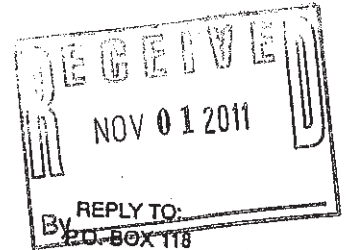


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November 1, 2011

Chester County Water Resources Authority
601 Westtown Road, Suite 260
West Chester, PA 19380-0990

Attn: Emily Gallo

Re: Countywide Act 167 Stormwater Management Plan
Phase II Draft Ordinance Standards

Dear CCWRA:

The attached comments are presented for your use. Please be advised that our office represents the following Municipalities, as their Engineer:

- Avondale Borough
- East Fallowfield Township
- Penn Township
- Sadsbury Township
- West Brandywine Township

Please feel free to contact our office should you have any questions.

Very truly yours,


James W. MacCombie, P.E.

cc: Avondale Borough
East Fallowfield Township
Penn Township
Sadsbury Township
West Brandywine Township

Countywide Act 167 Stormwater Management Plan
Phase II Draft Ordinance Standards
Review Comments
November 1, 2011

Proposed additions or alterations by the CCWRA Planning team

M7.2 – Redevelopment Ground Cover Assumptions – The use of the “disturbed areas” to determine what ground cover standards must be implemented in the calculations for sub-section a, b and c is Recommended.

M8 – Peak Runoff Rates for Large Storms – In sub-sections 2.b and 2.b.ii the use of “all disturbed impervious surfaces” is Recommended. However, it is suggested that consideration be given to re-structuring the wording in sub-section 2.b.ii as follows: “A pre-development ground cover assumption of 100% impervious cover may be used only if the disturbed and/or replaced impervious surface area is at least 20% less than the total proposed impervious surface area”.

M9 - Peak Runoff Rate- Smaller Storms – Same comments as for M8.

M13 – Prohibited Discharges – The concern is “mandating” that sump pump discharges be discharged to an infiltration system. What design flow parameters are to be used? It appears there is significant potential for this added flow to cause the overloading of an infiltration system. The use of an independent infiltration system should be recommended should it be determined that the discharge from a sump pump is causing an offsite drainage problem either to an adjoining property or in the street.

Definitions

MD5 - Wooded – Acceptable

MD6 – Impervious Surface – There are two (2) concerns:

- a. “structures” is a very broad term that typically includes anything that is constructed. Should structures such as an open lattice or frame cellular tower or an array of solar panels be considered as impervious, unless the ground under them qualifies as a surface that has been compacted or covered with a layer of material so that it prevents or is resistant to the infiltration of water?
- b. “other athletic courts” – It should be clear that grassed athletic playing fields are not included in this definition, unless they are comprised of artificial or synthetic turf materials.

MD7 – New Development – It should be clarified that the mere disturbance of land from construction equipment does not constitute “grading” and/or “changing the hydrologic regime”, such that the trenching for utility construction through an open field or woods would not be subject to these stormwater management provisions.

MD8 – Redevelopment – Acceptable

MD9 – Undeveloped Land – Acceptable

The proposed placement of RD1 to RD5 under Mandatory definitions is acceptable.

Proposed Text changes per committee recommendations

All of the text changes appear to be reasonable *except for M9.1.b for New Development Sites*. If the design requires the rate of runoff from the 10 year event to be reduced to the 2 year pre-developed storm criteria, then the facility should also be reducing the flows from the 5 year event. Accordingly, it is suggested that if the objective is to make sure that the code includes mention of the 5 year storm event, so that the engineer must provide the documentation, then the definition for 1.a should be modified to include the 5 year storm event and eliminate separate definition 1.b. This change may also preclude anyone from “presuming” whether the goal for the 10 year storm may be to reduce the rate to the 5 year storm event.

Comments of “other” standards

M20 – As-built plans – It appears that if the municipality has the right to inspect any stormwater management facility, both during and post-construction under M15 & M16 and R4 – Long Term Inspection Responsibilities and require repairs, then an As-built Plan and Completion Certificate should be required for any project where a facility is required.

R4 & R10 – Long-term Inspection Responsibilities & Fees – The inclusion of Fees in R10 is strongly supported to offset the costs for inspections and recordkeeping and should be included in R4.

R2 – Groundcover Assumptions for Pre-development Volume and Rate Calculations for Redevelopment Projects – Although these sets of standards do not appear to be “new” or “revised”, these dual standards appear to be unique to this Ordinance. As the development of a control facility to meet both volume and rate control reductions using a *singular* set of ground cover standards is a challenge, the justification for the dual standards is unclear. It would be appreciated if the supporting information pertaining to the foundation of these requirements be provided to our office.

General Comment

Overall, it is suggested that additional consideration be given to how the peak rate discharge is determined for sub-areas based on the projects location within the watershed. For example, areas closest to the lower end of the watershed may want to release stormwater into the watershed at a faster rate than at the upper part of the watershed. A requirement for reducing 10 year storm peak flows to the 2 year pre-development rate may only serve to prolong the duration of a flooding event causing additional stream bank erosion. A “one size fits all” approach may not provide the desired results.