

From: Feiquan Luo [FLuo@whga.com]
Sent: Friday, November 02, 2012 10:05 AM
To: Stack, Rebecca (DDOE)
Cc: Steve Pandish
Subject: Comment on the proposed SWM Guidebook

Good morning, Rebecca,

I have some comments or questions on the Bioretention Design Specifications.

On page 113 of the propose SWM Guidebook, it is stated:

To ensure that the runoff volume from these storms is filtered, the surface storage volume of the system (including pretreatment) shall be designed to store at least 75% of the SWRv or alternative design storm prior to filtration.

The pretreatment volume can be above ground (such as regular forebay), or underground (such as water quality inlet). The pretreatment storage volume can be dry storage (without permanent water), or wet storage (with permanent water). Can the pretreatment storage volume be included in the surface storage volume, no matter it is above ground or underground, dry storage or wet storage? If that is true, can I design a pretreatment with wet storage of 75% of the SWRv to collect all the flows before they enter the bioretention cell to fulfill the requirement of the surface storage volume? If this kind of design is allowable, there is no way to regulate the size of surface area of the filter media. What that means a small bioretention cell can treat huge area of impervious area as long as the pretreatment storage surface area doesn't exceed the filter media surface area since the total surface ponding area may not be more than twice filter media surface area.

Thanks,

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