



Standards Oversight Council (SOC)

Developing effective technical standards that protect Wisconsin's natural resources

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DNR 1072 Horizontal Directional Drilling Standard Team

MEETING NOTES

Thursday, July 15, 2021 ▲ 9:00am – 12:00pm ▲

Virtual Meeting (online)

9:00 Welcome & Introduction (Kate, Amy)

Goal: Welcome, and review today's meeting objective.

Attendance: Kate, Amy, Mike, John, Matt, Ann, Elliott, Geri, Sue, Lance

Absent: Dana, Abby, Brad

Guest: Jerome Donohoe

Objective: Work through final clarification of the text and get the document ready for review.

Notes Review (Kate, Team)

Goal: Review and approve 6/9/2021 draft meeting notes.

- No open action items
- No questions or comments raised on the notes, therefore they are presumed approved. Kate will post online as final.

Final Details for Practices for Key Wetland and Waterway Resources (Geri, Ann, Amy)

Goal: Discuss and confirm the text related to key wetland resource and key water resource categories.

The revised standard text was emailed to the team for review on 7/9/21. Redlines are the text that has changed since our last team meeting. Amy reviews this revised text with the team on-screen. Key points from the discussion:

- Initial Design Site Walk-Through – took out requirement for small projects crossing key water resources. The desktop study should provide adequate information for small projects and there is still a Consideration to perform this

walkthrough if desktop study provided limited or inconclusive information (like poor quality information). No objections from the team.

- Wetland Field Review
 - Added that user could take a more conservative approach consistent with the Office of Energy project approach (for the Transportation Construction Site General Permit). The option is detailed in a new attachment where if the desktop review identifies potential wetlands, the user could either do a field review, or, presume wetlands are present.
 - Bullet about “Incorporate findings...” into design and plans is applicable to all the review steps and should be pulled out to a more general area
 - Team discusses who does the Desktop Site Assessment. The materials are publicly available and accessible, and DNR has a “wetland consultation process” to assist customers. Some customers, esp. fiber customers, take a conservative approach to assume wetlands if they are mapped nearby rather than do a field survey. This field review (or decision to take the more conservative, presumptive approach) would typically be done before the project is out for bid and not be a contractor expectation.
- To match the technical standard format, the Plans and Specifications section and O&M section were added.
- Factor of safety for Hydro Fracture Analysis calculations – **Matt** will talk to Brad about a reference for the HydroFracture factor of safety numbers.
- **Ann** will read through the text to make sure there is consistent and clear usage of resource terms: wetland resource (or “wetland type?”), waterway resource, key wetland resource, and key waterway resource. The same language and specifics will parallel the applicability table.

Written Plans section

- Amy put the details of each of the 3 plans (HDD Plan, Spill Plan, and IR Plan) into 3 tables for greater clarity.
- The “Minimum Contents” column is what had been the “Generic Plan”.
- Team discusses there wouldn’t be “prohibited” equipment. Some states may prohibit a certain drilling fluid, so team could identify that.
- Language simplified to avoid means and methods. Team thinks some specificity and description would be helpful.
- We postpone this discussion in the interest of time---team should review and **Mike, Matt and John** will help Amy with editing and clarifying the Plans tables.

Applicability Table Review (Amy)

Goal: Discuss and confirm revised tables.

Amy reviews the revised applicability tables and team discusses a variety options for presentation in the standard.

1. We could have applicability tables by timeline phase in-line with the text (3 tables: Initial Design, Planning, Construction) OR applicability tables by size (Small, Medium and Large).
 - a. Amy started drafting table for small size drill paths and team reviews on-screen together. Size is a factor that's known early on for a project.
2. We could also have them in-line with the text, or an attachment.
 - a. Team poll on whether to have inline, attachment, or both? Split results, no consensus.
 - b. From a formatting standpoint, with inline tables, the page breaks may be awkward and could lead to much longer standard. This could also lead to a lot of tables within the text since we're **also** adding tables for the 3 plans.
 - c. The team doesn't have strong favorability toward in-line vs. attachment so we could propose both options to the Initial Reviewers. Team is leaning toward providing as an attachment.
3. Ann drafted a different table with all practices and all variables with check marks for whether a practice would be needed for each combination of factors. Kate and Ann will review with Amy to see if this could be a training tool.

Winter Work (Amy, Lance)

Goal: Discuss addition of best practices for winter drilling.

Construction doesn't stop in winter. It can even be **more** advantageous to do HDD in winter, so it's outside of growing season or paving season for example. HDD is often picked because open excavation isn't possible.

- Erosion control and sediment control and construction sequencing may be different in winter. Some of this is already in seeding technical standard (related to stabilization in winter) but we'd want something in addition.
- Frac outs can look differently in winter; snow cover can hide the release.
- Address winter HDD work as a Consideration in the standard. HDD Plan and IR Plan should include some winter-specific practices such as:
 - Remove snow along drill path if possible. This is a lot of work and frac out can occur outside of 50-foot easement, particularly in winter, so that's not a solution.
 - Consider alternate entry/exit pit locations,
 - Monitor borepath and a winter vicinity for discoloration of snow, focus on low points,
 - Caution with containment and cleanup,
 - Inspect AFTER snow melt.

