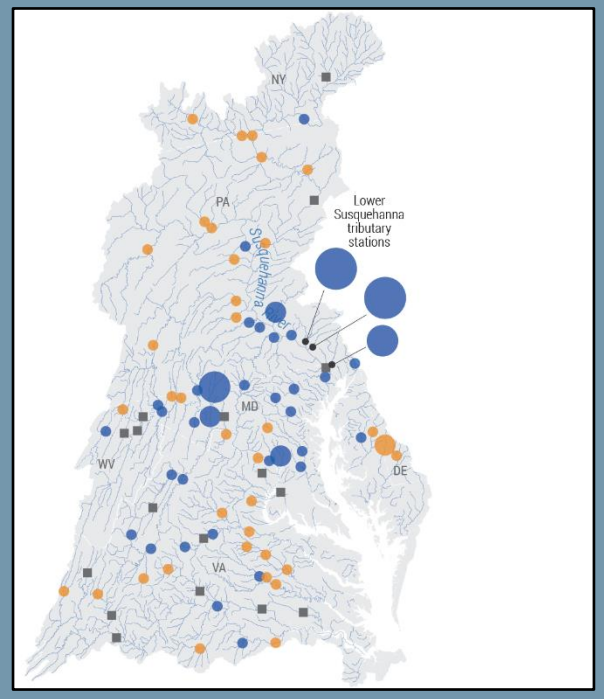
Preview of the Oct 12 WQ GIT Monitoring Meeting:

