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131 W. Wilson Street, #601, Madison, Wisconsin 53703
(608) 441-2677 || Fax (608) 441-2676 || socwisconsin.org

# NRCS Stream Restoration Standards Team
# MEETING NOTES

Tuesday, January 12, 2021 ▲ 9:00am – 12:30 pm ▲
Online Meeting

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**9:00 Welcome & Notes Approval** (Kate, Team)
Goal: Welcome, attendance, meeting goal, approve 12/10/20 draft meeting notes.

Confirmation of attendance:

Attendance: Kate, Steve, Bob, Stacy, Joe, Jeff H, Faith, Nate, Marty, Jeff S, Bart, Ben, Mike, Seth

Absent: Ken

Guests: None

Meeting goal: continue to review and discuss updates to the text for Conservation Practice Standard (CPS) 580 Streambank and Shoreline Protection.

As with our last meeting, please remember that this is a collaborative process and we'd like consensus for the edits. The team members should speak up when you have something to add or you feel should be adjusted—either unmute yourselves or type in the chat box.

A draft of the December 10, 2020 Meeting Notes was emailed to the team for review. The parking lot list has been accumulating at the end of these notes since we've started. We'll circle back to the parking lot list a little later today and may also be discussing some previously parked topics related to 580 today in our active discussions.

Some clarifications were made to the 12/10 notes regarding projects with drainage area >390 square miles. More team discussion resulted:

- This is a new restriction in the federal standard and will need to be carried out in the new state standard.

- NRCS would no longer fund projects with the larger drainage area and also would not issue a variance. On the state level, DATCP could possibly still issue a variance and fund projects on their own.
- Stacy and Bart will discuss with Matt Woodrow at DATCP regarding possibility of DATCP variance and funding of projects with drainage area >390 sq mi.

**Kate** will finalize and post the adjusted 12/10 notes publicly on our team website within a week.

**Review of Draft 2 of *CPS 580 Streambank and Shoreline Restoration*** (Steve, Team)

Goal: Continue review of proposed draft supplemental language and discuss alternate options as a team.

Prior to this meeting, Kate emailed the team a "Draft 2" of the 580 standard for team review. Steve prepared this document from discussions at our previous team meetings and some team input he received after the December meeting. Steve reminds group before we get started that the black text is federal language that went through Federal Register process and can't be changed but we can make addition. Blue and red text are additions. Bracketed text is commentary from Steve to provided context and that will be deleted.

Steve reviews the supplemental language on-screen and the team discusses. Team review starts at page 5 of Draft 2, where the input left off at the last meeting. Some key points of the team discussion on Additional Criteria for Shorelines:

- The list of information in the design report may be better in a companion document; however, removing detail from the standard has been problematic when outside consultants provide design. Those outside of NRCS don't necessarily know all the resources available. This could also be in an assessment checklist. This will be considered again in looking back after we get through the full standard.
- Use of rock as protection measure is not the sole method to encourage and this was tackled in detail in the last WI standard. Some term definitions were lost by going back to federal standard and not the previous WI one—Steve will look into the previous WI language and move some back into this draft. For example, rock is not the only protection methods (also vegetative treatments, bioengineering, geogrid lifts, brush matting, etc.).
- Ice action – mentioned for awareness; however, conditions for ice aren't predictable or consistent. It is also an O&M issue – inspect and make corrections to ice damage.
- Previous standard had some drawings. Steve will look into whether that could be imbedded into new standard format.

Stream Corridor Improvement – no new language suggested in addition to national standard. This is written to inform but not specify.

Some key points of the team discussion on Considerations:

- Incorporate woody debris – Steve isn't sure the new NRCS software will allow for insertion of individual words into national language so the word "woody" may not be possible.
- Statement about opposite bank included as a consideration since owner doesn't always own the other side of the stream.

Some key points of the team discussion on Plans and Specifications:

- The standard is currently written for <500' in ¼ mile section (Condition Where Practice Applies) and more complicated sites are referred to CPS 582 [Note: referral criteria still in discussion]. This plans and specs list is the minimum for the projects covered by this standard and not complex sites. NRCS could always ask for more if there are site specific complexities for a project.
- Level of detail in the drawings is variable for each project. It's also understood that natural features change over time.
- Team tables discussion regarding what's needed in the Plans and Specs. This will be addressed and resolved as part of discussion over the project size and trigger for CPS 582.

We then return back to the beginning of the standard and review those changes since Draft 1 and discuss some of the previous sticking points.

