

CLFLWD Draft Rules: Review by TAC-CAC

Notes/Minutes from the March 18, 2008 TAC/CAC meeting

Topic:

- Follow-up from the March 4, 2008 TAC/CAC meeting
- Rule (2) Stormwater Management

Attendance:

Debbie Anderson-CLFLWD CAC
Randy Anhorn-CLFLWD Administrator
Doug Borglund-City of Forest Lake
Jack Frost-Met Council
Anne Hurlburt-City of Scandia
Wade Klingsporn-DNR
Melissa Lewis- BWSR
Tom Lynch-CLFLWD Manager
Craig Mell-Chisago SWCD
Jon Spence- CLFLWD Manager
Jerry Spetzman- Chisago County
Jyneen Thatcher-WCD
Lisa Tilman-EOR

Written Comments Received:

Phil Gravel- City of Forest Lake Engineer (Bonestroo)

Comments:

Follow-up from the March 4, 2008 TAC/CAC meeting

Notes and minutes from the March 4, 2008 TAC/CAC meeting were highlighted as was a memo presenting TAC/CAC comments that will be brought to the CLFLWD Board of Managers on March 27, 2008 (as will the March 18, 2008 meeting note/minutes and TAC/CAC question/comment memo for Board response). Board responses will be brought back to the TAC/CAC at the upcoming April 1, 2008 TAC/CAC meeting.

Rule (2) Stormwater Management

Lisa Tilman first asked the TAC/CAC if they felt that the District needed a stormwater management rule. The TAC/CAC members unanimously answered yes.

Specific TAC/CAC member comments:

2.1 Purposes and Policies

Jyneen Thatcher

- Jyneen questioned the use of pre-settlement conditions (2.1.2) as opposed to existing for stormwater management because much of the area has been altered (ditched). Jyneen wondered if “pre-settlement” was realistic.

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Phil Gravel

- (2.1.2) this policy proposes that the District "work toward" limiting peak stormwater flows to pre-settlement rates. This is typically much more restrictive than current industry standards of meeting existing conditions. For example, existing conditions commonly consists of agricultural area in Forest Lake, while pre-settlement land cover would likely consist of prairie and forest which generates much less runoff than agricultural areas. Meeting pre-settlement conditions serves its purpose in highly sensitive areas, such as agricultural areas discharging to eroding streams (where existing conditions are already causing problems) or within landlocked basin watersheds. But, meeting pre-settlement conditions is likely too restrictive to apply as a blanket goal/policy.

2.2 Applicability

Anne Hurlburt

- Similar to that mentioned at the last meeting, Anne questioned how the rule would be implemented especially if a subdivision comes in on two (2) or more lots (as is stated in the current applicability), would the entire subdivision as a whole be subject to the stormwater control standard, or would each individual lot be subject to the rule/permit, or both. Anne thought that this was more a job of the City.
- Anne suggested defining subdivision consistent with state statute.
- Anne also thought that we could combine 2.2(a) with 2.2(b) requiring residential subdivisions based on impervious surfaces.
- Anne thought that the impervious threshold of 5% of site was too low (2.2 (b)) (this was backed by Wade Klingsporn, Doug Borglund, and Jack Frost). Anne thought that the rule could read one (1) acre of 5% of site, whichever is greater.
- Anne thought that 2.2(c) is unreasonable. Does the District really mean that if a square foot of impervious is disturbed then the whole site would need to come in compliance? Anne thought that this would be impractical to enforce. Most small disturbances would go unnoticed and most people would not even be aware that such a small disturbance would need a permit. Anne thinks that a disturbance of 50% or more is more reasonable. Any increase is too strict.
- As for 2.2(d), Anne thought that the terminology "and other ordinances that impact water" should be better defined. Anne suggested spelling them out (i.e., variances for shoreline set-back, buffer, impervious, etc...). Minor variances (i.e., wider driveway), should not.
- Anne and Doug stated that each city ordinance allows 25% impervious in their shoreland zone. Again 5% is too small of a threshold.

