Chesapeake Bay Watershed Data Dashboard 2.0

WQGIT Presentation April 22, 2024

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Presentation Outline

Part 1: Overview of the Data Dashboard

I.   What is purpose of the Data Dashboard?

II.   Newly updated data and application

III.   What information does it show?

IV.   Who is the intended audience?
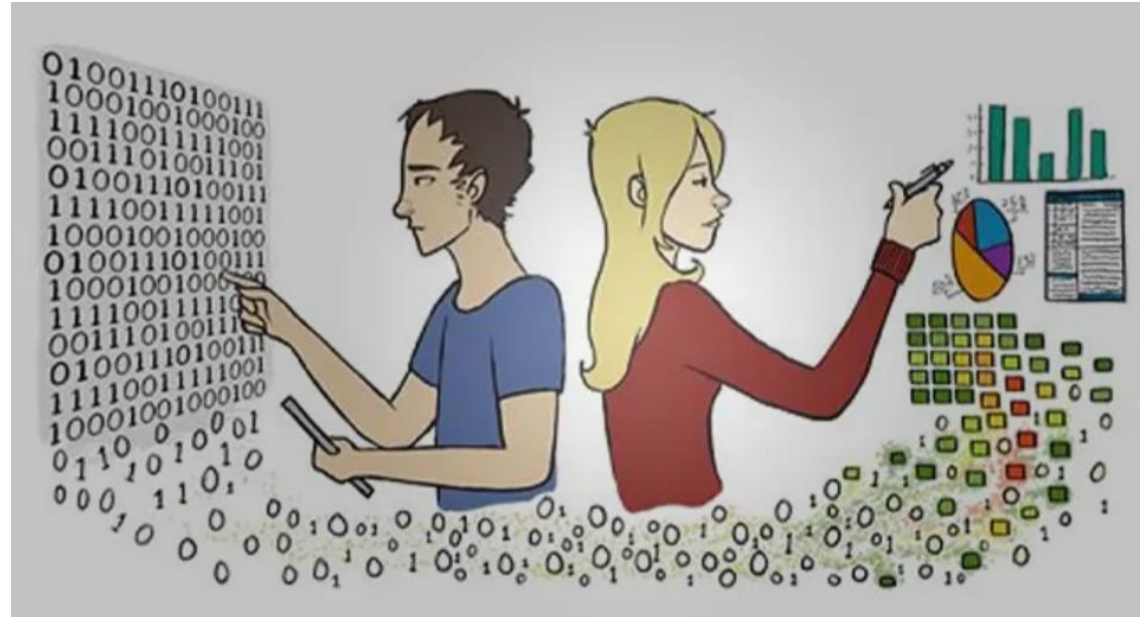
V.   How can you use it?

Part 2: Live Demo

I.   Rivers and Streams

II.   Tidal Waters

III.   Targeting Restoration

IV.   Management Practices

V.   Prioritizing Other Benefits

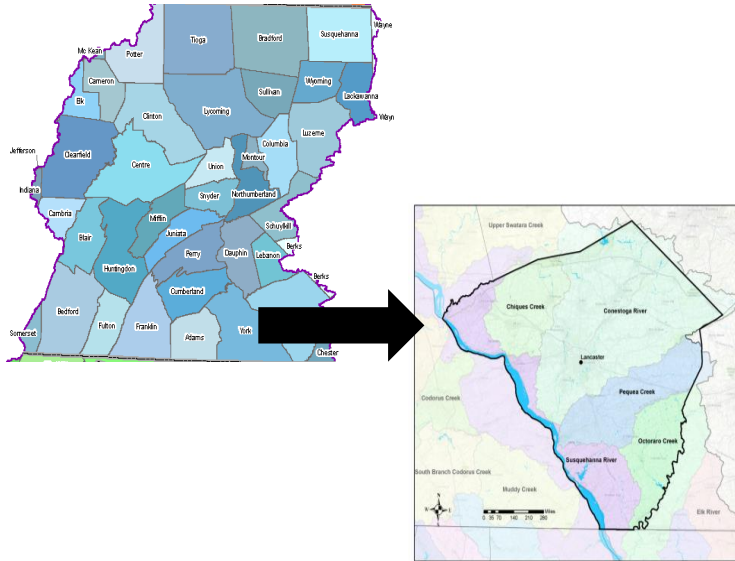**Part 3: Questions and Discussion**

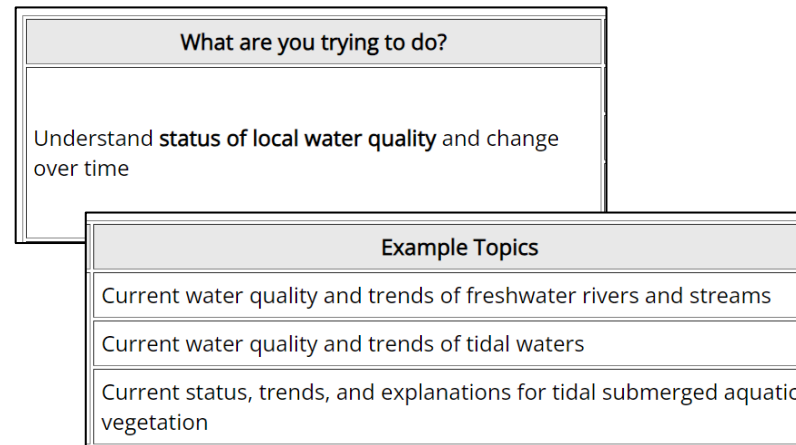Part 1: Overview of the Data Dashboard

Chesapeake Bay Watershed Data Dashboard

The "Data Dashboard" is an online tool that provides accessibility and visualization of a large amount of scientific data and technical information to help guide water quality and watershed planning efforts.
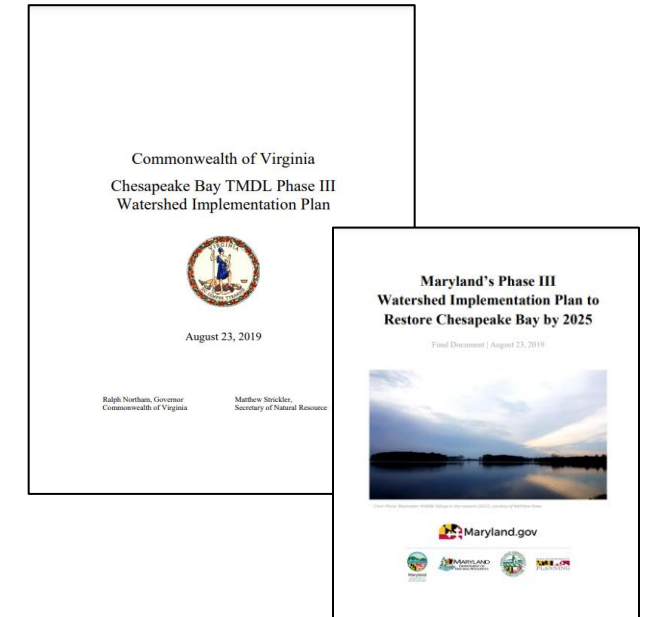
Chesapeake Bay Watershed Data Dashboard

Informs restoration efforts for environmental managers and planners at both state and local levels.

Provides guidance on how and why the information should be used.

Assists with watershed restoration plan development and implementation.

Dashboard 2.0 Updates

- Utilizing 2021 Progress Data (CAST)

- Utilizing 2020 monitoring data, RIM stations data 2022

- Data Dashboard now uses the ESRI- Experience Builder application

- Updated Land-Use 2017-18 HR imagery

Watershed Data Dashboard (Draft)

Welcome to the Chesapeake Bay Watershed Data Dashboard!

What is the Dashboard?

The Chesapeake Bay Watershed Data Dashboard is an online tool that provides accessibility and visualization of data and technical information that can help guide water quality and watershed planning efforts.

A large amount of scientific and technical information is available to environmental managers and planners at both state and local levels to inform restoration efforts. Much of this information has been updated or newly generated in recent years and can inform watershed restoration plan development and implementation. This information includes, but is not limited to:

