

**Wisconsin Department of Agriculture,
Trade and Consumer Protection**

Initial Regulatory Flexibility Analysis

Rule Subject: Soil and Water Resource Management Program
Adm. Code Reference: ATCP 50
Rules Clearinghouse #: _____
Department Docket #: 15-R-13

Rule Description

General

This proposed rule will modify the Soil and Water Resource Management (SWRM) Program under ch. ATCP 50, primarily for the purpose of incorporating the changes to the United States Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) 2015 version of the 590 Nutrient Management Standard (2015-590 NM Standard) for the purposes of implementing ch. NR 151 adopted by the Department of Natural Resources (DNR) in 2011 (2011 DNR standards).¹ The most significant changes to the rule that impact this analysis center on the agricultural conservation standards for nutrient management (NM) in Subchapters II, clarification of requirements for farmland preservation conservation compliance in Subchapter III, a cost share rate adjustment in Subchapter V, NM requirements in local regulations in Subchapter VII, and the NM technical and other standards for practices cost shared with state funds in Subchapter VIII. Farmers and others may benefit from various rule changes intended to improve NM implementation and resource protection.

¹ DNR's final rulemaking order of September 24, 2010, Administrative Rule Number WT-14-08, as well as revised fiscal estimate is available at <https://health.wisconsin.gov/admrules/public/Rmo?nRmoId=1703>

Small Businesses Affected

The moderate impacts of this rule will mostly affect farmers, a great majority of whom qualify as "small businesses." This rule provides technical runoff control standards for farmers to implement the water quality performance standards required by the 2011 DNR promulgated standards. Most farmers will be insulated from some of the costs of implementation because of the state's cost share requirement and the limited availability of state funding to provide cost-sharing. For farmers receiving farmland preservation program (FFP) tax credits, this rule provides farmers the flexibility to minimize financial impacts of compliance, including the option of discontinuing collection of a tax credit as a last recourse to avoid compliance responsibilities. Rule changes will also affect businesses other than farmers including NM planners, soil testing laboratories, farm supply organizations, agricultural engineering

practitioners, and contractors installing farm conservation practices. The rule will impact these businesses to a much smaller degree, and with primarily positive impacts.

To reach its conclusion regarding agricultural nutrient management (NM) impacts on farmers and non-farmers, the Department assessed the costs associated with the changes to the 2015-590 NM Standard as compared to the 2005-590 NM Standard, while also identifying aspects of the 2015-590 NM Standard that are likely to have no cost increases to farmers or that may reduce the cost of conducting NM on their farms. The Department concludes that this rule will create a moderate impact on farmers and other businesses.

Department Impact Analysis

Chapter 92.05(3)(k) charges the Department with improving agricultural NM, making rules consistent with s. 281.16(3), and providing financial incentives, education, and compliance assistance to agricultural landowners. Implementing NM practices can improve farm profitability, reduce excess nutrient applications to cropland, and reduce water quality impacts. The Wisconsin USDA NRCS developed the 2015 version of the Wisconsin 590 Nutrient Management Standard with technical assistance from agronomists, farmers, UW scientists, and agency staff. In Wisconsin, the 590 Standard uses the current 2012 version of UW Pub. A2809 *Nutrient Application Guidelines for Field, Vegetable and Fruit Crops* to determine the crop's nutrient needs and includes other restrictions required of NM plans developed for: Department of Natural Resources (DNR) – Notice of Discharge or Wisconsin Pollution Discharge Elimination System permits for >1000 animal unit operations, Ordinances for manure storage or livestock siting, Department cost share or Farmland Preservation, DNR cost share, USDA cost share, or voluntary reasons.

The Department calculates an additional \$3/acre to comply with the 2015-590 NM Standard may be appropriate for those farms that have not yet developed a NM plan. The costs for soil testing and labor have increased, and additional restrictions have been added to the 2015-590 NM Standard that may require more land to apply manure compared to the 2005-590 NM Standard. The reasons for needing more land to apply manure are due to the additional spreading restrictions listed below.