Enhancing the Application of Monitoring Findings for Water-Quality Decisions

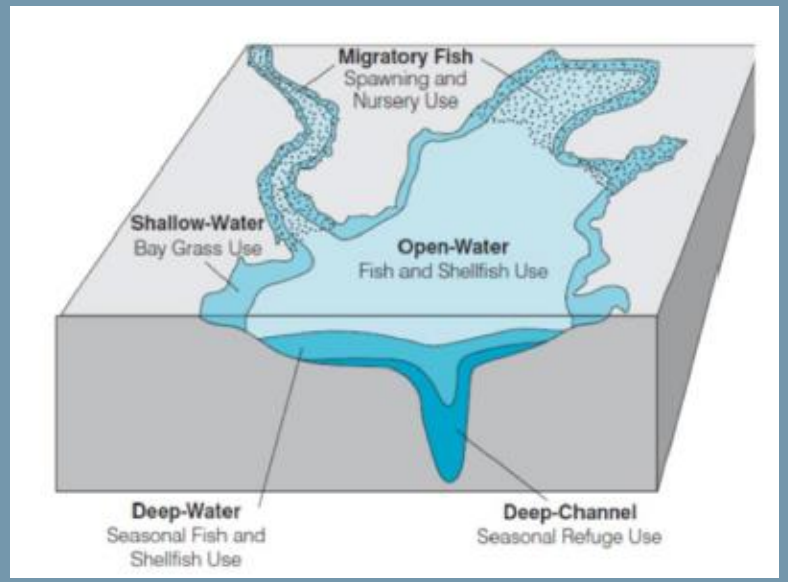


Scott Phillips, USGS

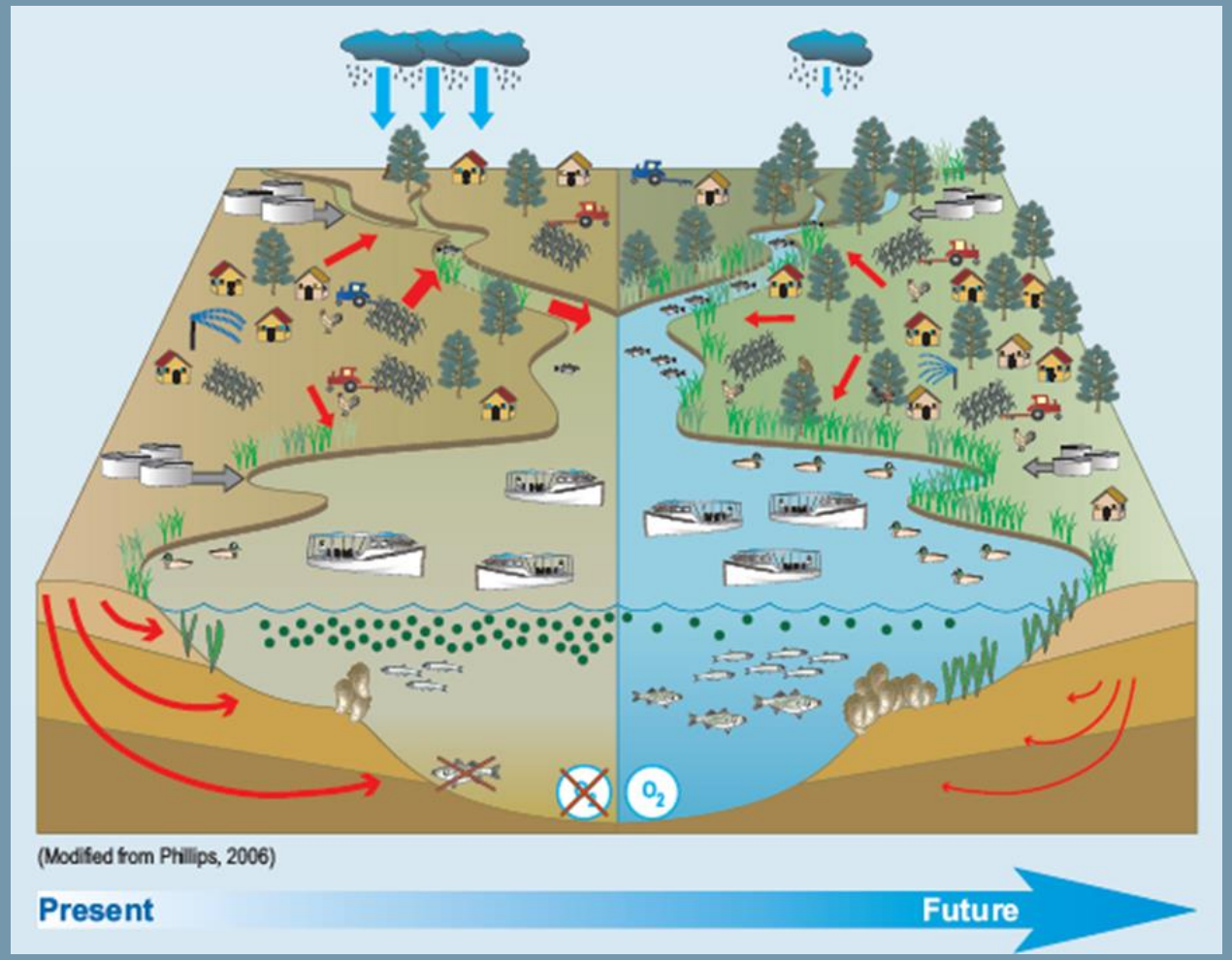
and

CBP Monitoring Team

WQ GIT Call Sept 27, 2021



Meeting the Bay TMDL and Attaining Water-Quality Standards



The CBP, led by the WQ GIT, needs to:

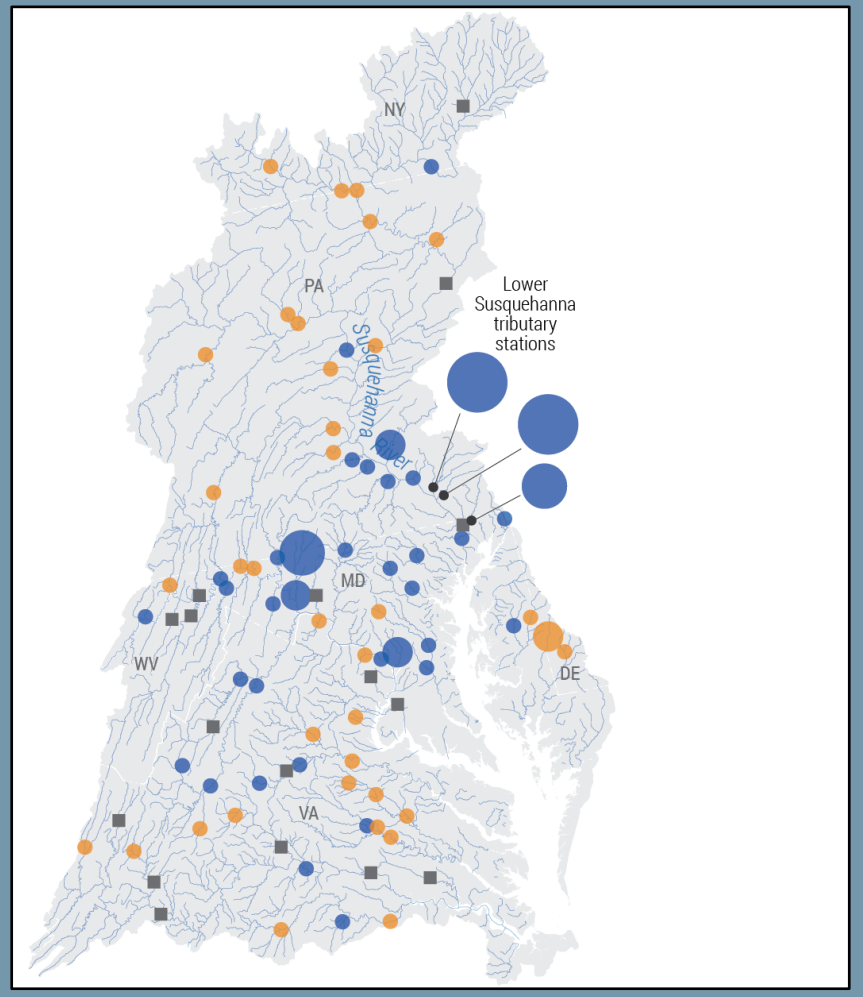
- Have practices in place by 2025 to meet the nutrient and sediment load allocations
- Address the future impacts of climate change and population growth
- Attain water-quality standards
  - DO, clarity/SAV and chlorophyll
  - Improve conditions for aquatic life
- Apply modeling and monitoring for decision making:
  - Sept 27, Oct 12 and Oct 25-26

