

2025 TECHNICAL STANDARDS ASSESSMENT RESULTS



This biennial survey was completed by **77 individuals** familiar with Wisconsin's technical standards used in statewide conservation programs. The survey results are used to prioritize revisions and the development of effective technical standards that protect our state's natural resources.

2025 Technical Standards Assessment Results

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Background

The Wisconsin Standards Oversight Council (SOC) oversees a collaborative process for developing and updating the conservation technical standards that protect Wisconsin's natural resources. These standards specify the minimum criteria for planning, design parameters, operations, and maintenance to ensure that a given practice standard provides a benefit to natural resources while prioritizing expense and practical barriers to implementation.

SOC conducts a biennial Technical Standards Assessment to 1) evaluate the SOC process; 2) give technical experts greater opportunity to improve Wisconsin's technical standards; and 3) shape the direction of SOC's work over the years to come. This input is used by the custodians [Natural Resources Conservation Service (NRCS), Wisconsin Department Natural Resources (WDNR), and Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP)] to help prioritize which standards will be revised, what revisions to make, and what training may be made available.

The 2025 survey was released via the SOC urban and agricultural listservs, and the SOC council. All recipients of the survey were encouraged to share it with relevant colleagues.

Summary:

A general overview of the 2025 Technical Standards Assessment feedback is presented below; detailed results for each question are provided on Pages 4 to 14.

The 2025 Technical Standards Assessment was completed by 77 individuals. This was lower than the most recent survey (2023), but consistent with historical years, as shown on Figure 1.



Figure 1: Number of respondents completing SOC Technical Standards Assessment surveys.

County government and private sector comprised the largest participant groups with 30% and 25%, respectively, of the total respondents. For additional details, see responses for [Question 1](#).

The respondents in 2025 continue to have moderate familiarity with SOC – only 5% had never heard of SOC prior to the survey, 48% have commented on draft standards, and 27% have participated on a SOC work team. For details, see responses for [Question 2](#).

The respondents' familiarity with agricultural (43%) and urban (57%) technical standards was relatively balanced. Given that some individuals work with both types of standards it's helpful to consider that 70% of respondents have worked with urban stormwater standards, while only 50% have worked with agricultural standards over the past 5 years. For additional details regarding user experience, see responses for [Question 3](#) and [Question 7](#), respectively.

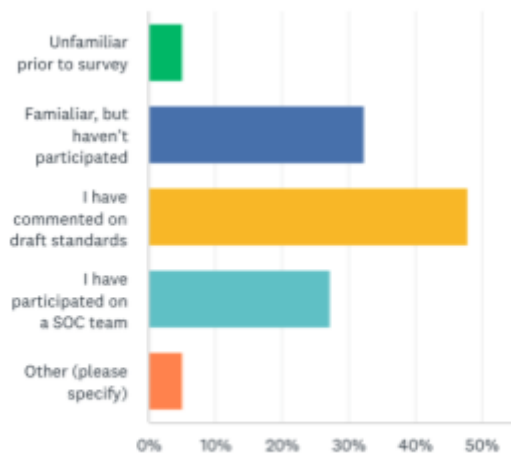


Figure 2: Respondents familiarity with SOC.

Across both types of standards, respondents prioritized the following:

- Review existing best management practices (BMPs)
- Creation of WDNR standards: Filter Strip for Storm Water; Sediment Discharge and Phasing, and Winter Construction;
- Update and revision to WDNR Technical Standards 1001 (Wet Detention Pond), 1059 (Seeding), 1064 (Sediment Basin), 1065 (Sediment Trap), and 1066 (Construction Site Diversion);
- Substantial revisions to NRCS Conservation Practice Standard (CPS) 313 (Waste Storage Facility);

- Minor revisions to NRCS CPSs 329 (Residue and Tillage Management, No-Till), 345 (Residue and Tillage Management, Reduced Till), 587 (Structure for Water Control), and 657 Wetland Restoration.

For details regarding user priorities for WDNR and NRCS standards, see responses for [Question 4](#) and [Question 8](#), respectively.

Related to training, nearly half of respondents requested training for both the recently released WDNR 1012 (Storm Water Sand Filter Systems) and 1011 (Vegetated Dry Detention Ponds) practice standards. For details on standard training priorities, see responses to [Question 10](#) and [Question 11](#).

