

An aerial photograph of a large, calm lake, likely Koshong Lake in Wisconsin. A long, dark bridge spans the width of the lake in the lower half of the image. The shoreline is lined with dense green trees and some residential buildings. The sky is a clear, pale blue. The text is overlaid on a semi-transparent white rectangular box in the center of the image.

Wisconsin Crop Management Conference

Wisconsin Nutrient Management and the NRCS 590 NM Standard

DATCP

NRCS

What is NM?

Definition

- Managing the amount (rate), source, placement (method of application), and timing of plant nutrients and soil amendments.

Purposes

- To budget, supply, and conserve nutrients for plant production.
- To minimize the risk of agricultural nonpoint source pollution of surface and groundwater resources.
- To properly utilize manure or organic by-products as a plant nutrient source.
- To reduce odors and reactive nitrogen emissions (ammonia, inorganic oxidized forms, and organic compounds).
- To maintain or improve the physical, chemical, and biological condition of the soil.

2005 NRCS 590 NM Standard

- Includes 6 solely Agronomic based provisions
 - Ex. Available nitrogen from all sources shall not exceed the annual N requirement of...crops consistent with UWEX Publication A2809
- Includes ~30 Water Quality based provisions
 - Ex. First and second-year legume credits shall be applied
 - Ex. Do not apply nutrients in the winter within the *Surface Water Quality Management Area (SWQMA)*
 - 300 ft. from streams, 1,000 ft. from lakes and ponds

590 Standard Revision Team Members

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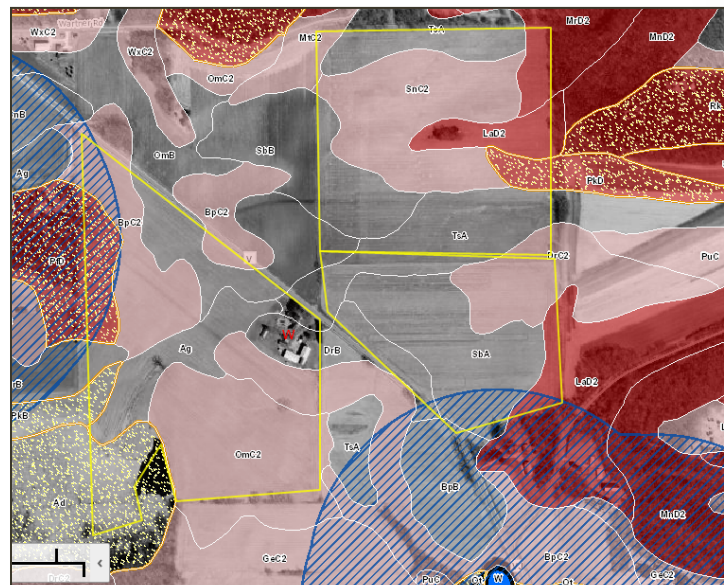
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Proposed 590 Changes – Winter Spreading

Current:

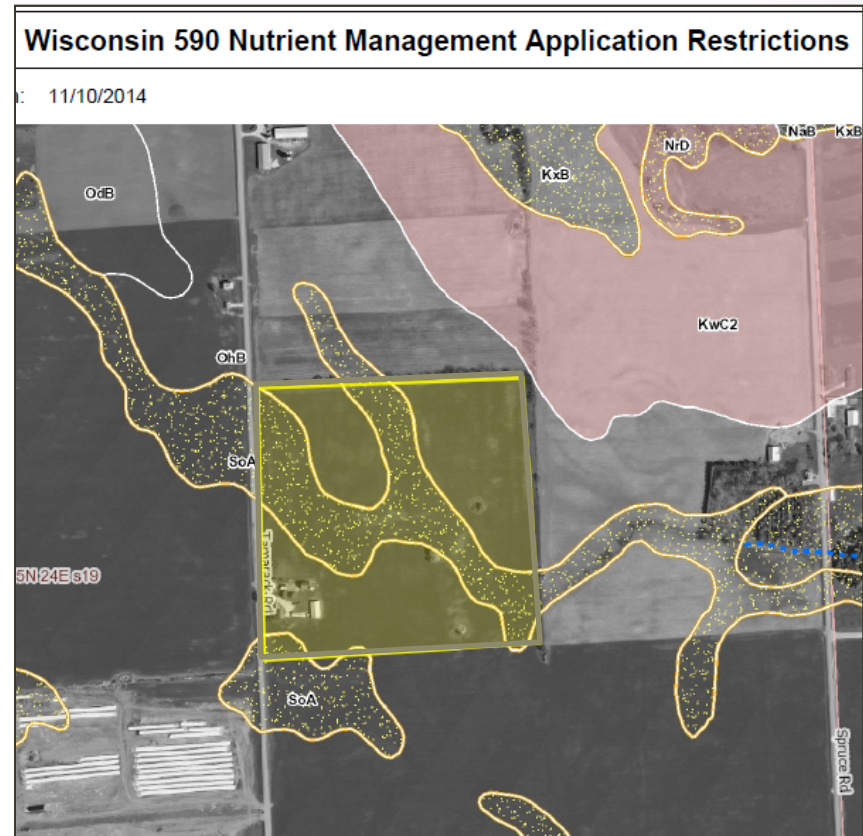
- Prohibition on manure spreading
 - on steep slopes ($>12\%$)
 - w/in SWQMAs
(300 ft. from streams,
1,000 ft. from lakes and
ponds)
 - Locally identified areas
(ex. Sinkholes) in a
conservation plan



