



Our Rivers, Our Bay:

Virginia's Path to Clean Water

FREQUENTLY ASKED QUESTIONS

CHESAPEAKE BAY TMDL WATERSHED IMPLEMENTATION PLAN PHASE III

In July of this year, DEQ began working with Planning District Commissions (PDCs), localities and local stakeholders on the Chesapeake Bay TMDL Phase III WIP development process. As part of this initiative, DEQ created Local Area Planning Goal (LAPG) Workbooks for PDC areas within Virginia's Chesapeake Bay watershed. These Workbooks contain the tools necessary to help PDCs, localities and other stakeholders identify Best Management Practices (BMPs) and programmatic actions to meet LAPGs for the unregulated urban and developed lands source sector. (This sector includes sources such as stormwater runoff, septic systems, and urban forestry). As the PDCs have conducted meetings, localities and stakeholders have raised questions and issues about specific information in the Workbooks and other information related to the WIP III planning process. Below are frequently asked questions and DEQ's responses.

LOCAL AREA PLANNING GOALS WORKBOOK

➤ LAPG Loads Tab

1. What is the difference between the "2017" column, "WIP II" column, and the "Reduction" column?
What is the goal to be met for the PDC area by 2025?
 - A. The 2017 column represents the current loads delivered to the Bay in pounds. The WIP II column references loads delivered to the Bay if the WIP II BMPs are implemented. The reduction column is the difference between the two, and represents the reduction goal for the PDC or Soil and Water Conservation District (SWCD) Area in the Phase III WIP.
 - It should be noted that the loads in the WIP II column meet the LAPG. The WIP III process should focus on reviewing and refining the WIP II BMPs to ensure they are the best approach to achieving the required reductions.
2. If the regulated load has already surpassed the required reduction, can that surplus be applied to the required reductions in the unregulated load?
 - A. It is possible, particularly where the permitted discharge is a municipal wastewater treatment plant. However, it is important to note that the 2017 loads from wastewater as shown in the input deck spreadsheets are not based on the full design capacity of the wastewater treatment plant(s) in the region but rather on the flows as they existed in 2017. Therefore, the regulated entity would need to agree to this approach since, if implemented,

this would mean a reduction in their future allocation and would potentially result in a change to their permit in the future.

➤ **LAPG BMPs Tab**

3. Where did the 2017 data come from and how was the 2025 available acres column determined? Are SWCD cost-share programs captured in these numbers?
 - A. The 2017 data is based on information submitted to DEQ via the BMP Warehouse, Construction General Permit Database and/or regulatory program annual reports. This information is uploaded for use in the Bay model. SWCD 319 cost-share programs for residential septic projects are also included in the model. The acres available for 2025 implementation are based on 2013 imagery based land cover forecasted forward to 2025. The projections for 2025 are based on historic trends and local zoning data (where provided). Population change is estimated using U.S. Census projections.
4. How were the goals in the WIP II column developed regarding constructed BMP dependent measures such as Bioretention, Detention Ponds, etc?
 - A. The goals were developed as part of the Phase II WIP planning process in 2011 and 2012.
5. How do you add a proposed new BMP to the input deck?
 - A. For BMPs that are on the BMP definitions list and already approved by the Bay Program, add the BMP to the bottom of the list on the LAPG BMPs tab and enter the WIP III level of implementation. If the BMP has not been approved by the Bay Program, you can follow the same steps, but note that any new BMP proposed has to go through the Bay Program approval process (Note: the approval process involves a review of scientific studies and other information regarding the effectiveness of the specific practice).
6. Through the Phase III WIP process, localities have identified differences between local numbers for BMPs and the numbers represented in the 2017 column. How can these discrepancies be resolved in the next phase of the TMDL model?
 - A. The DEQ Phase III WIP grant contract with PDCs stipulates that the PDC will coordinate with localities and stakeholders to provide any necessary updates of the BMP information in the BMP Warehouse (see Activity 2.e). Localities are strongly encouraged to update the BMP Warehouse, as this is DEQ's primary vehicle to collect BMP information. Any questions about the process for entering data into the BMP Warehouse should be directed to Bill Keeling. (William.Keeling@deq.virginia.gov).