Outcomes:

The feedback gathered from this technical needs survey are used in the following ways:

1. **Results are shared with the SOC custodians to help identify the need for new or revised standards.** SOC custodians will review survey feedback and incorporate relevant information when prioritizing standards for the forthcoming 2026-2027 SOC Work Plan.
2. **Participants' specific comments regarding standards will be shared with the custodians and with the teams convened to create or revise each standard.** The SOC Program Manager will retain the narrative comments for use in future revisions of the critiqued standards.
3. **Results trigger improved communications related to the process used to develop and revise standards, thereby increasing participation.** For example, SOC will facilitate communication between WDNR, NRCS, DATCP and those who recommended specific changes and requested follow-up to identify specific opportunities for improvement in standards or the SOC process. SOC will also strive for broader outreach to educate users on the process and encourage greater participation in the public review of technical standards.
4. **Results identify training needs for recommended standards.** In response to survey requests, SOC will support & facilitate trainings on recently published technical standards, as SOC and Custodian staff time allows, and conduct additional outreach and promotion of previously recorded webinars. SOC will also provide training recommendations to the State Interagency Training Committee (SITCOM) and assist as needed in coordinating other recommended trainings.

2025 Technical Standards Assessment Results

Expanded Results:

The 2025 Technical Standards Assessment consisted of 14 survey questions. The final 2 questions were related to contact information and are not discussed in this report. Detailed results for the remaining 12 questions are provided below.

Question 1: Affiliation

Prompt: Which affiliation best reflects your work environment? Please respond to the rest of the survey from that perspective.

Results:

	2025 Affiliation Results		Previous Affiliation Response (%)				
	Count	%	2023	2021	2019	2017	2015
Federal Government	4	5	5	3	4	8	6
State Government	16	21	14	13	12	11	19
County Government	23	30	48	48	31	56	31
Other Local Govt (city, village, town)	9	12	5	9	14	8	13
Private Sector	19	25	25	23	33	14	31
Education	0	0	0	1	N/A	N/A	N/A
Other (please specify, see below)	6	8	4	2	5	3	N/A

Other responses: Producer, contractor, career change from state to private, non-governmental organization, utility, retired.

Question 2: SOC Background

Prompt: What has been your interaction with the Standards Oversight Council (SOC) process for technical standard development or revision? Check all that apply.

Results:

	2025 SOC Background		Previous SOC Background Response (%)				
	Count	%	2023	2021	2019	2017	2015
Unfamiliar prior to survey	4	5	5	5	27	8	7*
Familiar, but haven't participated	25	32	48	43	43	44	60
I am on the SOC listserv	NA	NA	N/A	56	27	48	31
I have commented on draft standards	37	48	38	37	24	46	33
I have participated on a SOC team	21	27	24	23	15	30	16
Other (please specify)	4	5	2	1	2	4	5*

Other responses: recently became a member of the Standards Committee [SOC Council]; have sat in on virtual SOC team meetings; attend trainings review standards, support SOC; recently heard of SOC

**"I have not heard of SOC prior to this survey" was retroactively extracted from the "Other" comments for 2015's survey, and percentages adjusted. This option was first used in the 2017 survey.*

Question 3: WDNR Conservation Practice Experience

Prompt: Have you worked on urban (WDNR) erosion control and storm water conservation practices during the past 5 years?

Results:

	2025 WDNR Experience		Previous WDNR Experience (%)				
	Count	%	2023	2021	2019	2017	2015*
No	23	30	53	46	36	15	N/A
Yes	50	65	42	53	62	78	38
Yes, other (please specify)	5	6	5	1	5	7	N/A

Other responses: In the past but, now mainly agricultural conservation practices; I have monitored the above practices as part of research; yes, but not specifically working on standards; I sometimes comment on standards; primarily work on underground stormwater ponding/storage with pipe and arched chambers.

*This question structure was adjusted in 2017 to allow users to select more than one option. This question was further changed in 2019-2023 by splitting into 2 questions: one for urban practices and the other for agricultural practices.

Question 4: New WDNR Technical Standards

Prompt: The table below identifies existing WDNR technical standards considered for creation. Based on your knowledge, identify how important the creation of a new technical standard for each of the following topics is to your work. If your work does not include use of a listed standard, please check “N/A.”

Results:

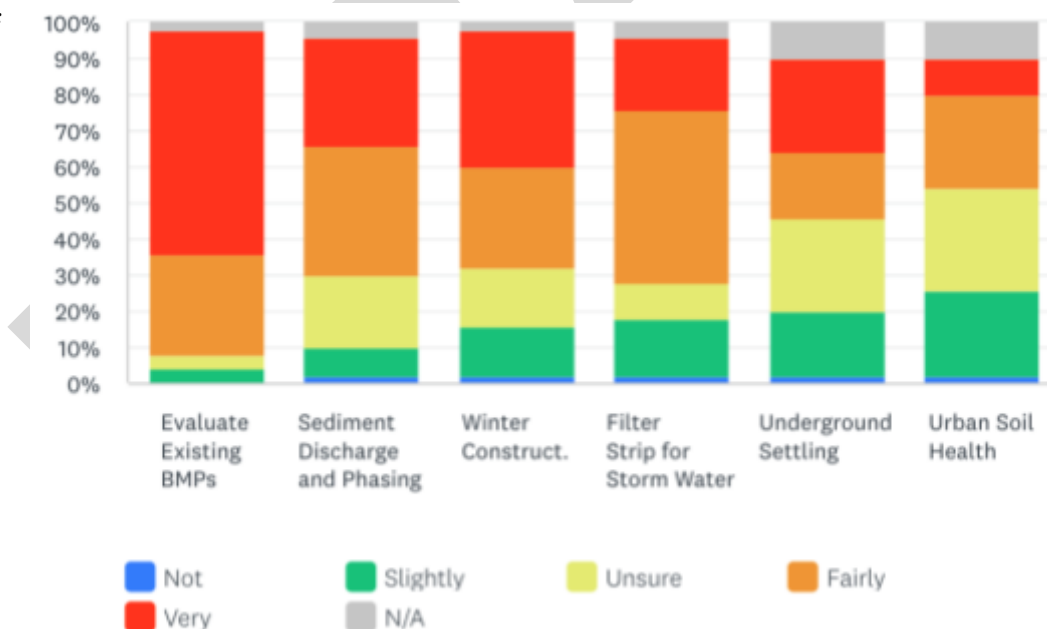


Figure 3. Importance in developing new WDNR technical standards.

The ranking results were analyzed using weighted averages based on the weights applied to response to standard importance:

Not Important = 1;
Slightly Important = 2;
Unsure = 3;
Fairly Important = 4;
Very Important = 5
(N/A responses were not incorporated into weighting of results).

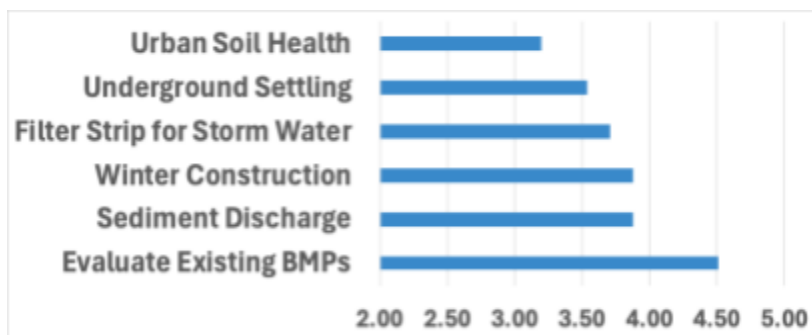


Figure 4. Weighted averages based on importance of a potential new WDNR technical standard.

Additional Comments:

1. WinSLAMM is the modeling tool recognized by WDNR for demonstrating compliance with NR 151, as outlined in their "Modeling Post-Construction Storm Water Management Treatment" guidance. Currently, stormwater chamber modeling is limited to a proprietary "IR" control practice, which restricts innovation and excludes other technologies. WDNR has confirmed that sediment removal via fabric and stone can be modeled theoretically, yet WinSLAMM does not allow fabric customization. The existing model is outdated and no longer reflects current products, rendering some data invalid. We recommend removing the IR button or adding a new, inclusive option for all manufacturers.
2. Use of large scale existing standards should be a part of efforts but real world installations are also valuable. Please stay away from product index values as much as possible. For example, make sure the value you require actual matters. For instance, thickness on RECPs has little to no value and high tensile has no correlation to shear stress performance. On the other hand the height on a sediment device does matter. Also, don't lump similar products together just because they look similar. Make sure they perform the same.
3. I've served on several of these teams over the years, representing WisDOT and environmental engineering. Focus on the big picture and the primary BMP's. Some of the above are associated with practices that already have standards. Urban soil health really isn't something needing a standard. Winter construction is number one in my opinion. Maintaining and review of existing standards should only be done if multiple agencies agree that they are needed, not just because one agencies staff would like to revise it. By the way DISPS maintains a little know list of approved winter BMP's.

Question 5: Modifications to Existing WDNR Technical Standards

Prompt: The table below identifies existing WDNR technical standards considered for revision in the next 2 years. Based on your knowledge, identify how important updating each of the following existing technical standards is to your work. If your work does not include use of a listed standard, please check “N/A.”

