



Chesapeake Bay Program
A Watershed Partnership

FUTURE MODEL UPDATES

CLEAN WATER GOAL TEAM

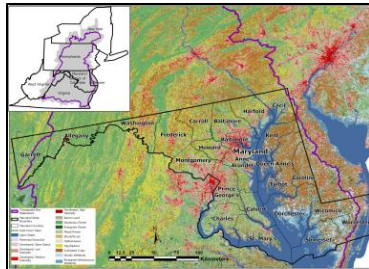
AUGUST 24, 2026

LEE MCDONNELL, EPA CBPO

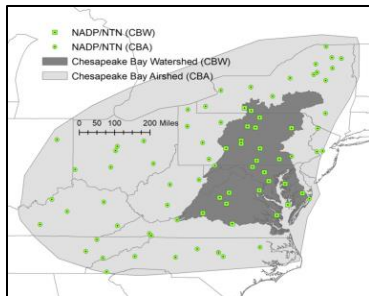
Model Phase Change

Data and Model Inputs

BMP Data
Land Use Data
Point Sources Data
Septic Data
U.S. Census Data
Agricultural Data



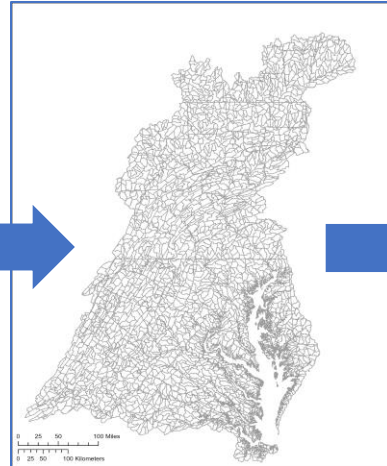
Land Use Change Model



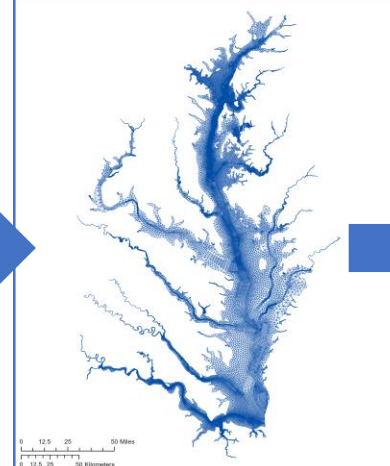
Airshed Model

Precipitation Data
Meteorological Data
Elevation Data
Soil Data

Phase 7 Watershed Model/CAST



Estuary Model

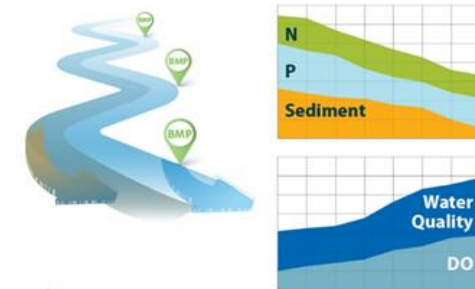


Model Outputs

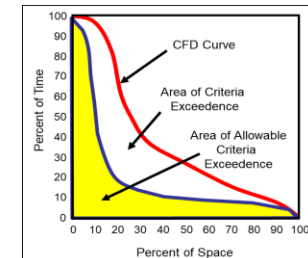
Prediction of Impacts



BMP Implementation Results



Criteria Assessment Procedures

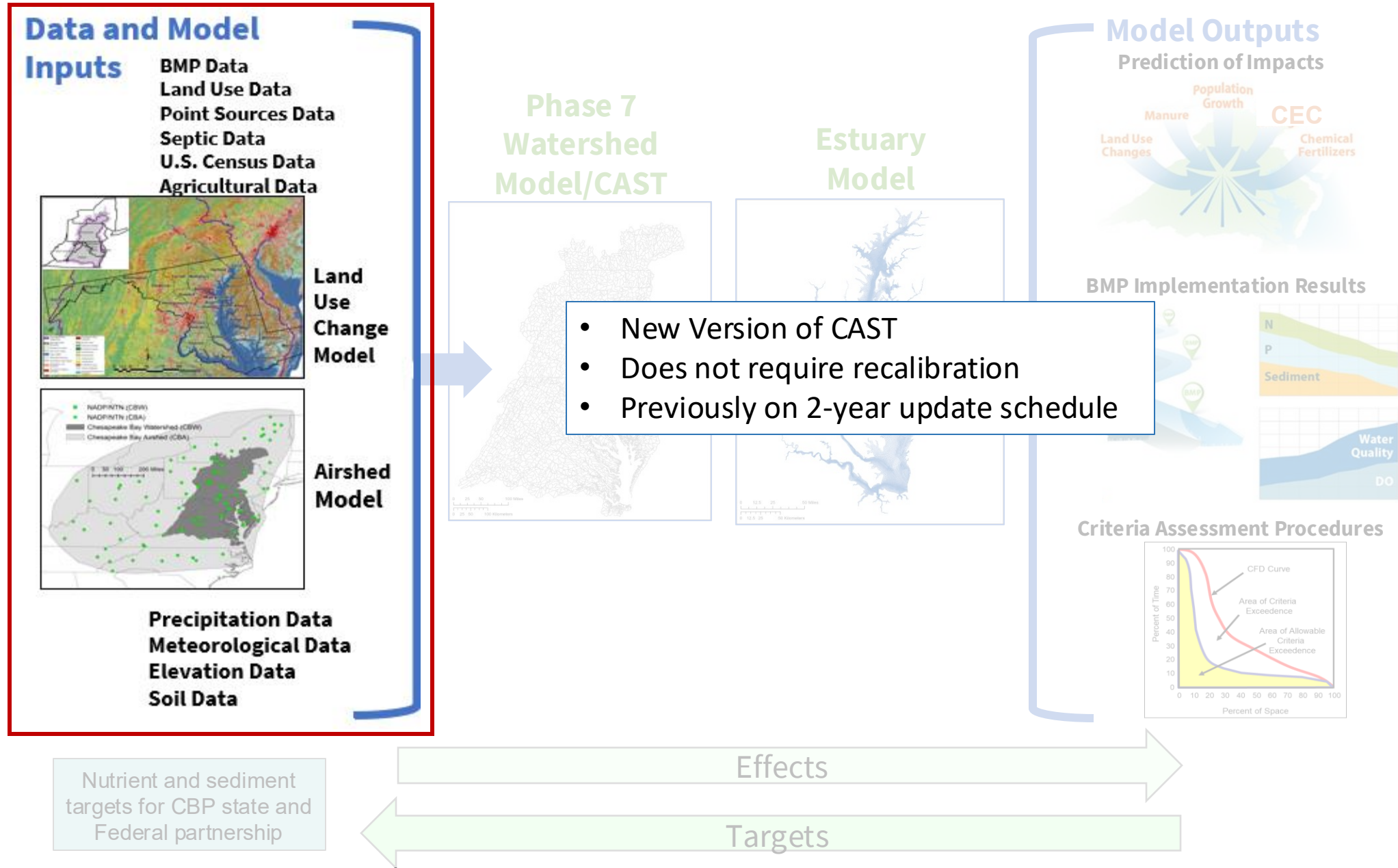


Nutrient and sediment targets for CBP state and Federal partnership

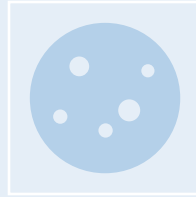
Effects

Targets

Version Change



ASSUMPTIONS



Phase update by 2038 to establish plan for beyond 2040



No updates to occur prior completion of new/revised WIPs in 2030

ASSIGNMENT

FOR

WATERSHED TECHNICAL WORKGROUP

**Develop options for when to perform data updates to
CAST between 2030-2040**

- Provide 3 options with rationale for each option and present those options at the November CWGT
- Utilize information that has been discussed widely with the Partnership
- Evaluate success/failure of previous attempts to standardize the update process

Considerations

- Transition to P7 – 2030 – 2030 annual progress utilizing P7 suite of tools.
- Milestones – currently a 2-year cycle unless we change it, also no longer tied to input decks for CAST
- High-Res Land Use – Currently created/curated every 4-5 years. (updates 2029/2034)
- Ag Census – Created every 5 years by USDA (updates 2022, 2027, 2032)
- Fertilizer data
- Possibility of industry data to supplement existing data sets
- New BMPs – when can they be incorporated?
 - Updated BMP expert panel protocol
 - Ability for new BMPs without history to be incorporated
 - When/how new BMPs with history are added

DECISION

Direct the WTWG to develop options for “when to update CAST” for CWGT and present those options at the 11/26 CWGT meeting

[illegible]