- Prohibiting nutrient applications within 50' of all direct conduits to groundwater where only grazing and a limited amount of corn starter fertilizer may be applied. This change was added to all direct conduits to groundwater, not just wells. However the 2015-590 NM Standard deletes a 200' incorporation requirement for non-winter nutrient applications, allowing farmers to use less erosive tillage practices.
- Prohibiting applications of manure within 100' of a non-community well which includes schools, restaurants, churches, and within 1000' of a community well unless the manure is treated to reduce pathogen content. Community wells cover approximately 30,000 acres of cropland. Non-community wells are not mapped and cropland acreage is estimated to be less than 7,000 acres.

- Prohibiting winter nutrient applications within 300' of all direct conduits to groundwater, unless manure is directly deposited by gleaning or pasturing animals. This setback increased 100' from the 200' setback in the 2005-590 Standard.
- Prohibiting liquid manure application in February or March on DNR Well Compensation Areas, or on fields with Silurian dolomite bedrock within 5' of the surface. DNR Well Compensation Areas cover about 6,000 acres of cropland and Silurian dolomite bedrock within 5' of the surface covers 83,000 acres of cropland.
- Limiting manure nitrogen (N) applications in late summer or fall using the lower application rate of either the current 2012 version of UW Pub. A2809 or 2015-590 NM Standard available N per acre rate for the situation on sites vulnerable to N leaching high permeability (P) soils, or rock (R) soils with < 20 inches to bedrock, or wet (W) soils with < 12 inches to apparent water table (PRW Soils). N rates of 90 or 120 lbs. N per acre have not changed. The rates depend on the crop, manure dry matter, and soil temperature. Wisconsin P soils cover 1.3 million cropland acres, R soils cover 235,000 cropland acres, and W soils cover 1.5 million cropland acres.
- Limiting winter manure applications when frozen or snow-covered soils prevent effective incorporation. The NM plan must limit these applications when slopes are > 6% and if fields have concentrated flow areas using 2 practices listed in the winter application section of the 2015-590 NM Standard. These requirements do not apply to manure deposited through winter gleaning or pasturing. Farmers will need more application acreage if they choose these practice options as either or both of the required practices for each field: Apply manure in intermittent strips on no more than 50% of field; Reduce manure application rate to 3,500 gal., or 30 lbs. P₂O₅, whichever is less; No manure application within 200 feet of all concentrated flow channels; Fall tillage is on the contour and slopes are lower than 6%. Wisconsin has 3.1 million cropland acres with slopes greater than 6%.
- Prohibiting manure applications to areas locally delineated by the Land Conservation Committee as areas contributing runoff to direct conduits to groundwater, unless manure is substantially buried within 24 hours of application. This provision now requires incorporation to reduce the risk of runoff being intercepted by the conduit to groundwater in all seasons. Therefore, winter applications are prohibited, because the manure cannot be effectively incorporated if the ground is frozen. Farmers may need more application acreage if the field's soil loss will be too high with the required manure incorporation or if crops are no-tilled. A conservation plan, signed by the land operator and approved by the county Land Conservation Committee, will be needed for designating winter spreading restrictions other than those specifically listed in this standard.

Not all the changes to the 2015-590 NM Standard will require more land or add costs:

- Nutrients cannot be applied within 8' around an irrigation well making this prohibition consistent with NR 812 well code. The 2015-590 NM Standard clarifies that an irrigation well does not require a 50' nutrient prohibition and incorporation of manure within 200' of the well.