Results:

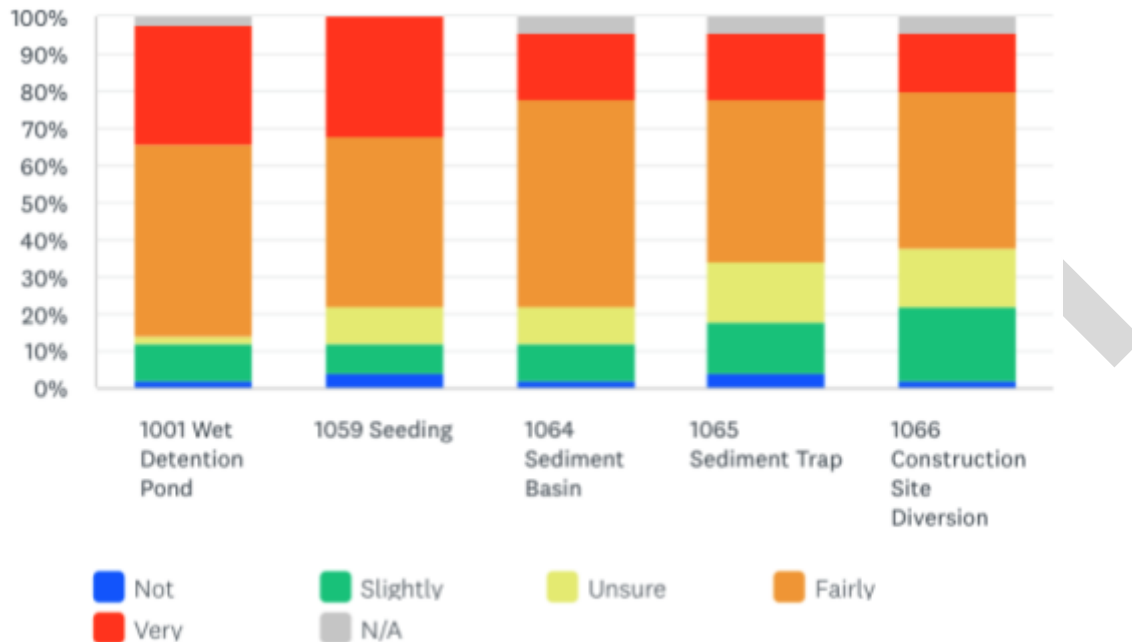


Figure 5. Importance in revising current WDNR technical standards.

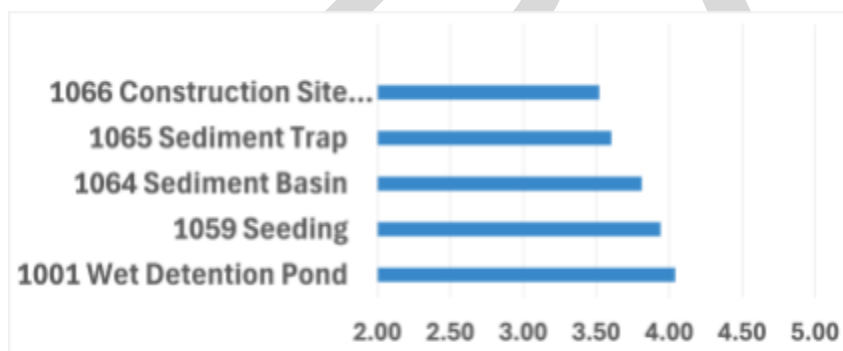


Figure 6. Weighted averages based on importance of revisions to existing WDNR technical standards.

The ranking results were analyzed using weighted averages based on the weights applied to response to standard importance:

Not Important = 1;

Slightly Important = 2;

Unsure = 3;

Fairly Important = 4;

Very Important = 5

(N/A responses were not incorporated into weighting of results).

Additional Comments:

1. The wet detention pond does not use the most recent rainfall data. Seeding may need a stronger statement regarding watering at the end of the growing season. The construction site diversion may need to include a 'water bar' concept used frequently in utility construction.

2. *I see a need for detailed seed mixes that meet various seasons and regions in the state. Including better information on when to use native and non-native, cover crops (when and what kind) maintenance, watering, etc. Local information is not readily available or no one knows who to ask. Many new start up companies with little to no experience or knowledge. For the wet pond liners, NRCS table references outdated.*
3. *Allowable liner information needs to be updated including use of BTL liners (BTL-40 and BTL-60) as Class A liners for wet ponds. They appear to meet all specifications for a Class A liner and appear to be about 1/2 the cost of an HDPE liner and similar in performance to an HDPE or GCL liner.*
4. *Even though might not be required for a permit or some site, these practices and detail sheets can be used for other practices other than urban related activities.*

Question 6: Other Identified WDNR Technical Standard Needs

Prompt: Which urban technical standards not on the above lists in Questions 4 and 5 need to be created or revised? Please write which standards or topics and a brief explanation of your recommendation.

