



Clark County Environmental Services

2013-2018 NPDES Stormwater Permit TECHNICAL ADVISORY COMMITTEE #4

Wednesday, November 20, 2013

3:00 – 5:00 p.m.

Public Service Center, 6th Floor Training Room, 1300 Franklin St.

Attendees:	Don Benton , Ron Wierenga, Rod Swanson, Jane Tesner Kleiner, Fereidoon Safdari, Chris Clifford	Clark County - DES
	Ali Safayi, John Davis	Clark County – Public Works
	Gordy Euler	Clark County - Planning
	Jan Bazala, Jim Muir , Bryan Mattson	Clark County – Comm. Dev.
	Eric Golemo	SGA Engineering
	Andrew Gunther	PLS Engineering
	Nancy Olmsted	Clean Water Comm.
	John Meier	AKS Engineering
	Peter Tuck	Olson Engineering
	Jon Girod	Quail Homes
	Troy Johns	Urban NW Homes
	Lance Lehto	Columbia West
	Alex Zimmerman	Creative Courses
	Robin Krause	CRWD
	Annette Griffy	City of Vancouver
	Tim Kraft (consultant for LID Barrier Review Analysis)	OTAK
Guests: Sean Darcy (Contech), Trista Kobluskie (Otak)		

Agenda Topics:

3:00	1. Welcome	Clark County staff
3:05	2. Feedback from last meeting – any follow-up	All
3:15	3. Design Manual Update Project <ul style="list-style-type: none"> • Review Chapter 5 (Runoff Treatment) • Review Chapter 2 (Construction Stormwater Manage.) • Discuss Proposed submittal requirements • Discuss Chapter 4 (Pollution Source Control) • Discuss Chapter 8 (O&M) 	Ron, Tim and all
4:50	4. Next steps	Jane Tesner Kleiner

**NOTES: Handouts – Narrative summaries for Chapter 2 and 5,
Table of contents cheat sheets.**



MEETING SUMMARY

Welcome and overview (Jane)

Process and procedure (Tim) – Status update of chapters (submittal requirements, chapters 4 & 8). Some work is in process and will be submitted to the County for their review and then will be posted to Dropbox for review and comment by TAC.

Review process – The proposed manual language is from the County and Ecology manuals. A track changes version would be cumbersome therefore narrative summaries have been provided to help guide reviewers to general changes.

- ***Is there an opportunity to create two volumes***....one for technical information (stormwater manual) and a second for all of the BMPs and details? Worth considering simplifying the portions of the manual that get the most use. We are trying to reduce redundancy in listing details in multiple sections (like the DOE manual). Could help the variety of developers, designers and builders who may or may not be familiar with the process and procedures.
- ***We are setting up a meeting with the Department of Ecology*** for early January to touch base with them and ensure we are on track with our proposed changes and formatting.
- ***Use the comments matrix/spreadsheet*** that is posted in the Dropbox account to track suggestions and comments. Submit comments to Jane Tesner Kleiner at the county (either by chapter or multiple chapters).

Chapter 2 – Construction Stormwater Management (review of the narrative of changes – see attached)

- ***Timing of DOE and Clark County submittals (SWPPP)***(page 5 table)....why are they separate and can they be the same document? Can't we streamline the process (do one template) and submit to both agencies, as required. The County charges a fee that some applicants are concerned about. If they have an approval from DOE wouldn't that be good enough. Some past discussions with DOE indicated perhaps there could be a delegated authority to the local jurisdictions but it is currently not on the table.
- ***If you are not discharging off the site or to an emergency overflow*** (i.e. 100-year storm), do you need an Ecology permit (just in case)? More detail in the manual would be helpful as to the requirements with sites that have zero discharge from site. Some TAC members say that it would be required to have a permit, although that is not how the permit is written. If a site discharges to the 303(d) listed water body, special circumstances may apply for discharge (not a lot of guidance on this version).
- ***What is the appropriate timing for requiring the SWPPP?*** Right now, it is with the final engineering submittal for approval. The proposal is to allow it to be submitted for review before the pre-construction conference. Need to clarify timing and justification for timing of submittal. The entire plan may not need to be stamped by an engineer but elements such as ponds and conveyance systems would.

