



Clark County Environmental Services

2013-2018 NPDES Stormwater Permit TECHNICAL ADVISORY COMMITTEE #5

Wednesday, December 18, 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, Trista Kobluski (consultant for manual update)	OTAK
Guest: Sean Darcy - Contech		

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 Submittal Requirements • Review Feasibility Requirements <ul style="list-style-type: none"> • Discuss Chapter 4 (Source Control) • Discuss Chapter 3 (Flow Control) • Discuss Chapter 8 (O&M) 	Tim and all
4:50	5. Next steps	Jane

NOTES: (see attached) Revised 12.30.13



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MEETING SUMMARY

- **Welcome** – all
- **Feedback from last meeting** – Any technical edits can be submitted to Jane and included in our overall comment matrix. This matrix is reviewed by the project team on a regular basis to make sure all comments have been addressed.
- **Design Manual updates** –
 - **Review of updated Table of Contents (TOC)** (see attached handout) –
 - The new manual TOC breaks sections into various activities and uses. It is meant to flow like how an applicant would approach a project. This is a flexible layout at this point and will be open to adjustments as we move through the next several months.
 - Are all the BMPs incorporated into the new layout? Yes (dispersion of agriculture lands is the only change)
 - Are the standard meant to be used as details design guidelines or as an engineered design meant for construction? We need to minimize the areas where someone takes a guidance example (i.e. bio-swale bottom width) and uses it to build to (as it would not fit the site). Clark County staff is in the process of reviewing the entire list of “standard details” to remove the redundancies, inconsistencies, etc. Reviewing engineers will need to take an engineered stamped detail and verify if it correlates with the general guidance or best available design. The Technical Information Report (TIR) will include the information / burden of proof that the detail meets the requirements. Staff may not have enough time to do a complete scientific analysis of the detail therefore the guidance and TIR information should provide sufficient information. Anything that is a standard detail needs to be followed, unless there are unique circumstances. Some of the standard could include characters that then are determined to meet the specific site conditions (e.g. swale has side slope A, bottom width B and side slope C – determine A, B, C). We need to determine which design guidance would benefit from a template diagram.
 - Installation guidelines for BMPs – i.e. any special requirements for installation of pervious pavement? Where do we find this information in the manual? How to protect infiltration during construction (would be in the erosion control). The LID manual has more specific information for reference. Each site is different and conditions will vary. There will be a need to have information on the construction plans so that the contractors are aware of the need to protect the site. How does the plan reviewer know that the information is adequate? Submittal requirements could require that the appropriate information is provided (it is currently not in the WSDOT specs). Participants use the WSDOT specs, but this material is not currently available. Clark County engineers use WSDOT specs as a basis for site specific guidance. Update the county’s current specs to include some of the information from WSDOT (or write some county specifications). Need to avoid describing “means and methods” to the contractors, but there is a need for identifying what protections are needed for the site.
 - What happens where there are changes to processes and guidance? The manual will get updated every five years or so but there will be language to address the on-going changes in technology.
 - Clarify the language where the designs meet the intent of the design vs. where the design needs to meet the exact terminology. Where can we allow more variability?
 - **Submittal Requirements** (Chapter 1) – The updated text started with the County’s existing language and reviewed with Ali S. to discuss what works, what portions are confusing/conflicting,

etc. This is a really important chapter so feedback from this group will continue to be important. The biggest change is page 21.

- If it not a classified injection well, any feature that discharges to groundwater is governed by the permit.
- Soil report format – where did it come fromthe Volume 1 DOE manual.
- The current infiltration method that is in the Clark County manual is acceptable so it should be kept in the update.
- Submittals should reference other manual chapters where methodology is specified.
- Should we require a “Safety factor” for bioretention and infiltration systems? Otak will continue the discussion and bring back suggested language to the group.
- Main differences in this version as noted in the memorandum handout (see attached) – County staff may have conflicts in what is “counter complete” during final review. The county staff checklist may not necessarily be complimentary to the submittal requirements.
- Off-site contributing area may be appropriate at this scale – may work better as a separate map (could be 10 times the size of your site) or include in the TIR? What size is appropriate – 8 1/2x11 or bigger.
- Section 8.2 on page 6 – add flexibility to the language (i.e. why require costs information for a redevelopment project). Add “If” statements to ensure that your project would even trigger the requirements. Another example, flood frequency may not be applicable in all situations.
- For single family residential – the County is just asking for the twelve elements narrative (shorter than the SWPPP).
- Preliminary Stormwater is much closer to our current practice of requiring detailed information like what was in the final Stormwater plan. They require a lot more information to ensure that the site conditions and design are appropriate sooner in the process. Many engineers are doing this level of work but may be new to some developers in the community.
- There are examples of applicants providing some very outdated information (old well data or deeper aquifer) that is not close to the site. The information will not accurately reflect what is happening on the site in the terms of the groundwater or appropriate for the needed analysis. But there is a balance between requiring extensive groundwater monitoring systems (i.e. piezometers on adjacent landowner properties). The county currently requires 15’ of groundwater levels.
- What requirements / standards do we need to have to reduce the liabilities of system failures? The main question is due to the requirements based on infiltration system failures.
- Please review and provide additional comments to Jane and Tim.
- **Feasibility requirements** – there are a number of factors to consider, including depth to groundwater. Handed out a series of draft maps by the subconsultant GeoSyntec. There are five maps of infeasibility criteria that could be mapped including landslide, WWHM soil grouping, wetlands, recharge/wells/septics, overlapping constraints (an additional map on steep slopes is in production). Other constraints were considered but not developed. These maps probably would not be included in the Manual but would be a link on the web page for review and information.
 - Need to adjust the colors a little bit (i.e. soils 4 and 5 are very close together)
 - Wetland map is based on county information but there may be gaps in the information. This map is just general data and you need to do a site specific investigation to confirm presence and type.
 - The well map is informational only.

- Difference between Category 1 and 2 on the CARA map, it is a “no-go” for some uses in Category 1 (or may have conditional uses).
- Combined constraints map is informational and gives some general guidance.
- What do these maps mean to the designer? For smaller sites, this information may be available to assist a designer. For larger developments, these are general guidance but the designer will need to conduct site specific data. We will continue to develop and move this to a useful informational tool. Each map will need specific language to describe how these could be used.
- Is there interest to depth to bedrock? Not really relevant in our region, except in Camas/Washougal (i.e. impermeable layer)
- **Book 3 (chapter 4 – Source Control)** – it is in progress and will be available in January for review. (this is the main use for business technical assistance).
- **Book 3 – continuous flow model - western Washington hydrologic model (WWHM)** – what methodology are participants using? TAC members are using a variety of techniques. Some of the methods are not resulting in a good representation (i.e. number 2s, Hillsboro). This would require additional work by geotechnical to confirm a 2 is acting like a 3 or 4. There needs to be the ability to change. The original NRCS maps were mapped at such a scale that the information is general guidance. Sites need to confirm the materials that actually exist on the site. Are participants using MGS Flood? Some are using the tool, as the county uses the program and it has some benefits in the ease of use. Some participants have downloaded the 2012 version and trying the LID models.
- **Closed depression language** – other communities have language and we are putting together some language for review at the next meeting.
- **Next steps**
 - Next meeting will be scheduled for January 22, 2014
 - Staff will be presenting to DEAB on January 2nd on code and manual update
 - The update project is still on target to have a complete draft pulled together by mid-March for public review and comment.

End of Summary