USGS
science for a changing world

Implementation and Water-Quality Response

- **Implementation** over the past decade, projected load reduction from practices:
  - 9.4 million pounds (5%) for nitrogen
  - 1.4 million lbs. (13%) for phosphorus
  - Increased rate of implementation needed

- **Watershed Response**: Mixed
  - Nitrogen: 41% improving, similar worsening
  - Phosphorus: 44% improving and 32% worsening



Hyer and others 2021

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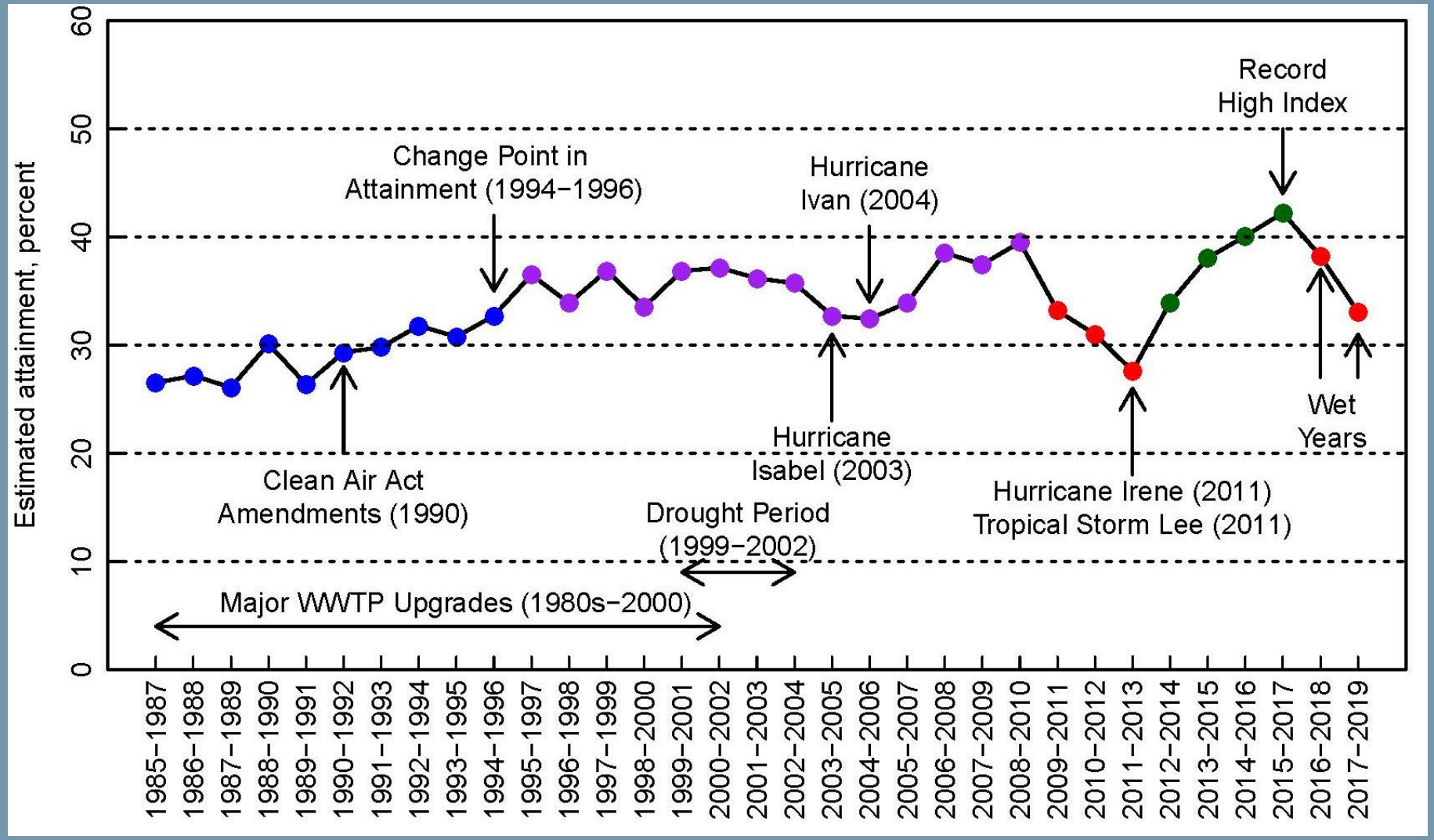
Implementation and Water-Quality Response

