All Sections
Langlade	T32N R11E: Sections 24, 25, 26, 29, 30, 32, 33, 34, & 35
	T31N R10E: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
	T31N R11E: All Sections
	T31N R12E: Section 6
	T30N R11E: Sections 1, 2, 3, 4, 5, 6, 9, & 10
Manitowoc	T21N R22E: Sections 34 & 35
	T20N R21E: All Sections
	T20N R22E: All Sections
	T19N R22E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33
	T18N R22E: Section 3
Marathon	T30N R5E: All Sections
	T30N R6E: All Sections
	T29N R4E: All Sections
	T29N R5E: All Sections
	T28N R5E: All Sections
	T28N R6E: All Sections
	T27N R4E: All Sections
	T27N R5E: All Sections
	T26N R4E: All Sections
	T26N R10E: All Sections
Marinette	T31N R20E: All Sections
	T31N R21E: Sections 18, 19, 30, & 31
Marquette	T14N R10E: All Sections
Monroe	T19N R1W: Sections 32 & 33
	T18N R2W: Sections 24 & 35
	T18N R3W: All Sections
	T18N R2W: All Sections
	T18N R1W: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33
	T17N R4W: All Sections
	T17N R3W: Sections 5, 6, & 7
	T17N R2W: Sections 1, 11, 12, 13, & 14
	T17N R1W: Sections 6, 7, 17, 18, & 18
Pepin	T25N R14W: All Sections
	T25N R13W: All Sections
	T25N R12W: All Sections
	T25N R11W: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, & 18
	*T24N R15W: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36

	T24N R14W: Sections 30 & 31
	T23N R15W: All Sections
	*T23N R14W: All Sections
Pierce	T27N R20W: All Sections
	T27N R19W: All Sections
	T27N R18W: Section 1
	T27N R17W: All Sections
	T26N R20W: All Sections
	T26N R19W: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, & 18
	T26N R18W: Sections 15, 22, 25, 26, 27, 34, 35, & 36
	T26N R17W: All Sections
	T26N R16W: All Sections
	T25N R18W: Sections 1, 2, 11, 12, & 13
	T25N R17W: All Sections
	T25N R15W: All Sections
	T24N R18W: All Sections
	T24N R17W: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
Polk	T34N R18W: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, & 36
Portage	T25N R8E: Sections 25, 26, 27, 34, & 35
	T25N R9E: All Sections
	T25N R10E: All Sections
	T24N R8E: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, & 36
	T24N R9E: All Sections
	T24N R10E: All Sections
	T23N R7E: Sections 25, 26, 32, 33, 34, 35, & 36
	T23N R8E: All Sections
	T23N R9E: All Sections
	T23N R10E: All Sections
	T22N R8E: All Sections
	T22N R9E: All Sections
	T22N R10E: Sections 3, 4, 5, 6, 7, & 9
	T21N R8E: All Sections
	T21N R9E: All Sections
	T21N R10E: All Sections
Richland	T12N R1W: All Sections
	T11N R2W: All Sections
	T11N R2E: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
	T9N R2E: All Sections
Rock	T4N R10E: All Sections
	T4N R11E: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33
	T4N R12E: Sections 4, 8, 9, 16, & 17
	T4N R13E: Sections 29, 32, & 33
	T4N R14E: All Sections
	T3N R10E: All Sections
	T3N R11E: All Sections

	T3N R12E: All Sections
	T3N R13E: All Sections
	T3N R14E: All Sections
	T2N R10E: All Sections
	T2N R11E: All Sections
	T2N R12E: All Sections
	T2N R13E: All Sections
	T2N R14E: All Sections
	T1N R10E: All Sections
	T1N R11E: All Sections
	T1N R12E: All Sections
	T1N R13E: All Sections
Sauk	T13N R2E: Sections 4, 9, & 10
	T13N R3E: Sections 26, 33, 34, & 36
	T13N R5E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33
	T12N R3E: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, & 36
	T12N R4E: All Sections
	T12N R5E: All Sections
	T12N R6E: All Sections
	T12N R7E: Sections 4, 6, 8, 19, 27, 28, 29, 32, 33, & 34
	T11N R4E: All Sections
	T10N R5E: Sections 12, 23, 25, 26, 35, & 36
	T10N R6E: All Sections
	*T10N R7E: Sections 16, 18, & 20
	T9N R3E: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
	T9N R5E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, & 18
Shawano	T28N R12E: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33
	T27N R17E: Sections 24, 26, 34, 35, & 36
	T27N R18E: All Sections
Sheboygan	T16N R20E: Sections 1, 2, & 12
St. Croix	T31N R17W: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
	T30N R19W: Sections 13, 21, 22, 24, 27, & 28
	T30N R18W: All Sections
	T30N R17W: All Sections
	T29N R18W: All Sections
	T29N R17W: All Sections
	T28N R19W: Sections 29, 30, 31, 32, 33, 34, & 35
	T28N R18W: Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 15, & 16
	T28N R17W: Sections 5, 6, 7, & 18
Trempealeau	T19N R8W: Sections 22, 23, 24, 25, 26, 27, 34, 35, & 36
	T18N R9W: All Sections
	*T18N R8W: All Sections
Walworth	T13N R5W: Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, & 36
	T13N R4W: Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27,

	28, 29, 30, 31, 32, 33, 34, 35, & 36
	T12N R5W: Sections 25 & 36
	T12N R4W: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33
Walworth	T2N R15E: All Sections
	T2N R16E: Sections 5, 6, 8, & 9
	T1N R15E: All Sections
Waupaca	T25N R13E: All Sections
	T23N R11E: Sections 4, 6, 7, 8, 9, 10, & 17
	T21N R11E: Sections 8, 15, 16, 17, 19, 20, 21, 22, 23, 25, 28, 30, 31, 32, & 35
Waushara	T20N R8E: All Sections
	T20N R9E: All Sections
	T20N R10E: Section 7
	T19N R8E: All Sections
	T19N R9E: All Sections
	T18N R8E: Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, & 33
Wood	T21N R5E: Sections 5, 8, 16, 17, 21, 28, 29, 30, 32, & 33

*Township extends across multiple counties.

SECTION 5. NR 243.144 is created to read:

NR. 243.144 Groundwater nitrogen targeted performance standard and prohibitions.

Owners or operators that apply commercial nitrogen fertilizer or manure directly or through contract to croplands, pastures, and winter grazing areas that meet the applicability criteria for the groundwater nitrogen targeted performance standard under s. NR 151.078 (1) shall comply with s. NR 151.078.

SECTION 6. NR 243.14 (4) (a) (intro.) is amended to read:

NR 243.14 (4) (a) Subject to additional restrictions under s. NR 243.144 and in subs. (6) and (7) for the winter season, a permittee shall choose and implement one of the following options whenever manure or process wastewater is applied on areas of fields within the SWQMA:

SECTION 7. NR 243.14 (7) (intro.) is amended to read:

NR 243.14 (7) Liquid manure winter restrictions. ~~The~~Except as provided in s. NR 243.144, the following additional restrictions in this subsection apply to the land application of liquid manure on frozen or snow covered ground:

SECTION 8. EFFECTIVE DATE. This rule takes effect on the first day of the month following publication in the Wisconsin Administrative Register as provided in s. 227.22 (2) (intro.), Stats.

SECTION 9. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural

Resources Board on [DATE].

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

BY _____

Preston D. Cole, Secretary

(SEAL)

DRAFT