- New options are now available to control ephemeral erosion, including contours, reduced tillage, adjusting the crop rotation, or implementing other practices to control ephemeral erosion. Existing options include using contour strips, contour buffer strips, filter strips, > 30% crop residue after planting, and establishing fall cover crops.
- Late summer or fall commercial N fertilizer applications are limited on: areas within 1,000 feet of a community well; 5 feet or less over bedrock; sites vulnerable to N leaching high permeability (P) soils, or rock (R) soils with < 20 inches to bedrock, or wet (W) soils with < 12 inches to apparent water table; to rates needed for establishment of fall seeded crops or to meet UWEX Pub. A2809 with a blended fertilizer. The fall N rate was increased from 30 to 36 lbs. of N per acre to match common blended fertilizers if other nutrients are needed. The 2015-590 NM Standard is likely to decrease the amount of N fertilizer that can be applied in the fall; but, the applications can be made in the spring. Wisconsin has approximately 1.8 million cropland acres with bedrock within 5' of the surface.
- An additional option for use on P soils, when commercial N is applied in the spring and summer has been added. These in-season applications must follow the UWEX Pub. A2809 crop N rate guidelines and apply one of the following strategies: a split or delayed N application to apply a majority of crop N requirement after crop establishment, use a nitrification inhibitor with ammonium forms of N, or, use slow and controlled release fertilizers for a majority of the crop N requirement applied near the time of planting.
- More options for mechanical applications of manure or organic by-products in the winter in the surface water quality management area (SWQMA) within 1000' of lakes/ponds or 300' of rivers. A new option allows for no-till silage if nutrient applications are made within 7 days of planting. Nutrient applications in the spring, summer, and fall limit mechanical applications to 12,000 gals/acre of unincorporated liquid manure with 11% or less dry matter where subsurface drainage is present or within the SWQMA. This will be easier to implement with a single manure rate with more gallons per acre.

Other provisions in the rule were adjusted to clarify processes or procedures for implementing the nutrient management program:

- Clarifies that the alternative related to s. NR 151.04, the phosphorus index (PI), is a nutrient management plan developed in accordance with the nutrient management provisions in 50.04(3) and provides that in accordance with both the 2005-590 NM Standard and 2015-590 NM Standard the alternative to the PI is complying with the soil test P management strategy.
- Clarifies the Farmland Preservation section requirements seeking voluntary compliance with the rule changes to the maximum extent feasible, consistent with the Department's past approach. Farmers who wish to continue to participate in this program may be required to comply with new and modified standards without receiving cost-sharing.

- Clarifies that a cost-share grant may not be used to bring a permittee into compliance with standards under Wisconsin Pollution Discharge Elimination System permit under chs. 281 and 283, Stats.
- Clarifies the changes from the 2005-590 NM Standard to the 2015-590 NM Standard increases the associated cost sharing rates from \$7 to \$10 per acre per year due to additional costs associated with soil tests and new spreading restrictions.
- Enables the Department to simplify the process for cancelling a conservation engineer's certification if agreed to in writing. The rule also provides for a person with the appropriate level of NRCS job approval authority to certify in writing that the practice complies with this rule.
- Requires a qualified NM planner to complete a NM checklist form, and provide reasonable documentation to substantiate each checklist response if requested by the Department or its agent.
- Clarifies a NM plan, and subsequent annual submissions for local regulation means NM plans developed according to s. ATCP 50.04(3). Farmers may be required to comply with new and modified standards without receiving cost sharing.
- Clarifies the standards for cost sharing, specifically that a manure storage system's capacity is based on the farm's inability to comply with the NM plan. When the facility is emptied, the manure must be applied to non-frozen soil in compliance with a NM plan under s. ATCP 50.04(3).
- Identifies a conflict of interest prohibition for Department-certified soil-testing laboratories.

National Agricultural Statistics (2012) show Wisconsin has 9.1 million acres of cropland, not including pastures. Currently about 2.9 million acres are implementing nutrient management plans which leaves 6.27 million acres yet to have plans developed. The cost share rates of \$7 per acre increased to \$10 per acre due to the additional costs and spreading restrictions. If we multiply 6.27 million acres yet to have a NM plan by an additional \$3 per acre, it totals an additional \$19 million estimate for the cost of full implementation or \$1.9 million annual cost for the next ten years. If these landowners are offered 70% cost-sharing, they would be responsible for paying 30% of the \$10 cost per acre or about \$2.7 million annually.

Cost Share Requirement Limits Impact

The State cost-share requirement for agricultural producers vary depending on the type of operation and the performance standard, but the revisions to the rules will not change the existing compliance requirements for agricultural operations. Under state law, compliance with the performance standards is not required for existing nonpoint agricultural facilities and practices unless cost sharing is made available for eligible costs.

Wisconsin has 69,000 farms (2014 Wisconsin Ag Statistics). Based on State cost-sharing provided in the 10 years from 2003-2012, the State provided \$10-\$13 million annually in cost share funds for practices, and it is likely that funding may decline.² Annually, \$2 to \$4 million in the form of bond revenue funds are to pay for hard, viewable, practices such as manure storage and grassed waterways. \$2.5 million is available annually for NM program implementation including farmer education, cost-share payments for plan development, and Producer-Led Watershed Protection Grant program.