Proposed 590 Changes – Winter Spreading

New:

- Current prohibitions, plus
- Prohibition of liquid manure application in February and March on:
 - Soils with ___” (20 vs. 60) to Silurian dolomite (NE Karst)
 - Areas around wells replaced with **DNR Well Compensation Funds** for livestock manure contamination



Proposed 590 Changes – Winter Spreading Plan

Current:

- Requires a winter spreading plan that identifies:
 - Areas of fields that don't have a winter restriction
 - ID Fields with low slope and erosion, high roughness, farthest from surface waters

New:

- Plan ahead to reduce risk of manure land applied in the winter (min. 30 days of manure for all livestock farms)
- ID and rank fields for winter applications based on risk ranking. Install mitigation practices. Spread on lowest risk field available
- Keep spreading logs
- Identify stacking sites

Proposed 590 Changes – Conduits to Groundwater

Current Restrictions: When spreading Nutrients Within 200ft Upslope of Conduits:

- Incorporate manure within 72 hours (i.e. no winter applications)

Clarified Definition of “incorporation”

- **All Seasons**
 - **Pasturing** is allowed near wells, in SWQMA, and **on all slopes** in winter
- **Spring, Summer, Fall**
 - Allows surface applications on no-till, with rate limits to reduce risk
 - Allows surface applications on growing crops



Proposed 590 Changes – Conduits to Groundwater

Nutrient Application Prohibitions

- **Proposed Restriction:** areas “designated by the local Land Conservation Committee as contributing nutrients to direct conduits to groundwater or surface water as a result of runoff”
- **Restriction Maps:** Land Conservation Committee “approved areas” added to GIS layer to support development of restriction maps



Proposed 590 Changes – Fall Nitrogen Restrictions

Current:

- No fall commercial N on N restricted soil types
 - *W* - Shallow to water (12")
 - *R* - Shallow to bedrock (20")
 - *P* - Highly Permeable (sands)
 - w/in 1,000 ft. of municipal wells
- Split or delay applications
- Use N inhibitors

New:

- No fall commercial N on:
 - N restricted soils
 - Areas w/in 1,000 ft. of a community well (to be mapped by DNR)
 - 5 ft. or less to bedrock (to be mapped by NRCS)
 - EXCEPTION where a blended fertilizer is needed to meet UWEX A2809 guidelines, limited to 30 lbs. N/ac

Proposed 590 Changes – Fall Nitrogen Restrictions

Current:

- When manure is applied to **W, R, or P soils:**
 - Limit applications in the fall based on soil temperatures (50° or Sept. 15) and crop type/uptake/nutrient need

New:

- More specific limits
- Mitigation practices for liquid manure applications
- **W soils:**
 - W soils can receive lesser of 120 lbs N, crop N rec, or legume N removal
- **R, P soils:**
 - Before Oct. 1st or >50° – 60 lbs N/acre
 - After Oct. 1st or <50° follow limits for W soils

Summary

- 590 Team comprised of experts in their field
- 590 Standard is likely to change to reflect comments by internal review group and public comment
- Draft available for public review in January/February