- The threshold for Open Channel in current standard is 600 lineal feet or total of 1000 feet in a ¼ mile. 500 feet per project is proposed here to be consistent with DNR general permit, though DNR's language is just planned streambank protection, not existing. For a stream about 20' wide, 500 feet long is about 2 meander bends. For a wider river, 500' is probably one bend. Team will revisit this later.
- Steve will be discussing at State Tech Committee the larger issue of ranking prioritization and eligibility. They want to encourage the big picture and note just a series of small patches.

**Continued Review of Draft 2 of *CPS 580 Streambank and Shoreline Restoration*** (Steve, Team)

Goal: Continue review of proposed draft supplemental language and discuss alternate options as a team.

Continued review of CPS 580 from this morning with the following key points on Criteria:

- Permits and approval list – This raises an issue for other standards where there is no list like this. Could this be moved to a companion document so it's easier to update? There will always be exclusions and this is more of a training issue; some counties have a generic checklist of things to look into. Every job is different and requires the designer to research and identify what permits and approval are appropriate to the specific project. **Steve** will consider options presented by different team members.
- Bedding and Filter subsections – Current text includes a lot of background and design procedure rather than true requirements since it's not just engineers using the standard. There are also a few specification level details (like 3xD50 stone size). Team discussion potential changes to frame these subsections differently—move as a specification (similar to how there is a geotextile spec), or pare down language and maintain the external reference (like to NEH). **Steve** will consider options.
- Additional Criteria for Streambanks
    - Bank erosion assessment is important step to understand the issue: what is natural movement and what is aggressive/severe and warrants correction. If erosion isn't really a problem, bank protection shouldn't be applicable (though it may be misapplied). This is important to stress in applicability criteria and eligibility determinations, but not in this section.
    - Team has a lot of discussion on design report requirements – what is appropriate based on size or complexity of the project? For example, is Rosgen classification appropriate for smaller projects (prev. WI standard only required if over 1000')?
    - Clarify determining the cause of streambank instability - expanding and merging information on p.5 and in bulleted list on p.2. Does the failure mechanism need to be identified? If there's a concern by the landowner but not a significant resource concern (like natural migration that's causing cropland loss), could we encourage a separate path toward just vegetative treatment?
    - There are existing resources to rely on (sediment budget table in FOTG supplements and the EFH). The EFH in particular has resources that need to be updated for consistency.
    - Identification of a high risk area could be another trigger where 580 alone may not be appropriate. Critical site identification is addressed by p.4 language on supercritical flow with referral to HECRAS. This language could use some expansion and clarification of what is critical (for both

bank stability and habitat, e.g. upper reaches with higher gradient). Steve will reevaluate the paragraph on supercritical flow.
- Suggestion is made to add reference to empirical equations rather than just HECRAS. ACOE has relevant calculations, like riprap steep slope method, in Hydraulic Engineering Manual 1601.
- Under certain conditions with mild erosion, standard could also allow solely vegetation.

**Sticking Points for CPS 580 Criteria and Considerations** (Kate, Team)

Goal: Identify the substantial remaining areas of discussion and refinement.

There are still be some topics we've glossed over or consciously parked. We identify some details to discuss at a future meeting:

- Level of analysis still needs discussion—580 vs 582 and what are the triggers for more extensive work
- Are there parts of previous WI state version of CPS 580 that got lost?

**Parking Lot** from previous meetings:

1. **Multiple Standards**
   a. As built and aged definitions,
   b. Meander belt – can width be worked into the terminology for resource concern (Fluvial Erosion Hazard).
   c. Soil borings: 1) the variable glacial deposits that we have in the state and that they really define the alluvial channels, 2) potential bed material load contributions that affect the channel geometry, 3) gw/sw interactions in the springfed channels, importance of baseflow/water table that comes from the soil boring data. Think beyond bank stability but vertical/bed contributions and larger setting. Some of this is in the surficial geology section at the existing conditions assessment. Need a bit more of a geological influence -- not just engineering perspective. The standards would ensure some minimum requirement and the professional engineer stamping the design would make professional judgement. Standard could establish when needed/appropriate, where to bore? and how deep?
   d. Hydrology analyses - look at mapping tools that help set the hydrologic setting and design flows for ungaged streams. There is a lot going on here that may help standardize the approach -- USGS Streamstats tool at https://streamstats.usgs.gov/ss/ Does this mapping tool fit into a standard?
   e. Should look at the "risk" and the amount of risk that would govern what detailed analysis needs to be done. We have hundreds of miles that are stable from work that has been done in the past (without all this detailed analysis), but we do have high risk areas in upper watersheds and where some of our work hasn't held up.

