

The Chesapeake Bay Watershed Data Dashboard



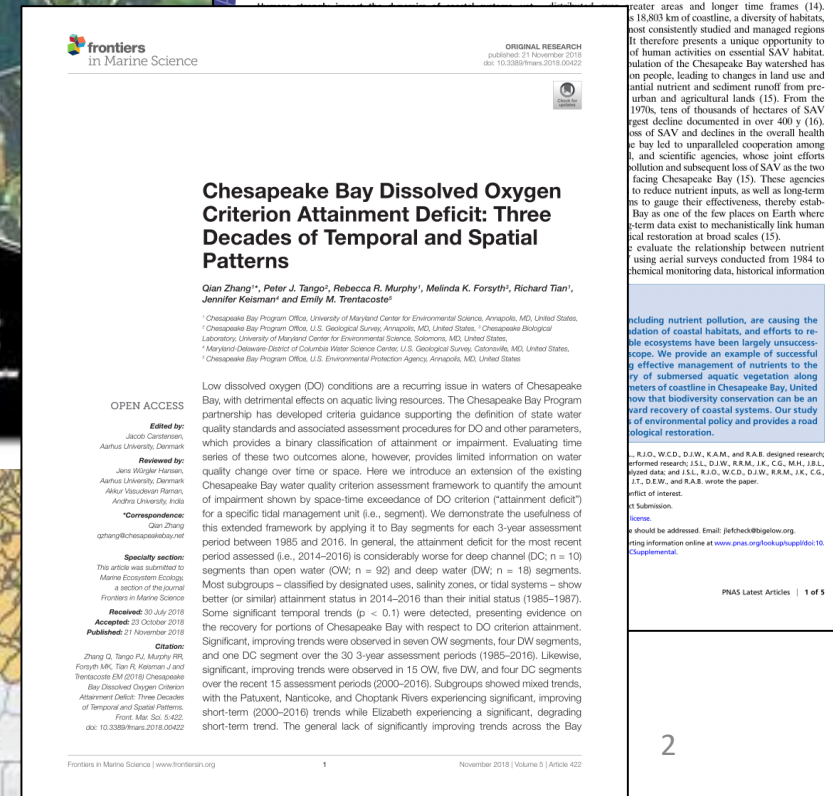
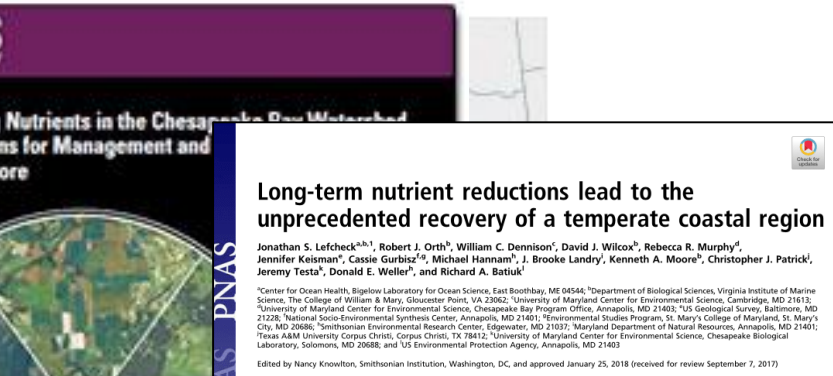
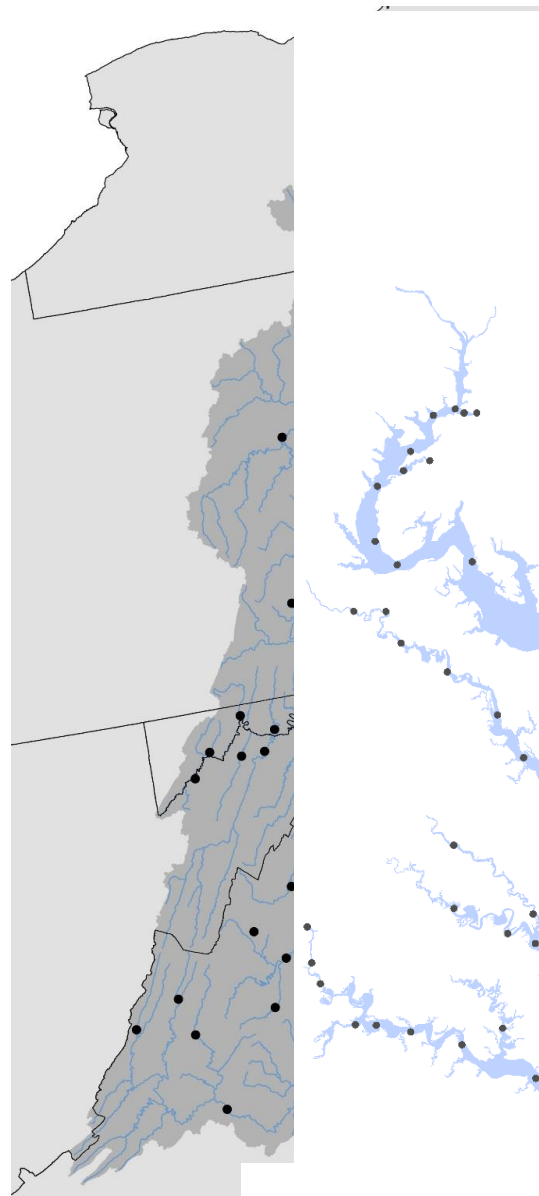
Emily Trentacoste, PhD
Environmental Scientist
US EPA Chesapeake Bay Program Office
Management Board Meeting
9/19/2019