Chapter 5 – Stormwater Runoff Treatment BMPs (review of the narrative of changes – see attached)

- ***BMP Selection flow-chart*** (page 9)– The current draft streamlines the selection process and aims to make it more articulate. Please review and ensure it is clear and understandable.
- ***Infiltration/infiltration BMPs have been moved*** – This could be a challenge as there is applicability in this chapter and as well as other chapters. For example, if you have a pond that is supposed to infiltrate at the bottom of the pond. Flow reduction BMPs have moved to Chapter 3. Multiple needs for meeting flow as well as treatment. Facilities will start to look different as they are now meeting multiple needs. If we move to the “two-volume” scenario, the manual at this section could list the requirements and then reference the BMP section. List the available treatment infiltration options in Chapter 5 even if they are contained in Chapter 3.
- ***Emerging technologies*** section for pretreatment (page 44). The challenge is if there are changes in the Ecology designated BMPs, the list of approved BMPs in the manual will become outdated. We

want to be careful about general use from a maintenance and operations perspective of having a variety of facilities and no consistent materials on hand for repair and replacement. Perhaps add clarifying language to address new technologies that will come forward in the next five years. It may make sense to not list specific features and have a different mechanism to convey which features are acceptable. Could we just list the acceptable features on a web site? If some projects will remain in private ownership, there may be greater flexibility vs. the facilities that will be turned over to the County. Refer to page 151 for more text. Should this policy be in the manual...what is the intent of the policy? Level of data needed for pilot vs. conditional vs. general use BMPs. If we want to be stricter on pilot or conditional use in the County, we could add stronger language. The current policy added to the manual is intended to strike a balance between being flexible and managing scarce resources at the county. New proprietary BMPs allowed by Ecology may be used in non-residential projects and be privately owned.

- **5.3 Design requirements for roof drain infiltration BMPs and setback** - Need more detailed information for use in conveyance and infiltration (Table 5.5 – page 27). Clarify opportunities for rear yard opportunities. Ten foot off property line and ten foot off of building usually limits the ability to place SW features in the rear of a building. Ten foot private stormwater easement along property line to be the low point would allow multiple systems to tie into the drainage feature and meet setback requirements for the infiltration BMPs. Clarify the language on where centerline of facilities. Identify solutions to limit impacts to your buildable areas. Easements should be recorded in the plat. More details on common systems.....how to characterize in the table? Another table in Chapter 8 that talks about conveyance and width of easement for each system (Table 8-5). This table may need to move out of chapter 5.
- **Treatment liners** – (page 30) – Prefer a list of approved soil types for treatment requirements under infiltration ponds over a requirement to perform lab tests. May be helpful to have a list of soils that would be acceptable and add clarity. If mix is approved somewhere else it should be acceptable here. There may be an issue of settlement of some treatment media mixes that use compost that would limit future integrity of the design.
- **Oil-water separators** – When to require use is based on vehicle trips, it can be confusing. Add clarifying language (in selection table on page 9)....may need to be something to address with DOE. Manual needs clarification as to its application when there are no or limited inlet and pipe systems for LID. Need to consider its need for many commercial uses where it may not be needed.

Other chapters – Submittal requirements, chapters 4 and 8 – will be available for review on Dropbox in the next week or so.

Next Steps – Next meeting is December 18th (same place and time 3:00-5:00 pm). Submit all comments on Chapters 2 and 5 to Jane via email on the comment spreadsheet. We will send notice of when other chapters are ready and available for review. Thank you for your time and input.

