Standards Oversight Council *(SOC)*
Supporting Technical Standards for Urban and Rural Soil and Water Conservation

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2014 - 2016 Technical Standard Revisions

Working document based on 2013 survey results to develop Work Plan

Most Commonly Used Practice Standards based on 2013 survey results

NRCS Standards

1. Waste Storage Facility, 313: 53%*
2. Nutrient Management, 590: 37%
3. Waste Transfer, 634: 37%
4. Grassed Waterway, 412: 30%
5. Waste Treatment, 629: 27%
6. Streambank and Shoreline Protection, 580: 23%
7. Vegetated Treatment Area, 635: 23%
8. Grade Stabilization Structure, 410: 22%
9. Heavy Use Protection Area, 561: 22%
10. Roof Runoff Structure, 558: 20%

DNR Standards

1. Bioretention for Infiltration, 1004: 15%*
2. Wet Detention Pond, 1001: 13%
3. Site Evaluation for Stormwater Infiltration, 1002: 13%
4. Infiltration Basin, 1003: 13%
5. Ditch Checks, 1062: 10%
6. Sediment Trap, 1063: 8%
7. Vegetated Infiltration Swales, 1005: 7%
8. Proprietary Storm Water Sedimentation Devices, 1006: 7%
9. Infiltration Trench, 1007: 7%
10. Channel Erosion Mat, 1053: 7%

* Percentage of respondents

TENTATIVE STANDARD REVISIONS IN THE 2014-2016 SOC WORK PLAN

NRCS

Active Standard Projects

- Filter Strip, 393, EZ
- Nutrient Management, 590, Full

Planned Standard Projects

- Fishpond Management, 399, EZ
- Wetland Enhancement, 659, EZ
- Wetland Restoration, 657, EZ
- Hedgerow Planting, 422, EZ
- Solid/Liquid Waste Separation Facility (632)
- Streambank Habitat Improvement and Management (395)
- Amendments for Treatment of Agricultural Waste (591)
- Wetland Creation (658)
- Shallow Water Development and Management (646)
- Restoration & Management of Rare or Declined Habitats (643)
- Early Successional Habitat Development/Management (647)
- Prescribed Burning (338)
- Firebreak (394)
- Mine Shaft & Adit Closing (457)
- Shoreline Habitat (643A) ** Newly added from 2013 survey results*

DNR

Active Standard Projects

- Storm Drain Inlet Protection, 1060, EZ
- Permeable Pavement, *new standard*, Full