² If recent history is any indicator, the State is less likely to increase spending and incur debt. In 2012, for example, the Department and DNR each year provided counties about \$10.8 million in cost-share funding, a reduction of nearly \$8.0 million from the amount provided in 2002 when there were fewer performance standards.

Nutrient management alone had an estimated cost of \$6.5 million per year assuming full, voluntary statewide compliance with this nutrient management rule. Actual costs in the short term will be lower because some farmers will not comply voluntarily and cannot be forced to comply without cost sharing. The current shortage of cost-share dollars effectively limits total enforcement. However, noncompliance will drive up soil-test phosphorus levels over time, and that will increase long-term compliance costs. Many farmers will actually save money by complying with this rule, and benefits will generally increase over time.

A farmer can prepare their own nutrient management plan, if the farmer is qualified as a nutrient management planner. However, this rule may increase demand for professional nutrient management planning services. Farmers who comply with a nutrient management plan prepared or approved by a qualified nutrient management planner, other than the farmer, are presumed to comply with the nutrient management standards in this rule. The nutrient management planner is responsible for ensuring that the plan complies with the nutrient management standards.

Department Impact Analysis

Under the State framework for managing farm runoff, the Department is responsible for implementation of performance standards promulgated by DNR. The 2005 and the 2015-590 NM Standard state that the alternative to the WI phosphorus index strategy is the soil test phosphorus strategy. This section of the 590 NM Standard remains unchanged. In the end, the key focus of ch. ATCP 50 rule revisions involves implementation of the 2015-590 NM Standard.

Farmers

Implications for Recipients of Farmland Preservation Program (FPP) Tax Credits

The impacts from this rule on farmers participating in the FPP arise from the changes related to FPP implementation. In the case of the 13,500 farmers who collected \$18 million in farmland preservation tax credits (based on 2015 payments for tax year 2014 claims), they may be required to comply with new and modified standards without receiving cost sharing. Identifying

impacts with precision is complicated by a number of factors, including the changes in program participants over time, the compliance status of new participants, and the range of options to achieve compliance.

The Department's proposed rule revision clarifies and limits impacts on this group by providing time for program participants to comply with the new performance standards, using performance schedules. In addition, the proposed rule clarifies that certificates of compliance issued to farmers complying with standards can be modified if some land is sold. Certificates of compliance are rendered void if all the land is under new ownership or a county land conservation committee issues a notice of noncompliance if a landowner no longer complies. Conversely, a county land conservation committee can withdraw a notice of noncompliance if the landowner is again found in compliance with standards. Also, farmers may receive cost sharing to install conservation practices necessary to maintain their eligibility for tax credits. Last, but not least, farmers who feel the compliance burdens are too great may decide to stop collecting a tax credit rather than implement standards.

Recordkeeping and New Skills Required

In considering impacts, the Department must evaluate additional reporting or record-keeping requirements imposed on farmers with respect to nutrient management planning. The Department believes these impacts will not be significant. Among the chief reasons for this conclusion, the Department assumes that these obligations will not arise in most cases unless farmers are provided cost-sharing. For those farmers who must comply with nutrient management requirements related to nutrient application restrictions for winter spreading or other seasons, the Department provides funding to maintain NM planning software, SnapPlus, developed with the University of Wisconsin's Soil Science Department. SnapPlus software includes planning tools that communicate with map data. SnapPlus brings field features that may restrict nutrient applications and other provisions in the 2015-590 NM Standard into the farmer's database to show the planner where application timing or rates may need to be adjusted in order to comply with the 2015-590 NM Standard. This software saves the planner's time and the farmer's money in planning and updating costs. For those farmers who must comply with nutrient management requirements related to the phosphorus index (PI), the Department clarified that a nutrient management plan developed in accordance with the nutrient management provisions in 50.04(3) and provides that in accordance with both the 2005-590 NM Standard and 2015-590 NM Standard the alternative to the PI is complying with the soil test P management strategy.

