

Phase 6 is the newest version of the Chesapeake Bay Watershed Model, now called the Chesapeake Bay Suite of Modeling Tools. Its simplified structure makes it easy to use and its data and information have been expanded and improved. But how is it different from the previous version?

What's New in the Phase 6 Watershed Model?

The Phase 6 Watershed Model brings more scientific and partnership input into the model than ever before. It includes new science, new data and new inputs, including those from industries not previously involved. Thanks to its new features, the model has further improved the ability to answer questions about how different land use types or land management decisions can affect nutrient and sediment pollution levels.



Highlights

The new model will be able to better predict the impacts of population growth and climate change and better account for the sediment build-up behind the Conowingo Dam on the Susquehanna River in Maryland.

Ten additional years of water quality monitoring data doubles the amount of real-time data and provides more insight into how pollution loads have changed as best management practices, which are practices used to control pollution entering the environment, have been implemented.

High-resolution land cover data allow for a one-by-one meter resolution, providing 900 times the amount of information than was previously available. This ground-breaking improvement will enable the prioritization and targeting of restoration, conservation, education and public access efforts.

Additional categories of land use data are included.

New inputs from the agricultural community, particularly the poultry industry, and improved and updated information on the application of fertilizer and manure will improve accuracy.

Additional best management practices are now credited and incorporated, including a few that have been re-analyzed for their effectiveness.

Improved nutrient input data have been added.

Combining multiple models (such as the former Scenario Builder) into one new model provides an entirely new approach to water quality simulation.

A simulation period that runs over 20 years rather than 10 years allows for finer-scale analysis and planning.

Resources

To access the Phase 6 Watershed Model, or the Chesapeake Bay Assessment Tool (CAST), visit <https://cast.chesapeakebay.net>. For more information on modeling at the Chesapeake Bay Program, visit <https://www.chesapeakebay.net/what/programs/modeling>.

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