CCRPC Transportation Advisory Committee
CCRPC Clean Water Advisory Committee
October 3, 2017

Agenda Item 3

CCRPC comments on draft Municipal Roads General Permit  (Action Item)

**Background:**
On Monday, September 11th, Vermont DEC formally issued its draft MRGP. See info at: [http://dec.vermont.gov/watershed/stormwater/permit-information-applications-fees/municipal-roads-program](http://dec.vermont.gov/watershed/stormwater/permit-information-applications-fees/municipal-roads-program). The public is invited to provide written comment on the draft MRGP through the close of business (4:30pm) on October 27, 2017.

Written comments on the draft MRGP should be emailed to Jim Ryan at jim.ryan@vermont.gov or mailed to:

Jim Ryan DEC Stormwater Program 1 National Life Drive, Main 2 Montpelier, VT 05620-3522

CCRPC staff as well as Jim Ryan of DEC have provided prior presentations to both the TAC and the CWAC.

Attached are draft formal comments prepared by staff along with a short memo showing how are previous comments from March were addressed. A separate PDF collates the draft Permit along with referenced attachments.

**Action:**
The TAC and CWAC should review and provide any desired edits to the draft comment letter. Staff will compile and incorporate these comments and then ask the CCRPC Board to finalize the letter and its formal transmittal to Jim Ryan at its October 18th meeting.

**Staff contact:**
Dan Albrecht, dalbrecht@ccrpct.org, 861-0133

Chris Dubin, cdubin@ccrpct.org 861-0121
Thank you for the opportunity to comment on the draft Municipal Roads General Permit. Please consider these comments of our Board of Directors approved at their monthly meeting on October 18th.

General comment – The MRGP references numerous documents/forms which are to be used by municipalities to work towards and /or demonstrate compliance with this permit including, for example:

- DEC Road Erosion Inventory Template
- MRGP Implementation Table
- RSWMP Implementation Table
- Implementation Table
- MRGP Planning Report
- Culvert sizing based on in-field and mapping techniques
- Catch Basin Inventory and Outlet Erosion Evaluation

The draft permit directs the reader to obtain these various documents by accessing them on the recommended web links. However, in some cases, the referenced documents are embedded within larger PDFs or within additional links whose names are not intuitive to the casual user.

Recommendation 1  CCRPC recommends that DEC create a separate webpage or Permit Appendix which clearly lists and numbers each of the various documents (e.g. MRGP, Attachment A-DEC Road Erosion Inventory Template; Attachment B-Example RSWMP Implementation Table, etc) that are to be used to comply with this MRGP as well as provide examples where appropriate.

Specific comments:

2.1 Duty to Apply

Recommendation 2  There is a reference to MS4 and “Part 7” in the 3rd sentence. It appears that this should refer to “Part 6.”

3.1. Submittal of Initial Notice of Intent and Application Fee

Recommendation 3  A $2,000 flat annual fee is too heavy of a burden for smaller towns. The total amount of fees should be tied to the cost to administer the permit and not generate excess
revenue. Fees could be a lower flat fee, be tiered, or be variable depending on the number of connected road segments or road-related impervious cover. There should be some incentive, such as a reduced fee, for towns to complete their road erosion projects in less than the 20-year timeframe.

4.1 Comprehensive Plan for All Stormwater Discharges

A.1 Road Erosion Inventory for all municipal hydrologically-connected road segments

Slope Data – Because required BMPs vary for different slope ranges, 0<5, 5<8, 8+, 10+ the use of accurate slope data is critical. As Chittenden County has recent 2014, 1ft. contour LIDAR data, the CCRPC with DEC concurrence, has used this data (rather than that in the ANR Atlas) to derive slope values in order to perform road erosion inventories in 2016 and 2017.

Recommendation 4 __ CCRPC recommends that the permit should clearly allow the use of alternative data sources when more accurate data exists.

a. “For paved roads with catch basins: the catch basin outfall pipe is within 500 feet of a water of the state or wetland.”

Within 500 feet seems overly expansive and inconsistent with use of 100 ft. as a cutoff point as noted in 4.1.A.1.b.1 and with use of “uphill” as noted in 4.1.A.1.b.3.

Recommendation 5 __ CCRPC recommends modifying to reduce distance to “within 100 feet and uphill of a water of the state or wetland.”

