

## **Fact Sheet on Maryland's Assessment and Scenario Tool (MAST)**

### **What is MAST?**

MAST is an online scenario development and load estimator tool developed by the State to provide the local Phase II WIP teams with a functional tool that will estimate nitrogen, phosphorus and sediment loads for their jurisdiction based on the input of specific load reduction strategies (i.e. Best Management Practices).

### **What can MAST do?**

MAST can be used to evaluate alternative load reduction strategy scenarios and provide information valuable for decision making. For example, a scenario could include assessing the load reduction from a specific strategy or a scenario could represent the combined impact of multiple strategies within and/or across source sectors. Also, by assessing varied approaches for load reductions, results can be used to better optimize final decisions. MAST is also developed to be a scenario input and management tool for inputting and combining multiple strategies across geographic areas and source sectors.

### **What are the advantages to using MAST?**

MAST has been developed to be consistent with the Chesapeake Bay Phase 5.3.2 Watershed Model. This is significant given that EPA will use the Phase 5.3.2 Model version to evaluate State and local implementation strategies to achieve their nutrient and sediment allocations. EPA expects the State to work with local partners and federal agencies to submit an input deck for Scenario Builder and the Bay Watershed Model that includes the planned implementation level of practices and controls that will be in place by 2017 and 2020 for Maryland. MAST is designed to provide this input deck to EPA's Scenario Builder as required for the WIP.

### **Can other tools be used as well?**

Other tools may be useful in informing individual source sector strategy decisions for selecting BMPs, determining geographical locations for implementation and developing units of implementation. However, the applicability of these other tools, and time dedicated to using them, will be up to the individual jurisdictions. Also, some jurisdictions may have used other tools in previous planning studies. Results from these existing studies, and possibly other tools, could be used to inform or refine the strategies that are required for input into MAST and ultimately aggregate to the Maryland Phase II WIP.

### **How do local WIP scenarios integrate with the EPA model?**

The individual local scenarios will be "rolled up" by MAST into a statewide input deck in a format that can be processed by the watershed model. Maryland will have one scenario from each WIP team to estimate the overall statewide nutrient and sediment load. Ultimately, this process will determine whether Maryland will meet water quality standards in the Chesapeake Bay.

**How do strategies for the federal land and facility allocations integrate with the county area scenarios?**

As in the Bay Watershed Model, MAST will identify federal land use acres as distinct from non-federal acres, for each source sector, at the county-geographic level. This will enable BMPs and other controls to be entered in MAST and designated specifically for those federal lands within each county. MAST will combine the federal strategies and the non-federal strategies to achieve the overall county-area Phase II WIP implementation strategy.