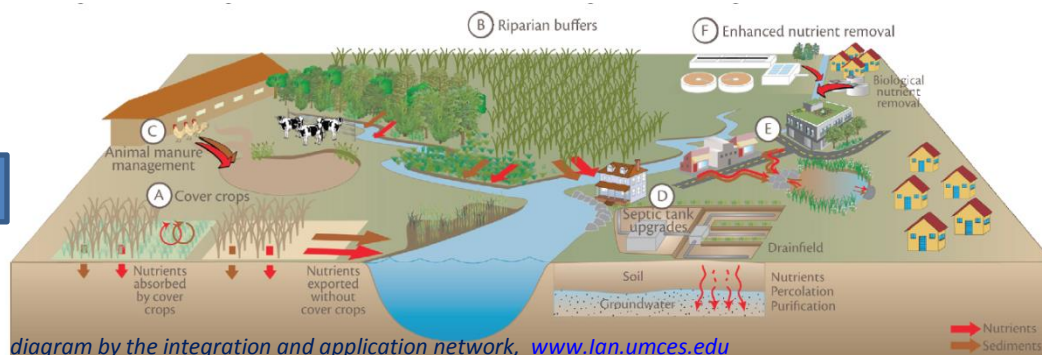


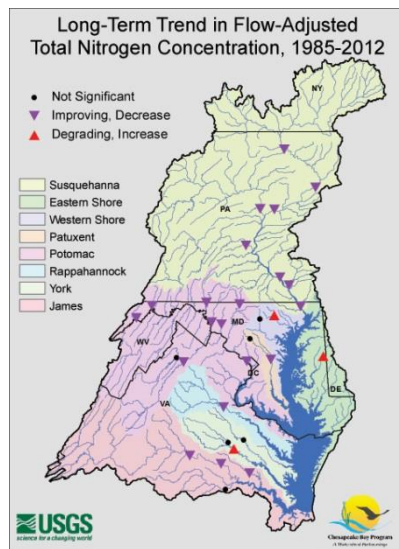
Management Effects on Water Quality Trends

Supporting Adaptive Management



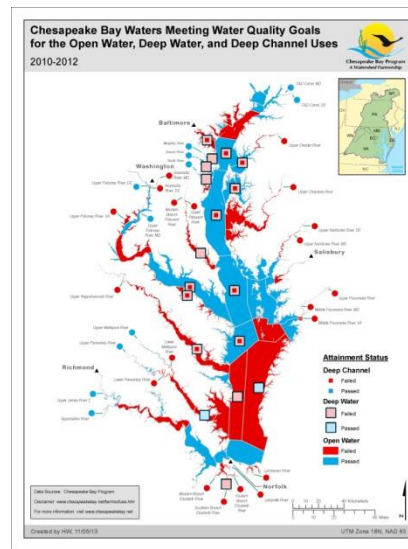
Implement water quality management practices