The REI will include a road erosion “score” for each hydrologically-connected road segment. All road segments will be scored as “Fully Meets,” “Partially Meets,” or “Does Not Meet” the standards listed in Part 6 of this permit. A detailed procedure for scoring road segments is provided in the Inventory. Road segments that score “Partially Meets” or “Does Not Meet” shall be upgraded to meet standards according to the municipality’s implementation schedule. Road segments that score “Fully Meets” do not require upgrades, but shall be maintained to ensure that they continue to meet standards. The Inventory scores and explanation of those scores shall be entered into the RSWMP Implementation Table.

We appreciate the inclusive process by which DEC developed the Road Erosion Inventory methodology especially the involvement of CCRPC and other Regional Planning Commissions. Overall, the Inventory Template is useful to assessing the various attributes of a given road segment with regards to its ability to handle stormwater. However, we have the following recommendations which, if followed, would more appropriately target remedial actions/upgrades to improve water quality.

The inventory assesses the degree to which various standards ----Crown, Berm/Windrow, Drainage, Conveyances/Turnouts, Driveway Culverts, Drainage Culvert and Rill/Gully Erosion--- are being implemented on a given segment. Depending upon how many of these standards are considered to
have scored as Partially Meets or Does Not Meet determines the Overall Segment Score. We are concerned however that all these Standards are weighted equally regardless of their relative impacts to water quality.

In July 2017, the firm of Fitzgerald Environmental completed development of a refined and field-calibrated Road Erosion Prioritization Methodology (see attached memo dated July 14, 2017) based upon 2016 inventory data collected by CCRPC. Most critically, the methodology weights the relative importance of these standards vis-à-vis sediment and pollutant source and transport mechanisms. The methodology concludes that the most critical variables and those that should be weighted the highest when predicting impacts to water quality are:

- Slope
- Adequacy of Road Drainage
- Total Number of Poor Conveyances
- Gully Erosion Locations
- Stream and Road Conflicts
- Total Conveyances
- Stream Culverts

Conversely, the performance of the following variables was less critical:

- Roadway Crown
- Berm
- Total Road Drainage Culverts less than 18” in Diameter
- Total Road Drainage Culverts lacking Header(s)
- Total Driveway Culverts less than 15” in Diameter

Therefore, we recommended that the REI Scoring Methodology be refined to incorporate this analysis so that the RSWMP Implementation is focused on improving water quality rather than focusing on meeting road maintenance and construction standards. Therefore, we recommend:

**Recommendation 6** Adjust any or all of the following standards from the Segment Scoring process [Roadway Crown, Berm, Road Drainage Culverts less than 18” in Diameter; Road Drainage Culverts lacking Header(s) and Driveway Culverts less than 15” in Diameter] so that they are not weighted equally with more “water-quality-determinant” standards. For example, scores of Partially Meets for these standards should not count as much towards the cumulative total [“One or two Partially Meets individual scores = Partially Meets segments score.”] that labels a segment as Partially Meets.

**Recommendation 7** Create one set of Partially Meets / Does Not Meet criteria for segments with slopes less than 5% and one for segments of 5% or more as Slope is probably the single most important variable.

**Recommendation 8** Require segments that Do Not Meet criteria for Adequacy of Road Drainage; a high number of Poor Conveyances; Gully Erosion Locations and Stream and Road Conflicts to be addressed in the first five years of the Permit to meet all standards.
Recommendation 9  Similarly, as Stream Crossings provide the most likely avenue by which sediment and flow can be conveyed into waters, require any segments with such crossings to be addressed in the first five years of the Permit to meet all standards.

Part 6. Road Stormwater Management Standards

This section is the heart of the permit. We appreciate the work that DEC has put into it. We have a few suggestions for improvement.

6.2 Required Standards for Gravel and Paved Roads with Ditches

Recommendation 10  With regards to “new construction” and “significant road upgrades,” please clarify that the MRGP standards only apply to such work if the segment is a hydrologically-connected gravel and/or paved municipal road segment with drainage ditches.

