

June Maryland WIP Webinar Q &A

Topics: Review of Key WIP Phase I Commitments; MAST

June 13, 2011, 10 AM

First Presentation – Jim George, MDE

Q: Does the Phase I MS4 30% impervious retrofit have a base year for measuring toward this retrofit goal, how do credits for existing BMPs is given.

A: 30% includes the 10% retrofit requirement from past permits. For example, if you have exactly completed your 10% retrofit requirement, then you would have 20% to do between now and the end of your next permit cycle. If you have done only 5%, then you have 25% to do. If you've done 15%, then you have 15% left to do.

Q: For Slide 7, How does the new legislation on lawn fertilizer play into this?

A: The legislation will help everyone. A detailed estimate of the effect is being developed in coordination with the EPA Bay Program and will be incorporated into the Phase II WIP.

Q: Do local governments have to do anything to qualify for the urban nutrient management reduction credit or is this all a function of state legislation/regulation?

A: No. The reductions achieved through the program are credited across the State as a benefit of this regulatory program.

Q: Comment: Maryland just passed a comprehensive bill this past session which takes away the ten acre requirement in the urban nutrient management law, so in 2013 MDA must regulate ALL commercial applicators. It also limits nitrogen application and banned phosphorus from all but organic maintenance fertilizer. Will this be counted toward meeting our milestones?

A: Anything that can be verified, will count toward meeting the goal.

Q: Most LID BMPs achieve no more than 60% reduction per say for Nitrogen. Will a site developed based on ESD to the MEP require further retrofit so that future growth results in no net increase in nutrient load?

A: The answer is under review as part of the process of developing offset policies and procedures. That process, and schedule, is outlined in the Phase I WIP and is being led by the Maryland Department of Planning.

Q: Example of an infiltration practice?

A: An example would be infiltration trenches. You often see them in median of a highway. They appear as stones with riser pipe from a test well that is used to check how well practice is working. See [web link](#) for other examples.

Q: How are nested BMP drainage areas accounted for?

A: MAST accounts for sequencing of BMPs so that if two BMPs on the same area are both 60% efficient in reducing loads, the result doesn't add up to an impossible 120% reduction. Beyond that, the specifics depend on the particular case. MAST will mimic the BMPs used in the Bay Program model, so you might want to consult the Bay Program BMP documentation for a deeper understanding of the details.

Q: How do you define the urban area?

A: In brief, it includes developed land regardless of whether or not it is managed under a federal NPDES stormwater permit. You are urged to see the third presentation of the May webinar presentation for a discussion of this (you can scroll past the first two presentations) on the [MDE Phase II WIP Development webpage](#).

Q: Slide 16, MDE is currently developing impervious area credits for various urban BMPs. Will that be ready in time to use for the MS4 calculations?

A: The guidance is nearing completion and should be ready in support of the WIP development process this summer. Most of the practices are directly equivalent to CBP BMPs.

Q: The list of urban storm BMPs and their efficiencies shown in earlier slide didn't include accounting for disconnected roof tops or open section roads disconnected through grass swales/forest buffers. How is the accounting in terms of impervious treated/pollutant reduction done for disconnections?

A: The presentation gives just a sample of BMPs for demonstration purposes. A full list will be available from MDE's NPDES stormwater program as noted in the earlier response.

Q: Slide 18, Does not take BAT systems into account, correct?

A: Correct.

Q: What is 'near streams'?

A: 1,000 ft of a perennial stream.

Q: Slide 19, septic systems within 1,000 ft of a perennial stream? What is the official coverage used to define perennial streams.

A: NHD 100k.

Q: What is the factual/statistical/or empirical basis for the assumptions given for transport loads of nitrogen delivered to the bay? study? report? field data?

A: In general, the 80%, 50% and 30% figures are planning level estimates that were first adopted in Maryland's 2008 point source trading policy. They provide a consistent basis that ensure fairness in agency decision making.

Q: Slide 15, MAST will be used as a planning tool so a weighted average efficiency of BMP is employed. For reporting and tracking, are more specific BMP efficiencies allowed to be used by different jurisdictions?

A: In general, the implementation reported for progress on Bay restoration will be evaluated using the EPA Chesapeake Bay Program watershed model. It accounts for different loading rates across the State. Thus, the same efficiency would result in greater reductions for areas with higher loading rates. That said, it uses efficiencies that have been adopted through a peer review process. If you feel that your BMPs are in some way more efficient, then you can go through a process of seeking EPA's review and acceptance of different efficiencies. The process is rigorous to ensure that credit is worthy:

http://archive.chesapeakebay.net/pubs/Nutrient-Sediment_Control_Review_Protocol.pdf

Q: How much confidence does MDE have in the watershed model delivery factors? Do these represent true geographic/physical properties or are they more model fudge factors - in which case how much weight should the WIPs really place on geographic targeting within a jurisdiction boundary?

A: The delivery factors are based on the best science available to EPA under the time limits of their work. The factors generally make sense; areas further away have lower factors, areas upstream of reservoirs have lower factors, areas near the Bay but in the lower portion near the Atlantic Ocean tend to have less impact. From a pragmatic perspective, if you want more credit for your BMPs and all things being equal, it would make sense to target the BMPs in areas with larger delivery factors. However, you should consider local objectives in making your decision.