Planned Standard Projects

- Filtration Devices, *new standard*, Full
- Toxicity of Products for Solids Separation, *new standard*, EZ
- Bioretention, 1004, EZ ** Newly added from 2013 survey results*
- De-watering, 1061, EZ ** Newly added from 2013 survey results*
- Vegetated Infiltration Swales, 1005
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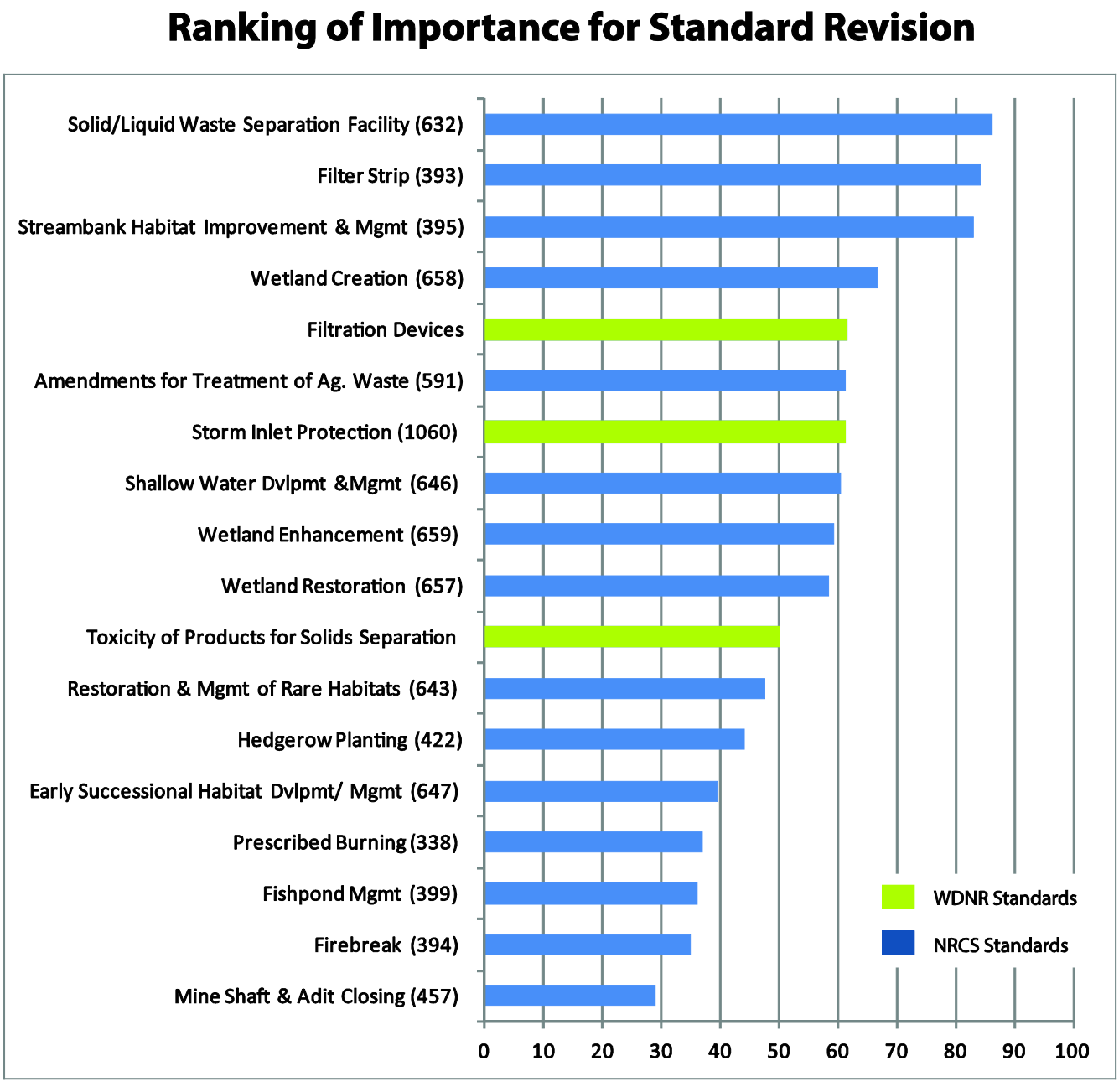
COMMENTS ON STANDARDS THAT NEED TO BE REVISED

To calculate the figure below, the ranking options were assigned a number of points (as listed below), multiplied by the number of respondents that selected that ranking option and then divided by the total number of respondents for the following four ranking options.

Ranking Options: Very low importance - 1 point
Moderately low importance - 2 points
Moderately high importance - 3 points
Very high importance - 4 points



NRCS Resource Standards

- 393 Filter Strip: Filter strips are being researched and applied to lower the Phosphorous Index (PI) of fields. There are options in SnapPlus for filter strip locations, either field edge or in-field. I would suggest making a reference to SnapPlus and giving standard guidelines for the design field edge or in-field. i know there are standard guidelines for designing filter strips next to surface water. I am not aware of design standards for edge of field in upland fields. SnapPlus allows for giving PI reductions for edge of field filter strips in upland fields.

  Another suggestion is to allow for the harvest of the grass vegetation in filter strip next to surface water. Many fields adjacent to surface water are flatter and historically these fields were used for livestock farmers to spread manure especially in the winter because upland fields were not accessible due to snow depth and the grade of the access lanes going to upland fields. Consequently, crop fields adjacent to streams have excessively high soil test phosphorous (P) levels. When areas of fields adjacent to streams are seeded to grass vegetation, the soil test P levels remain constant. The only way to reduce the soil test P levels is to allow for the harvesting of the grass buffer strips more than one time during the year. I would propose that when filter strips are installed to lower the PI and also allow for the opportunity to lower the soil test P levels, then the harvesting of the vegetation would be allowed when the vegetation is the most palatable to livestock as a feed source is some time during the months of May, June or July depending upon location in the State, and this is typically during the nesting season. So I would suggest filter strips where there is a need to reduce soil test P level, then filter strips are exempt from following the nesting season guidelines. When filter strips are installed for wildlife purposes or where harvesting would not take place, then mowing should not take place until after the nesting season.