What do 30 years of data look like?

Monitoring & Trends

Modeling & Tools

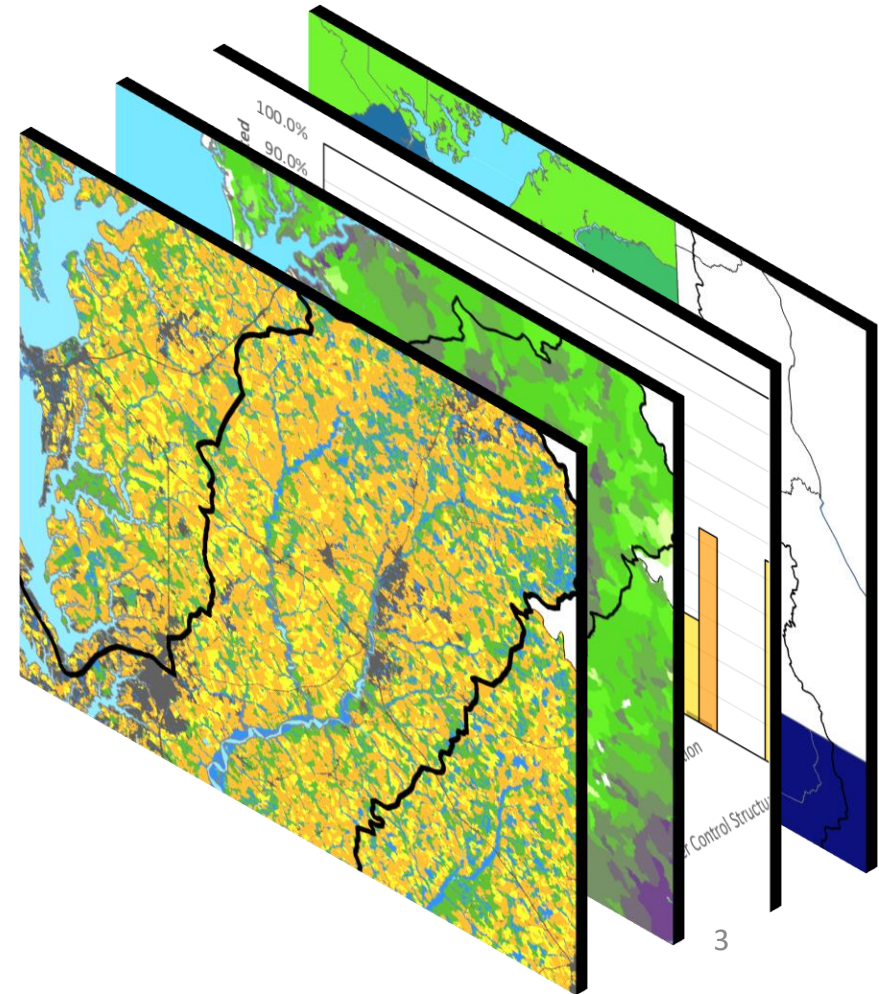
Research



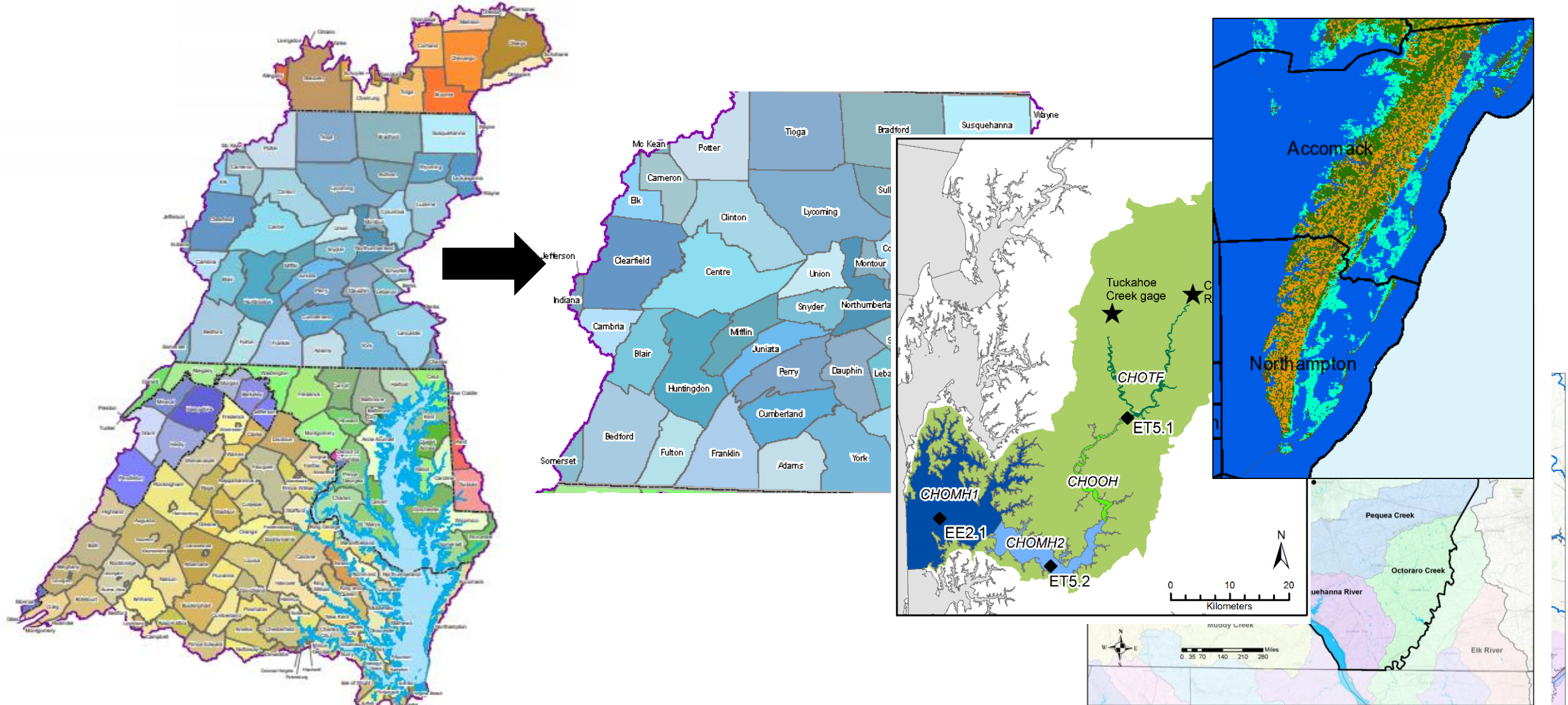
Understanding management implications

The challenge: new data & new expectations for managers

- Assess what's been working and what hasn't
- Develop “local area goals” at finer resolution
- Target/focus restoration efforts
- Plan for urban growth and climate change
- Co-benefits of nutrient and sediment reduction



Telling local stories to demonstrate utility of data



Making data accessible, understandable & usable

Chesapeake Bay Watershed Data Dashboard



[Start Here!](#) [Rivers & Streams](#) [Tidal Waters](#) [Targeting Restoration](#) [Management Practices](#) [Planning for Change](#)

Get started here...