Q: MDE has on website four field-verified BAT technologies with the level of TN removal ranging from 50% to 69%. Can WIP 2 use these %s for reduction amounts for BAT upgrades?

A: It is not likely that you will be able to do so in the WIP; however, you could identify this as an avenue for further investigation and provide a rough estimate of the potential reduction benefit. However, you may consider further evaluating the claims of efficiency

and other factors such as energy use, maintenance and reliability. Then, in further discussions with the State and EPA, your jurisdiction can consider adopting a local policy on the use of particular BAT technologies for which you might be able to receive more credit.

Q: Can Phase II be used as a process for land preservation?

A: If you can conceive of a way to leverage the Phase II WIP by making commitments to adopt new policies for land preservation that would be beneficial.

Q: Regarding TN reductions from BAT vs. ENR connection - are you saying the reduction is the same?

A: For planning purposes the reduction estimates are about the same. However, MDE's policy for crediting connections to advanced WWTPs considers them on a case by case basis. See MDE's point source cap and offset policy, Appendix B.

<http://tinyurl.com/Point-to-Point-MD>

Q: How would forested parkland in urban areas be counted?

A: If the "forested" area has underbrush like a forest, then it is credited as forest cover.

Second Presentation – Lee Currey, MDE

Q: Will phase II communities have access to, and training with MAST? Is so, when?

A: 2 people/team – 60 spaces + webinar

Q: Will MAST be able to account for delivery factors?

A: Yes

Q: Is MAST the required tool for the Phase II WIPS?

A: YES, for MD to submit WIP because mast output is input to model (input decks are required)

Q: Will MAST be the accounting/reporting tool for just urban stormwater or would it also include the septic, industrial, municipal, agriculture discharges and strategies. Also are entries by different entities live and available for the public to see, or is MAST available as an empty shell?

MAST is reporting tool for all source categories. Scenarios can be made private but can be made public.

Q: Jim indicated earlier that the WIP strategies shall be adaptive and course planning level. If course level information are entered into MAST how will this information be revised when the plans are more developed?

A: Course level planning but could be revised with strategies and refined with 2 yr milestone

Progress runs also refine the process by assessing progress

Q: Is there a plan to expand the number of stations on the Eastern Shore?

A: Discussion of this topic is to expand coastal plain monitoring and monitoring stations. USGS is working toward identifying where stations are needed

Q: Calculating the pollutant reduction from a BMP requires knowledge of the load to this specific BMP, meaning MAST must know the actual polygon delineation drainage area for each BMP. Will the users draw the polygon drainage area to each BMP or will MAST have the ability to delineate the drainage area to each BMP on the fly?

A: Drawing of shapes is not required in MAST. MAST is set up at model scale 600 segments in MD portion of model. Need for a scale that is reasonable across all sectors and maintain functionality of tool, so the tool is not to be used at such a fine level e.g. county loads, rate of delivery is known, so broad strategies can be estimated. There may be differences for counties with reservoirs but this will be further discussed

Q: If new development is to provide offsets, will MAST be available to calculate load reductions?

A: EPA/CBP on has 2010 at this time so in MAST have 2010 acres. The targets from EPA are based on the 2010 land use right now. Need to know projections for future scenarios.

Q: Will new growth in loads as a result of development be reflected in MAST?

A: Not at this time.

Q: Has EPA approved the ESD techniques recommended by the SWMA of 2007?

A: SW management; EPA has approved land development after 2010 as a BMP (in terms of future land development). This would still need to be reported by the jurisdictions to receive credit on the model.

Q: Will the geography reflect 8-digit watersheds?

A: We need to maintain best functionality of tool. Segmentation scheme of EPA is mostly consistent with MD 8-digit but maybe CAST/MAST will be needed to be updated later.

Q: For urban Counties, the amount of BMPs in any single strategy can be in the tens of thousands. How will information be loaded in MAST, one BMP at a time, or would a more reasonable bundling approach be adopted?

A: For tracking, yes, count one by one for counties. But in MAST, the practices are being entered as a percent of total acres (e.g. 30% of urban land will have a specific BMP on it)

Q: I missed the previous webinar. How do I access it?

A: Visit the [Phase II WIP Development](#) webpage and click “Webinar Information”.

{ Questions not addressed for time reasons. }

If new development is to provide offsets, will MAST be available to calculate load reductions

At the closing, can you restate the dates, times and locations of the hands-on training or is this information not available at this time.

Slide 11: Do you have spreadsheets available to assist in collecting the data for input into MAST in preparation for the training?

Would MAST assist in identifying priority or hot spot area for placing BMPs and would it assess the cost effectiveness. Also, would MAST assess feasibility of implementation in the scenario building? If not it seems that existing watershed assessment tools will remain indispensable in preparing the scenarios to be input into MAST.

Will a MAST Manual be put together and made available to the public? OR is it an online tool ONLY?

Will other watershed states replicate MAST or be using the MAST program?

If a waterway passes through a large wetland area is the load delivery factor adjusted?

If the County knows the nitrogen reductions of installed BNR septic systems, can the county use these reduction rates in MAST?