6.2 B. Road Drainage Standards

2. For roads with slopes 5% or greater but less than 8%:
   a. ....
   b. ....
   c. Grass-lined ditch if installed with disconnection practices such as cross culverts and/or turnouts to reduce road stormwater runoff volume. There shall be at least two cross culverts or turnouts per segment disconnecting road stormwater out of the road drainage network into vegetated areas, or spaced every 164’.

Recommendation 11  Please clarify item “c” above. Topography and field conditions may preclude spacing these cross-culverts/turnouts apart. Suggest revising to state “It is recommended that these be spaced at least 163’ apart.

4. If appropriate, bioretention areas, level spreaders, armored shoulders, and sub-surface drainage practices may be substituted for the Above Road Drainage Standards.

In more sparsely populated areas or areas of high elevation, existing municipal roads often lack ditches. Municipalities have had to prioritize the use of limited funds and grants and therefore focus most effort on more heavily traveled roads. To address the lack of ditches, road foremen often make several “grader cuts” along the edge of a road so as to act as a “conveyance” to direct water into adjacent vegetated areas or woods.

Recommendation 12  Please clarify under what conditions existing or new “grader cut” conveyances may be used.

Section 6.2.C Stable Conveyances – Drainage Outlets to Waters & Turnouts
Recommendation 13_ CCRPC recommends that the permit make clear that in addressing outfalls, the Road Erosion Inventory is only required to address what is visible within the ROW, within any applicable easements or within the area allowed to be inventoried by the applicable property owner. The permit should make it clear that municipalities are not required to bring up to standards any outfall that is outside of the municipal ROW, outside of any applicable easement and not allowed by any applicable landowner.

6.3 Standards if Rill or Gully Erosion is Present on Gravel and Paved Roads with Ditches

This section is highly detailed. We appreciate the clear direction given. We have a few comments as follows.

Recommendation 14_ The permit should make clear that these standards do not apply to new construction on non-hydrologically-connected segments?

Both rill erosion and gully erosion are defined with regards to depth as 1”-12” and 12” or more respectively. However, no difference is made in recommended standards depending upon the length or severity regardless of the fact that gully erosion of 5 ft. in length is a much more significant issue than rill erosion of 5 ft.

Recommendation 15_ CCRPC recommends that the DEC establish a length measurement within the definition for both rill erosion and gully erosion, and establish standards appropriate for the length and severity of each issue.

Rill or gully erosion is mostly caused by inadequate road crowns, the presence of berms, slope and other factors. However, adherence to these standards mostly trigger improvements that are totally unrelated to said problem of rill or gully erosion. Furthermore, those discrete areas of improvement may not have any erosion issues at all.

Recommendation 16_ CCRPC recommends improvements to road crowns, grading and/or berm removal in this section rather than improvements to culverts; or please explain the rationale for this section as written.

6.4 Standards for Connected Class 4 Roads

Currently municipalities are not required to maintain Class 4 roads in accordance with 19 V.S.A. § 310 and case law. We are, however, supportive of doing road erosion inventories of Class 4 roads. Additionally, we are also concerned that requiring maintenance on Class 4 roads, even if it is confined to major erosion problems, could lead to causing more erosion just to get to the site with the right equipment.

Recommendation 17_ No permit requirements on municipalities should be established on Class 4 roads unless and until statute is clarified to specifically require this responsibility.

Putting legal issues aside, language in the draft permit and Inventory Template is problematic in that the presence of any gully erosion automatically classifies that Class IV segment as “Does Not Meet
Recommendation 18  CCRPC recommends that this standard be changed to say, for example, “any gully erosion equals Partially Meets, gully erosion exceeding 10 ft. in length equals Does Not Meet.”

Recommendation 19  CCRPC recommends it be made clear that improvements to Class IV roads to meet the MRGP standards shall be considered the last priority.

Part 10: Definitions

Recommendation 20  Please define “new road construction” and “significant road upgrades.” Clear metrics such as total linear feet, depth of reconstruction, etc. should be used and examples given. Additionally, it may be helpful to define what does NOT constitute either of these two key terms as they are used as triggers throughout the permit.

Recommendation 21  Please define “redevelopment” as used in Section 6.2, A.1.b.

Recommendation 22  Please clearly define and/or reduce the number of terms for “ditch,” “swale” and “gully”

Recommendation 23  Please define “stream crossing” culverts in relation to whether it applies only to perennial streams and/or intermittent streams.
The following shows how our original comments in March were addressed as we crafted the proposed October comments.