- Tidal and watershed water quality monitoring trends
- Living resources trends and explanations
- Information to help geographically target restoration efforts
- Information to help choose best management practices (BMPs)
- Current reported BMP implementation and opportunities
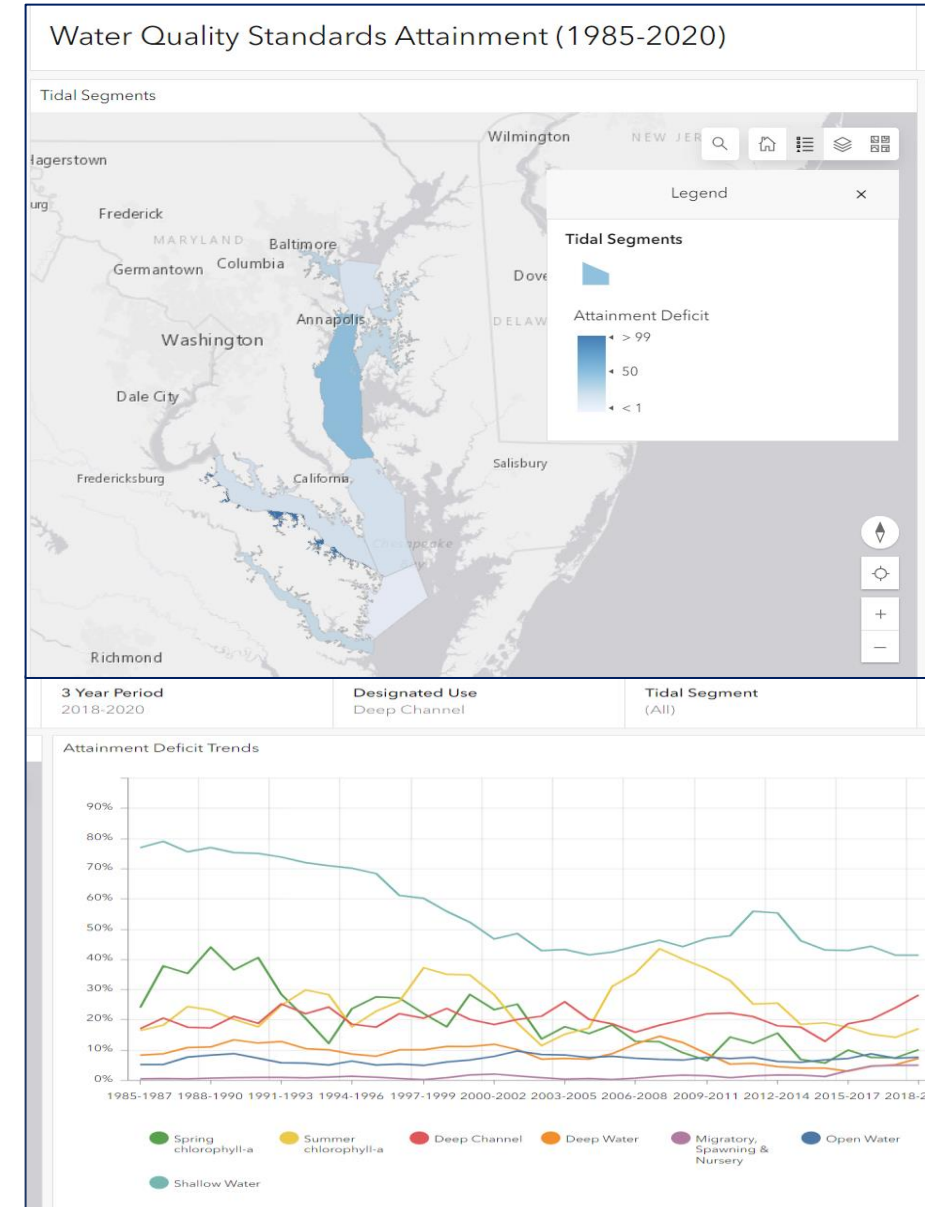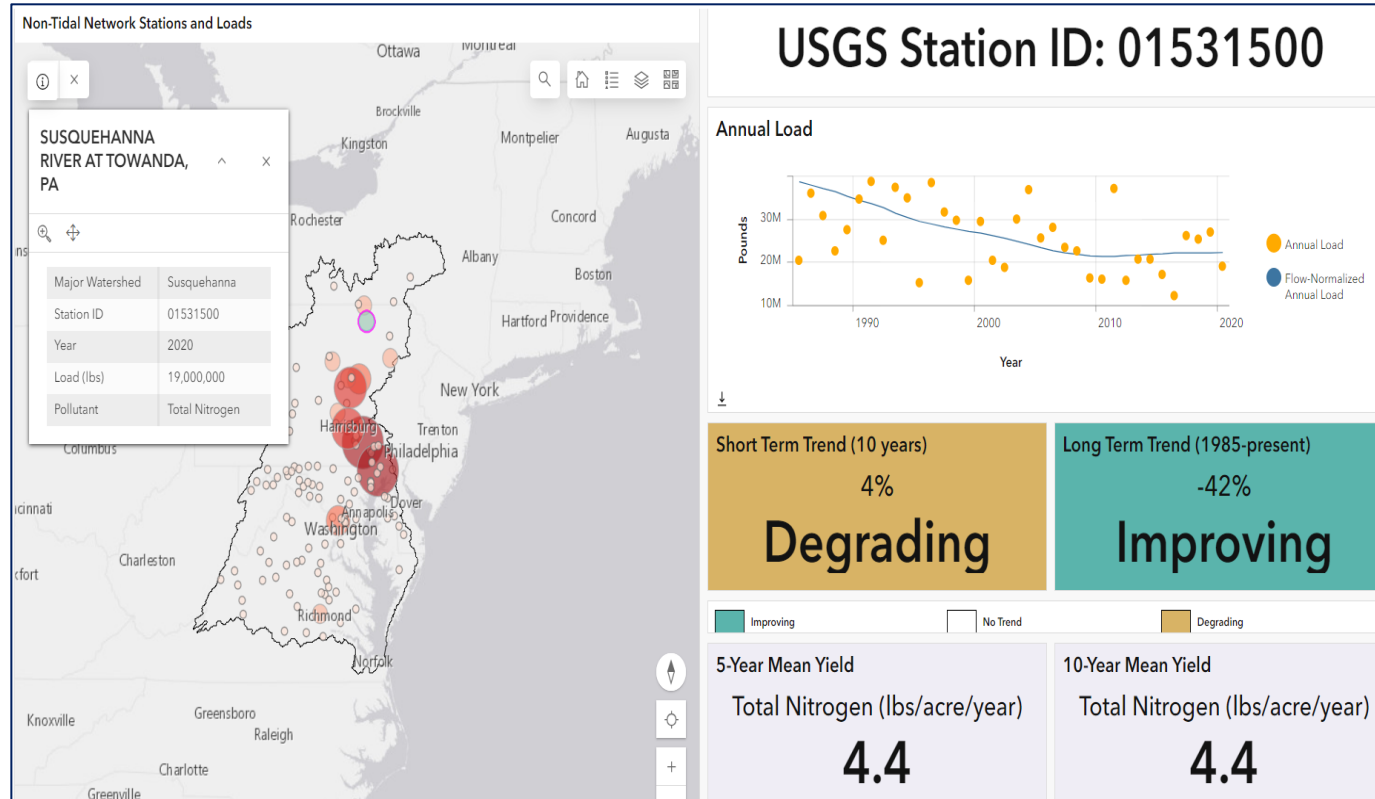- Opportunities for smart growth and land conservation