- For the 393 Standard, hopefully there will be options available for routine cutting and harvesting.

- Maintenance and Rehabilitation of Filter Strips is also needed (unless using existing standard for construction of each is felt to be sufficient).

- Shoreland Habitat Restoration - There has been so much learned since this standard was put together not so long ago. It is actually still considered an "interim" standard & really needs to be updated.

- 590 Nutrient Management Standards should be updated to include the latest understanding of gypsum use as a soil amendment, similar to what recently has been incorporated into the OH 590 standards and I believe will shortly be under consideration nation-wide. I believe the nutrient management standards will benefit from additional consideration of soil amendment practices.

- Manure Irrigation Systems - DNR is conducting research and a manure irrigation workgroup is currently working to develop some recommendations on this manure application method. The focus is primarily on CAFO permit farms. Given this effort, it may make sense to have a uniform statewide NRCS standard for this technology. *This topic will be discussed with the current 590 Standard Revision team. The Council and 590 team are waiting for the results of the DNR work group to determine next steps.*

- We have submitted earlier comments on 591 standards as it relates to the use of gypsum as a soil amendment.

- Wetland practices need to consider water depth for various plant species development and control. The Shallow 8:1 slopes allow for a large growth of invasive plants not desired for wetland restoration. Discuss more about how to place the barrow site in the wetland to enhance open water habitat. We also need to consider deeper wetlands for diving ducks. Depths up to 6 or more feet.

NRCS Engineering Standards

- 313 - need to simplify. *At this time, staff can consider additional training, references, and planning tools to help installing this practice. Comments for simplification will be passed on.*

- *Standard 350 – Sediment Basin*, I have recently been getting a lot of questions about barnyards and the sizing of the lots. Mainly why a beef cow has so much less space than a dairy cow but their head spacing is the same and they data is from 1987.

- Composting & Compost Barns need to be added to the list.

- Barnyard runoff is still an issue with poor solutions. The practices do improve situations but are not effective enough and require major effort in maintenance. The most effective solution too many barnyard runoff sites may be to direct the runoff to a storage structure and rely on proper land spreading on cropland.

- Maintenance and Rehabilitation of Grassed Waterways is also needed (unless using existing standard for construction of each is felt to be sufficient).

- Rock Chute (through Grade Stabilization Structure, Standard 410) may need to be reviewed as well - heard of a couple of them blowing out when geotextile has been used.

- Keep standards of measurement consistent across all practices where the practice may apply. ie Aquatic organism passage obstruction and stream crossing for culvert pavements. They have two different ways to measure the culvert size. ie culvert greater than 25 inches in Stream Crossing and inch/foot for Aquatic organism culvert calsulation.

- Similarly like the new Waste Transfer Pipe Specification the listing of materials that was put together for this is very valuable. I would like to see more of these.

DNR Storm Water standards

- Standard 1004, Bioretention
    - WDNR 1004 should have a more robust maintenance guidance. There is no mention of weeding, or cutting and removing the vegetation in the fall. There should also be an indicator similiar to standard 1003 that states that if standing water is noted on 50% of the device 3 days after a rainfall event the device needs to be cleaned.

    - Bioretention: There is an extremely high risk of failure so this practice should be reanalyzed.

    - Bioretention: address leaching of phosphorous from the engineered soil mix

- Standard 1061, Dewatering
    - There are new practices & products that are not addressed in the existing standard. The standard should include a requirement to immediately stop dewatering if the practice is not working. The existing should be revised to eliminate the straw bale basin, which does not work, and require regular monitoring or inspection of active dewatering activities throughout the day.

