

STORMWATER ORDINANCE UPDATE  
TECHNICAL ADVISORY COMMITTEE (TAC)  
Meeting #6: Wednesday, October 24, 2007  
Washington Department of Fish and Wildlife  
2108 Grand Blvd.  
1:30 - 3:30 p.m.

REVISED NOTES

**Agenda / Introduction**

Members Attending

Gordon Euler, Tom Grange, Tim Kraft, Robin Krause, Jennifer McClure, Chris Wonderly (for Chad McMurry), Fereidoon Safdari, Mike Soliwoda, Ron Wierenga

Members Absent

Patrick Harbison, Mike Misiak, Ali Safayi

Staff

Trista Kobluskie, Sue Stepan

Audience

Sean Darcy, Eric Golemo, Barb Lary, Andrew Stoeckinger

The October 3, 2007 notes were approved as submitted.

**Decisions from Last Meeting/Action Items**

*Draft 40.380.010*

Reference the 10/10/2007 draft of code 40.380. This document combines comments from TAC and the Stakeholders Advisory Committee (SAC) and is in "code" form, rather than table form. Existing sections .010-.030 have been combined into .010.

*BMP Comparisons*

Reference the BMP comparison list. Mr. Kraft asked if some Best Management Practices (BMPs) that are currently excluded in Clark County code should continue to be excluded. Does the group have comments?

Mr. Grange stated that if the county has no way of controlling maintenance costs on stormwater filter vaults, then it may be more reluctant to allow them on public projects. Mr. Safdari suggested using a hierarchy of preference for filter vaults.

Mr. Darcy replied that studies show that all BMPs are expensive to maintain. Filter vaults may require maintenance each year or two, but ponds may require unexpectedly expensive repairs on a longer cycle.

Mr. Krause asked if TAC recommends allowing all BMPs from the *2005 Manual* with no additional stipulations.

Mr. Grange recommended working with Maintenance & Operations managers to figure out costs. Mr. Krause replied that Mr. Wilson (a Maintenance & Operations supervisor for NPDES activities) did not voice any particular concerns at the last meeting. Mr. Grange: swales are not cheap to maintain. In comparing a swale to a vault, the size of the vault will affect the cost comparison. Mr. Safdari replied that there are some significant maintenance concerns. Mowing a pond or swale is one thing, but to really clean the pond, sediments and inappropriate trees must be removed, and re-seeding may be necessary.

Mr. Darcy asked what criteria would be used for omitting any technology; omissions could render a piece of property un-developable. Mr. Grange: every technology has its limits and must be used in the right situation. Mr. Darcy suggested using policies instead of code to control those details. Mr. Kraft wondered if policies are enforceable.

Mr. Grange suggested a review process instead of writing limitations into code. Any BMP has examples of problem installations when the wrong BMP was chosen or erosion control was not used. Mr. Krause: the *2005 Manual* has a process; it says if you can infiltrate, you shall, etc.

Mr. Darcy recommended taking some measure up front to ensure funds for maintenance, especially since the new NPDES Permit requires a compliance and inspection component. Mr. Krause: the annual Clean Water Fee to property owners covers it now. Ms. Stepan: it is within TAC's purview to recommend developer fees or other sources of revenue. Mr. Safdari: Clean Water Program staff has begun compliance inspections, and have met with Community Development; the issue of money comes up each time. He recommended a fee. Ms. McClure hesitated to raise developer fees, but concluded that an inadequate fee structure should be evaluated. Mr. Soliwoda recommended raising the Clean Water Fee.

Ms. McClure asked for an example of a BMP that the county is uncomfortable with. Mr. Kraft replied that vault covers for sand filters must allow sand to be dug out, not just vactored.

Mr. Krause requested TAC to closely study the BMP sections of the *2005 Manual* and provide feedback on potentially problematic BMPs or on potentially beneficial limitations on use.

Mr. Darcy recommended studying King County stipulations for comparison.

#### Review Concept Code 40.380(D) - (N)

##### *(D)(3) Location of stormwater facilities near on-site sewage system drainfields*

Mr. Grange noted that a closed pipe should be allowed. Mr. Soliwoda: the provision protects against septic draining to a ditch or ditch draining into a septic drainfield. Mr. Grange asked if there are cases where it can be allowed. Mr. Krause: in the variance process. Mr. Grange noted that sometimes road-widening projects can have difficulty with this provision when there is a septic system in a front yard. Mr. Wonderly replied that they had received variances.

Ms. McClure stated that Public Health has a different standard of 30 feet upstream of and 50 feet downstream. Mr. Krause advocated referencing the health code unless there is a compelling reason not to. Mr. Grange argued that the distance should depend on site conditions, but it also must be reasonable for development review staff to enforce. Ms. McClure noted that 100 feet is the same setback as for public water supply; it makes sense when people might be around an open channel. Mr. Soliwoda will contact Rulle Emry at Public Health.