2. **580**
    a. Previous WI standard (2015) – review details of the last work team to see if other language should be retained and remove parts that aren't working.
        i. One specific example: Additional Criteria for Shorelines - One specific example raised was intent to minimize riprap/rock for shorelines and use of soft treatments above Ordinary High Water. There is some useful language and associated graphic from 2015 would be good to include here. We also could include 2015 text and associated definitions like toe zone, bank zone, overbank zone, etc. and the allowable treatments.
    b. What level of assessment is appropriate for different triggers for greater degrees of assessment. Identify what is overlap or additional analysis for 580 vs 582?
    c. What lineal feet to refer to other stds for a more intense evaluation
    d. Should we pull out permits/approvals list?
    e. Pull out other details for companion document(s) (e.g., design report for additional criteria for shorelines)
    f. Methodology for bank erosion severity. Should the standard require a Rosgen (or other) classification? Should we require a description or classification of the evolutionary stage? Define "critical sites".
    g. Definitions and applications of different factors: OHWM, bankfull discharge, effective flow, channel-forming flow (relative to 580 and 582 at min.)
    h. Companion Documents – NRCS tech field guide used for sediment budgets and erosion assessments. Review docs in EFH to confirm there is consistent information and update if needed https://www.nrcs.usda.gov/wps/portal/nrcs/detail/wi/technical/engineering/?cid=nrcs142p2_025412
    i. Streambank erosion guide has lateral migration rates and field indicators -- document b. also note that document a is the BEPI. https://efotg.sc.egov.usda.gov/references/public/WI/Streambank_Erosion_Perdiction.docx

3. **582 (carried over from previous meetings)**
    a. Possible issues with encouraging a meandering stream: Not all landowners are amenable, especially if they are losing cropland. Permitting would also need to be on-board with straight-to-meandering type of channel adjustment.
    b. What happened to the national reference to the 1 square mile drainage area in the Wisconsin standard? Can we could change this from National to Wisconsin standard?

4. **584 (carried over from previous meetings)**
    a. For floodplain wide weirs, is this a problem to include in a "channel" specific standard?
    b. Raising stage seems to cause a problem in permitting which has a requirement of not raising the 100 yr stage (might be simplifying this).

c. Is there precedent in other states that use Channel Bed Stabilization for natural streams? If so, we could use their language as an example.

**Next Meeting Topics and Plan of Action** (Kate, Steve)

Goal: Identify goals for next meeting. Review Action Items.

**Next meeting is in TWO DAYS, on January 14, 2021.** We will focus on review and comment on Draft 1 CPS 582 Open Channel (emailed on Dec. 7 and again on Jan 4).

**Action Items:**

- Next steps for 580: **Kate** and **Steve** will refine using parking lot list for discussion topics at Feb. meeting. Steve will prepare Draft 3. Team should send Steve input.
- **Steve** will look into NRCS variance or allowing application and standard >390 sq mile drainage area (and federally-funded projects). **Bart and Stacy** will check with Matt Woodrow at DATCP about whether DATCP could issue a variance for state-funded projects with current standard language.
- **Steve** will continue work on getting Draft 1 versions of CPS 395 and 584 consistent with NRCS programs and standard requirements, and incorporating previous team input. These will be reviewed at later meetings.
- **Kate**: finalize 12/10/20 notes and post online.
- **Kate**: prepare 1/12/21 draft meeting notes, Steve reviews, then full Team reviews.
- **Kate** and **Steve**: prepare and post agendas for next team meetings on February 2, 4, 16 and 25, 2021.

The longer-term schedule is discussed. After the draft of each standard is determined to be ready by the team, we'll move on to the next SOC Milestones that remain:

1. **Initial Review** (by about 8-10 select experts selected by the team) – 2 weeks to review, then team responds in writing to each comment and adjusts text accordingly before public comment under Broad Review.
2. **Broad Review** – public notice – open for 3 weeks, then team responds in writing to each comment and adjusts text accordingly before publication.
3. **Publication**, outreach, training.

Before Initial Review, Team input will be solicited:

- Will the 4 standards go out for review collectively or individually?
- Who will these 8-10 Initial Reviewers be?
  - Kate has a list of suggestions started – ideas from team applications and the Council reps. We'll review this list together, add suggestions from the Team members, and then whittle the list down to no more than 10 experts.

- Kate then reaches out the short list of experts to confirm interest and availability.

*12:30 End*