The purpose of the Chesapeake Bay Watershed Data Dashboard is to consolidate and provide accessibility to this information in one cohesive location and to provide

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

What is the Data Dashboard?

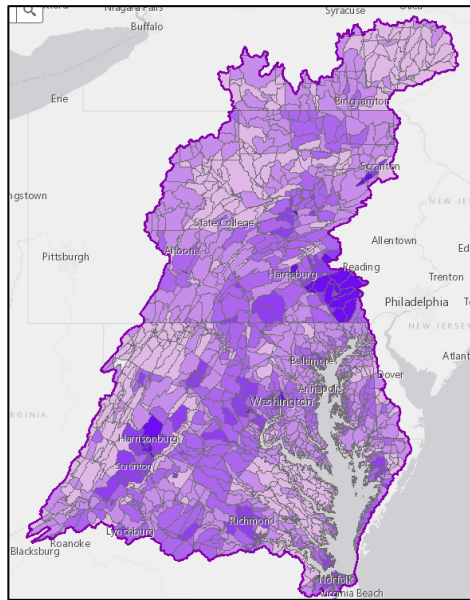A compilation of information at both state and local levels to inform restoration efforts. It includes:

  i.   **Tidal and watershed water quality monitoring trends**

A compilation of information at both state and local levels to inform restoration efforts. It includes:

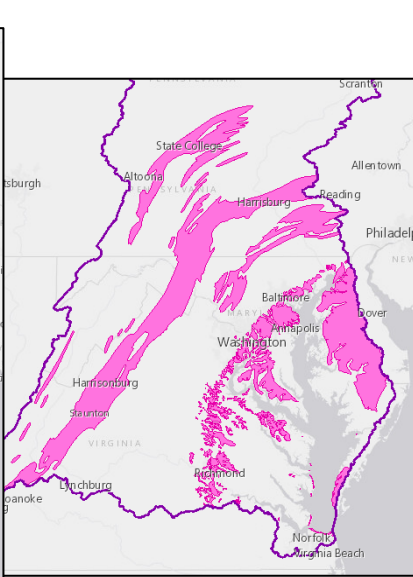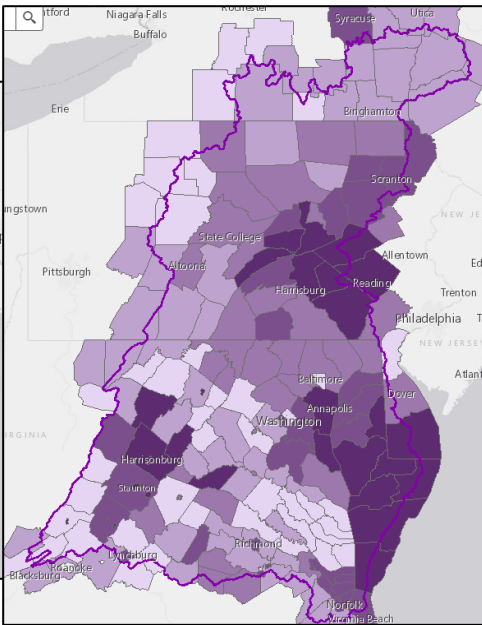i.   Tidal and watershed water quality monitoring trends
ii. **Information to help geographically target restoration efforts**

CAST Annual Progress Model Data

Wastewater Treatment Plants

Highest Loading Areas (Phosphorus)

