CHESAPEAKE BAY PROGRAM DECISION SUPPORT TOOLS

STAR Team Meeting

IAN Seminar

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DECISION SUPPORT TOOLS

- Chesapeake Assessment Scenario Tool – CASTtool.org
  - Chesapeake Bay portion of NY, MD, WV, DE, DC, VA, PA included

- Maryland Assessment Scenario Tool – MASTonline.org
  - Maryland-specific version of CAST. Maryland-specific geographies like State Highway Administration and Phase I and II areas are available through the interface. MAST also has loads available for historical years to assist with local TMDL watershed planning.

- Virginia Assessment Scenario Tool – VASTtool.org
  - Virginia-specific version of CAST. VAST users may add their own land use in a table where it is stored. The data may be useful to the Virginia Department of Environmental Quality.

- Facility Assessment Scenario Tool – BayFAST.org
  - Site specific planning tool where user defines the planning area and land uses.

Note:

- The first version of CAST was launched in 2011 to provide local jurisdictions, such as counties, with a tool to provide input into the TMDL WIP process.

- The load calculations performed by all tools are identical.

- The tools use the same assumptions and calculation methods as the Chesapeake Bay Program's Watershed Model.

FEATURES OF ALL TOOLS

- Create plans for meeting a nitrogen, phosphorus, or sediment load allocation using the most cost-effective strategy.

- Calculate "on-the-fly" estimates of load reductions.

- Allow users to understand which BMPs provide the greatest load reduction benefit, the extent to which these BMPs can be implemented, and the cost of these BMPs. Based on the scenario outputs, users can refine their BMP choices in their planning.

- Closely approximate the results of the Chesapeake Bay Program's (CBP) Watershed Model. Other available tools have assumptions that may be different from those used in the Watershed Model for developing the 2010 Chesapeake Bay TMDL. Since the Watershed Model is used to assess jurisdictions' progress toward meeting the TMDL allocations, consistency with the Watershed Model is critical.

USE OF TOOLS WITH LOCAL TMDLS

- Create a plan to meet an existing TMDL or Waste Load Allocation

- Determine percent reduction from TMDL
  - Concentrations to loads (mg/L to lb/A)
  - By land use, sector, other
  - Geographic specificity such as HUC or MS4

- Enter BMPs on the ground in the baseline year

- Add additional BMPs to a future scenario until the load reduction target is met

DEMONSTRATION

www.BayFAST.org