

Chesapeake Bay Program Urban BMP Reporting

Virginia and its partners in the Chesapeake Bay Program have been working and making progress since the mid-1980s to reduce the nitrogen, phosphorus and sediment that contribute to degraded water quality and diminished support for living resources in the Bay. In 2010, the U.S. Environmental Protection Agency (EPA) established a Total Maximum Daily Load (TMDL) to set an official pollutant budget for the Bay and a Watershed Implementation Plan (WIP) to determine which strategies and practices will help achieve this budget.



Implementing best management practices (BMPs) on the landscape is one component of that pollutant budget. All BMPs in the watershed, including those that are built (structural) and those that involve behaviors (practice based) make progress toward restoring the Bay. Virginia DEQ receives BMP information from other state agencies and stakeholders and reports the Commonwealth's progress in implementing BMPs to the EPA. EPA's Chesapeake Bay Program Office (CBPO) works with Virginia and other Bay partners to standardize the way progress is measured.

CBPO utilizes multiple modeling tools to estimate changes in pollutant loadings and water quality as a result of management actions such as the implementation of BMPs. Using information provided by the states, local governments, and other partners, BMPs are plugged into the Chesapeake Bay Watershed Model and the results are used to predict reductions of pollutant loads and make informed decisions about actions needed to ensure future progress. Virginia communities, businesses, farms and individuals have made and are continuing to make substantial investments in BMP infrastructure, which are making significant improvements to our environment. When it comes to accurately reflecting the success Virginia has made in implementation of BMPs **in highly developed areas**, including urban and suburban lands, DEQ needs help from you, our stakeholders that control urban and suburban areas such as local governments, universities and federal facilities.

What BMPs should be reported to DEQ?

To provide the best possible simulation in the model of conditions as they exist over time and to meet Virginia's commitments toward restoring water quality conditions in the Chesapeake Bay, DEQ is asking stakeholders to report ALL urban BMPs that fall into a Bay program-approved BMP category using one of several reporting mechanisms. Stakeholder cooperation in documenting and verifying the installation and maintenance of BMPs on the landscape will allow DEQ to more accurately report on the Commonwealth's progress. Showcasing progress also helps to demonstrate that additional regulatory burdens should be unnecessary for achieving environmental improvement goals. Credit toward the Chesapeake Bay TMDL nutrient and sediment reduction goals is applied based on the modeled location of the BMP, land use type to which the BMP is applied or treating, the amount or extent of the BMP implemented, and BMP type. In addition to newly implemented BMPs, verification inspections for existing BMPs must be reported at least once during the BMP lifespan in order to maintain the BMP reduction credit in the watershed model. New BMPs should only be reported to DEQ once, whereas BMP inspections for purposes of verification should be reported at least once during the BMP lifespan. A table of BMP practices with implementation levels achieved through 2015 can be found on the [DEQ website](#).

What is DEQ's BMP Warehouse?

The BMP Warehouse is a web-based reporting application that allows for stakeholders across the Commonwealth to electronically report BMP information to DEQ. DEQ then uploads the information to the EPA's National Environmental Information Exchange Network (NEIEN).

The list of CBPO-approved and reportable BMPs has been incorporated into the BMP Warehouse template, which is used by stakeholders to electronically report to DEQ. The template also provides all of the required fields to properly report each practice installation. The most up-to-date version of the template (based on the current version of the watershed model) can be downloaded by credentialed users from the [BMP Warehouse website](#).

Links to the BMP Warehouse website, a webinar describing the use of the site and a PowerPoint presentation that walks users through the process also are available on the [DEQ website](#).

Stakeholders are also encouraged to report BMPs that fall into a draft BMP category not currently approved by CBPO (for example manufactured treatment devices). If the category is approved in the future, the BMPs will be included in subsequent model simulations.

How should BMPs be reported to DEQ?

BMPs implemented under the [VPDES Stormwater Construction General Permit](#) to address post-development water quality and water quantity requirements should be reported using the [Construction General Permit Database](#). The CBPO credits these BMPs to all available urban land categories proportionally for the locality where the BMP is implemented.

For all other BMPs, the BMP Warehouse and reporting template provide an easy way for stakeholders to ensure their BMP reports are properly formatted and received for inclusion in the Bay models. This includes BMPs implemented for any reason other than the post-development requirements of the stormwater construction general permit.



MS4 permittees are encouraged to report using either the BMP Warehouse directly or the BMP Warehouse reporting template. MS4 permittees must meet the requirements as specified in the MS4 Action Plan [Guidance](#) and their permits. The reporting template can be used to satisfy the electronic reporting requirements specified in MS4 permits. BMPs reported by MS4 permittees will be applied in the model to the “regulated urban sector” as long as they are located within the MS4-permitted service area and “regulated land use” codes are associated with the BMP record. Otherwise, these BMPs are credited to all available urban land categories proportionally for the locality where the BMP is implemented. Unless a locality has provided more detailed service area mapping, the MS4-permitted lands in the model are assumed to be the most recent decennial Census urbanized areas for Phase II MS4 jurisdictions and the entire locality for Phase I MS4 jurisdictions.

BMPs implemented outside of MS4-permitted service areas to treat existing developed lands and not subject to the VPDES Stormwater Construction General Permit, should be reported to DEQ through the BMP Warehouse. Unless specified in the BMP Warehouse as implemented on or applied to non-MS4-permitted urban land, these BMPs will be applied proportionally to the available urban land use categories in the model for the reporting locality.

Which BMPs receive credit for pollutant reductions in the watershed model?

Before a BMP can be simulated and credited for nutrient and sediment reductions within the watershed model, it must be approved by the Bay program. The protocol for getting BMPs included in the models can be found on the [Bay program website](#). The Bay program [Expert Panel Reports](#) describe the protocols for many of the approved BMPs.



For further information, please contact James Davis-Martin at James.Davis-Martin@deq.virginia.gov or refer to [DEQ’s Water Programs Contact Page](#).

Where can I find CBPO’s approved BMPs?

An up-to-date list of CBPO- approved BMPs (including urban) and the BMP-specific required reporting measures is included as a spreadsheet (“Appendix A”) on the EPA’s National Environmental Information Exchange Network (NEIEN) [website](#) for both the [current Phase 5 Watershed Model](#) and the [Phase 6 Watershed Model](#) under development. Only certain BMPs (i.e., those listed in the most recent Appendix A with a status field code of “release”) are simulated and credited with pollutant reductions. BMPs listed in Appendix A with other status codes are not included in any model scenario run until approved by the CBPO.

A listing of approved BMPs, definitions and model reduction efficiencies can also be found on the Chesapeake Assessment and Scenario Tool (CAST) documentation page in the “[Source Data](#)” table. This tool is currently only available for the Phase 5 Watershed Model and will be updated concurrently with any future model revisions. While the BMP listing in this tool is not updated as frequently as the listing in Appendix A, it provides a more user-friendly framework including the definitions associated with BMP names.

This fact sheet can be found at <http://www.deq.virginia.gov/Programs/Water/ChesapeakeBay/ChesapeakeBayTMDL.aspx>