➤ **Programmatic Template Tab**

7. Without knowing what other localities are proposing, how do the PDCs know what the appropriate level of programmatic actions is for their Phase III WIP submittal?
 - A. DEQ will be compiling all of the programmatic ideas submitted from everyone. Please include all of your good ideas because others may want to use them too.

CHESAPEAKE ASSESSMENT SCENARIO TOOL (CAST)

1. CAST generates edge of stream and edge of tide loads for various land uses. What is the difference between the two, and which one should PDCs address in WIP III? It appears that the Edge of Tide loads are lower than the Edge of Stream.

- A. The Local Planning Goal Loads are Edge of Tide (delivered to the Bay). The Edge of Stream loads may be more relevant if the PDC is targeting reductions for local water quality benefits. Typically the Edge of Stream nitrogen loads are higher than Edge of Tide loads because some of the nitrogen is consumed by in-stream biological and chemical processes as it moves toward the Bay.
- 2. According to CAST, managed turf generates more phosphorus than buildings and roads. This is the opposite of the runoff reduction spreadsheet used to evaluate new construction, where impervious areas generate a much greater load on a per acre basis than managed turf. Why is this?
 - A. CAST includes the loads that originate from stream erosion in the Natural Sector (please refer to Stream Bed and Bank). The amount of stream erosion is in large part driven by the extent of impervious surfaces in the drainage area.
- 3. Can Purchase of Development Rights (PDR) and Transfer of Development Rights (TDR) programs be addressed in CAST?
 - A. These are the types of programs that are included in the Growth Management Policies BMP. This practice can be used in CAST to estimate the potential effects these and similar programs might have. But actions should be sufficient to ensure that future development patterns would be altered from historic trends.

ADDITIONAL QUESTIONS

- 1. What is the intended format for the fourth Phase III WIP PDC facilitated meeting? Will DEQ run the PDC and SWCD input decks into CAST to see if LAPGs have been met before the meeting?
 - A. The intent of the fourth meeting is to bring localities, SWCDs, and local stakeholders together to discuss results of the Phase III WIP parallel planning efforts undertaken by the SWCDs and the PDCs. DEQ's intent is to run the scenarios collected by DEQ to date and provide the results to the PDCs in advance of those meetings. Input decks should be submitted as early as possible. Please give DEQ two weeks to run the scenario, resolve any issues and/or questions and provide the CAST results back to the PDC.
- 2. Do land conservation policy practices require a conservation easement for assignment of credits, or could this include establishment of Agricultural Forest Districts?
 - A. There is no requirement for conservation easements to qualify, but actions should be sufficient to ensure that future development patterns would differ from historic trends. For additional information on the types of actions that were used to estimate the impact of these land policy BMPs, see the CAST Documentation at <http://cast.chesapeakebay.net/Documentation> (On the left side of the screen, click on the + next to Edit Scenarios, then click on Land Policy BMPs to see the simulated components of each option.)
- 3. Because only one land policy practice can be selected, what is the best approach for addressing this limitation?
 - A. As a placeholder for now, DEQ recommends using the Growth Management option as it will provide the greatest pollutant reduction benefit. DEQ is working with the Bay Program to develop another Virginia specific option that will include elements of Agriculture

Conservation, Forest Conservation and Growth Management. When the new option is available, the Growth Management used in the initial scenarios can then be replaced with the Virginia Specific Land Policy practice. For this process to be successful, please include comments in the Notes column or in the Programmatic Actions Template about the specific actions/policies that are envisioned.

