

CHITTENDEN COUNTY REGIONAL PLANNING COMMISSION
 CLEAN WATER ADVISORY COMMITTEE – **DRAFT** MINUTES

DATE: **Tuesday, April 5, 2016**
 TIME: 11:04 a.m. to 12:04 p.m.
 PLACE: CCRPC Offices, 110 West Canal Street, Suite 202, Winooski, VT
 DOCUMENTS: Minutes, documents, and presentations discussed accessible at:
<http://www.ccrpcvt.org/meetings/clean-water-advisory-committee/>

Committee Members in Attendance		
Bolton: Deb Shelby	Hinesburg: Trevor Lashua	St. George:
Buels Gore	Huntington: Barbara Elliot	Underhill: Brian Bigelow
Burlington: Megan Moir	Jericho: Katherine Sonnick	Westford:
Charlotte: Jeannine McCrumb	Milton:	Williston: James Sherrard
Colchester: Warner Rackley	Richmond:	Winooski: John Choate (arr. 11:37)
Essex: Annie Costandi	Shelburne: Chris Robinson	VAOT:
Essex Junction: Chelsea Mandigo	South Burlington:	VANR: Christy Witters
Burlington Airport:	University of VT: Lani Ravin (arr. 11:10)	CCRPC Board: Don Meals
Other Attendees: VT-DEC: Jim Pease, Kevin Burke; Winooski NRC: Holly Kreiner		
CCRPC Staff: Dan Albrecht; Regina Mahony;		

1. Welcome: Don Meals called the meeting to order at 11:04 a.m. No changes were made to the agenda.

2. Review and action on draft minutes of March 8, 2016:

Brian Bigelow made a motion, seconded by James Sherrard to approve the March 8, 2016 minutes. No further discussion. MOTION PASSED.

3. Draft of the Revised Vermont Stormwater Management Manual (see copies at CCRPC weblink above for details)

Kevin Burke briefed the committee on next steps, and provided overview of changes to treatment standards and stormwater treatment practice design requirements. Not updated since 2002. Wanted to add GSI and LID, and provide better guidance on where a STP can be sited in relation to surface water buffers, add experience from good practice, and improve stormwater pollutant removal through practice prioritization. The draft manual was developed by Stone Environmental, and DEC worked on that for the final draft. Stakeholder meeting was held on March 15th, and written comment period is open until April 15th. It isn't a formal comment period so they may be able to take comments after that date. The intent is to revise the draft based on comments for two months. Then rulemaking will follow, and would like to start this process in June. This will include a formal comment period. Rulemaking generally takes about 6 months.

Stormwater Treatment Standards for New Development:

New development and redevelopment will need to incorporate runoff reduction through use of runoff disconnection and practices that infiltrate when possible. Justification/feasibility process isn't yet fully developed but expect it to be an objective element of permit application submittal.

Groundwater Recharge Standard for new development to preserve existing water table elevations – they've increased the recharge factor for A, B, C soils.

Water Quality Treatment Standard for new development – capture and treat the first flush which contains the majority of pollutants – 90th percentile rain event. Moving from a 0.9" to a 1" (24-hour rainfall). Additional opportunities to meet standard with non-structural practices. Minimum pollutant removal is 85% for Total Sediment Solids (current is 80%) and 50% for Total Phosphorus (current is 40%). This manual will be relied upon for design of retrofits, in consideration of any engineering feasibility analysis in state general permits (if applicable) and will also be used if the threshold is dropped to 0.5 acre sites.

Channel Protection Standard for new development – manage runoff from the 1 year storm to protect receiving waters from erosion. Hydrologic condition method has been added as an option to reach this standard. Reduce post-development 1 year runoff so that site runoff is equal to pre-development runoff. Practices include

1 include disconnections, permeable pavement, bioretention, etc. Waivers will remain the same, except
2 expansions of less than 1 acre on site requiring permit would be required to meet Channel Protection.
3 Rainfall – designers will need to look this up because the storm depths are quite variable across the state.
4 *Overbank & Extreme Flood Protection Standards* – largely remain the same. Did expand section on
5 downstream analysis which allows you to scale to the size of the site in comparison to your drainage area.
6 *Post Construction Soil Depth and Quality Standard* – this is a new standard. Retain undisturbed soils or re-
7 establish minimum depth of topsoil to meet organic matter, pH, soil depth standards on clear/graded land.
8 Intent is to minimize compaction. Megan Moir suggested that perhaps there could be a credit if you improve
9 the soil beyond this minimum.