Vulnerable Groundwater

Estimated Soil Phosphorus Content on Agricultural Lands

A compilation of information at both state and local levels to inform restoration efforts. It includes:

i.   Tidal and watershed water quality monitoring trends

ii.   Information to help geographically target restoration efforts

iii.   **Information to help choose BMPs**
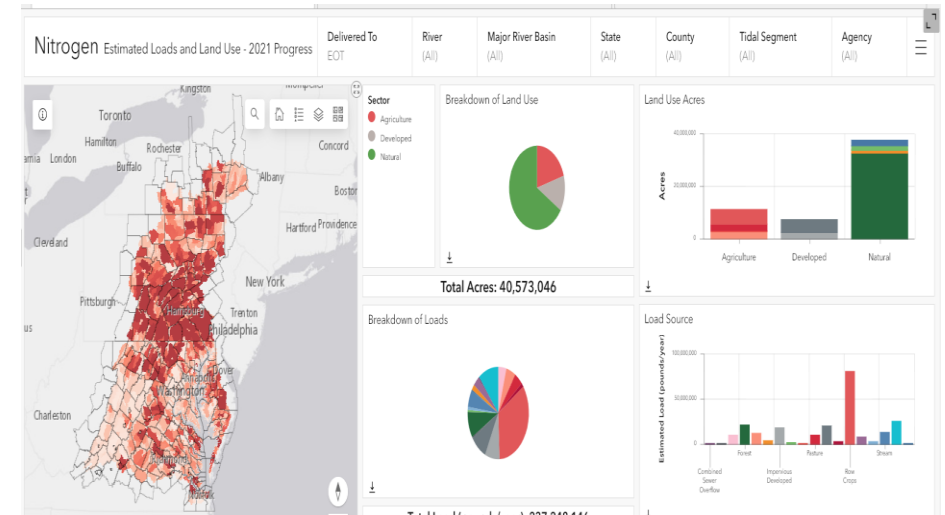
BMP	Avg. Nitrogen $/lb reduced/..	Avg. Phosphorus $/lb reduced/..
Horse Pasture Management	0.00	614.83
Low Residue Tillage	0.00	0.00
Nutrient Application Manag..	0.00	602.23
Nutrient Application Manag..	0.00	390.85
Nutrient Application Manag..	0.00	1,075.80
Nutrient Application Manag..	0.00	1,272.27
Urban Nutrient Management	3.55	65.26
Pasture Alternative Wateri..	3.57	20.81
Alternative Crops	7.51	-123.67
Urban Forest Planting	8.65	76.13
Grass Buffers	13.03	197.14
Tree Planting	15.27	208.99

Land Use in 30-meter Riparian Corridor
- Water
- Natural
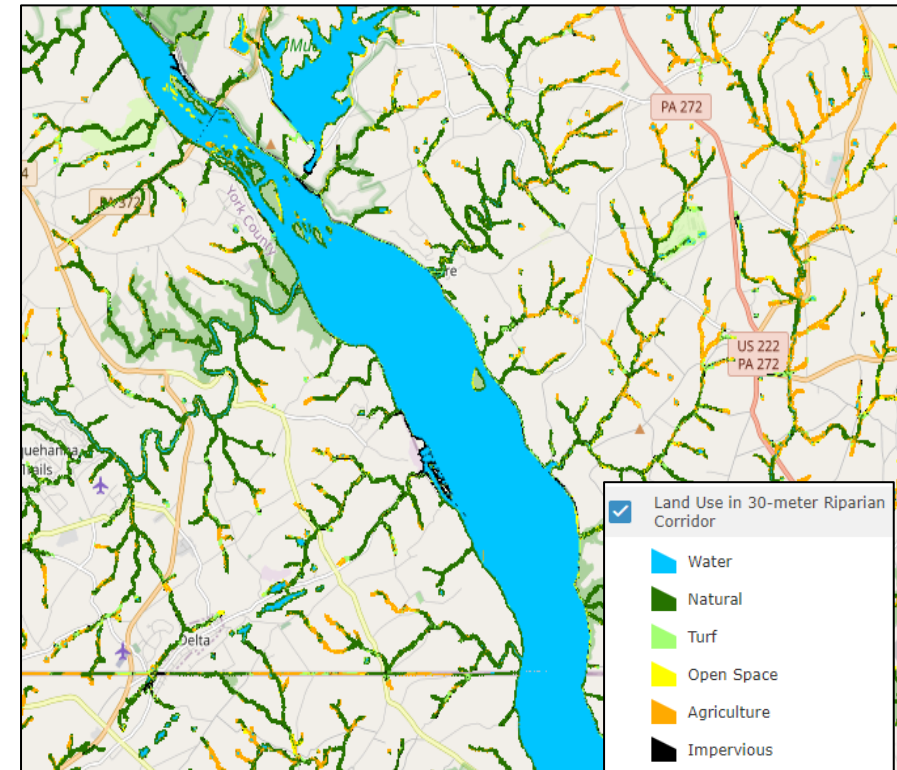- Turf
- Open Space
- Agriculture
- Impervious

What is the Data Dashboard?

