



Standards Oversight Council (SOC)

Developing effective technical standards that protect Wisconsin's natural resources

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NRCS 590 Nutrient Management Standard Team

MEETING NOTES

Thursday, August 24, 2023 ▲ 9:00am – 2:30pm ▲

NRCS, 8030 Excelsior Drive, 2nd Floor Conference Room, Madison, WI

SCHEDULE IN BRIEF

9:00 Welcome & Introductions (Kate, Team)
9:30 SOC Process, Team Responsibilities (Kate)
10:00 Current Resources, Goals & Sideboards (Eric)
10:30 *Break*
10:40 Group Agreements and Decision-Making (Kate)
10:55 Team Timeline and Meetings (Kate)
11:05 Key Issues for the Standard (Mike, Team)
12:00 *Lunch*
12:30 Prioritize Key Issues (Kate, Team)
1:30 *Break*
1:45 Identify Research & Presentation Needs (Kate)
2:15 Plan of Action (Kate)
2:30 *End*

9:00 Welcome & Introductions (Kate, Team)

Goal: Familiarize team with other members and their experience related to this standard.

Attendance:	Kate Brunner	WI Land+Water
	Eric Hurley	NRCS
	Mike Stanek	NRCS
	Andrea Topper	DATCP
	Cody Calkins	DATCP
	Andrew Craig	DNR
	Aaron O'Rourke	DNR
	Travis Engels	Kewaunee Co. LWCD
	Morgan Kepler	Marquette Co LWCD
	Daniel Smith	UW-Madison
	Matt Ruark	UW-Madison
	Carl Hahn	Insight FS
	Kyle Much	Much Crop Consulting Inc.
	Sara Walling	Clean Wisconsin

Absent: None

Guests: None

Thank you for taking time to join us today, and committing to this project to create this new technical standard.

- This whole process will be a team conversation. Please speak up!
- Overall Meeting Goal Today is to build understanding of the SOC process, set team expectations, and identify the main standard issues to be addressed.
- Each team member introduces themselves and their perspectives. This team was selected to add a variety of expertise to the collaboration. If you see stakeholders that are missing from the conversations, we'll have opportunity to invite outside speakers and reviewers.

9:30 SOC Process, Team Responsibilities (Kate)

Goal: Establish understanding of SOC process & member expectations.

Kate presents on SOC origin, process for standard creation, and what to expect.

The SOC Handbook has details on responsibilities of all participants, including Team Members. The link to the handbook was included in the application materials and in the Welcome to the Team email:

https://socwisconsin.org/wp-content/uploads/2022/12/TSPH_8thEd_Final-Dec2022.pdf

Kate Brunner is the SOC Program Manager. Her role and responsibilities include:

- Coordinate and facilitate standard teams – meeting logistics, agenda, facilitation, recording & distributing meeting notes, maintaining communication via listserv & website, food, drink
- Monitor team progress, follow up on action items, ensure multiple perspectives are represented
- Facilitate the initial & broad review periods, including distributing comments to team
- Assist Team Leader with tracked changes documents as needed
- Draft Meeting Notes for Team Leader review
- Distribute final standard to tech standard users
- Lead team evaluation process and implement changes as needed
- Finally, outreach and training upon final publication

Eric Hurley is the DNR Custodian representative and Team Sponsor. His role is to:

- Authorize staff time to commit to standard projects
- Provide resources as needed for standard completion
- Assist with identifying broad goals and sideboards
- Assist in clarification of goals, provide background materials

Mike Stanek is the Team Leader which acts like the chairperson during team meetings. He will:

- Oversee training & education associated w/ proper implementation of the standards
- Assist SOC Program Manager with team discussions, meeting mgmt., agenda development
- Call out when group is on a tangent or when topic needs focus
[Kate will keep a parking lot to track things to be discussed at another time]
- Help identify and assign tasks to appropriate team members
- Serve as main editor of draft standards and revisions

- Review & edit Meeting Notes prior to sharing with full team
- Communicate team progress and getting input from others at NRCS.

Team Members

- Collaboration is key!
 - Follow Group Agreements
 - Abide by the consensus decision-making process
 - Attend meetings on time and participate
- Complete assignments on time
- Work toward a team goal, not a personal or political objective
- Accept and defend team decisions
- Do not share information about individuals' positions
- Do not share info with someone who intends to undermine the process
- Those with complaints to submit research, read meeting notes, or attend a meeting (alert Kate 1 week in advance).

10:00 Current Resources, Goals & Sideboards (Eric)

Goal: Define team mission & set sideboards. Provide an overview of the standard, including current federal NRCS requirements, and NRCS goals for the revised standard and companion documents.

