Date: June 13, 2013

To: Urban Stormwater Work Group
Wastewater Work Group
Watershed Technical Work Group

From: Tom Schueler, Stormwater Coordinator
Ning Zhou, Wastewater Coordinator

Re: Decision Request:
Recommended Policy on Including Stormwater BMPs in the CBWM that are located within CSO Sheds.

Options:

1. Continue to exclude stormwater BMPs from CSO watersheds
2. Accept runoff reduction practices associated with redevelopment projects in CSO watersheds, going forward.
3. Accept runoff reduction practices only for communities that cannot explicitly simulate the effect of these practices in their local CSO simulation models

Background

Some urban areas in the Bay watershed are modeled as CSO segments, such as the District of Columbia, Harrisburg, Richmond, Alexandria, Salisbury and smaller cities in PA.

The policy in the past has been to exclude stormwater BMPs located in CSO areas, as the pollutant loads generated from CSOs are derived from either a) ten year loadings that are simulated using calibrated local models of their CSO system (larger cities) or a default CSO load simulation (for smaller CSO systems). These local models essentially simulate both the stormwater and wastewater pollutant loads from the same urban areas during storm events.

The traditional CSO "BMP" used is either CSO treatment (e.g., deep tunnels, swirl concentrators) or storm drain/sewer separation. In the first case, the pollutant load reductions achieved by the treatment system are estimated using local simulation models once the treatment system is completed, which often takes many years to finally construct. In the second case, the separated area is subtracted from the CSO watershed (and added to urban land as pervious or impervious cover).

The reasoning for excluding stormwater BMPs in the past is that it:

- Prevents potential double counting of load reduction
- Was quite uncommon to install urban stormwater practices, since few Bay states had historically required that stormwater runoff be treated at for redevelopment projects in older, built-out CSO watersheds.

In recent years, however, Bay states have adopted more stringent performance standards for redevelopment projects that promote LID or runoff reduction practices that reduce the stormwater runoff volume before it enters the CSO system (DC, VA, MD, PA). In some jurisdictions, the intent of the new stormwater requirements is specifically intended to reduce the size of the needed treatment capacity to treat overflows. Most jurisdictions simply apply their performance standards across both CSO and non-CSO watersheds, for the sake of equity.

Several jurisdictions have now requested that load reductions for runoff reduction practices associated with redevelopment projects for the following reasons:

The New State Performance Standards Expert Panel Report (CBP, 2012) allows for load reductions associated with redevelopment projects where stormwater had not been treated before, and there were no specific qualifying conditions that excluded CSO watersheds from the credit.

1. State stormwater BMP reporting and tracking systems do not currently discriminate between CSO and non-CSO watersheds, making it difficult or even impossible to identify which stormwater practices fall into which category.

2. The potential load reductions associated with stormwater practices is currently not incorporated into the local CSO system models used to assign loads to CSO watersheds. These models were also calibrated to discharge and concentration data from an era in which few stormwater practices were built in CSO watersheds.

3. There would be no double counting in the case of sewer separation since the drainage area reverts to urban land cover that can be treated by stormwater practices.

4. There would be no double counting in the case of CSO treatment since the load reductions occur before the runoff enters the CSO system, and provide runoff treatment for all storm events in a year, even if they do not create an overflow event.

5. The one exception to the preceding rule might be a few communities that have created local CSO models that already account for the influence of stormwater practices on reducing the needed storage capacity of CSO treatment devices. In this situation, reporting BMPs for both CSO treatment and stormwater treatment clearly would be double counting.

Based on this information, the USWG and WWG are asked to discuss this issue at their next meeting, and recommend an option.