End of summary

Clark County Stormwater Design Manual

Abbreviated Table of Contents

November 19, 2013

Introduction

Chapter 1 – Minimum Requirements and Submittal Requirements

Chapter 2 – Construction Stormwater Management

Chapter 3 – Hydrologic and Hydraulic Management (Flow Control)

Chapter 4 – Pollution Source Control BMPs

Chapter 5 – Stormwater Runoff Treatment BMPs

Chapter 6 – Financial Guarantees

Chapter 7 – Administrative Requirements

Chapter 8 – Operations and Maintenance

Appendices, including Standard Details

Memorandum

To: Jane Tesner Kleiner
From: Tim Kraft
Prepared By: Trista Kobluskie
Copies: Rod Swanson
Date: November 13, 2013
Subject: Narrative of Changes to CCSDM Chapter
2 version 1 Review Draft
Project No.: 16030E

Stormwater Design Manual (CCSDM) Chapter 2, Construction Stormwater Management, is based on the 2012 Department of Ecology Stormwater Management Manual for Western Washington, Volume II.

Changes between the Ecology Manual Volume II and Chapter 2 version 1 Review Draft include:

General

- Reduced repetitive content throughout the chapter

2.1 Purpose through 2.5 Stormwater Pollution Prevention Plan Requirements

- Reduced educationally orientated introductory content
- Clarified content by altering the order of sections and subject matter
- Included a description of how to meet Minimum Requirement 2
- Inserted a section clearly stating how to meet both Minimum Requirement 2 and the Construction Stormwater General Permit, if both apply
- Omitted language relating to other regulations, such as Endangered Species Act, TMDLs, etc.
- Removed "Additional Guidance" sections from each of the thirteen elements described
- Removed footnotes relating solely to the Construction Stormwater General Permit

Best Management Practices Standards and Specifications

- Clarified language in most BMP descriptions
 - o Omitted educational content

- Used consistent formatting in BMP descriptions

Memorandum

To: Jane Tesner Kleiner
From: Tim Kraft
Prepared By: Trista Kobluskie
Copies: Rod Swanson
Date: November 13, 2013
Subject: Narrative of Changes to CCSDM Chapter
5 version 2 Review Draft
Project No.: 16030E

Stormwater Design Manual (CCSDM) Chapter 5, Stormwater Runoff Treatment, is based on the 2012 Department of Ecology Stormwater Management Manual for Western Washington, Volume V.

Changes between the Ecology Manual Volume V and Chapter 5 version 2 Review Draft include:

General

- Reduced repetitive content throughout the chapter
- Omitted maintenance descriptions from each BMP description (these will be moved to CCSDM Chapter 8)

Introduction

- Reduced introductory content
 - Omitted descriptions of treatment types
 - Omitted references to maintenance (these will be moved to CCSDM Chapter 8)
- Removed general description and specific BMP descriptions of on-site stormwater management (these will be moved to CCSDM Chapter 3)

Treatment Facility Selection Process

- Inserted additional instructions to clarify the Step-by-Step selection process
- Included the Treatment Facility Menus in this section (they are a separate chapter in the Ecology Manual)

- Omitted duplicative applicability list from the Treatment Menus (the applicability criteria are already listed in the Step-by-Step selection process)
- Included a list of phosphorous-sensitive water bodies in Clark County per 40.385.020(B)

Design Requirements

- Customized language describing the design storm for Clark County
- Omitted some definitions in the text (a Glossary will be available)
- Omitted explanatory and educational language
- Revised language for facility setbacks to reference applicable County Code sections, and to include setbacks now listed in the county's stormwater code, 40.385
- Included fencing and side slope requirements from current Clark County Code (40.385)
- Omitted a section on Outfall design (it will be covered in Chapter 3)

Pretreatment BMPs

- Omitted applicability language for pretreatment covered earlier in the chapter
- Listed five Emerging Technologies with General Use Level Designation for pretreatment that Clark County accepts

Infiltration and Bioretention BMPs

- Omitted this section - it will appear in Chapter 3

Filtration Treatment BMPs

- Clarified introductory language
- Included Biofiltration BMPs (they are a separate section in the Ecology Manual)
- Added BMPs for two Emerging Technologies that Clark County commonly accepts

Biofiltration Treatment BMPs

- Moved this section into the Filtration BMPs section

Wetpool Facilities

- No significant changes

Emerging Technologies

- Omitted content about Department of Ecology's role in evaluating and classifying Emerging Technologies
- Included language describing Clark County's process for reviewing applications that include Emerging Technologies