From: Jerry Waldron
To: ECY RE WW SW Manual Comments
Subject: 2012 SWMWW Comments
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(1) Due to current technology there should be an option of downloading the entire manual as one pdf. This is beneficial for designers who are pushing to be paperless and since the individual volumes cross reference each other quite often.
(2) 2.5.7 Minimum Requirement #7: Flow Control needs to clarify the 0.1 cfs threshold. It should state that the designer needs to prove for projects introducing less than 10,000 sf of effective impervious surface that the net flow increase from EXISTING site conditions compared to the Developed Condition shall be less than 0.1 cfs via the WHHM3 model. When agencies elect to interpret the Predeveloped/Existing condition as historic forest, comparing 5,000 sf of lawn in the developed condition to 5,000 sf of forest yields more than the 0.1 cfs threshold in WHHM3. The confusion lies during the review when the designer states that flow control is exempt since the project introduces less than 10,000 sf of effective impervious but the reviewer insists that the 'existing' condition should be modeled as historic forest even though the project may have been a parking lot prior to 1985. For the wetland hydrology analysis as stated in 2.5.8 Minimum Requirement #8: Wetlands Protection, 'The hydrologic analysis shall use the existing land cover condition to determine the existing hydrologic conditions unless directed otherwise by a regulatory agency with jurisdiction.' I would recommend this verbiage be modified and added to 2.5.7 Minimum Requirement #7 to avoid debates with the jurisdictions. I have made these interpretation issues known with the City of Tacoma, King and Pierce County and depending on the reviewer they either agree or disagree with my interpretation and therefore there is not consistency. If the project exceeds 10,000 sf of effective impervious then there is no debate that flow control is required and in retrospect the project will also exceed the 0.1 cfs thresholds when comparing historic forested conditions. Simply adding the 0.1 cfs threshold triggers flow control for all projects that introduce a 5,000 sf pervious surface such as lawn when compared to a forested condition.
(3) The statement 'extent feasible' is listed throughout the manual that deal with site conditions and zoning codes. Extent feasible needs to also include a monetary value to be defined so that the builder, developer, engineer, and review agency are on the same page. For sites with poor soils or steep slopes, nearly all builders would avoid installing green roofs due the expense of construction/maintenance and therefore consider it not feasible & request to discharge to a public storm conveyance system versus feasibility of 20% roof slopes & structural loading. From an engineering perspective anything can be designed but is it cost effective to construct? A review agency may disagree because it is their interpretation that it conflicts with 2.5.5 Minimum Requirement #5: On-site Stormwater Management and therefore additional steps or possible code deviations are required. Perhaps a rule of thumb can be added which states if the LID or Flow Control BMP is 50% of the site development costs then the LID or Flow Control BMP is deemed infeasible.

On a side note, I feel like a broken record since my comments are taken under advisement but the language of the manuals do not change. The reviewers at the time of implementation may have the same interpretation when reviewing my projects but with time & current economic conditions staff at the municipal level changes quite often and new

hires may have different interpretations of the manual. I would be interested to see if there is log or minutes on how comments have either been incorporated or rejected within the SWMMWW. The DOE Storm Manual is the ‘bible’ that all the agencies refer to and literally copy/paste directly into their specific manuals which will assist in consistency between the varies agencies.

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