Doug Borglund

- Doug agreed with Anne's comments on 2.2(a)
- Similar to Anne's comments, Doug thought that the impervious threshold of 5% of site was too low.
- As for 2.2(c), the City of Forest Lake uses exceeding existing.
- Doug thought that the District should compare to Rice Creek Watershed District's thresholds (specifically 2.2(c)). *Staff researched and RCWD's threshold is disturbance of 50% or more of existing.*

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- Doug requested verification the references in the Rules to variances were actually to City ordinances (i.e., the District does not have shoreland ordinances while the City does).

Wade Klingsporn

- Similar to Anne's comments, Wade also thought that the impervious threshold of 5% of site was too low. However, Wade does not think that 5% of site or whichever is greater is suitable.
- Although impervious threshold of 5% of site is too small, there could be a tiered approach of smaller thresholds (above 5%) for parcels in the shoreland zone. Discussion was held as to differing shoreland zone definitions depending on county or LGU.

Jack Frost

- Similar to the others comments, Jack thought that the impervious threshold of 5% of site was too low. Jack further stated that the District may be better to simply leave the threshold as 1 acre, and drop the % of site. Discussion was held on large sites (i.e. 40 acres) and what 5% would mean (5% of 40 acres is 2 acres).
- Jyneen Thatcher, however, worried about cumulative impacts of smaller projects not meeting threshold—Craig Mell stated that if the entire subdivision was looked at as a whole, issues would be addressed.

Phil Gravel

- 2.2 (b) Permitting for non-residential is triggered when new impervious is one acre or larger or new impervious exceeds 5% of the site, whichever is less. This permitting threshold may require more clarification, For example, does the District want to review a 0.5 acre commercial site that adds - 1,000 sf of impervious? Does the District want to review all non-residential areas or just commercial and industrial areas (and public/institutional)? The answers to those questions may be "yes", but the intent of this threshold should likely be discussed.
- 2.2 (c) is rather onerous

Melissa Lewis

- Melissa stated that as for the differing shoreland zone definitions in different LGUs, the applicability could specify each LGUs shoreland zone.

2.4 Standards

Jyneen Thatcher

- Jyneen thought that the standards were written as a negative—"land altering activity will not increase" while the rest of the Rule was written as positive/proactive action (i.e., limit activities..., minimize connectivity, the District will work with...). The District may want to re-word 2.4 to have the same tone.
- Similar to that stated above, Jyneen questioned how realistic pre-settlement conditions were in a ditched setting. Maybe in other areas of the watershed where ditching has not taken place.
- On nutrient loading and water quality goals, Jyneen asked if the Rules were to set for the lakes' short-term or long-term goals.
- Jyneen discussed 2.4.1(d) and how the District does not currently have function and value assessments on all of its wetlands. 2.4.1(d) would be worthless since the District's wetlands are not identified Manage 1, Manage 2 or Manage 3. This will also be an area

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of discussion at the next TAC/CAC meeting on wetlands and buffers. Discussion was held as to requiring developers to do the function and value analysis (MnRAM) on the disturbed wetlands and not believing the assessment provided. Jyneen thought it would be better if the District would inventory its own wetlands at least to a degree to compare to the developers assessment and determine accuracy.

- Jyneen thought that the District should come up with interim standards/steps until function and value assessments were completed. *Staff asked Jyneen for suggestions.*

Wade Klingsporn

- In discussing off-site loading goals/reductions to meet lake goals, Wade asked how a “natural” undeveloped site would be able to reduce its load from its current condition. Is it reasonable to ask for reduced loading from such situations? For example, in the Moody Lake watershed where 86% reduction in phosphorus is needed to meet short-term goal, how can the District expect or require phosphorus removal from a parcel in its natural state already. Discussion was held as to variances being needed for similar cases.
- Discussion was held on the other end of the spectrum where agricultural uses (such as feedlots) could be redeveloped and should require large reductions in off-site, nutrient loading because the nutrient loading from the feedlots would have been so high).