Standards Attainment

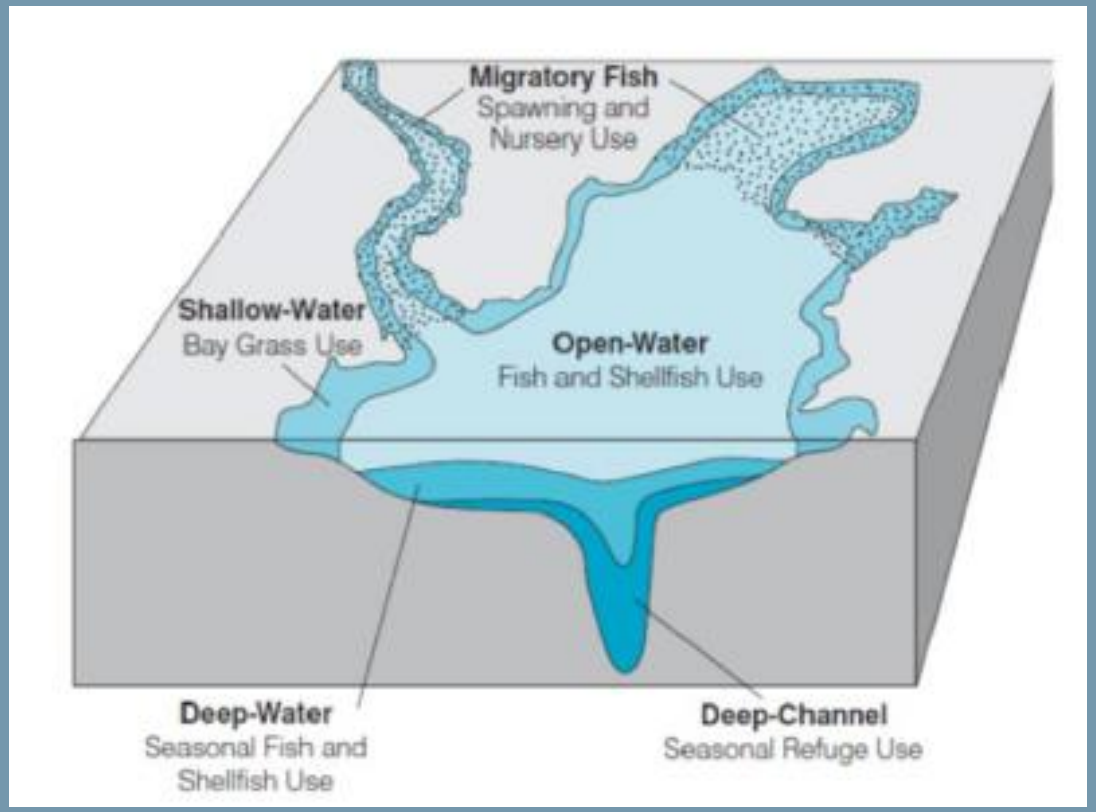
- Upper 20's to high of 42
- Currently 33%
- Take over 100 years at current rate