Team discusses why they think 590 is important:

- Base for all programs to reduce discharge of sediment and nutrients, with NRCS, DATCP, DNR on same page.
- This standard is powerful in helping everyone be on the same page. How to assess farms.
- Using science to reduce water quality challenges
- Balancing fertility with env quality - keeping in usable and implementable.
- Regulatory - 151 and 243 perf standards require adoption of NMPs.
- Incorporating different research and techniques as well as better WQ protection.
- Connection of what's in 590 and what data is missing to support/benefit changes. What research is still needed?
- NM is next big hurdle in water quality protection.
- Usability is key – for ALL farmers. Planner efficiency and understanding why they are doing the plan, both environmental and financial benefit.
- Improve water quality. Incorporate the benefit to farmers.
- So many site-specific variables to consider, including manure and commercial fertilizers.
- Need to refine definitions and measures between 590 and 243, clarifying some (perceived?) discrepancies.
- Improvements to allow new technology.
- Could be easier to implement and understand.
- Help maintain ag profitability.
- 590 can be a tool to assist farms.

Eric reviews 590 status and NRCS's goals for this Team. Some key points:

- 590 is important!

- Team will identify what's working, and what is not working. They will investigate, propose and support solutions.
- Team decisions will be documented for future understanding—could be based on scientific literature, reasoning, and best professional judgement (with documentation to support). Also need to determine where there is NOT enough information yet, and a topic may require more research before a criteria is added.
- Standard will follow NRCS design and protocols. Their document management system has some restrictions in what changes can be made. Needs to be written in plain language. There is a national directive on this and it should help with implementability.
- The standard will use UW science, meet state (DNR and DATCP) soil erosion and water quality goals.
- Standard will be planned and explained by crop advisors and agronomists, implemented by farmers. Standard provides steps in a decision-making process.
- Focus for Team work:
 - Primarily focus on the Criteria. Considerations are not required.
 - Implementation Requirements (SnapPlus) and Tech Note will also be adjusted by the team.
 - Definition and Purposes someone fixed by the national standard.
 - Use Plain language and simplify the standard. Keep a logical flow to aid as decision making tool. Use references to external documents (A2809, NR151) rather than duplicate.
 - Team can also approach to identify what does NOT belong in the standard.
- Basic organization:
 - National standard is the starting point
 - 4 Rs of nutrient management (right fertilizer source, rate, time, place)
 - Resource concern risk assessments
 - Controlling and trapping nutrients.
- Goal: NMPs that work for farmers to grow our food and stay in business and help protect WI water quality. It needs to be implementable to work.

10:30 Break**10:40 Group Agreements and Decision-Making (Kate)**

Goal: Develop a common understanding of how we'll operate as a group and further define member expectations.

The team discusses some agreed upon meeting rules to ensure a comfortable and open environment throughout this process.

- Respect each other
- Be nice
- Attend meetings on time
- Complete assignments on time
- Project your voice
- When ideas are shared, be open to understand the topic before judgement.

More agreements may be added later.

Decision making:

- Disagreements are valuable but try to maintain a respectful discussion (“constructive conflicts”)
- We will strive for full consensus, though sometimes we may need to move forward with only substantial agreement. Imagine there may be a situation where there may be 1 or 2 disagreeing outliers or evenly represented opposing positions.
 - Team members should work together on finding an agreeable solution—not necessarily just saying “No” but talking through what part might be changed to make the text more agreeable.
 - We may vote on issues to see where the team members land on a topic. We will use a consensus model and team will work together for a collaborative work product.
 - In some situations, Mike, Eric, or others at NRCS may make the call.

Attendance:

- Make all attempts for in-person attendance. Email Kate directly if you can’t attend.
- If there are multiple key absentees particular to the discussion, Mike will consider holding a brief virtual catch-up meeting for absentees
- These are public meetings and you may send a colleague to listen in as a guest and take notes for you. Substitutes will not participate in the discussion unless invited, or count toward consensus/vote.
- Throughout this process we’ll try to avoid discussing topics multiple times unless there is new information. If you can’t attend a meeting, review the notes to stay informed. You can also talk to Mike to catch up.
- Mike and Kate will attempt to note on agendas when decisions are planned. Open issues will be documented in notes.

Quorum: We have 12 team members, which includes the team leader. Team agrees:

- If 7 or more team members attend a scheduled meeting, proceed with agenda. Mike Stanek will determine there is the right quorum to make decisions.
- If 6 or less attend, the meeting may still be held but would be more like a sub-team meeting where no decisions are made and the notes submitted to the rest of the team for input on topics discussed.
- If Mike is absent, no meeting.

