MAST • CAST • VAST • BayFAST

Prioritizing Improvements

Olivia Devereux

July 9, 2014

Watershed Technical Workgroup

OUTLINE

- Previous priorities – completed
- Recent usage
- Next priorities - plan

PRIORITIES SET IN JANUARY 2013
COMPLETED

- BMP costs
- Improve agreement of loads with the Watershed Model
- BayFAST created
- Table editing functionality enhanced
- Kept consistent with Scenario Builder and the Watershed Model
  - Erosion and sediment control BMP
  - Urban nutrient management
- Downloadable files in excel format
- Additional geographical scale options
- Additional training
- Documentation updated and formatted for easier access and understandability
- And many other enhancements. See Update History in the tools.

Ongoing Activities

- Additional training and communication to users

- Maintaining consistency with Scenario Builder and the Watershed Model
  - Stormwater performance standard BMPs will soon be in Scenario Builder, and will be added to C/M/VAST and BayFAST at the same time.
  - New septic BMPs will be added to the models

RECENT USAGE

Total Users=1,536

CAST = 539

VAST = 574

MAST = 566

BayFAST = 59

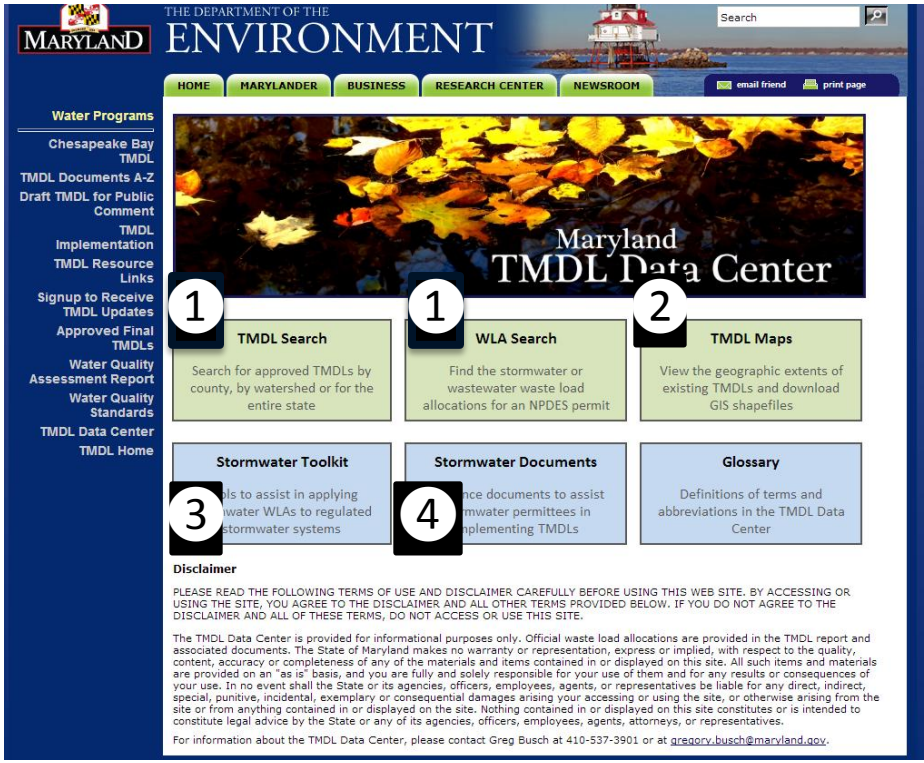
Note: some users use more than one of the tools

USING MAST FOR LOCAL TMDL PLANS

- MDE recently conducted a training and provided a guidance document for using MAST to develop stormwater wasteload allocation implementation plans for local TMDLs

Steps for Developing an SW-WLA implementation plan

1. Identify applicable TMDLs, WLAs, and required reductions
   - TMDL/WLA database
2. Identify where the WLAs apply/reductions need to occur
   - Interactive maps and GIS resources
     - TMDL watersheds, Bay TMDL segment-sheds, regulated stormwater delineation, land-cover data, etc.
3. If WLAs are aggregate, calculate individual WLA for jurisdiction/permit
   - Stormwater Toolkit
     - Methodology for disaggregating SW-WLAs
4. Create a plan that outlines the management strategies that will be taken to meet the WLAs/required reductions
   - Guidance documents for developing SW-WLA implementation plans



http://www.mde.state.md.us/programs/Water/TMDL/DataCenter/Pages/index.aspx

Note: *Although this guidance focuses specifically on SW-WLAs, these methods could also be applied to urban LAs and non-regulated local jurisdictions and urban stormwater sources*

POSSIBLE NEXT PRIORITIES

- Allow users to indicate BMPs implemented (urban homeowner BMPs, for example)
- Allow HUCs in M/C/VAST – requires removing validation for overlapping BMPs
- Compare scenario to last time scenario was run
- Allow users to upload BMPs from files. This task requires creating validation to avoid errors in the users' uploaded data.
- Point source page—add CSO data and make other changes to the point source or waste water page so that it is more useful to users.
- Nutrient trading in the urban sector—add the ability for users to define a geographical area so that CAST/MAST/VAST can be used to calculate urban loads for trading. In addition to defining a geographical area, users will define land uses and specify acres in each land use.
- Graphing—add graphs of the summary loads data and compared scenarios. Additional summary data and output files.
- Geographic scales—add additional geographic scales
- Add the ability for users to select HUC-12 in BayFAST
- Add an upload and download function for the facility shape in a GIS format.
- BMP optimization module based on costs
- Indicator of BMPs implemented vs. planned
- OTHERS???

QUESTIONS AND DISCUSSION

CASTTOOL.ORG
MASTONLINE.ORG
VASTTOOL.ORG
BAYFAST.ORG