4. Are Filterra units included in the “filtering practices” BMP?
 - A. No. Filterra units and other proprietary manufactured treatment devices are not yet credited in the Bay model. Work is underway at the Bay Program to resolve this issue and allow for credit.
5. Does the BMP practice “tree canopy planted” describe acres treated or acres of trees?
 - A. This is the area under tree canopy, not the area treated. Some may think of them as the same thing, but when “area treated” is used it typically means the area draining to a BMP.
6. What is the “forest planting” BMP?
 - A. This practice describes planting forest on land previously in impervious cover and/or turf. If there is an existing developed area (like an abandoned shopping center) that is converted back to forest, it would be reported as two separate practices: impervious surface reduction and forest planting. If there was also a buried stream on the developed area, then there could also be a stream restoration component.
7. Does the septic secondary treatment conventional BMP include both new systems and retrofits?
 - A. Yes, the Bay model estimates the number of new systems through 2025 and assumes all systems reported are conventional systems unless they are identified as one of the available alternative systems.
8. How are septic pumping practices addressed in the model and what is the nutrient reduction efficiency of these practices? Can MS4’s get TMDL credit for pumping septic tanks?
 - A. Yes, septic pump-outs are annual practices that get a nitrogen credit in the year they are pumped (average of 0.28 pounds/system pumped). Data on pump-outs is currently captured as part of Chesapeake Bay Preservation Act (CBPA) annual reports (5 year pump-outs or inspections documenting that a system is fully functioning are required) as well as from VDH for permitted septic repairs outside the CBPA areas. Although a creditable practice in the Bay model, the credit is annual and the MS4 reductions must be permanent. Therefore, this practice cannot be used as a credit for meeting MS4s permit requirements.
9. If MS4s conduct urban stream restoration projects outside of the urban area and take a baseline reduction, is that information reported?
 - A. Yes. Typically, it would show up in the model as urban stream restoration in the unregulated area. However, in the MS4 permit program a portion of the credit would count toward the MS4 Action Plan requirements.
10. Is there an inventory of state/local culverts?
 - A. VDOT maintains a database of bridges and culverts that can be accessed at <https://www.arcgis.com/home/item.html?id%3D6310f7c137aa4f4489c8539ad7f599e9&sa=D&source=hangouts&ust=1536240001597000&usg=AFQjCNHjwb7HOedMSKWprmbv2rGdLDwOUQ>

11. Does the Chesapeake Bay TMDL model give credit for Nutrient Banks and Wetlands Mitigation Banks located within a given local planning area?
 - A. No, credit is not given in the model because these banks are created for the purpose of selling credits to satisfy a permit requirement or mitigate and impact elsewhere.
12. What are the relative merits of broadly identifying the Stormwater Performance Standard as a BMP vs. identifying more specific BMPs?
 - A. Either the Stormwater (SW) Performance Standard or individual Stormwater BMPs may be applied in the models, but not both for a given unit of projected development. The SW Performance Standard provides credit based on the runoff depth captured per acre of impervious area, while individual SW BMPs have individual credit values based on the acres treated. In general, simulating the BMPs individually provides greater reductions. DEQ supports having the SW Performance Standards applied to all projected 2018 - 2025 new development as part of the WIP III Planning process. As development occurs, actual BMPs would be reported for annual progress and would be used to estimate the pollutant reduction accomplishments through time.
13. How are loads from construction activities factored into the model?
 - A. "Construction/disturbed acres" is one of the land uses in the model. Based on historical data and construction permit information, DEQ reports an annual estimate of acres disturbed due to construction activities to the Bay program for inclusion in the model. A certain level of Erosion and Sediment (E&S) Control (representative of the State law requirements) is reported as being applied to a certain percentage of disturbed acres to reflect what is known about average compliance rates. Under the "LAPG loads" tab of the PDC workbooks that have been distributed as part of the Phase III WIP planning effort, loads from this land use category have been combined with the MS4 loads and are presented for reference as part of the Regulated loads table, not as part of the LAPG loads table. However, in order to allow localities the option of changing the level of E&S implementation as part of the Phase III WIP planning effort (i.e. going above the implementation level required by state law), three levels of E&S Control are available in the LAPG BMP tab for consideration during the planning process
14. How are industrial VPDES permittee BMPs addressed in the model? Industrial VPDES facilities are generally removed from MS4 regulated service areas, so are they attributed to the unregulated sector?
 - A. Industrial VPDES permittee BMPs are not part of the LAPGs and Phase III WIP planning process because any required load reductions are expected to be implemented through the permitting process.
15. How does the model account for voluntary BMPs? Is DEQ developing a process to capture the reductions provided by unreported BMPs?
 - A. Voluntary BMPs that meet the Bay Program design criteria can be reported to the model. The BMP Warehouse is the mechanism to report all BMPs, including voluntary ones, to DEQ for inclusion in the model. There is also a system under development by the Alliance for the Chesapeake Bay that will enable reporting of residential scale voluntary practices. More on

this when the system is completed. The link to the website is as follows:

<https://apps.deq.virginia.gov/BMP/>