Anne Hurlburt

- Anne questioned using pre-settlement conditions as opposed to existing conditions. Anne questioned how pre-settlement conditions are determined, and that everything was not a meadow. *Staff stated that pre-settlement is determined by existing soil types.*

Jack Frost

- Jack wondered how the District would be able to incorporate its calculated load reduction into the Rules to reach long-term and short-term goals for each lake. After discussion on the short-term goals and the difference between watershed loading and internal loading, Jack stated that he thought the Rule (development) should address the lakes’ short-term goal (meeting state standards) and if the District would like to go above and beyond the short-term goals, that District projects should address each lakes’ long-term goals.
- Jack stated that the Rules should include a table from the MN Stormwater Manual stating that a 2-year storm is currently defined as 2.8 inches over a 24 hour period. This would prevent the need to search for the standard. By stating “currently defined” it would address changes if the definition of a 2-year storm changes in the future.
- Jack asked about the District’s volume control—what if soils will not allow on-site volume control, the District should better define/clarify the sequencing. How about volume trading (check with Nine Mile Creek Watershed District)? How about cash in-lieu of (as in Capital Region, Ramsey Washington Metro, and Nine Mile Creek Watershed Districts)? The cash could be used for projects which the District defines to address problems.
- Jack mentioned checking with Nine Mile Creek watershed for sequencing and volume trading examples. *Staff has a copy of the Nine Mile Creek watershed Rule for volume trading.*
- Jack thought that the peak flow reference should be deleted from 2.4.3

Melissa Lewis

- Melissa discussed the volume trading scenario, where the District would essentially be the bank similar to entities overseeing a wetland credit bank.

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Doug Borglund

- Doug wondered if the Watershed District had the statutory authority to accept in-lieu of payments. Doug suggested talking with the District's attorney. *The District's legal counsel stated that there is some gray area in this question, and would suggest a sequencing approach with specific language setting in lieu of amounts and where/how funds can be used.*

Jerry Spetzman

- Jerry discussed the St. Croix Basin goal of reducing nutrient (phosphorus) loading to the St. Croix by 20%. In order for this to be achieved some of the watersheds (such as the Sunrise) would need to do better than the 20% reduction. This may be the case for reductions in the subwatersheds to each of the District's lakes.

Craig Mell

- Craig mentioned that off-site volume sequencing does provide the flexibility for some good sites to specifically address needs.

Phil Gravel

- 2.4.1(b) this standard requires that proposed flow volumes not exceed pre-development flow volumes for a precipitation event less than or equal to a 2-yr event. As previously discussed above, meeting predevelopment conditions is very restrictive, and in our opinion serves its purpose only in areas with problems under existing conditions. Also, the language for a precipitation event less than or equal to a 2-yr event" is vague. The requirement should likely be targeted for a specific storm event or events.
- 2.4.1(c) this standard states that particular nutrients and pollutants are not to be exceeded as listed in the District modeling report. First, they list nitrogen and heavy metals as target nutrients/pollutants. This is not industry standard as many water quality models do not model those nutrients/pollutants. Phosphorus modeling is typically used to cover all nutrients as it is typically the limiting nutrient for plant/algae growth. Phosphorus removal can usually also be correlated to suspended solids and heavy metal removals as it is typically more difficult to remove than those pollutants. The gist is that this requirement could likely be simplified while still meeting the District nutrient and pollutant removal goals. Second, how was the District loading calculated? Using pre-settlement conditions? This should be discussed and clarified as once again that would likely be more restrictive than necessary for the majority of receiving waters.

2.5 Management

Jyneen Thatcher

- Jyneen asked about soil conditions in drained areas and the need to look at these areas and see if soils have changed (eg. B/D soils).
- 2.5.3, Jyneen mentioned that the District should also look at end result soils and curve numbers.
- Jyneen asked if the District has mapped out, or inventoried their groundwater dependant resources (GWDR). If not, then how can the rules be implemented?

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Anne Hurlburt

- Anne asked about 2.5.2. After discussion on potential conflicts (watershed accepting the use of permeable pavers and city does not, or if the watershed advocates narrower roads while the city needs wider roads for safety issues), Anne was alright with the Rules as written.

Phil Gravel

- 2.5.3 This standard defines how to calculate off-site stormwater flow. Once again, pre-settlement conditions are defined. This is problematic in that very low off-site flows will be calculated while in reality existing flows may be much higher. This would lead to undersized stormwater conveyance systems and basins, potentially resulting in inadequate water quality treatment and flooding.
- 2.5.6 Defines requirements for areas in the watershed of groundwater dependent resources. This standard is very strict, requiring that a 2-yr event be infiltrated. For this reason basins that are determined to be groundwater dependent should be defined by the watershed. Will they just be fens? Fens and groundwater fed lakes? Fens, groundwater fed lakes, and some wetlands?