Understanding Sources

[Click here to open the tool separately in its own window.](#)

This section provides information on land use of nutrients and sediment entering water bodies in geographic areas as estimated by the 2011 [Chesapeake Bay Watershed Model](#).



Watersheds with more developed urban land tend to have high sediment levels in streams than more natural or forested watersheds.



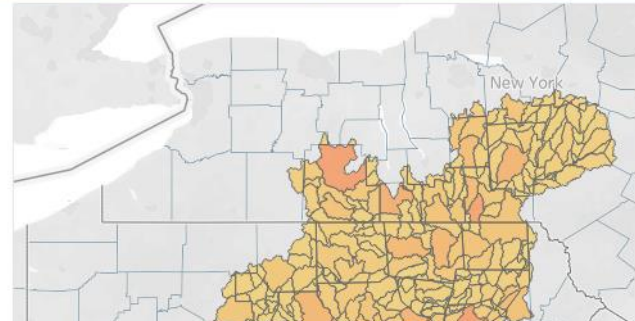
Watersheds with high amounts of nutrients and sediment, especially relative to their size, are some of the most effective places to focus restoration efforts.



Tailoring restoration efforts to focus on an area's specific nutrient and sediment sources is an effective way to target implementation.

Nutrient Application Management

Wastewater Treatment Plants



Breakdown of Land Use



Tidal Segment
(All)

River
(All)

Major River Basin
(All)

County Name
(All)

State
(All)

Load Source Minor
(All)

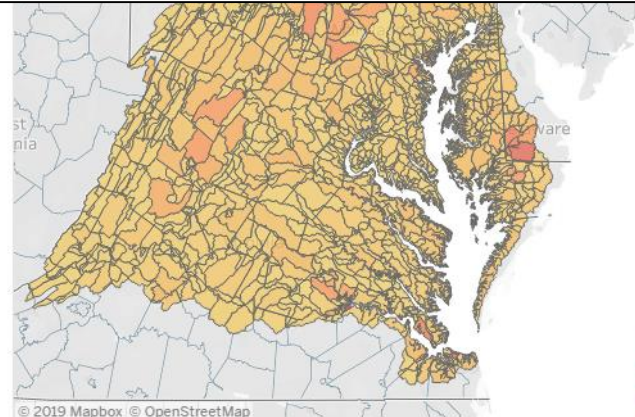
NPS
☒ Nitrogen
☐ Phosphorous
☐ Sediment

EOTS
Delivered to the Bay

Agency
(All)

Chesapeake Bay Watershed Data Dashboard

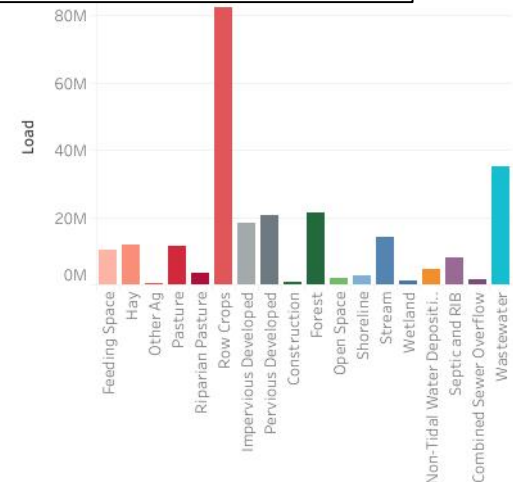
<https://gis.chesapeakebay.net/wip/dashboard/>



Total Load: 249,782,870

Load Source Minor

| | | |
|------------------|------------------|------------------|
| Feeding Space | Impervious Dev.. | Stream |
| Hay | Pervious Devel.. | Wetland |
| Other Ag | Construction | Non-Tidal Wate.. |
| Pasture | Forest | Septic and RIB |
| Riparian Pasture | Open Space | Combined Sew.. |
| Row Crops | Shoreline | Wastewater |



tableau

Making data accessible, understandable & usable

What is it?

The Chesapeake Bay Watershed Data Dashboard is an online tool that consolidates, visualizes and provides accessibility to data that can help guide water quality and watershed restoration planning.