11 **Stormwater Treatment Standards for Redevelopment:**

12 Water Quality Treatment Standards – increases WQv from 20% to 50%. Equivalent removal of impervious to
13 meet WQ increased from 20% to 25%, and restored areas would be subject to Post-Construction Soil Depth
14 and Quality Standard. Quite a bit different now. Greater flexibility is now provided for designers to use
15 Alternative Treatment Practices and lower performing practices that capture more area or are implemented
16 with a margin of safety.

18 Infiltration by use of structural or non-structural practices for runoff specifically from hotspot areas is
19 prohibited.

21 Practices:

22 New Requirements – construction sequencing, expanded maintenance requirements

23 Pre-Treatment (PT) – swales & grass channels only allowable for use as PT, new pre-treatment section in
24 manual.

26 *Non-Structural Stormwater Treatment Practices (STPs):*

27 Trees – allows for a treatment volume credit for establishment of a forest canopy and currently only a benefit
28 for large scale. May expand over time.

29 Simple Disconnection – allowable on slopes up to 15%, explicitly credited for volume reduction, volume
30 reduction credit applied to 1-yr, 10-yr and 100-yr events. PT not required.

31 Complex Disconnection – PT is required.

32 Watershed Hydrology Protection – legislative mandated. Applicable to high elevation renewable energy and
33 telecommunication projects in an effort to maintain sites natural hydrology and provided water quality
34 treatment by using a suite of practices, while minimizing stormwater infrastructure footprint. The credit might
35 be expanded if proven useful.

37 *Structural STPs:*

38 Bioretention & Rain Gardens – relaxed groundwater separation requirements, previously categorized as a filter
39 system. Filter media composition is key as they may contribute to phosphorus.

40 Dry and Wet Swales – increase max slope to 6%, lowered required infiltration rate so the floor is a little lower

41 Infiltration Trenches and Basins – decreased min. infiltration rate needed. Groundwater separation is still
42 required, but relaxed in some cases for small drainage areas and low impervious cover. The higher infiltration
43 rate the higher the PT needed. Megan Moir noted that perhaps the applicant should have to explain why they
44 can't infiltrate, since we are trying to encourage it.

45 Filtering Systems – just limited to sand practices. Generally only designed for water quality.

46 Treatment Wetlands – shallow surface wetland and gravel wetlands are two design options (though minimum
47 10 acre drainage area is only applicable to shallow surface). Not some of the higher performing practices but
48 they may still have their place.

49 Wet Ponds – increased minimum drainage area requirement to 10 acres, in consideration of sufficient
50 contributing drainage areas to maintain a viable permanent pool. They heard a lot of feedback on that. The
51 draft manual does not eliminating these as an option, as they may have their place. Aquatic and safety

1 benches/space requirements are included along with longer flow path. Gravel trench outlets, to cool the water,
2 are required for ponds that discharge into cold water fish habitat.
3 Green roofs – can be used but only provide limited volumetric storage, not recharge or water quality treatment
4 Permeable pavement – not jurisdiction if able to infiltrate 1-year 24-hour storm per rules, but may be used as a
5 STP for infiltration of runoff from rooftop.
6 Rainwater harvesting – has been added. Must have 0.2” capacity and re-use plan.
7 Alternative Treatment Systems – can use innovative strategies with DEC review of other BMP verification
8 protocols and requires DEC approval.
9
10 James asked if someone proves that an approved practice doesn’t work would it be then removed from the
11 manual. Kevin Burke indicated that if there is a permit for an approved practice, they’ll be grandfathered.
12 Monitoring of an existing practice may however inform changes needed to the manual in the future with
13 regards to practice performance and its place in the manual. There were a few other questions for retrofits and
14 how existing systems will be held to these standards.

15
16 **4. Updates**

17 None.

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19 **5. Adjournment**

20 The meeting adjourned at 12:04 p.m.

21 *Respectfully submitted, Regina Mahony*