Responses:

1. Riprap
2. TS 1006 Proprietary storm water sedimentation devices. This needs to be modernized to provide an approach that uses data from NJCAT and Washington TAPE, or NMSA STEPP testing. The current technical standard has not been used much, if at all, for years.
3. Modeling guidance for artificial turf would be really helpful. It seems to change with every project.
4. Stormwater wetland for water quality and rate control
5. Consider some standards that address stormwater conditions in non-urban yet not agricultural settings (for example larger lake shore parcels, river corridors, and State and County park areas) where urban standards are not necessarily appropriate but development is occurring
6. Oil and Grease Trench technical standard. Bioretention Basin Standard should be revised. Separation distance requirements should be clarified after flow through engineered soil. DSPS reviews infiltration and has a different opinion than the current DNR opinion.
7. The options for waterway sediment control (turbidity barrier and silt curtain) are limited and don't work well in shallow waterways, narrow waterways, or areas with currents. Cofferdams are an option but expensive and not practical for short term projects like streambank restoration.
8. Technical standard for lined GI systems vs unlined GI systems. This would include permeable pavement, infiltration basins, etc. that may utilize a lining and underdrain to alter hydrograph timing, depress maximum stage, and reduce non-soluble pollutant loads while limiting potential interactions of soluble pollutants such as chloride, heavy metals, and others with native soils and shallow groundwater tables.
9. Green roof & underground infiltration chambers. Both have seen a great increase in use in recent years with very little state guidance available.

Question 7: Agricultural Conservation Practice Standard Experience

Prompt: Which type of agricultural conservation practices have you ever worked on during the past 5 years? Check all that apply.

Results:

	2025 Results		Previous Agriculture CPS Experience (%)				
	Count	%	2023	2021	2019	2017*	2015*
None. (not in past 5 years)	37	51%	31	41	43	N/A	N/A
Wildlife, woodland & recreational management	14	19%	29	16	25	26	3
Cropland management	24	33%	52	51	41	51	34
Livestock & waste management	28	38%	59	55	43	63	25
Other (please specify)	3	4%	6	1	7	7	N/A

Other responses:

1. Erosion and sediment control
2. NRCS CPS: Pond Sealing or Lining, Geomembrane, or Geosynthetic Clay Liner Code 521
3. Streambanks, Buffers, sediment basin/WASCOB, critical area stabilization

*This question structure was adjusted in 2017 to allow users to select more than one option. This question was further changed in 2019 by splitting into 2 questions: 1 for urban practices and the other for agricultural practices.

73 respondents filled out importance ranking for each standard listed. It is expected that not all survey participants would have worked on agricultural conservation practices and therefore would not have answered this question.

Question 8: Revisions to Existing Agricultural Conservation Practice Standards

Prompt: The following agricultural (NRCS) standards are being considered for WI revisions in the next 2 years. Based on your knowledge, indicate whether you think substantial revision is needed for each standard. If your work does not include use of a listed standard, please check “N/A.”

Results:

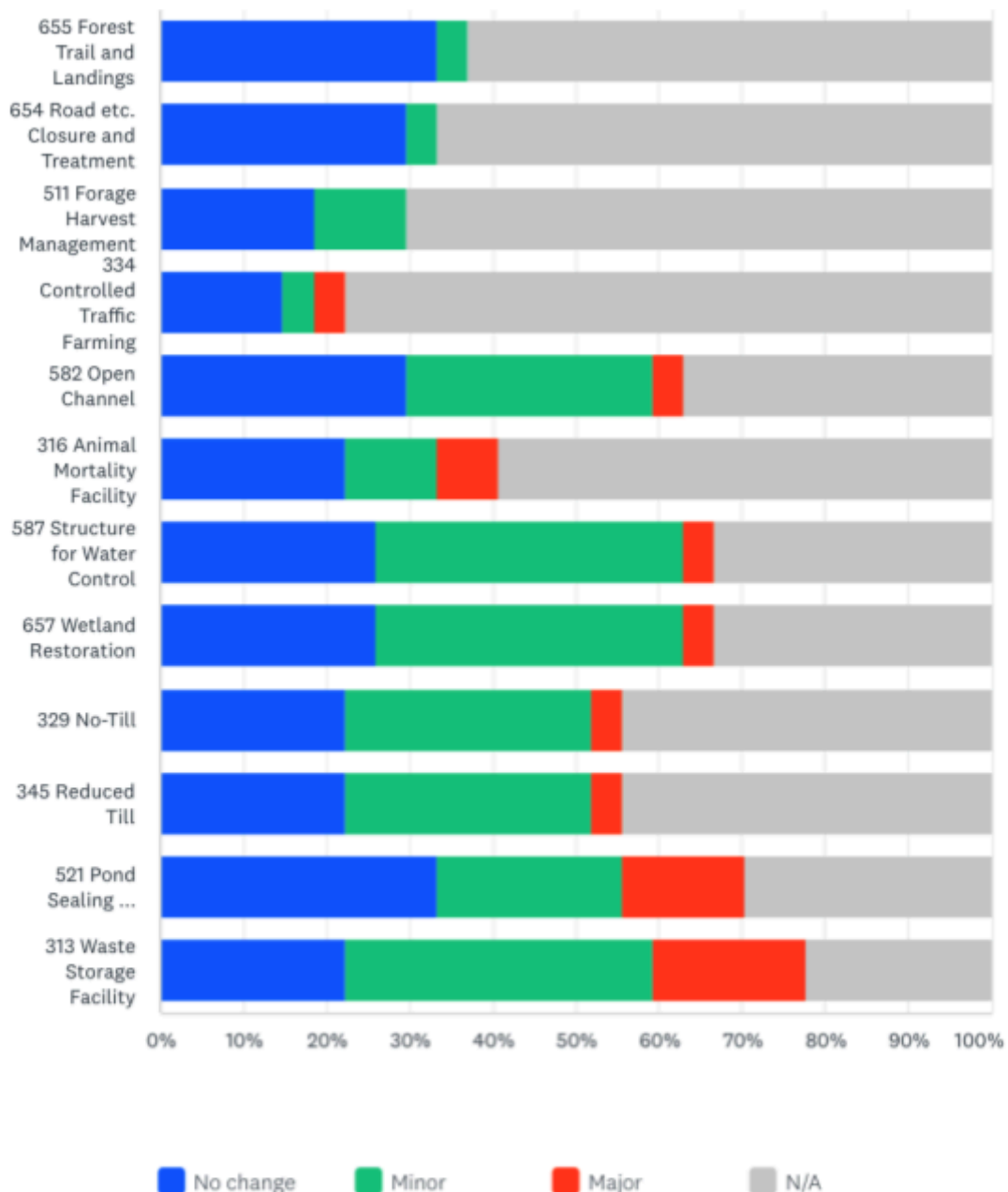
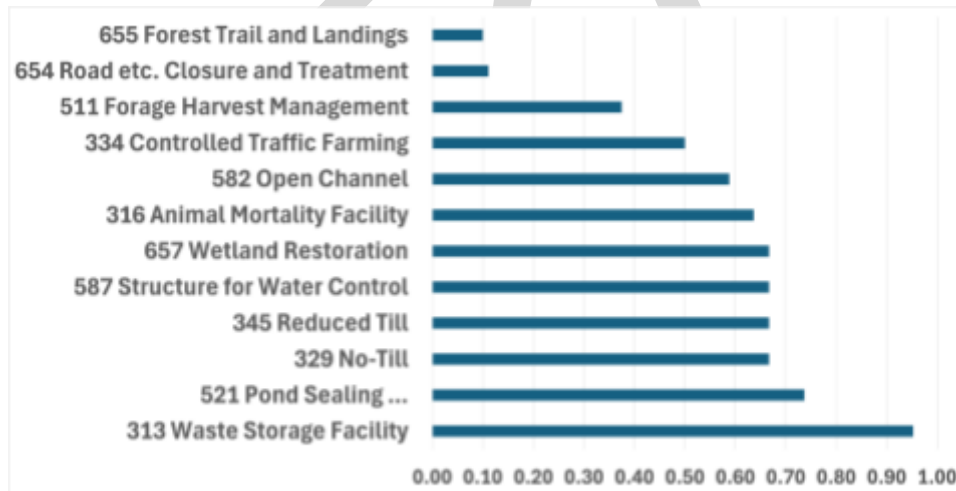


Figure 7. Individual rating results for rating whether substantial revision is needed for a given agricultural standard.

Additional Comments:

1. I need to read these to get up to speed so I marked n/a
2. The waste storage facility requirements are overkill - especially considering the cost with current farm economics. The standards push out small farms and favor only large operations without ample cost-share opportunities.
3. In the past Waste Storage plans were 20-25 pages. I could easily produce these plans and provide inspection for the construction. With the revision of the Storage Standard that required many more pages, (sometimes 80+ pages) of information, it took away my ability to produce these plans. Farmers in my area need to contact private engineering firms to do their designs and inspection. The result is more cost for the farmer. I also don't believe the private engineering firms have/spend the time on-site that the county inspectors do. I do not believe the projects designed and installed under these "book" type plans protect the environment better than the smaller plans from the past. I have designed and inspected the installation of many projects (without a "book") over the past 20+ years. As far as I know, none of the projects are or have failed. Furthermore, I have not heard of any storages failing in the state because they were designed in the past before the "book of documentation" was required. I think we need to get back to the basics, stop wasting time and paper, and concentrate on developing easy to follow plans.
4. More specific guidance on what constitutes "reduced till" especially since tillage implements are so poorly defined and the use on the same implement can result in very different stir values.
5. Anything that can be done to simplify standards or take out the "too many" options will help guide installations better. Error on more conservative design and account for the "unforeseen" issues is needed. Designing standards to meet too close to minimums may cause in field failures more often, of course all with reason on costs and difficulty in mind.