A compilation of information at both state and local levels to inform restoration efforts. It includes:

    i.   Tidal and watershed water quality monitoring trends

    ii.   Information to help geographically target restoration efforts

    iii.   Information to help choose BMPs
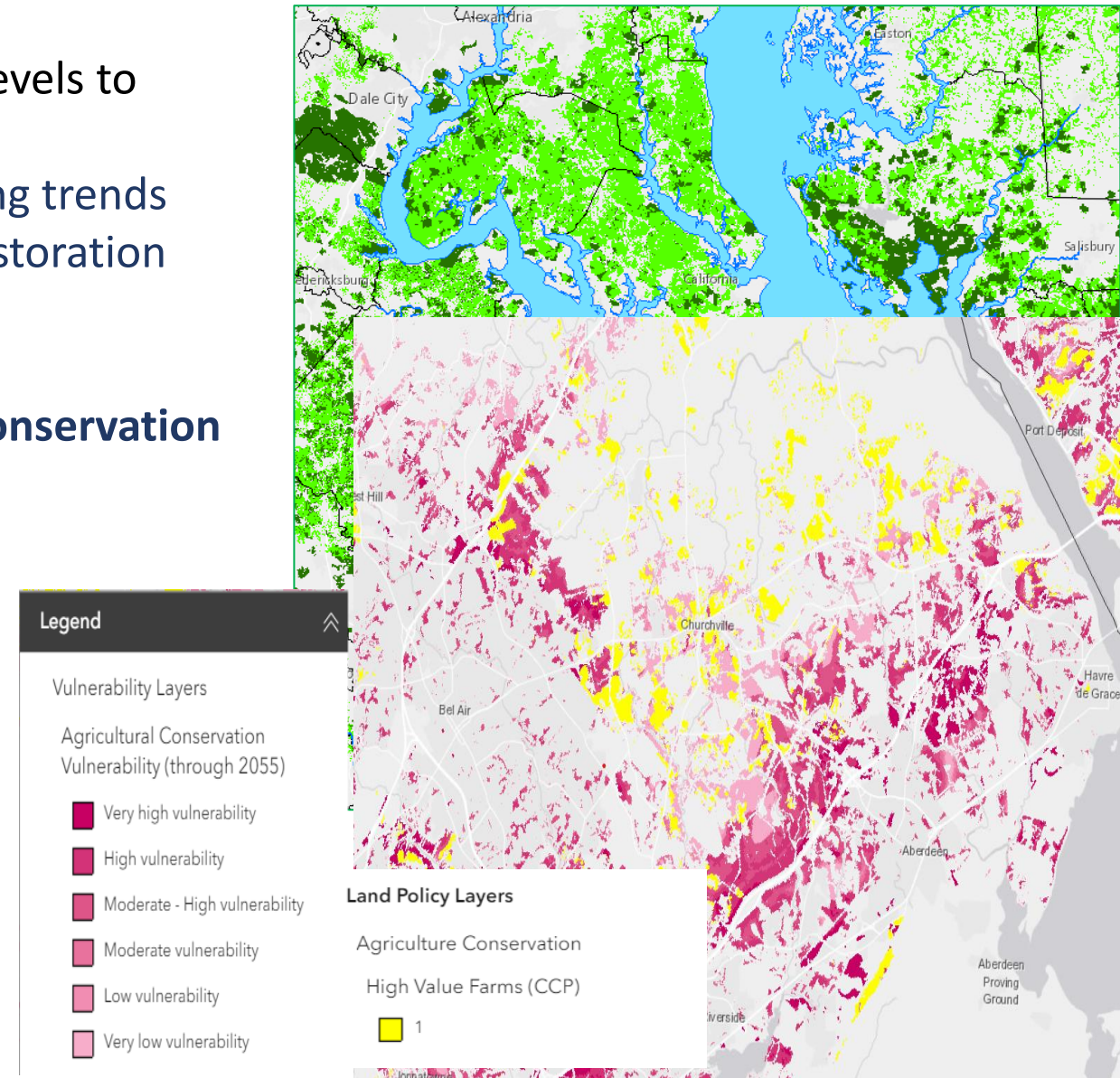
    iv.   **Opportunities for smart growth and land conservation**

Legend

Vulnerability Layers

Agricultural Conservation Vulnerability (through 2055)

- Very high vulnerability
- High vulnerability
- Moderate - High vulnerability
- Moderate vulnerability
- Low vulnerability
- Very low vulnerability