Management Implications

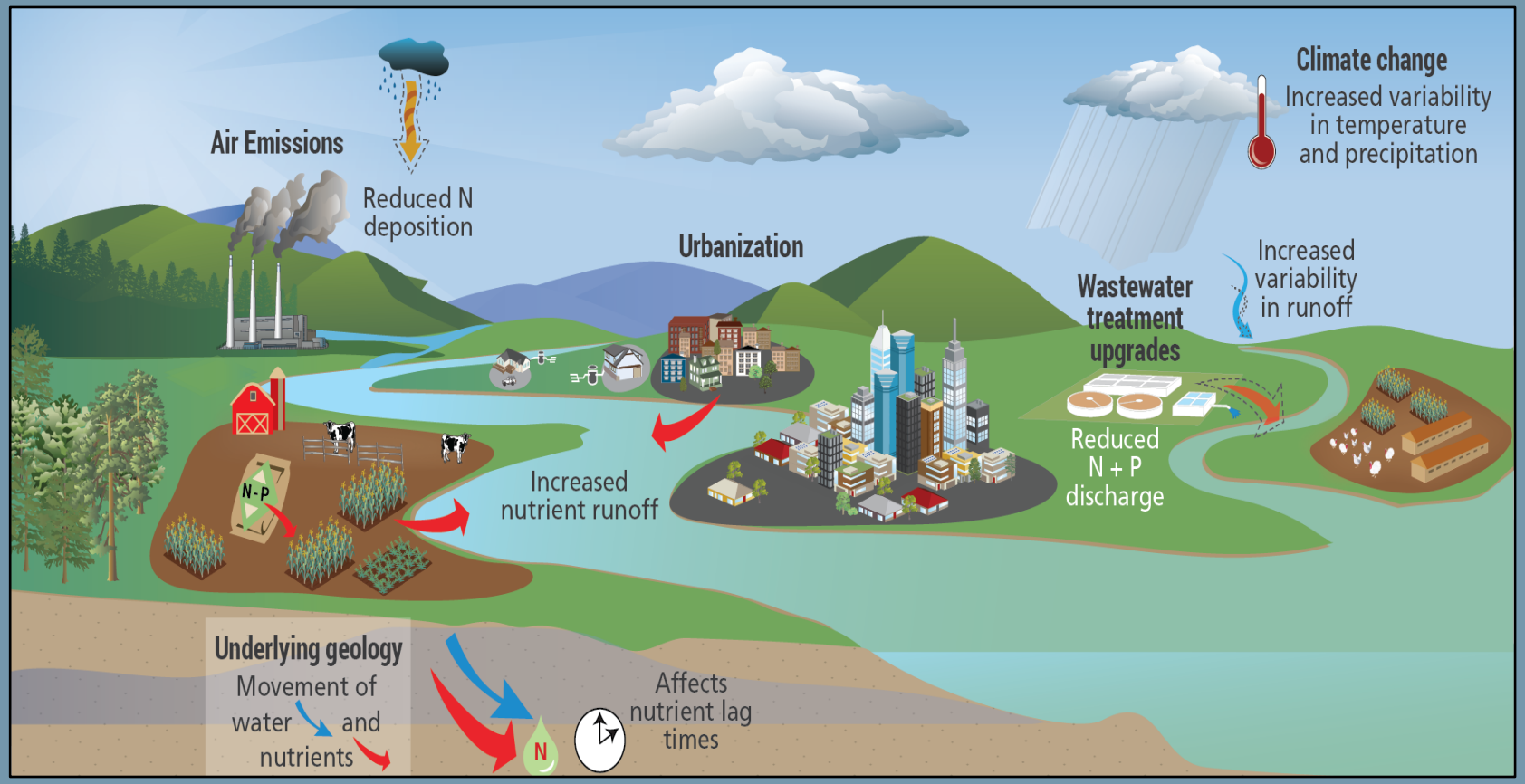
- CBP evaluating management approaches to:
  - Increase the rate of implementation for nutrient and sediment practices
  - Address increased loads from climate change and growth

- Partners can also consider:
  - Increase the rate of standards attainment in designed uses
  - Getting more local benefits
    - Such as stream health, fish habitats, drinking water



USEPA, Designed Uses

New Insights and Tools to Inform Management Approaches



Hyer and others, 2021

Modeling and Modeling Teams are producing:

- A new synthesis of watershed and tidal water-quality response to nutrient and sediment reduction efforts
- More in-depth analysis of progress towards standards attainment and tidal water-quality changes
- Tributary summaries
- Enhanced watershed and estuary models

Communicating Results and Interacting with Decision Makers

Learning more about monitoring results for decision making

Today: Tributary Summaries and Preview of Oct 12

- Watershed trends and change: Jimmy Webber
- Standards attainment, tidal water quality change, advanced monitoring directions to address assessment gaps: Peter Tango, Quin Zhang, and Rebecca Murphy
- Provide feedback on emphasis of topics for Oct. 12

October 12: Special WQ GIT call on Monitoring Results and their Application

- Latest insights on watershed and tidal water conditions
- Implications for nutrient and sediment reduction efforts
- Get feedback to more effectively interact with decision makers

Oct 25-26: Improving the watershed and estuary models

- Use of monitoring to enhance new models