Farmers claiming FPP tax credits must keep records to document compliance with the DNR performance standards adopted in 2002. For FPP participants, additional recordkeeping created by this rule should be minimal. For example, since farmers must keep records related to nutrient management plans, farmers should be able to readily incorporate requirements relating to the 2015-590 NM Standard into their systems.

The increased requirements for nutrient management planning are slight in comparison with the responsibilities imposed on farmers in 2002 when the nutrient management standards were first adopted for cropland, or in comparison to 2005 when the standard was modified to include the

phosphorus component. By its nature, the business of farming requires that farmers be skilled at managing changes triggered by the need to incorporate new technologies, respond to growing conditions, or modify production methods. In the case of nutrient management, farmers may need to build their skills with computers to take advantage of NM planning tools. Whether the challenge involves recordkeeping or new skills, the demands of this rule should be viewed in the larger context of the many programs in which farmers participate. Farmers need to make changes to meet other program requirements including state and local permitting and federal cost-share programs. Many programs, from county manure storage permits to FPP, require farmers to have nutrient management plans for their cropland. For farmers in these programs, it is a small step, and in some cases easier to implement the 2015-590 NM Standard provisions into these required nutrient management plans.

The Department believes that recordkeeping and other increased responsibilities are offset by a number of factors including the rule provisions that minimize burdens, and the following potential benefits from implementation of the 2011 DNR standards through the 2015-590 NM Standard:

- Promotion of more efficient use of nutrients and cost-savings on fertilizer through nutrient management planning.
- The implementation of conservation practices that provide protection against environmental and other landowner liabilities created by runoff events or groundwater contamination.
- The protection of water quality, particularly for: drinking water wells, Silurian dolomite features, DNR well compensation areas, additional winter spreading prohibition areas from drinking water wells, and soils vulnerable to N leaching.

Non-Farm Businesses

This rule has the following impacts on non-farm businesses, a considerable number of which qualify as “small businesses.”

Nutrient Management Planners and Crop Consultants

This rule will marginally increase the demand for professional nutrient management planners to develop nutrient management plans. Nutrient management planners who prepare plans for others must be qualified to do so. They must understand and follow record keeping requirements related to soil types, soil tests, crop nutrient requirements including University of Wisconsin recommendations, nutrient applications, nutrient contents of manure, nutrient application scheduling, and other matters related to nutrient management. Planners holding certain professional credentials are presumed to be qualified. Professionals with the knowledge and skill to use SnapPlus, a computer program critical to calculating the phosphorus index, are in a special position to capture new business. The rule also impacts planners by requiring a qualified NM planner to complete a NM checklist form, provided by the Department, and provide reasonable documentation to substantiate each checklist response if requested by the Department or its agent.

Farm Supply and Farm Service Organizations

This rule will marginally increase the demand for entities that provide services to farmers. Farm supply and farm service organizations may provide nutrient management planning services, crop consulting, fertilizer sales, conservation compliance and other services. They may also sponsor the Department-approved training courses for farmers who wish to develop their own nutrient management plans.

This rule will not necessarily change demand for manure hauling services.

This rule is not likely to have a measurable impact on the sales of agricultural fertilizers, since it will not likely create an increase in sales to those farmers who must manage nutrients more carefully. Persons selling agricultural bulk fertilizer to farmers must record the name and address of the nutrient management planner (if any) who prepared the farmer's nutrient management plan. This rule does not prohibit the sale of fertilizer to a farmer who lacks a nutrient management plan.

Soil Testing Laboratories

This rule will moderately increase demand for soil testing. Nutrient management plans must be based on soil tests conducted by certified laboratories. The Department certifies soil testing laboratories and may audit laboratories to ensure accurate testing. This rule adds a conflict of interest provision for the purposes of compliance with 50.04 (3). A Department-certified, privately owned laboratory shall not perform soil test analysis on cropland managed or owned by a person managing or having a substantial financial interest in the laboratory.

Construction Contractors

This rule does not substantially change demand for construction practices other than continuing the requirement to maintain grassed waterways in areas of reoccurring gullies. Nor does the rule alter construction standards or recordkeeping requirements.