    - Dewatering: standard says dirt bags "shall be sized" but doesn't say how. In practice, they are almost always too small if left to the manufacturer to size.

- Need a standard for level spreader design
  Need a standard for turf reinforcement mat
  The respondent requesting these new standards will be contacted for more information.

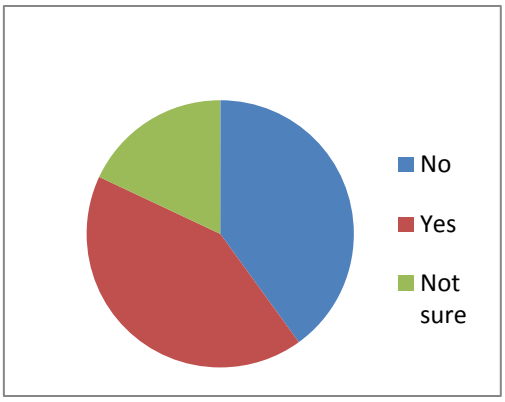
- The use of alum for phosphorus treatment in both stormwater systems and direct treatment of waters of the state needs to be either included in the Water Application of Polymers (1051) standard or as a stand-alone standard. This has become a big issue in South Central Region.

- It would be great to finalize the 1071 and get it published....

- Silt socks / sediment logs are becoming very popular; it would be nice to have something specifically addressing these products, and how they work (or don't work) in different situations. Including polymer-filled logs.

- 1005 Vegetated Infiltration Swales;
  1071 Interim Manufactured Perimeter Control and Slope Interruption Products;
  Respondent will be contacted. More information is needed before action.

TRAINING



Do you or those you work with need additional training to properly implement NRCS and DNR technical standards?

- No – 41%, 23 responses
- Yes – 41%, 23 responses
- Not sure – 18%, 10 responses

Which standards have the greatest need for training? For each standard you list, also tell what aspect of the standard the training is needed for?

General Training Comments:

- I would not say the need is there for implementing a specific standard per se but more training is needed to show the cross-links between the standards and specifications. In addition and what I see is a higher priority is exposure to completed projects to help technicians develop options during the planning and design phases.
- We have a couple newer staff that need training in all aspects. The veteran staff need training on recently updated standards and specs.
- Reviews and updates on these are usually welcome.
- When standards are updated it is helpful to have a training session on the new standard to highlight what has changed and answer any questions.
- When there are major changes due to policy or laws it is good to get update training for proper interpretation.
- As standards are updated, maybe include a summary of the changes with the update.
  Also, newer employees can use training with or without updates as they occur.
- All standards require experience and training in design and construction. However, time constraints often limit staff from getting trained in all but a few of the standards. Those standards which are more comprehensive and complex should be the top priority for both the trainers and conservation staff.
- OJT and continuing education are needed for all standards.
- Training/review is always a good idea.
- Training does not keep up with the updates

NRCS Resources Standards

- 393
- There is a need for training of the crop consultants that we engage through our affiliation with clients and partners in Wisconsin on the use of gypsum as a soil amendment and best practice for nutrient management.
- 590
- 590, Barnyard Runoff systems

NRCS Engineering Standards

- 629- This being a more important practice every year and being fairly new, additional examples/options would be greatly appreciated to understand how to properly manage and implement a practice under this standard.
- 635 629 395
- 629 and 635
- 313
- 313 - stacking

DNR Storm Water Standards

- De-watering (1061) - training for laborers on general applicability/methodology/proper installation. I see sites consistency not de-watering appropriately...most of the time directly out of the area to be de-watered into sewer systems or even wetlands.

- Storm Drain Inlet Protection For Construction Sites (1060) - training for laborers on proper installation AND MAINTENANCE. I see installations that are mediocre, but maintenance is either not done at all OR not done appropriately.

- post development storm water standards

- The standards that apply to WinSlamm and other storm water work do not get updated at the same pace as the "rules"...partly due to the State budget and decisions made at that level.

- Storm water basins: the liner information is either not clear, understood, or used by many people. Dewatering: how to determine what practice will work on a specific site.

- 1002 - Report writing/documentation
  1004 - Entire standard