The ranking results were analyzed using weighted averages based on the weights applied to response to standard importance:
No change = 0;
Minor change = 1;
Major change = 2;
(N/A responses were not incorporated into weighting of results).

Figure 8: Weighted averages based on importance of revisions to existing NRCS conservation practice standards.

Question 9: Revisions to, or Creation of Other Agricultural Conservation Practice Standards

Prompt: Which other agricultural technical standards, if any, do you think need to be created or revised? Please write which standards or topics and a brief explanation of your recommendation.

Responses:

1. Grassed Waterway - Consideration to designing to a smaller storm event. Waterways are way too wide and deep.
2. Separate standard for low disturbance manure injection, reduced paperwork requirements for filter strips (this results in many filter strips being called field borders), complete revision and redefinition of conservation cover, critical area planting, wildlife planting, and upland habitat management because they are all poorly defined and, in many cases, constitute the same practice, also permanently extend seeding window for cover crops.
3. More training on using standards is needed. Changing standards all the time just leads to confusion, frustration and feeling past efforts were not good enough or were overkill.
4. Cover crops - revise to better delineate overwintering species and criteria to define what is successful establishment of cover crop on a field (e.g., how much coverage of the field surface based upon planting date).

Question 10: Training on Recent or Soon to be Finalized Standards

Prompt: Standards that have been recently revised (or will be published soon) via SOC's Modified or Full Processes are listed below. For each of the following, indicate if you personally would like to receive training.

Results:

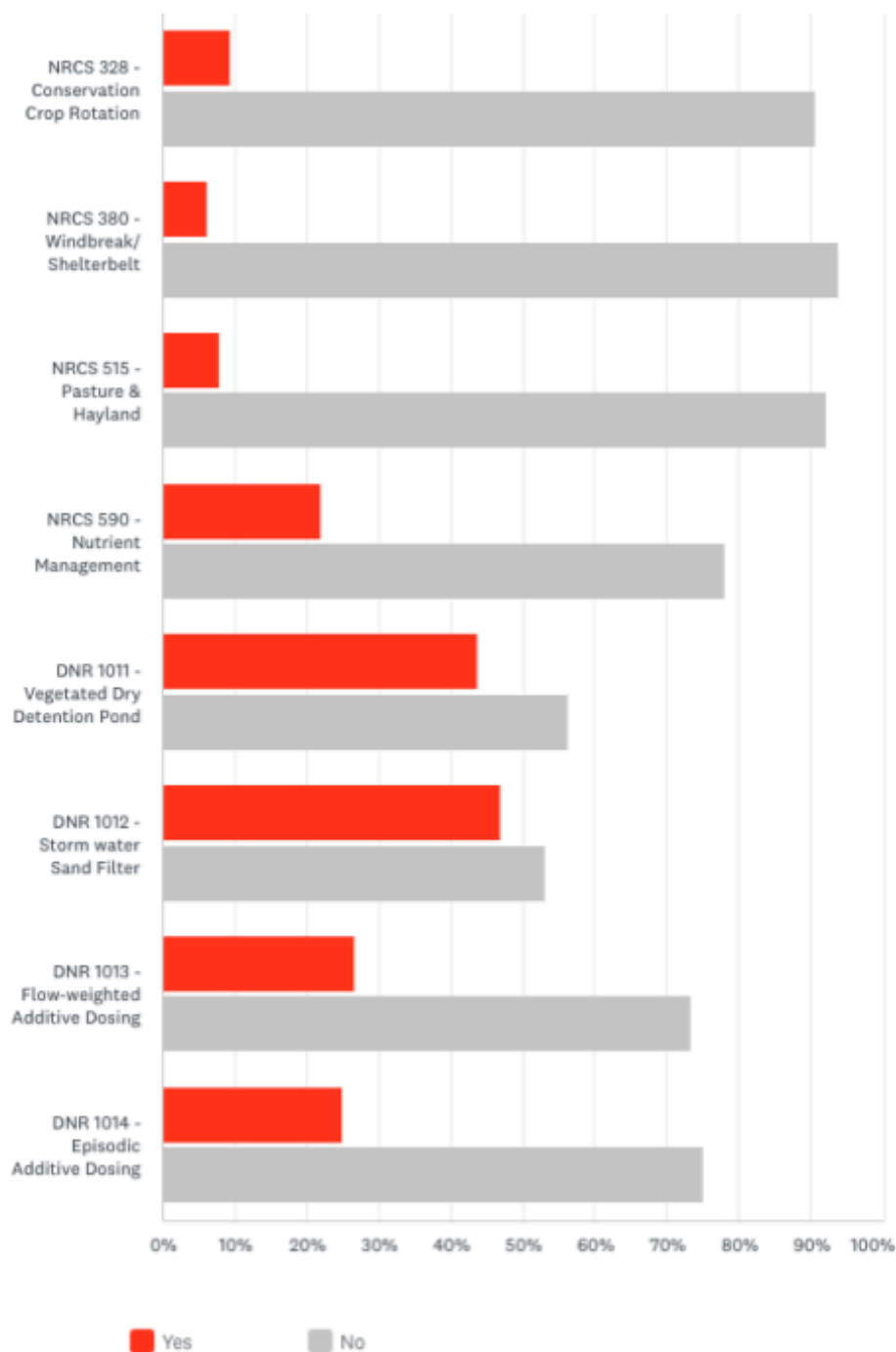


Figure 9. Training needs for recently finalized or soon to be finalized technical standards

Question 11: Additional Training Needs

Prompt: What other standard-related training, if any, would you be interested in for your work? List the standard and any specific components of the training you would want to see.

Responses:

1. So many new engineers need training on all of it. Would like to see state level training on Erosion Control guidance document and soil loss spreadsheet and how to do on-line applications. For both design and review. Would like to see specific training for transportation/liner projects like street reconstructions. Also seeing new engineers not understanding wet pond modeling standard.
2. 410 Grade Stabilization, 412 Grassed Waterway
3. Grassed Waterways, Streambank Protection with the new floodplain requirements
4. Livestock pipeline, watering facility, wetland restoration/creation
5. Stormwater training from WDNR on their interpretations of NR 151 and modeling in rural settings that are not Agricultural
6. Training on Bioretention Basins
7. I'm near the end of my engineering phase in conservation, training needs to be focused on our new employees and staff.

Question 12: Other Comments

Prompt: Please use the space below if you have any other comments for SOC or the Custodian agencies regarding SOC's process for technical standard revisions and development.

Responses:

1. Standards and software developed by the SOC should be non-proprietary to allow competition. The process for new technology product inclusion should be simple and straightforward.
2. Again, in order to control SOC's workload, address the most important issues, and ensure that our standards meet multi agency needs, you should get buy-in from ALL agencies before agreeing to new or revised standards. A case in point is WisDOT adding more stringent requirements, in their specifications, for the use of polyacramids than what WisDNR revised the previous standard to. I.E. SOC should make sure all agencies have a say in the process.
3. Keep up the good work. Appreciate you working across agencies to unify the construction practices that we install
4. The review team I was part of was dominated by a strong personality. In my opinion the same thing happened with the first major waste storage revision. All the added documentation does not equate to a clear, easy to follow environmentally sound construction plan. Because a NRCS employee in Madison pushed for more paper (documentation book), it limited the amount of plans a county could develop. Thus, the private industry stepped in and from the project quality and time on the site that I have witnessed from these individuals, we have gotten less environmental protection. But that's ok because the plan/as built has a PE stamp (that's sarcasm). The point is that SOC needs a balance of input - common sense being on the list.
5. better coordination between DSPS and DNR stormwater standards. How do MSE4 standards tie in?
6. Ensure more than agency participation in standard development and updates.
7. Simple, smart and stick with um.

Appendix:

List of questions:

1. Which affiliation best reflects your work environment? Please respond to the rest of the survey from that perspective.
2. What has been your interaction with the Standards Oversight Council (SOC) process for technical standard development or revision? Check all that apply.
3. Have you worked on urban (WDNR) erosion control and storm water conservation practices during the past 5 years?
4. The table below identifies existing WDNR technical standards considered for creation. Based on your knowledge, identify how important the creation of a new technical standard for each of the following topics is to your work. If your work does not include use of a listed standard, please check "N/A."
5. The table below identifies existing WDNR technical standards considered for revision in the next 2 years. Based on your knowledge, identify how important updating each of the following existing technical standards is to your work. If your work does not include use of a listed standard, please check "N/A."
6. Which urban technical standards not on the above lists in Questions 4 and 5 need to be created or revised? Please write which standards or topics and a brief explanation of your recommendation.
7. Which type of agricultural conservation practices have you ever worked on during the past 5 years? Check all that apply.
8. The following agricultural (NRCS) standards are being considered for WI revisions in the next 2 years. Based on your knowledge, indicate whether you think substantial revision is needed for each standard. If your work does not include use of a listed standard, please check "N/A."
9. Which other agricultural technical standards, if any, do you think need to be created or revised? Please write which standards or topics and a brief explanation of your recommendation.
10. Standards that have been recently revised (or will be published soon) via SOC's Modified or Full Processes are listed below. For each of the following, indicate if you personally would like to receive training.
11. What other standard-related training, if any, would you be interested in for your work? List the standard and any specific components of the training you would want to see.
12. Please use the space below if you have any other comments for SOC or the Custodian agencies regarding SOC's process for technical standard revisions and development.