

Agricultural Modeling for the Phase 7 Watershed Model

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Agriculture Workgroup (AgWG) Areas of Focus

Accounting and Reporting

Ensuring that Best Management Practices are accurately reported to the Chesapeake Bay Program for credit towards water quality goals.

Implementation

Making WIPs reality

Innovation

Staying abreast of and evaluating new/innovative agricultural conservation practices that mitigate nutrient loss

Data & Modeling

Ensuring that the agricultural sector is represented accurately

CBP Assignments

Addressing tasks and projects assigned by the Partnership

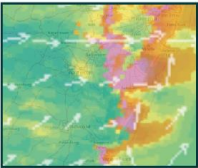
Modeling Foundation

Data and Model Inputs

Pollution Control 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 6 Watershed Model/CAST

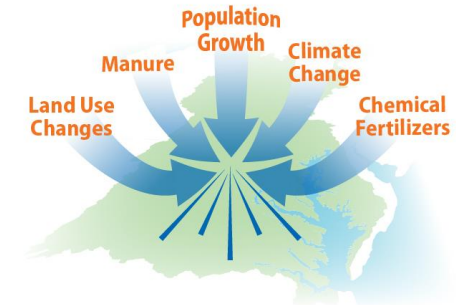


Estuary Model

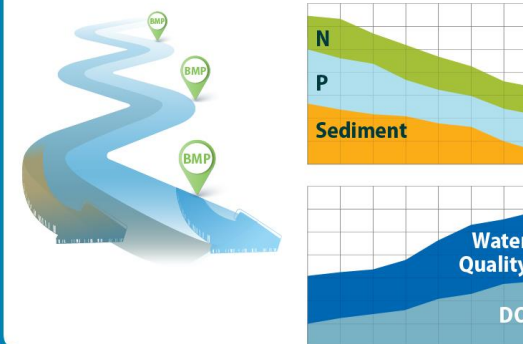


Model Outputs

Prediction of Impacts



BMP Implementation Results



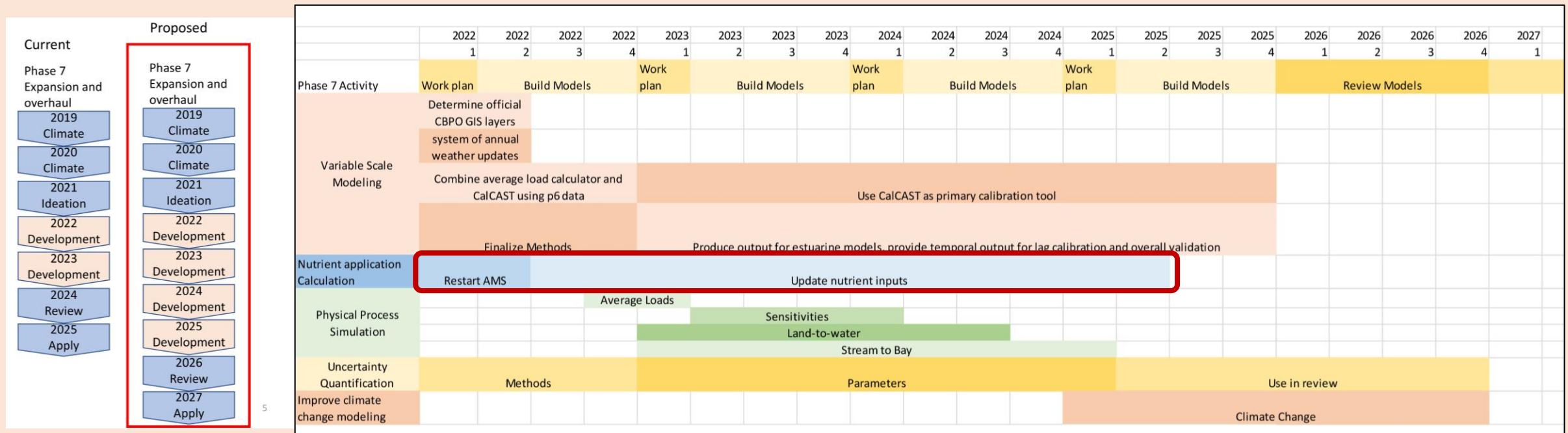
What is included in the Chesapeake Bay Program's suite of modeling tools?