##### *(D)(5) Location of facilities in relation to utility easements and corridors*

Mr. Kraft: we removed "using biofiltration" because we did not know why the provision would apply only to biofiltration facilities. Mr. Golemo: a vault could be located in the ROW if phone,

gas, etc. are put in at the same time. Mr. Krause noted that utilities frequently dig up their stuff. Mr. Golemo: we're going to have situations where a sanitary line has to go under a pond or a vault. Mr. Krause: right, we're going to have rain gardens and other situations in the ROW where utilities are going to be under them. Mr. Euler: it is a matter of needing to get to the utility that is under the stormwater facility.

Mr. Krause asked if the group agrees with removing "biofiltration."

Ms. McClure asked if it applies exclusively to new construction. At times, the sewer purveyor does not want to share an easement with storm.

Mr. Kraft asked if a utility adds service to a neighborhood, and goes under a rain garden or porous pavement, will the utility replace the BMP with an equal. How will the county know if a BMP is dug up by a utility? Mr. Euler noted that defining utility precedence and surface vs. subsurface easements are complicated topics. Ms. McClure suggested that the county could require the PUE easement language to be more specific. Mr. Euler suggested that this is a legal rather than a technical topic. Also he recommended removing the definition of stormwater facility from 40.100 and into 40.380. Ms. Stepan stated that enforcement could occur in the ROW permit process, but not for easements.

Mr. Golemo recommended allowing conveyance in utility easements, although construction staging must carefully be planned since dry utilities typically go in last.

Mr. Darcy stated that natural or open systems seem incompatible with utility easements.

Mr. Golemo requested provisions allowing facilities in the same corridor if necessary. He stated that this has rarely been enforced as long as it works at the end of the day. Mr. Euler replied that it may become an issue with LID.

Ms. Stepan recommended keeping the provision but working on the language.

Ms. McClure was reluctant to completely prohibit the practice, but would like the code to require that utility installations that disturb stormwater facilities repair or replace the facility to its originally designed function. Mr. Kraft replied that while the code implies that, utilities are not being held to the stormwater code. Ms. Stepan recommended consulting Dean Shaddix, who does utility easements.

Mr. Kraft and Mr. Krause will work on defining which types of facilities to apply the provision to, such as rain gardens and open conveyance, and whether it applies to crossing a utility easement or corridor.

*(D)(6)-(7)*

Mr. Euler wondered what "If the county or state does not own the site, the ownership shall be included for consideration with the land use application for the development activity" means.

Ms. Stepan stated that Public Works management has been advocating that all future residential stormwater facilities should be publicly owned. TAC and SAC need to make a recommendation on this issue.

Ms. McClure asked the annual cost to maintain a pond. Mr. Grange replied that it can be variable; some have little maintenance, but over time, could require a significant overhaul.

Mr. Krause explained that SAC discussed the following scenarios:

- All future land divisions for subdivisions require public facilities

- Future land divisions for subdivisions that allow a private facility must require the collection of fees from property owners for maintenance through the CC&Rs

Mr. Golemo countered that flexibility is an issue. The county will not allow park-like settings and unfenced stormwater facilities, so some developers use private facilities to achieve those aesthetic goals. Mr. Krause: right, the county would basically be taking on the maintenance of a park. Ms. Stepan recently encountered a Homeowner's Association that invested in a great deal of landscaping over an underground facility, which ended up blocking access for maintenance. The HOAA had not obtained permits, so the county was not able to warn it of the facility. Mr. Golemo replied that if the landscaping and access had been built into the plan, and the facility allowed to be public, the problem would have been avoided.

Mr. Kraft asked if a system that takes water from a public road may be owned privately. If so, should that be allowed? Also, a private facility may drain to the county's MS4, which creates a liability for the county if the facility is inadequately maintained. Mr. Soliwoda said that facilities frequently end up being private when the developer wants to leave it unfenced, but it will take water from a public road; then a hold harmless agreement is written.

Mr. Kraft asked if homeowners who maintain a private facility that takes public water pay a Clean Water Fee. Ms. Kobluskie: yes.

Ms. Stepan recommended discussing the topic with Pete Capell, Public Works Director. Public Works needs to make a firm recommendation on what it wants. Mr. Krause tabled the discussion until getting more info from Public Works.

*(E)*

Mr. Darcy suggested adding "and soil compaction." Mr. Soliwoda and Ms. McClure suggested specifying that the provision refers to permanent systems. Mr. Soliwoda recommended moving the entire section to erosion control. Mr. Safdari and Mr. Soliwoda suggested taking out "minimize."

*(F) Fencing*

Mr. Euler stated that fencing criteria are in 40.320, landscaping and screening requirements.

The group discussed the purpose of fencing - to protect people from slipping; to protect people from drowning; to protect the facility from animal feces & damage; and to protect the facility from litter, vandalism, and vehicles.

Mr. Soliwoda stated that unfenced facilities have required a hold harmless agreement; also, the section should specify "open facilities." Ms. McClure argued that some facilities should not be fenced, such as a bioswale in a parking lot with curb cuts. Mr. Kraft replied that those are private facilities, and the provision applies to public.

Mr. Kraft stated that Ecology allows detention ponds to be surrounded, in part, by split-rail fence or a thorned hedge under certain conditions.

Mr. Grange stated that the topic is a legal one, not a technical one.

