



Standards Oversight Council (SOC)

Supporting Technical Standards for Urban and Rural Soil and Water Conservation

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590 Nutrient Management Standard Team

DRAFT MEETING NOTES

Thursday, April 10, 2014 || 9:00am – 3:00pm

Hancock Ag Research Station

Attendees: Sara Walling, Tony Smith, Carrie Laboski, Todd Schaumberg, Nikki Wagner, Sue Porter, Pat Murphy, Andrew Craig, Kevin Masarik, Gini Knight, Joe Bragger, Terry Kelly, Laura Chern, John Koepke

Welcome/Updates

Farmers are getting ready to plant, taking soil samples. ATCP 50 will be released on May 1st. The guidance documents are still being tweaked, and also will be released on May 1st. Sara will bring copies of ATCP 50 to the next meeting. The Nitrogen Summit at UW-Madison was held on Mar 31st, and was well attended. Many team members were present. The Phosphorus Summit will be on Apr 29th.

This team has been meeting for a little over a year. During this year, we have done our best to get everyone up to speed with current, available research, spent time reviewing the changes/differences in the national versus Wisconsin standard, and discussed the agronomic and environmental impact of the suggested practices. Throughout this process, several team members have acknowledged the importance of farmer education and getting more farmers to follow the current standard. We know that farmers want options and that we need to give them the best guidance to make sound management decisions. The team aims to draft a more understandable format for the NM standard that encourages farmers to use the standard. The team also needs to ensure the standard is providing the best guidance that minimizes environmental impact. It is harder for agencies to keep funding NM planning if the plans do not have adequate environmental protection.

Our goal today is to make progress on specific topics, assign tasks to team members, and prepare draft materials to review at the next few meetings. We would like to have a final draft for the initial review by September.

Breakout group work

Winter Spreading Risk Assessment (Matt, Pat, Andrew, Joe, John)

The winter spreading risk assessment has always been in the 590 standard, the team just has to clarify and strengthen it, particularly as it relates to different users. The identified three types of users:

Unanticipated - Emergency application

- 1) These farmers have storage and a 590 NM plan, but unanticipated events are requiring them to empty part of their storage.

Anticipated - Non-emergency application

- 2) These farmers haul daily, do not have storage, and need a long-term winter spreading plan. Their practices pose minimal environmental risk and meet the 590 standard.

3) These farmers haul daily, do not have storage, and need a short-term winter spreading plan. Application on their fields would not meet the 590 standard, typically because their fields are located in SQWMAs or have steep slopes.

Who falls into this third category? If farms do not meet the 590 standard, which farms qualify for alternative? If we know they are going to spread manure in the winter, what are the acceptable, alternative management options that lower the risk of their application? Right now, they can graze in SQWMAs in the winter. We need to be clear about why and for how long some farmers are allowed to use alternative management? We need have a clear statement about why some farms have cost-shared storage, and why others may use these alternative practices. The current thinking is that this will override the current restriction maps.

The group agreed that:

- We want farmers to be equipped with the right tools to complete this Risk Assessment. They should not have to hire someone else to evaluate their farm and complete the WRAP.
- If the farmer does not complete the assessment then they will not be allowed to spread manure in the winter. They could be exempt from certain restrictions, if they can prove there is no environmental risk to their planned management scenario.
- The group will refine the thought process and create a flow chart for decision making as a base for the 'Fast Facts' document in useable format for the farmers.
 - Suggestion for common thought process for considering where to spread manure:
 1. Which fields need additional fertility or manure? They look at the crop rotation.
 2. Are the fields accessible? Can you get there? Check weather.
 3. Determine risk.
- This group will finalize a Winter Spreading Risk Assessment for the Technical Note, based on the initial draft created. This document for the Technical Note will have more detailed information and expand on the Fast Facts.
- The team also needs to draft language to include in the Criteria and reference the Technical Note.

Things to refine:

- At what point are farmers allowed to use these low risk fields to spread? What is the threshold? At the Nitrogen Summit, we learned that it's clear that most risk occurs during specific events (acute discharges) in February and March.
- What is our time frame for allowing for short term implementation? There must be a timeframe that farmers have to adhere to if they cannot prove that their practices pose no environmental risk. 5 years? Consider requiring a change when there is a clear shift of management, such as shift in ownership of operation.
- We recommend providing farmer trainings to better manage winter spreading risk. These trainings could be required every five years or so?
- Within Acute Winter Loss PI in SnapPlus, a winter runoff risk estimate is calculated. This could be a starting point within SnapPlus to compare fields and receive a low-risk threshold. This group is still interested in working with Laura to run scenarios.
- How does ammonium fit in with Acute PI? It another risk application. Acute PI is over a whole year.
- Accountability
- Incorporate BMPs for karst soils.