The Chesapeake Bay Program has a suite of four computer models that includes:

- **Airshed Model:** estimates the amount of nitrogen deposited onto the land and water by vehicles, power plants and other emission sources
- **Land Use Change Model:** predicts the impacts that urban population and development will have on sewer and septic systems
- **Phase 6 Watershed Model:** estimates the amount of nitrogen, phosphorus and sediment reaching the Chesapeake Bay
- **Estuary Model:** examines the effects that pollution loads have on water quality

Phase 7 (Revised) Proposed Timeline

Timeline Approved @ Management Board & Principal's Staff Committee



AMS = Agricultural Modeling Subcommittee → Phase 6 Decisions

Group Placement

Agriculture Modeling
group

Workgroups and Action Teams

Agriculture Workgroup

BMP Expert Panels

BMP Verification Ad-hoc Action Team

Best Management Practices (BMP)
Verification Committee

Federal Facilities Workgroup

Forestry Workgroup

Land Use Workgroup

Local Planning Goals Task Force

Milestones Workgroup

Reevaluation Technical Workgroup*

Sediment Workgroup*

Toxic Contaminants Workgroup

Trading and Offsets Workgroup

Urban Stormwater Workgroup

Wastewater Treatment Workgroup

Watershed Technical Workgroup

Chesapeake Executive Council

Principals' Staff Committee

Management Board

Goal Implementation Teams

Sustainable Fisheries

Habitat

Water Quality

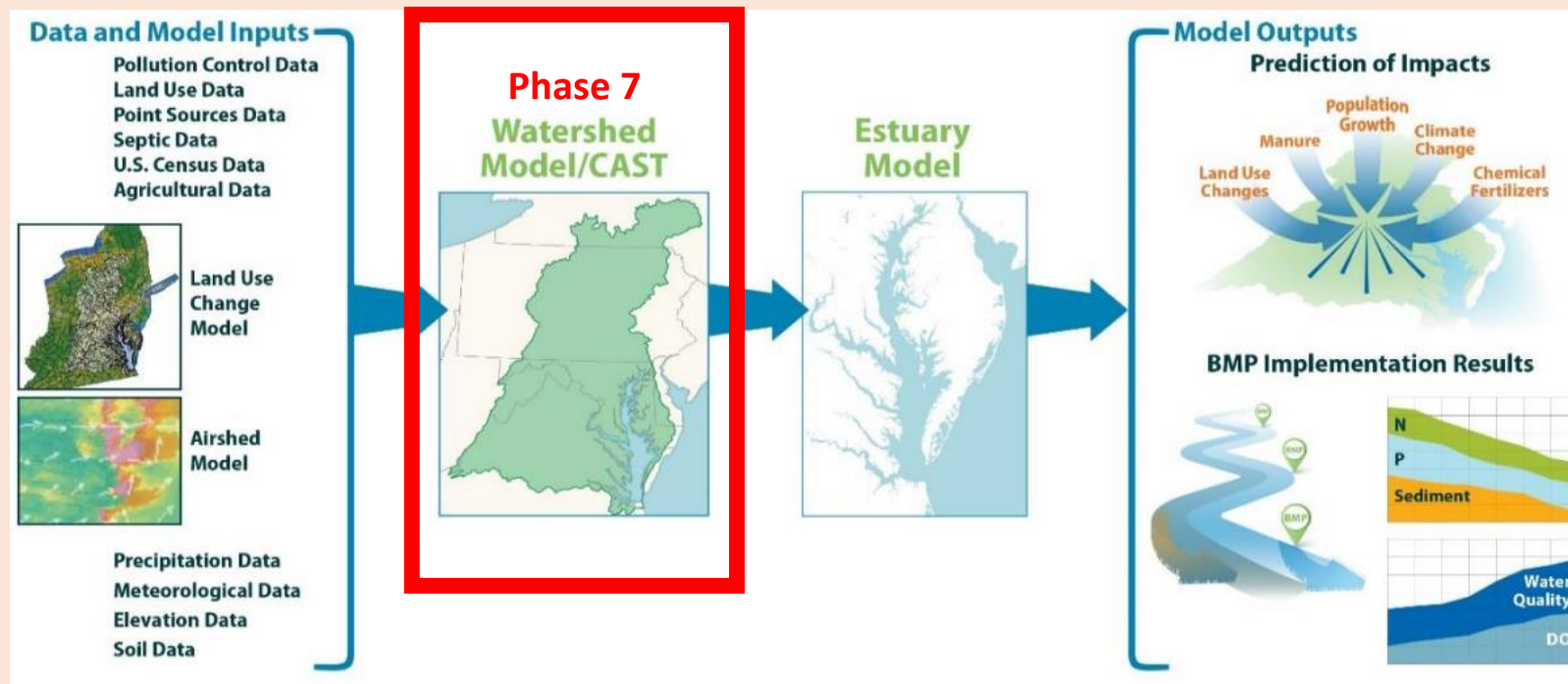
Maintain Healthy Watersheds

Fostering Chesapeake Stewardship

**Enhance Partnering, Leadership and
Management**

Current Direction for Phase 7 Ag Modeling

- Reconstitute a group to support agricultural modeling
 - Re-evaluating data sources & methodologies
 - Incorporate latest science, research, and agriculture management systems



Current Status Ag Modeling for Phase 7

- Coordinator: Tom Butler
- Staffer: Jackie Pickford
- Draft Charge Document
 - Group approval structure
 - Necessary expertise
 - Assembling potential priorities

What to Expect

Draft charge shared
for AgWG review by
May 12 (tentative)

June 16 AgWG with
discussion/approval?

- Call for membership
nominations

May 19 AgWG review
of charge



Questions?