*(G) Side Slopes*

Mr. Krause stated that to agree with Ecology, (G)(2)(b) should read 2' instead of 3'. The group discussed whether a steep vertical drop further inside a fenced facility should require a separate fence around it. Mr. Grange: fall protection for maintenance workers must be addressed. Ms. Stepan: it could be a handrail. Mr. Grange recommended referencing fall protection standards from whichever agency enforces this.

Mr. Euler: as lots decrease in size, the 75% limitation on vertical sides may not work. Mr. Krause wondered if a facility with all vertical walls could grow vegetation as required. Mr. Wonderly suggested that certain seed mixes will work in shade. Mr. Grange argued that 100% vertical walls will make mowing impossible; sometimes even a facility with 75% vertical walls will be difficult to maintain. Mr. Golemo recommended specifying that all open facilities must include an access to the bottom, rather than specifying a percentage of vertical walls allowed. Ms. McClure recommended codifying the intent rather than a random percentage.

Mr. Grange requested staff to find out the intent and simplify the section. Mr. Euler suggested using a matrix table as opposed to text and having one purpose sentence.

Soliwoda suggested making sure the provision is consistent with the *2005 Manual*.

(H)

Mr. Krause tabled the discussion until Mr. Wilson can attend.

(I) - (N)

Mr. Wilson emailed comments on this to Mr. Krause.

Mr. Krause: SAC recommends strongly that the county pursue basin planning, particularly in regard to flow control standards. Mr. Soliwoda stated that the stormwater fee would need to pay for it. Mr. Darcy asked if surrounding cities should team up for basin planning.

E-mail further comments to Mr. Krause by Friday.

Mr. Kraft handed out a draft of 40.380.050 Erosion Control. Please review this, which mostly references Minimum Requirement #2. Read it and comment at the next meeting in one week.

### **Review Draft LID Manual**

Reference 40.390 Low Impact Development Manual. This is a very rough draft. If it turns out that it will be a manual, the code section numbering will be removed.

Mr. Kraft and Mr. Krause explained that SAC supports using an LID Manual adopted in code instead of writing design standards code. BMPs in this document are pulled from multiple manuals, such as Gresham and King County. The purpose of presenting this now is to begin getting feedback and information on design standards from TAC.

Mr. Kraft asked TAC to read Appendix 3C of the *2005 Manual* for LID; it is thorough.

Mr. Kraft particularly asked for feedback on the "Permitted Uses" section. Is the county trying to encourage low impact development or allowing low impact development techniques on a traditional development site? They are distinct. A low impact development retains as much native vegetation as possible, amends the site soils as necessary, and minimizes compaction. A traditional development will size the pond and then try to minimize the pond size by using rain gardens throughout the site.

Mr. Kraft handed out draft design standards for a rain garden.

## Next Steps

At next week's meeting, geotechnical engineers will attend, and the group will discuss the infiltration study white paper from ASCE and the Ecology standards for infiltration. Please read the white paper and the relevant section of the manual.

Mr. Krause asked if TAC agrees to extend its meetings through December. Topics remaining include: submittal requirements, infiltration, erosion control, conveyance, and BMP Manuals, as well as revisiting issues that have arisen along the way and reviewing draft code verbiage. SAC has agreed to two additional meetings. The group did not object to meeting more.

## Public Comment

Mr. Golemo asked if TAC had changed any of its positions based on the meeting with Ecology regarding assumptions used in the required hydrology model. Ms. Stepan asserted that TAC will need to discuss the model and make a recommendation on whether or how to use it. Mr. Krause agreed that customizing rainfall and existing conditions parameters to Clark County could be beneficial.

Mr. Golemo requested TAC to look into a variance process. He argued that Ecology requires source control to such a level that the intent must be to fix problems that already exist in a watershed. That is not feasible, economically viable, or fair to developers. Mr. Krause argued that Ecology's intent is to prevent further degradation, not to improve stream health. Mr. Golemo argued that having to use pre-developed runoff characteristics for existing conditions in the model proves otherwise. Mr. Kraft argued that the purpose of source control is to prevent runoff from picking up pollutants in the first place.

Mr. Soliwoda asked if TAC intends to recommend code that does not meet the NPDES Permit requirements. Mr. Grange recommended complying with the requirements and providing local data for use in the hydrology model. He noted that Public Works does not advocate fighting the permit. He stated that soils in the model are till & outwash, which Clark County does not have. In addition, some B soils in the county are Hillsboro and some are Lauren, and they're not at all alike. That is a refinement worth making. Ms. McClure agreed that being comfortable with the modeling assumptions is important, and she stated that her colleagues are resigned to meeting the new standards. Mr. Grange reminded the group that the county previously lost a lawsuit when challenged for not meeting the NPDES Permit.

Mr. Kraft cautioned that customizing the model potentially could result in higher standards; also the ability to target calibration of the model on a watershed scale is limited, expensive.

Mr. Golemo argued that there are some situations under there regulations that simply have no solution.

## Adjourn

The meeting adjourned at 4:05 p.m.

Respectfully Submitted,  
Trista Kobluskie