

James Davis-Martin, VA DEQ

The SOW does not adequately address the potential conflict or overlap with other existing BMPs. The document may also want to specify the date of the BMP protocol that they will be following, since it is currently undergoing changes.

Response--

James,

Thank you for the feedback. You are correct that the Statement of Work for the CWP does not explicitly address the distinction between this new BMP and existing ones. The Scope of Work that I developed with the USWG does address this and Bill and the panel are clearly tasked with developing distinct definitions for this new BMP. To clarify this point we can borrow some or all of the following text from page 2 of that Scope/Charge document from the USWG (attached for your convenience) and place it into the Statement of Work for CWP:

Several types of impervious cover disconnection have already been addressed by previous expert panels, and are therefore, outside the scope of this new impervious disconnect expert panel.

- Methods to disconnect impervious cover used to comply with new state stormwater performance standards for new development or redevelopment projects (e.g., multiple structural and non-structural practices to reduce runoff are already established by a previous prior expert panel).
- Homeowner BMPs such as rain gardens, rain barrels, dry wells and downspout disconnections that are used to retrofit existing residential properties (e.g., credits for these on-site retrofit practices have already been established by the retrofit expert panel).
- Urban filter strips, urban or agricultural stream buffers, and shoreline management practices that accept stormwater runoff from adjacent areas (e.g., credits and qualifying conditions for these types of runoff disconnection practices have already been established by previous expert panels).

In addition to the practices listed above, other ongoing or existing urban stormwater BMPs approved, or under review, by the Chesapeake Bay Program (CBP) are outside the scope of this expert panel, including bioretention and other infiltrations practices as defined by the CBP.

This panel will proceed to convene and operate under the July 14, 2014 version of the BMP Protocol with the understanding that the Protocol is under revision and it may therefore need to follow certain aspects of the revised Protocol down the road (e.g., the report approval process), as appropriate or as requested by the GIT.

Karl Berger, Metropolitan Washington Council of Governments

Stuart Schwartz from UMBC has done a lot of work on this issue. Is he unavailable for the panel?

Response--

Hi Karl,

Thanks again for your feedback and I am glad we were able to talk on the phone last Friday. As we discussed, it will be helpful to solicit Stu's relevant research experience as an invited guest of the panel, but feel that the current membership already provides the engaged team of experts that we need to effectively develop recommendations. Bill and I can reach out to Stu to present or discuss his research with the panel either at the public stakeholder forum or another call of the panel, as appropriate. Thank you again for your suggestion.

Jeff Sweeney, EPA CBPO

Here are my comments on the SOW for the Impervious Disconnection Expert Panel – as a member of the WTWG and CBPO modeling team:

- The proposed scope doesn't clearly identify the types of practices that are to be investigated. In other words, how does managing stormwater through impervious disconnections SPECIFICALLY differ from managing stormwater through urban stormwater retrofit projects as defined in "Recommendations of the Expert Panel to Define Removal Rates for Urban Stormwater Retrofit Projects"? A preliminary definition in the SOW for Impervious Disconnection indicates stormwater runoff is "directed or otherwise spread from impervious cover of existing development (not new or re-development) to an acceptable area of pervious cover where it may be effectively stored and infiltrated into the soil." How, SPECIFICALLY, is this different than all of the many types of retrofits detailed in that expert panel's 60+ page report? The SOW should clearly explain why it's necessary to have the panel discern if the existing retrofit adjustor curves are suitable for Impervious Disconnection when there are members of both the Urban Stormwater Workgroup and Retrofit Expert Panel (who developed methods with the curves) who would know that. It is imperative the wheel is not re-invented here so more detail answering these questions in the scope is needed to direct the panel.

Response: As discussed in our 5/20/2015 call we will revise the SOW to more explicitly describe the types of practices that the Expert Panel will consider and why these practices are unique to the current suite of runoff reduction and stormwater practices that have been previously approved by the CBP such as bioretention, urban filter strips and urban filtration practices. The revised SOW will also include an example of one of the practice

that will be considered (soil composting with deep soil tilling). The Charge and Scope for the panel cannot be too prescriptive, however, as the Panel itself will carefully work to develop distinct definitions for the recommended practices.

- The benefits of pervious versus impervious urban land cover and landuse are captured in the Watershed Model by distinguishing these categories with different sensitivity to nutrient inputs, different erosion rates, and different target loading rates that capture different storage and infiltration capacities. Although the degree of connectivity of impervious area could not be adequately discerned through available data sets to establish a particular landuse or overlay in the Phase 6 model, the SOW needs to specifically instruct why a landuse change BMP in the model from impervious to pervious doesn't adequately account for the benefits of Impervious Disconnect. Again, the more upfront detail available to the panel in the SOW, the more effective the panel can be.

A land use change BMP that converts impervious to pervious could be considered by the panel, but such an approach may not provide the results that are intended through this BMP. The STAC PoP workshop and the USWG concluded that disconnected pervious or disconnected impervious areas could not be mapped and defined as a land use. Therefore the SOW will be modified accordingly by eliminating the second approach entirely from the SOW.

