

Watershed Modeling Workplan Options for 2025

Addendum 10/19/2021

Transparency in NEIEN/CAST Progress data

Concern: Local and major jurisdictions do not always understand how many modelled pounds of nitrogen, phosphorus, and sediment are being lost from BMPs that are not credited for validation, verification, and data quality issues. Validation, verification, and data quality controls occur in the following steps:

1. Submission of data from implementation partners to the state
2. Submission from the state to NEIEN
3. Chesapeake Bay Program conversion of data from NEIEN BMP names, measure names, and units to CAST BMP names and units
4. CAST

While lists of data that are not fully credited is available with explanations of why the data were not credited for the last three items, lists for 2 and 3 are not accessible to local jurisdictions or other implementation partners and since each list is separate and independent of the others, it is difficult to use the data effectively.

Objective: Focus implementation partners on the importance of properly reporting implementation data and associated passing verification inspections. It is assumed that the information on the extent of BMP errors and of how much nitrogen, phosphorus, and sediment credit is lost would help motivate partners to resolve BMP errors and perform and record more inspection information. The transparency in information would help partners to know which practices to prioritize for inspection. It would also better represent the cumulative historical implementation effort for practices such as forest buffers.

Proposed Solution: The Chesapeake Bay Program's CAST Development Team is investigating options for integrating NEIEN with CAST. This could include moving the NEIEN error report into a CAST report available for download for the progress scenarios. It also could include moving invalid BMPs into the official annual progress scenarios. This would allow users to see all the invalid data in one place. Some of the invalid data is because a BMP was submitted with a unit that is not approved, or a BMP was submitted with a different spelling than was approved. Other records could show that the BMP failed an inspection or simply was not inspected. Lastly, the report already in CAST shows where a BMP was submitted in excess of the area available for the BMP. These reports would be more unified to limit the number of reports an analyst would be required to access. All those data could be in CAST. There are many elements that would require redesign to bring this vision to fruition and to provide an exact plan for how this could work.

Level of Effort: The level of effort for this task is **HIGH**. The proposed changes ripple throughout several systems and require a new data structure. These changes touch an estimated 80% of the existing systems. The proposed goal can be met, however, there is a high level of complexity. The desired solution would maintain "backward compatibility" so that jurisdictions would be able to continue using established reporting formats until such time that they are able to make changes to their automated data collection and reporting systems.