Criteria A (Sue, Sara, Nikki, Carrie, Terry)

We reviewed the edits to Criteria A, which included updates to make it consistent with A2809. The team was basically in agreement, and has a few things to clean up (underlined).

- Need to revisit Criteria A. c. to update the soil testing lab list in Appendix 2 of the Tech Note.
- Criteria A.d. is now broken up into multiple points to be easier to read. In the first two sentences of V.A.d., there is a question about referencing the requirements versus the removal. Todd working on that.
- Criteria A.m. is now V.A.e.
- V.A.f. is now consistent with A2809. Exceptions to NPK fertilizer recommendations shall be credited based on crop needs with two exceptions. There are still questions about the additional 20lb per acre. Need to clarify language. It currently allows up to 230lbs, 210 plus 20lb starter.
- Last sentence of V.A.d. now a new V.A.h. – Consider moving this to Considerations or Plans and Specs. Matching field recommendations is difficult because there are not defined groups.
- V.A.m. - Add definition of “organic by-products”. Should we use land application or land treatment? ‘Treatment’ is used in waste water treatment regulations. Language now states that municipalities should follow this plan too. Municipal treatment plants have their own plans and rules that they have to abide by.
- Need to check references to other documents.

Criteria B – still need to address

- Applying majority of crop requirements.
- Use of cover crops
- Winter application
- Ammonium
- Definitions

Karst Features (Kevin, Laura, Tony, Todd)

The group considered two categories for karst land features:

1) Identified karst –closed depressions and others. Management with these features would go in Criteria A and B. 2. Effective incorporation is required in the fall. Consider changing the definition for frozen ground to account for when the ground is almost frozen and implements can still get through soil. Reduced rates could be applied without incorporation if the land is under no-till mgmt or has a growing crop. Some no-till farmers till once every 5 years to break up compaction. Revise definition for SQWMA with karst wording so the same mgmt decisions will be used. Consider ATCP 51 definition.

2) High risk landscapes – using 5’ to bedrock soil map, hopefully by section. Management recommendations for these landscapes will include all 5’ to bedrock soil zones, not just NE zone. No fall application of commercial N, which is consistent with sandy soils. Fall commercial N is high leaching and offers little return. Management options in Considerations will include split rate, use cover crops, etc. Consider no spreading in the winter, particularly in Feb & Mar. Ken Bradbury’s research showed us that the highest risk for discharge typically occurs with spreading events in February & March.

Next steps. Work on two maps of high risk landscape – 1) bedrock defined by geology and 2) defined by section. Tony will take this and draft language to put directly in the 590 standard. Winter restrictions will be placed in Criteria A.2.

Lunch

We reviewed some video clips showing the different systems that manage a range of solid to liquid forms of manure. Much of the water in liquid manure can be from wash water, leachate, or rain fall. Do farmers drain wash water or capture it? There could be education on water conservation. Regarding the differences in nutrient management practices for commercial fertilizers, and different types of manure.

Recommendations for Reducing Nutrient Loss through Tile Drainage – *didn't get to this*

Goal: Review current thinking on how to address nutrient loss through tile drainage.

- Include monitoring in O & M
- Document/inventory location of subsurface drainage in Plans & Specs
- Other management recommendations – change in rate, breaking up macropores, and consider restrictions on W soils. When discussing, show our management recommendations for W soils.

Review action items

- Gini, Andrew, and Pat will meet in next few weeks to refine language for winter spreading.
- Joe will run some winter spreading scenarios for his farm.
- Sue/Sara – update the DATCP certified soil testing lab list in Appendix 2 of Tech Note.
- Gini will check references in Criteria A.
- Pat/Terry – put proposal together for addressing air quality.
- Nikki – consider proposal for manure land base estimate.
- Carrie – incorporate language for Ammonium testing/practices in Criteria B.
- Todd – work on requirements vs. crop removal in new Criteria A.d.
- Kevin – work on developing maps
- Tony – develop draft language in standard regarding karst based on discussion
- All team members should review the draft Criteria A, team charge, and full DNR comments. Consider how to address remaining topics before the next meeting.

Next Meeting: May 14 at Hancock Ag Research Station

- Talk about Soil Test P / Alternative to P Index at the next meeting
- Review draft. Maybe make the circle closer to the power point screen?

Future Work Timeline

- **May - Aug** - Topics to address in addition to ongoing topics:
 - Review Table 1.
 - Tile drainage
 - Air quality – Terry/Pat
 - Manure Land Base - Nikki
 - Adaptive Nutrient Management – Carrie/Pat
 - Soil Test P / Alternative P Index – large group; revisit at next mtg; Criteria C;
 - EZ Format
- Sep – Finalize draft for initial review
- **Oct – Initial review**; consider training & outreach for 590 changes
- Nov- Dec – Review results of the initial review
- **Jan – Broad review**; further consider training & outreach
- Feb - Mar – Review results of the broad review
- Apr-May – Final drafting
- **June – Final draft**