10:55 Team Timeline and Meetings (Kate)

Goal: Review timeline for drafting, reviewing, and completing the standard.

Meeting dates and times:

- 1) Where:
 - a) Team members come from various locations across the state.
 - b) Team likes the idea of rotating meeting locations to a few spots around the state that are centrally located. Portage and Stevens Point are preferred spots.

- c) Start time of 9:00 is agreeable to those who need to drive in.
 - d) Kate has list of a few options around the state that have meeting space, technology, and free parking. **Kate** will find meeting locations and add to calendar entries.
- 2) The team currently has meetings set up on our calendars monthly for about a year. Starting in September, we'll hold the monthly meetings regularly on the 4th Thursday (with a few shifts for holidays).
 - 3) Team should already have calendar entries holding the dates. Meetings are now set up for 9-2:30 though that may be changed to be shorter if we switch to virtual.
 - 4) Timeline below is an optimistic estimate. This is a complicated standard. Team reviews the tentative schedule below, though we now know it will be extended. A new federal standard is planned for late 2024, so this team work will likely extend out, perhaps even into 2025. **Kate** will extend monthly meeting placeholders.
 - 5) Team will discuss schedule periodically throughout this process.

Date	General Focus	Meeting Format
June 2023	Open team applications (2-3 weeks)	N/A-process step
July-August 2023	Decide on team (7/14/23), confirm meeting dates, coordinate for first couple meetings, team prep/homework	N/A-process step
August 24, 2023	Kickoff & goal setting	In Person Meeting
Sept 28, 2023	Problem definition and brainstorming	In Person Meeting
Oct 26, 2023	Discussion of key topics and identifying areas to drill down	In Person Meeting
Nov 30, 2023	Refine criteria and considerations	In Person Meeting
Dec 28, 2023	CANCELLED	
Jan 10-11, 2024	Agribusiness Classic – too early to present? Could have meet-up before/after this conference; TBD depending on the team needs and CCA board meeting conflict	Possible meeting
Jan 25, 2024	Refine criteria and considerations	In Person Meeting
Feb 22, 2024	Team review/discussion	In Person Meeting
Mid 2024 meetings and process steps will be adjusted to dovetail with the federal 590 release schedule.		
TBD	Team select initial reviewers, finalizes draft text for initial review	In Person Meeting
TBD	Initial review (2-3 weeks + intake=6+ weeks)	N/A-process step
TBD	Address initial review comments	In Person Meeting
TBD	Finalize draft for public comment	In Person Meeting
TBD	Broad Review period (3 weeks + intake=6 + weeks)	N/A-process step
TBD	Address public review comments	In Person Meeting

Date	General Focus	Meeting Format
TBD	Finish responses to public comments	In Person Meeting
Late 2024 or early 2025	Publish final technical standard	N/A-process step

11:05 Key Issues for the Standard (Mike, Team)

Goal: Review and discuss issues with the current technical standard.

Team identifies areas where there could be improvements to the current standard.

1) N Based Recs - Develop criteria to manage risk of nitrate in both groundwater and surface water.
Rethink current strategy.

- a) MRTN issues
- b) N management tool
- c) N Management risk management strategy
- d) Use plant tissue sampling option? (in tech note)
- e) PSNT - Clarify in-season soil testing and use of A2809.

2) P Based Recs

- a) Evaluate the effectiveness of the WI P Index and the P-Index risk assessment.
- b) Do we need to reduce the target risk value (6 in NR code)?
- c) What limits do we need on P buildup in the soil?
- d) When no soil test, can they use placeholder value? (100ppm)

3) Plan Development

- a) Additional crop recs – not just A2809 but other UW docs
- b) Liquid vs solid manure applications (Feb and March spreading)
- c) Export and transfer of manure – has been taken advantage of to prevent planning for spreading

4) Setbacks

- a) Setbacks: Evaluate setbacks and buffers for nutrient and pathogen control and trapping, SWQMAs
- b) Differences in 590 farms vs CAFO farms and bringing them closing together – e.g. buffers around different features.
- c) How do we handle the high-risk areas of the state (karst, sand), with complexity of policy on this issue (incl DNR's attempt for N rule).

5) Technology

- a) Options for VRT – precision ag
- b) Digesters – responsibility, permitting, mixing

6) Manure or other organics waste issues

- a) How do we handle the inherent variability of manure as nutrient source optimizing both water qual and production?
- b) When do we use manure analysis book values and when do we require lab analyses?