- The second primary task doesn't clearly define a scope of work. Is the Expert Panel supposed to develop a method that "evaluates whether impervious cover for existing development is situated or configured in such a manner as to be effectively disconnected or semi-connected, relative to a known or measurable hydrologic benchmark"? The SOW should describe what's done with the results of the evaluation and how that relates to implementation for TMDL purposes where a BMP needs to be a management action that physically reduces a flux of nutrient and/or sediment. Are the results of the evaluation a data-gathering exercise that will have some utility in post-Phase 6 models? It's important the panel fully understand the purpose or utility of each task in the SOW.

Agreed. We will eliminate the second approach, but may include recommendations for addressing the issue of existing impervious areas that may be hydrologically disconnected through the Expert Panel's literature review that have not been considered by other expert panel reviews.

- The document details what is outside the scope of work of the panel (e.g., all approved BMPs and those currently in panel) but doesn't really specify all the BMPs that remain that could fall within the scope.

We will clarify the scope, but the Panel itself is charged with providing details about all the practices.

Jenny Tribo, Hampton Roads Planning District Commission

Jeremy - Sorry I did not meet the Friday deadline, but I would like to request that a local government representative from Coastal Virginia be added to the panel membership.

Justin Shafer with the City of Norfolk has indicated his willingness to serve on this panel. He has served on other panels such as the Street Sweeping panel and has solid experience in the technical and practical aspects of stormwater management. His contact info is below. I have requested that he send his resume/CV, so I will get that to you by Wednesday this week.

Someone with technical expertise and implementation experience from the Tidewater region would be a valuable addition to the panel. The USWG approved the panel membership including Justin Shafer at its May 19th meeting.

Mark Symborski, Montgomery County

Summarized from in-text comments in Word version of the draft Scope/Charge (February version):

Does this mean that the two approaches described below are two separate alternatives for evaluating the benefits of impervious cover disconnection, and that the Panel will recommend one of the two approaches (with potential modifications based on best professional judgement)? Or is the idea for the Panel to consider and refine as needed both approaches as alternative approaches, and then either one could provide the basis for methods to evaluate benefits? Or are these two approaches meant to address different aspects of what needs to be considered in evaluating the benefits of impervious cover disconnection, and provide the basis for providing a single benefits assessment? The overall strategy for using these approaches to evaluate disconnection benefits should be made more clear.

The Expert Panel will now only be considering the first approach because the second approach would most likely include a land-use change and not a BMP that would result in the reallocation of loadings across land covers. The first approach would focus on practices that would change the hydrologic properties of soils (e.g., deep soil tilling with compost amendments) that would receive drainage from impervious surfaces. The resultant protocols would determine the specifications and qualifying conditions that will determine the extent of impervious cover disconnection either as a runoff volume or compared to a hydrologic threshold (e.g., woods in good condition). This would then be translatable into sediment and nutrient reduction credits.

Full disconnection is mentioned in several places. Full disconnection needs to be clearly defined early on in the work of the panel. It probably should be mentioned in this draft Scope as one of the Panel's tasks.

Agree that it needs to be clearly defined. It will be up to the panel to define it in more detail.

It's not quite clear what this approach would address that could not be addressed by approach 1. If that's the case, then perhaps the two approaches could be combined. If, however, approach 2 is intended to address something different than or in addition to approach 1, then that should be made more clear.

[See previous comment. Approach #2 is no longer being considered by the panel.](#)

Approach 2 does not mention the very appropriate points regarding soil compaction, and soil tilling/amendments to achieve suitability that are contained in approach 1. If approach 2 is retained as a separate approach, then those same soil-related considerations should be included in it.

[See previous response.](#)

All too often, sheet flow across pervious areas re-concentrates in adjacent forested buffers, causing rill erosion and direct sediment delivery to nearby streams. This can more than negate the benefits of disconnection. Even worse, this type of problem typically goes unnoticed. Design criteria to prevent re-concentration of stormwater associated with impervious cover disconnection need to be developed.

[Excellent input. Thank you.](#)

There is a need to consider existing and future uses of pervious areas associated with disconnection in assessing suitability for disconnection benefits and long-term maintenance of those benefits (e.g. grassed areas that are subject to significant athletic or vehicular use (such as ball fields or used for overflow parking, etc.)).

[Another excellent point for the panel to consider. Thank you.](#)

Inspection and maintenance standards for disconnection credits need to be developed to ensure that the disconnection benefits are not compromised in the future (e.g. from activities that compact the associated pervious soils, or from unintended re-concentration of disconnected stormwater through forested buffers).

[Yes, this is something the panel will consider and can provide their thoughts on this subject in the final report, but inspection and maintenance requirements will be set by the jurisdictions themselves.](#)

It wouldn't be a bad idea to add that the Panel will consider the issues and concerns detailed in the STAC report on the Peculiarities of Imperviousness, in assessing the benefits associated with impervious disconnection (referenced earlier in the draft Scope).

[Yes, the panel will certainly be using that workshop's recommendations and multiple panelists personally attended the workshop.](#)