Who should use it?

Anyone seeking information that can help guide their planning process for water quality and watershed restoration including:

- Local planners (e.g. municipality, soil conservation district, county, etc.)
- State planners
- Watershed organizations
- Non-profits

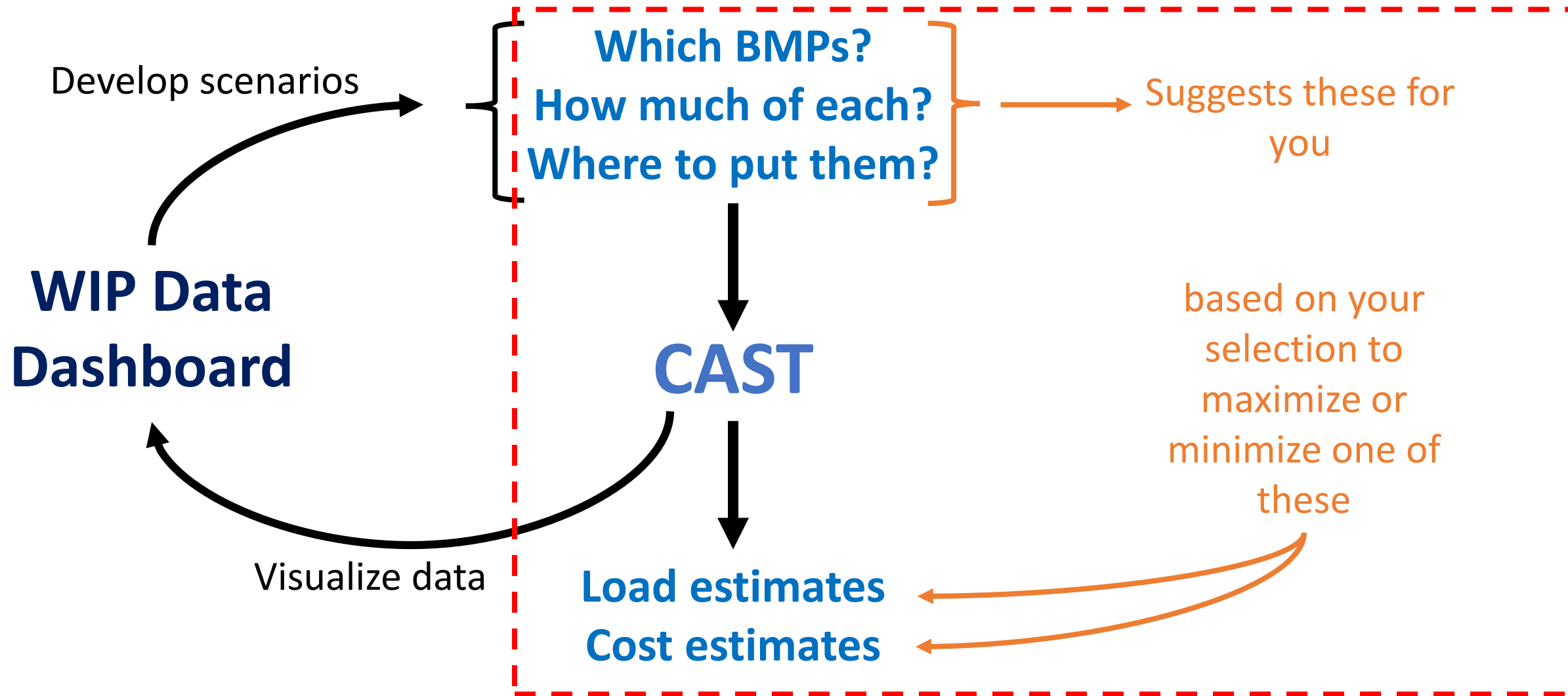
Making data accessible, understandable & usable

What can you do with it?

Some uses include but are not limited to:

- understanding local drivers of water quality
- targeting restoration efforts geographically, by sector or by practice
- identifying co-benefits of water quality restoration
- identifying cost-effective best management practices

Optimization Module



Example

Now we'll demonstrate how a local entity could use the dashboard to better understand local water quality and identify options for restoration.

Thank you!
Emily Trentacoste
trentacoste.Emily@epa.gov