Explain



Quantify trends of N, P, and sediment in the watershed

Explain

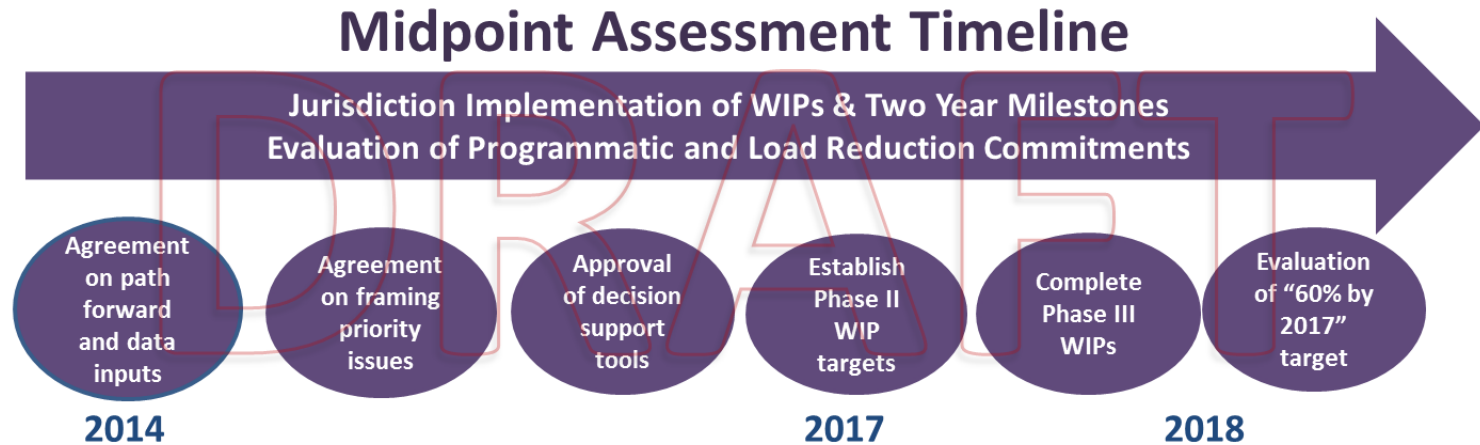


Quantify changes in estuarine water quality

Adapt

Management Effects on Water Quality Trends

Driver: Chesapeake Bay TMDL

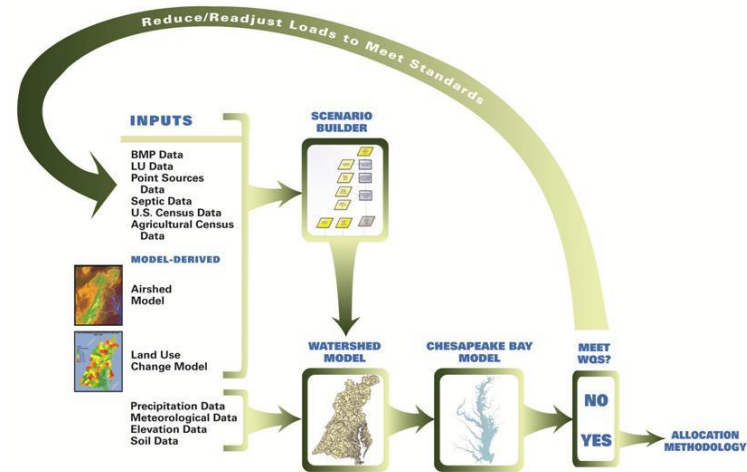
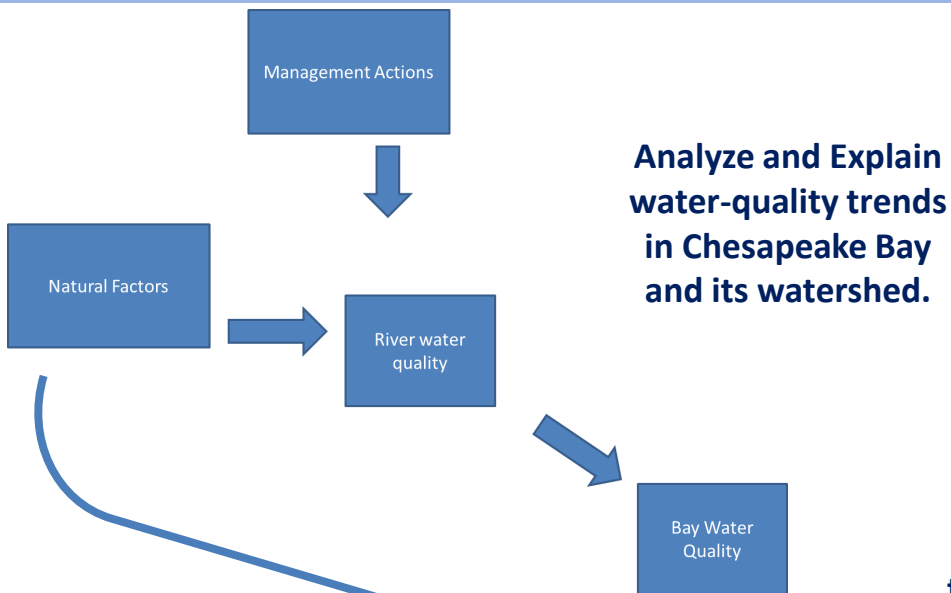


Chesapeake Bay TMDL 2017 Mid-Point Assessment Objectives:

1. Gather input from the Partnership on issues and priorities to be addressed in order to help meet the goal of all practices in place by 2025 to meet water quality standards;
2. Based on these priorities, ***review the latest science, data, tools and BMPs, incorporate as appropriate into the decision-support tools that guide implementation, and consider lessons learned;*** and
3. Help jurisdictions prepare Phase III WIPs, which will guide milestones and implementation from 2018 to 2025.

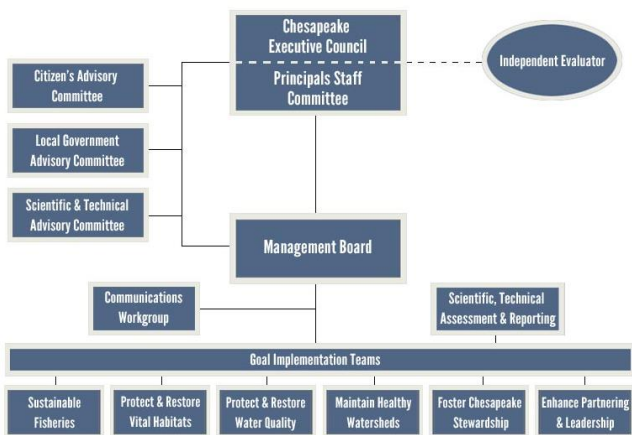
Management Effects on Water Quality Trends

Strategy: An Integrated Approach



Use improved understanding of trends to enhance Chesapeake Bay Program Models.

Enhance approaches to assessing attainment of water-quality standards using tidal monitoring data.



Synthesize and communicate results and implications for the TMDL.

Management Effects on Water Quality Trends

Challenges

Environmental setting

- Climatic variability
- Residence times of nutrients and sediments
- Estuarine circulation of nutrients
- Lag time between implementation of management practices and water quality response



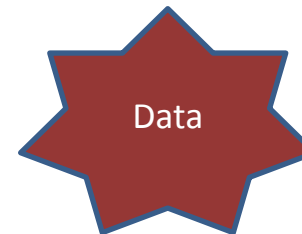
Anthropogenic drivers

- Demographic shifts
- Changes in agriculture and land development
- Diverse and diffuse implementation of best management practices (BMPs)



Availability of sufficient, high-quality data

- Implementation of BMPs
- Spatial and temporal density of monitoring data



Management Effects on Water Quality Trends

Workshop Goals

Identify promising approaches to:

- Enhance trend detection methods
- Identify information needed to better explain trends
- Better quantify the factors driving observed changes in water quality in Chesapeake Bay and its watershed

Management Effects on Water Quality Trends

Workshop Approach

- **Jumpstart Videos** provide background information on climatic, environmental, and anthropogenic drivers as well as available data;
- **A set of targeted talks** provide information and context for group discussions;
- **Breakout discussions** generate new ideas and recommendations on necessary data and quantitative approaches for explaining trends.