Land Policy Layers

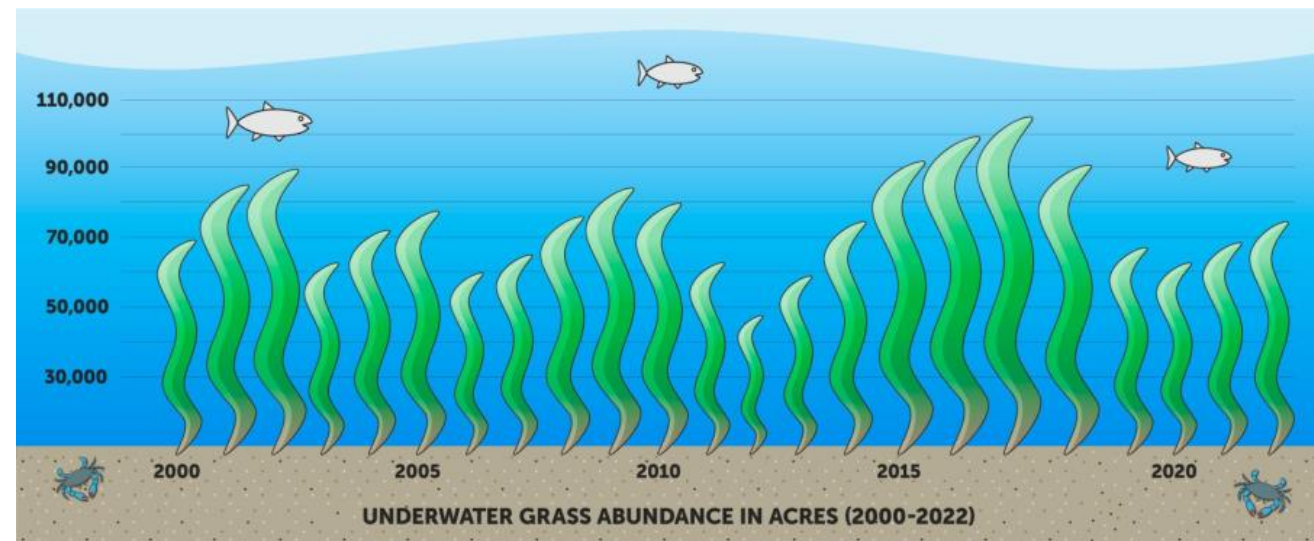Agriculture Conservation

High Value Farms (CCP)

- 1

What is the Data Dashboard?

A compilation of information at both state and local levels to inform restoration efforts. It includes:

i.   Tidal and watershed water quality monitoring trends
ii. Information to help geographically target restoration efforts
iii. Information to help choose BMPs
iv. Opportunities for smart growth and land conservation
v.   **Living resources trends and explanations**
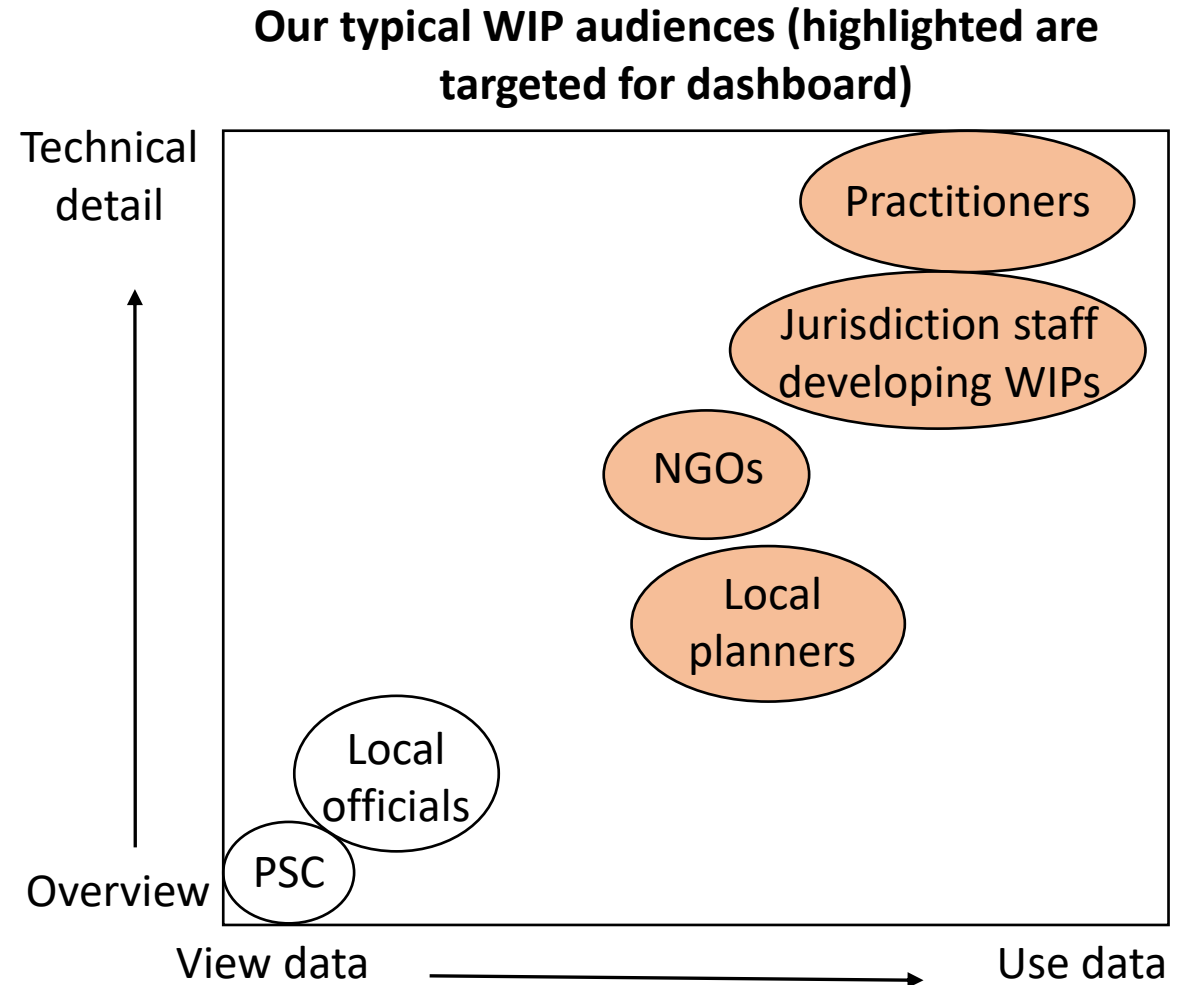