Conservation Engineering Practitioners

This rule does not substantially change demand for agricultural (conservation) engineers and engineering practitioners. Under this rule, as under prior rules, conservation engineering practitioners must be certified by the Department. This rule revision simplifies the cancelling of a certification in certain situations without a Department order if the practitioner submits a written acknowledgement voluntarily agreeing to the cancellation. The rule clarifies the standards for cost-sharing, specifically that a manure storage system's capacity is based on the farm's inability to comply with the NM plan. When the facility is emptied, the manure must be applied to non-frozen soil in compliance with a NM plan under s. ATCP 50.04(3).

Recordkeeping and New Skills Required for Non-Farm Businesses

This rule does not directly trigger changes in reporting, bookkeeping, or other procedures for non-farm businesses.

Business professionals will need to enhance their skills to help farmers implement the 2011 DNR standards; however, these professionals will likely take these actions for reasons other than this rule. Engineers and nutrient management planners must keep pace with the latest technical standards to meet the needs of customers. Certain professionals such as engineers and certified crop advisers are required to update their skills to retain their registration or certification.

Reporting, Bookkeeping, and other Procedures

To the extent that this rule requires reporting, bookkeeping, or other procedures, the Department's analysis is included in the prior sections covering impacts on farmers and non-farm businesses.

Professional Skills Required

To the extent that this rule requires changes in professional skills, the Department's analysis is included in the prior sections covering impacts on farmers and non-farm businesses.

Accommodation for Small Business

The Department has taken steps to identify compliance and reporting effects of this rule change. This final rule draft considered: (1) the existing performance standards and prohibitions in ch. NR 151, (2) the requirements of NRCS technical standard 590 needed to meet the nutrient management performance standard, (3) assumptions contained in the Wisconsin phosphorus index, and (4) feedback from members of advisory committees that included small business owners and organizations. The Department worked extensively with farm representatives and others to minimize adverse effects of this proposed rule on small business. The Department took the following actions: (1) worked with DNR to determine the scope of the Department rule revision, (2) conducted listening sessions that included farm and conservation groups, (3) held numerous public hearings throughout the state and held the record open afterward to receive written comments, (4) distributed simplified information materials to the public, and (5) reviewed the rule to identify opportunities to minimize impacts and accommodate small businesses.

While DNR's 2011 rule revision established the core requirements, the Department's proposed rule provides accommodations to small businesses. These accommodations minimize the impact on farms and other businesses, both small and large. In general, this rule:

- Clarifies the changes from the 2005-590 NM Standard to the 2015-590 NM Standard and increases the associated cost-sharing rates from \$7 to \$10 per acre per year due to additional costs associated with soil tests and new spreading restrictions.
- Clarifies that the alternative related to s. NR 151.04, the phosphorus index (PI), is a nutrient management plan developed in accordance with the nutrient management provisions in ATCP 50.04(3) and provides that in accordance with both the 2005-590 NM

- Standard and 2015-590 NM Standard the alternative to the PI is complying with the soil test P management strategy.
- Clarifies the Farmland Preservation section requirements seeking voluntary compliance with the rule changes to the maximum extent feasible, consistent with the Department's past approach. Farmers may be required to comply with new and modified standards without receiving cost-sharing.
- Enables the Department to simplifying the process for cancelling a conservation engineer's certification if agreed to in writing. The rule also provides for a person with the appropriate level of NRCS job approval authority to certify in writing that the practice complies with this rule.
- Requires a qualified NM planner to complete a NM checklist form, provided by the Department, and provide reasonable documentation to substantiate each checklist response if requested by the Department or its agent.
- Clarifies a NM plan, and subsequent annual submissions for local regulation means NM plans developed according to s. ATCP 50.04(3). Farmers may be required to comply with new and modified standards without receiving cost-sharing.
- Clarifies the standards for cost-sharing, specifically that a manure storage system's capacity is based on the farm's inability to comply with the NM plan. When the facility is emptied, the manure must be applied to non-frozen soil in compliance with a NM plan under s. ATCP 50.04(3).

Conclusion

This rule will have no more than a moderate impact on farmers, including "small businesses." The limited scope of the rule changes, combined with the cost share mandate, account for the reduced impact. Other businesses may slightly benefit from these rule changes.