Parking Lot Review (Kate)

Goal: Review the list of parked topics and identify which to incorporate as criteria or considerations.

Team reviews the Parking Lot List gathered from previous meetings. Team discussion of parking lot item is shown in italics below.

1. Develop a communication tool for determining which practices apply for a specific project (decision tree, matrix, flow chart, scorecard, etc.), including a combination of different risks.
[Underway, team improving the Applicability Table as we move along and creating size-specific tables.]
2. Consider use of figures as examples in the standard – a cross-section and plan showing overall HDD plan with select areas with sensitive resources where additional practices would apply.
[Could be more appropriate for training materials. Figures help as “cheat sheet” to explain and visualize the concept and team likes the introduction. Bore log is a little too much detail for the standard, but would be helpful for the technical standard; John has bore log example. The plan view and cross-section would be helpful for basics in the standard, to illustrate the basic terms. Sue will draft a simplified HDD plan view and cross-section for a hypothetical project.]
3. Standard should also allow some flexibility for field modification. Site conditions sometimes discovered while in the field may result in a length change or discovery of geological conditions. Formal plans probably wouldn't be modified but the practice/implementation might.
[Add Consideration: Plans may be re-written if project conditions change and there are more HDD paths planned along a longer profile with similar expected conditions. Document unexpected conditions for future maintenance and future HDDs in the area. Note, Reporting section indicates to notify DNR of project modifications. Review this language to confirm it's clear when DNR would be notified.]
4. Clarify, reword, or and define subjective language – words such as low or high risk, complex, sensitive, large, small, qualified etc.
[Underway – Kate will do an editorial review. Full team should also identify any language to clarify in their final review.]
5. A smaller pilot hole is used to start HDD, then reaming tools used to increase diameter.
[Add a consideration: Consider more frequent inspections of drill path during pilot hole, reaming, or after an IR has occurred.]
6. Should we add language (under inspections?) about detecting IR during winter operations? *[Completed - earlier agenda item today.]*
7. Should we add language related to adjusting placement of the exit and entry pit to minimize risk? Should this be criteria or consideration?
[Covered in Initial Design Site Walk-Through and in Consideration for winter work.]

8. “Complex” projects – work the definition presented by this breakout group into the standard as a consideration. Confirm team agreement with definition and wording for practices (but not a prescriptive list of which practices apply in which situation).
[Underway in ongoing edits with consideration related to geology.]

Initial Reviewers (Kate)

Goal: Identify stakeholders for the initial expert review of the draft standard.

The Initial Review is by a short list of invited experts only. There will eventually be a Broad Review which is the open, public review step. The team reviews the list of potential Initial Reviewers on screen together.

- Team discusses options for best reviewers in each general work sector so we have good diversity and combination of expertise.
- The team narrows the list down to 14 Initial Reviewers. There are gaps in specific contact names and email addresses for several Initial Reviewers. **Mike, Matt, John, Geri** and **Amy** will help fill in specific contact information for a few Initial Reviewers.
- **Amy** will facilitate the group DNR review, to include a variety of people in wetland and waterway section and runoff engineering section.
- **Kate** will reach out to the final short list of 14 reviewers to see if they are interested and available for this review. If anyone declines, she’ll let the team know to identify a replacement.
- Anyone not selected will still be specially invited to participate in the Broad Review.

Plan of Action (Kate, Amy)

Goal: Review action items and next steps.

Next meeting is afternoon of August 12; we’ll refine the time later.

Action Items:

- **Matt** will work with **Brad** to identify a reference for the HydroFracture factor of safety numbers [“factor of safety for calculations (minimum of 1.5 for sand and 2 for clay or peat layers)”].
- **Ann** will read through the text to make sure there is consistent and clear usage of resource terms: wetland resource, waterway resource, key wetland resource, and key waterway resource. The same language and specifics will parallel the applicability table. *[Ann—I will send you text to work off of early next week.]*
- **Mike, Matt** and **John** will help **Amy** with editing and simplifying the new tables for the Plans. *[Amy will coordinate.]*
- **Sue:** draft generic figure of plan view and cross-section.

- **Amy** will make some text edits based on discussion today and above action items, and get revised text to the team by July 30. **Team** should review and identify the top 1 or 2 areas they think need discussion or editing.
- **Mike, Matt, John, Geri and Amy** will help fill in specific contact information for a few Initial Reviewers.
- **Kate:** reach out to the Initial Reviewers to gauge interest and availability.
- **Kate:** finalize 6/9/21 notes and post online
- **Kate:** prepare 7/15/21 draft meeting notes, Amy reviews, then full Team reviews.
- **Kate & Amy:** prepare 8/12/21 agenda.

12:10 End