How much underwater grass is in the Chesapeake Bay?

UNDERWATER GRASS ABUNDANCE IN ACRES (2000-2022)

Anyone seeking information that can aid in their planning process for water quality restoration.
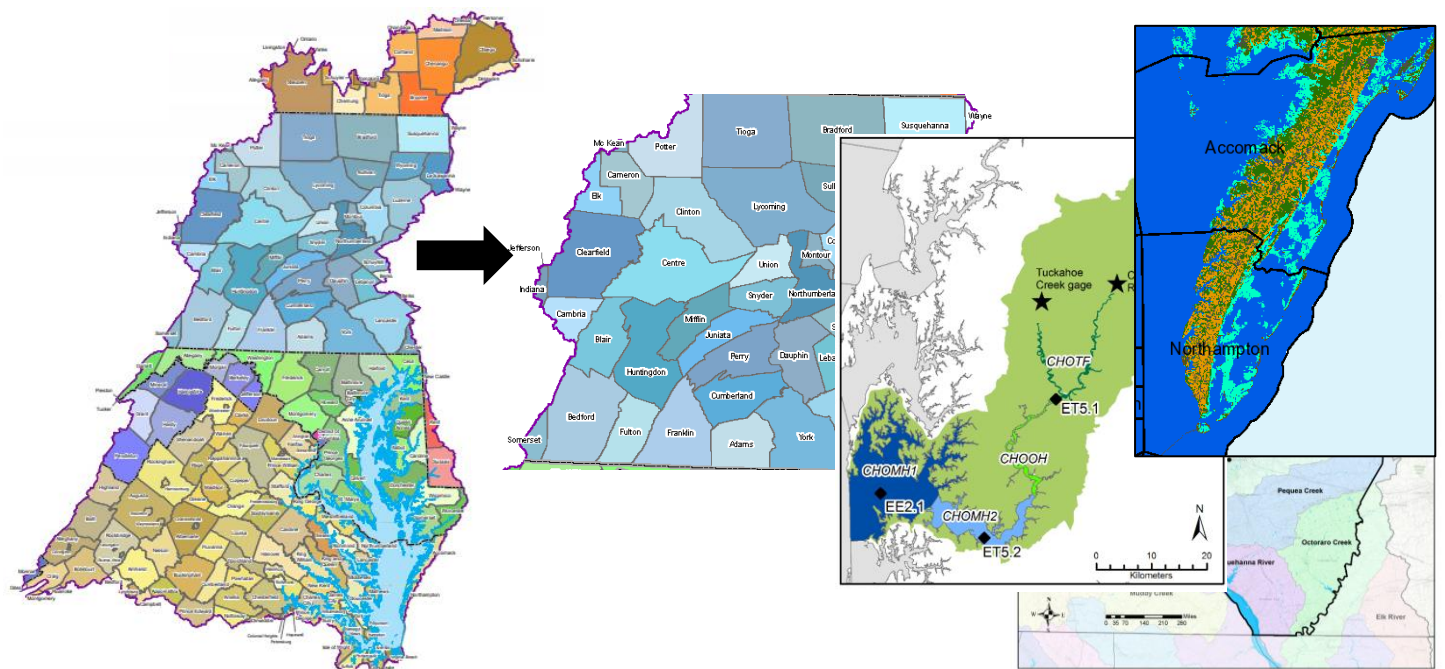
Possible users include:
- State agency staff
- NGO partners
- Local planners (e.g. municipality level, soil conservation district level, county level, etc.)
- Watershed organizations

Our typical WIP audiences (highlighted are targeted for dashboard)

The Dashboard contains information that can be useful to many different users involved in restoration and conservation planning including local planners, state agencies, watershed groups, etc. Some uses include:

- Targeting restoration and conservation efforts geographically, by sector, or by practice
- Chesapeake Assessment Scenario Tool (CAST) scenario development
- Outreach and communication of water quality information
- Building local watershed stories to engage with stakeholders

Part 2: Live Demo

Part 3:
Questions and Discussion

Contact Information

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