- c) Should we continue to allow book values?
- d) How do we handle biosolids (e.g., paper mill sludge)? This requires understanding and coordination of the permit of person applying it and the farmer's NMP.
- e) Options for applied nutrient types
 - i) Manure types and variability, and comparison to book values
 - ii) Grazing – manage, need buffers?
 - iii) Compost – testing, content/source
 - iv) Municipal waste
 - v) Silage leachate

7) Language and definitions

- a) Simplify for clearer interpretation
- b) Change or define subjective terms – e.g., immediate
- c) Definitions – need more clarity, reduce conflict with NR 243

8) Implementation

- a) Spreading, overspreading, N losses
- b) Manure irrigation issues (separate std?)
- c) Timing clarifications: fall manure reported following year?

9) Winter spreading

- a) Should we continue to allow?
- b) Refer to map

10) Silurian dolomite performance stds

- a) Cite NR151 perf stds? Include detail?

11) AQ Concerns?

- a) Manure irrigation

12) Other concerns

Throughout this team process, the Team will be working through these issues. **Kate** will email the team the above list of key issues for the standard for further **Team** input.

The Team doesn't think there is a clear starting point; Mike and Eric will identify topics for next agenda. Eventually, we may also have subgroups work on topics in between meetings.

12:00 Lunch, provided

12:30 Prioritize Key Issues (Kate, Team)

Goal: Prioritize the order in which issues will be discussed and identify steps to address them.

The grouping and organizing of ideas was documented above.

1:30 Break

1:45 Identify Research & Presentation Needs (Mike, Team)

Goal: Identify issues that need research, or presentation of research, and identify potential presenters.

There is a variety of expertise on this team to share throughout the process. If there are topics that the Team wants to hear more about, Team members may want to bring outside experts in to present or review throughout this process.

A few articles and resources are already on the SOC Team website. If the **Team** has any other resources to share, please send them to Kate for distribution and posting.

Team discusses some areas of research, what's currently being done (whether in WI or elsewhere), and the variety of projects to which this standard might apply.

- The current federal 590 will be the starting point. If anyone on the team hasn't yet reviewed that, please review before the next team meeting.
- Team should also review 590 standard for other nearby states—MN, MI and NE. **Kate** will pull from their respective FOTGs and send this Team a list of direct links.
- Specific people/topics will be identified meeting to meeting; however, Team discusses some topics and outside experts that may be considered for future input or presentations.
 - Work of the previous 590 team can provide useful context. This current work Team has 2 people that were on the previous team (Andrew Craig and Sara Walling). Kate also has the meeting notes and other documentation.
 - Nitrate - DNR started process for to develop a performance standard for nitrate. This rule was not completed, but there are many parallel resources that technical advisory committee (TAC) would have reviewed and heard about. DNR maintained a [website](#) and a DNR representative could present to this Team about specific topics already summarized for that TAC.
 - Someone from MN Dept of Agriculture – they have a state groundwater protection rule
 - Manure variability – Joel Peterson or Chris Baxter at UW-Platteville.
 - VRT in NMPs – Carl Hahn
 - P Index and Snap Plus – Laura Good
 - P Index and TMDLs – Kevin Kirsch
 - Discovery Farms data review – both edge of field and nitrogen leaching, winter spreading – Amber Radatz
 - NM research and N budgeting tool (central sands only?) – Chris Kucharik
 - N Management Tool (statewide) – Kevin Masarik, Francisco Arriaga
 - Manure irrigation
 - Biosolids – DNR municipal/industrial waste group.
 - Sileage leachate – Andrea could help get input

2:15 Plan of Action (Kate, Mike)

Goal: Identify topics, concerns, and goals for next meeting. Review Action Items and agenda items for next meeting.

Next meeting date is September 28 in person. Kate will let team know location, will try for something in Portage.

Action Items developed today:

1. **Kate** will find meeting locations and add to calendar entries
2. **Kate** will extend out calendar entries through early 2025.
3. **Kate** will email the team the list of key issues for the standard for further **Team** input.
4. **Team** will send Kate any articles or other resources to share with the Team. Kate will help distribute and if possible with copywriting, posting on the Team website.
5. **Kate** will pull PDFs of some other states 590 standards (MN, MI, NE) and email to the team. All on the **Team** should review these and the new national standard.
6. **Kate** will prepare draft meeting notes then reviewed by full **Team**.
7. **Kate** and **Mike** will prepare agenda for September 28. Kate will send to the full team 1 week in advance.

2:30 End