Jack Frost

- If District's GWDRs have not been inventoried, how can the District expect to implement Rule?

Craig Mell

- If District's GWDRs have not been inventoried, how can the District expect to implement Rule?

Melissa Lewis

- 2.5.4 should specifically reference 2.5.7 (maintenance)

2.6 Required Exhibits

Jyneen Thatcher

- For 2.6.4, Jyneen suggest that instead of referencing the 1982 FEMA we just say "most current" FEMA...
- Jyneen asked if 2.6.15 (wetland function and value assessment) would be for all wetlands on site or just those disturbed (impacted)? Again, Jyneen said that the District should not rely on developers for function and value assessments and count on them to be 100% reliable, the District should use their own function and value assessment as a cross reference. The consensus was for delineation on all wetlands and a function and value on those disturbed.

Melissa Lewis

- Melissa suggests requiring the submissions be in an electronic format. For example, this would be worthwhile for mapping function and value assessments on a GIS layer.

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2.7 Exceptions

- Add sequencing changes and possibly cash in lieu of and trading to 2.7.1

Anne Hurlburt

- Add specific language to 2.7.5 as opposed to just stating “Rule 2.5.7 does not apply.”

Appendices

Add “except wetlands” to the end of bullet number 4 on Appendix 2.1

Other

Phil Gravel

- In general, the City (Forest Lake) would like to see the term predevelopment replaced with existing throughout Section 2.0. This change would make the rules more in-line with other watershed districts and agencies. Also, we would like to have the base water quality model updated to reflect existing conditions as opposed to predevelopment conditions.
- We infer that the infiltration standards are applied to all Hydrologic Soil Groups (HSG); HSG types C and D are typically unsuitable for infiltration in our experience in this area as well as types B/D, and C1D. There are many options available to filter stormwater in "tighter" soil groups while still providing the opportunity for "true" infiltration. For example, in HSG types C, D, BID, and CID, a basin could be sized assuming type B soils. Drain tiles can be used to help ensure vegetation establishment and longevity, However drain tiles can be placed at the top of a porous (engineered soil) layer that allows runoff to sit below the drain tile and infiltrate prior to being drained downstream. Designs such as this should be provided as options rather than requiring a blanket infiltration standard for all soil types.

Anne Hurlburt

- Rules need to be enforceable and then we all need to enforce them.

Doug Borglund

- Because many cities are now going through an update of their comprehensive plans and will be updating ordinances, now is a good time for partnerships and involvement from the watershed to get help.
- Do watersheds have to follow state statutes in granting variances? Reason being, “financial hardship” is not a reason for granting a variance. *The District’s legal counsel does not believe that watersheds have to follow state statutes regarding variances. Legal counsel recommends that the District craft its own variance/exceptions for its rules.*

Jack Frost

- Jack thought that the emphasis of the rules should be for the watershed to address larger issues above that of what the cities are currently taking care of (smaller issues down to single lots). Specify in the rules, or through MOU, what the expectations are from the cities.

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Common themes

- LGUs struggling with the term “pre-settlement” and how this is determined.
- Most thought that the impervious threshold of 5% of the site listed in 2.2 (b) was too low and that maybe the District should just have an acreage threshold. All thought that a 1 acre threshold would be reasonable—this is also similar to RCWD.
- Combine 2.2(a) with 2.2(b) requiring residential subdivisions based on a acreage increase in impervious surfaces, not %.
- Applicability 2.2 (c) is unreasonable. A disturbance threshold of 50% of site is more reasonable and more in line with other watersheds.
- District should concentrate on the larger projects and leave the smaller projects to the municipalities.
- Questions on how the water quality reduction goals for each lake can be used for each sites loading goals? Make the water quality standard more clear.
- Question on how the District proposes volume control on linear roads (suggested to review Rice Creek Watershed District rules, and research cash in lieu of volume control which the District could use for projects).
- The District needs to define and inventory its groundwater dependent resources.
- Questions as to the Districts requirements around Manage 1, Manage 2, and Manage 3 wetlands when the District does not have function and value assessments on all of its wetlands. Jyneen thought that we should not rely on developer.
- Also on wetlands, consensus was to require delineation on all wetlands on site, and require function and value assessment on those disturbed.