2. **Inventories** - Please clarify if ALL connected roads (including ones that meet the MRGP road standards and have no erosion issues) need to be inventoried every 5 years: We removed this comment. DEC clarified this, yes, every 5 years.

3. **Triggers** - For each of the triggers for improvement identified in the permit, there needs to be clear definitions on the thresholds for “Fully Meets”, “Partially Meets”, and “Does Not Meet.” We removed this comment. DEC clarified this in Road Erosion Inventory Template.

4. **Class 4 Roads** – Currently municipalities are not required to maintain Class 4 roads in accordance with 19 V.S.A. § 310 and case law. No permit requirements on municipalities should be established on Class 4 roads unless and until statute is clarified to specifically require this responsibility. We are, however, supportive of doing road erosion inventories of Class 4 roads. Additionally, we are also concerned that requiring maintenance on Class 4 roads, even if it is confined to major erosion problems, could lead to causing more erosion just to get to the site with the right equipment. We continued with this general theme and added additional recommendations.

5. **Stone-lined Ditching** - We are concerned that the stone line ditching standards in the draft MRGP creates a discrepancy with the Orange Book standards (i.e. 5% v. 8%). The standard should be consistent across programs to ensure municipalities remain eligible for funding programs including FEMA Disaster Recover funds. We feel strongly that municipalities should not have to try to follow two different sets of standards for connected roads and non-connected roads to avoid these conflicts. We removed this comment. It appears to be addressed via MRGP BMP requirements for “less than 5%”, 5%-8% and greater than 8%”

6. **Outfalls outside of the ROW** Often these grass-lined ditches will need to be stabilized well outside of the ROW. The permit should not include requirements on municipalities outside the ROW or easements. The erosion assessments should be clear that they are limited to what is visible from the edge of the ROW or allowed by easement or permission of the property owner. We clarified this comment which is addressed re, Section 6.2.C

7. **Culvert Requirements** - Please clearly define the different culverts and associated standards (driveway, conveyance, drainage, stream crossing, etc.). These comments addressed in Section 10.

8. **Ditch Definitions** – Please clearly define and/or reduce the number of terms for ditch, swale, and gully. This comment addressed in Section 10.
9. **Reporting Cycle** – Change the reporting cycle to once per year instead of twice per year to reduce the administrative burden on the State and municipalities by 50%. There will be minimal work occurring between October to April to report. We would prefer an April reporting date so that municipalities can report what got accomplished the previous construction season and report what has been approved in the budget for the upcoming construction season. **We removed this comment. DEC Consolidated it into one report in February.**

10. **Annual Fee** – A $2,000 flat annual fee is too heavy of a burden for smaller towns. The total amount of fees should be tied to the cost to administer the permit and not generate excess revenue. Fees could be a lower flat fee, be tiered, or be variable depending on the number of connected road segments or road-related impervious cover. There should be some incentive, such as a reduced fee, for towns to complete their road erosion projects in less than the 20-year timeframe. **We restated this comment, re: Section 3.1. above.**

11. **MS4 Fees** – We understand and would like it confirmed that no additional fee charged to MS4 permittees when the MRGP requirements are added to the MS4 permits. **We removed this comment. DEC makes it clear in Part 2.1 Duty to Apply.**

12. **Historic Projects** – Although it may not seem to be directly connected to the MRGP permit going forward, it is our understanding that the State can document and take credit for phosphorous reduction to meet the Lake Champlain TMDL going back to more than 10 or maybe even 15 years ago. We understand that date is 2002 for the stormwater permits vs. two years prior to the permit issuance for the MRGP. It would seem to us that it would be very beneficial to the State to ask for documentation of these prior projects that were done solely by municipalities, with it being optional for the municipalities to provide this information. **We removed this comment, not appropriate venue and yes, DEC is working on this.**

13. **Slope Data** – Recent higher resolution LiDAR (elevation) data is a more accurate source for slope data. There is a chance that fewer roads may be deemed “connected” because of this more accurate data. While this data may not be available statewide yet, we’d like to use it in Chittenden County. Can we re-examine the slope data and provide information back to the State to update your data? **We continued this point in discussion about Part 4.1.**