

QUARTERLY PROGRESS MEETING – August 2021
Chesapeake Bay Program



Healthy Watersheds

*Renee Thompson,
USGS, Maintain Healthy
Watersheds GIT Coordinator*

Through the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program has committed to...

Healthy Watersheds Goal:



Goal: Sustain state-identified healthy waters and watersheds recognized for their high quality and/or high ecological value

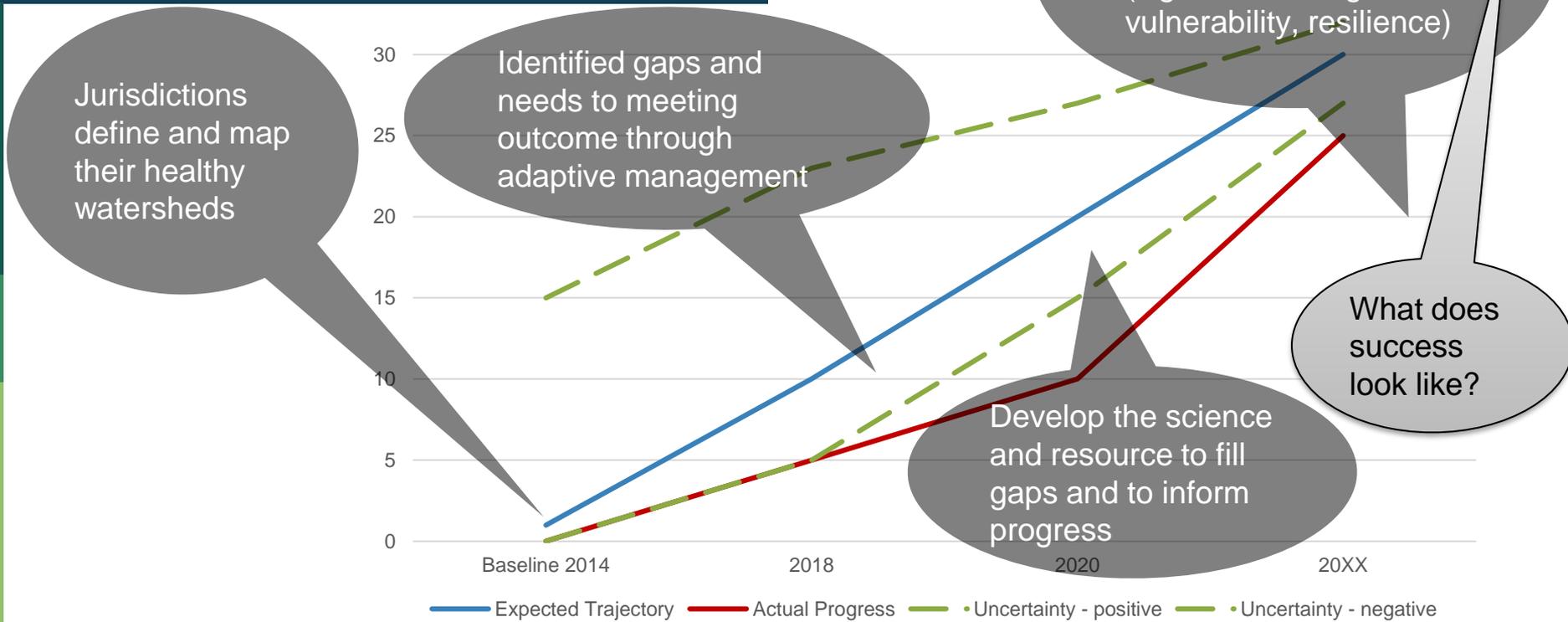
Outcome: 100 percent of state-identified healthy waters and watersheds remain healthy.

*Potapscoc Valley State Park
Photo by Will Parson*

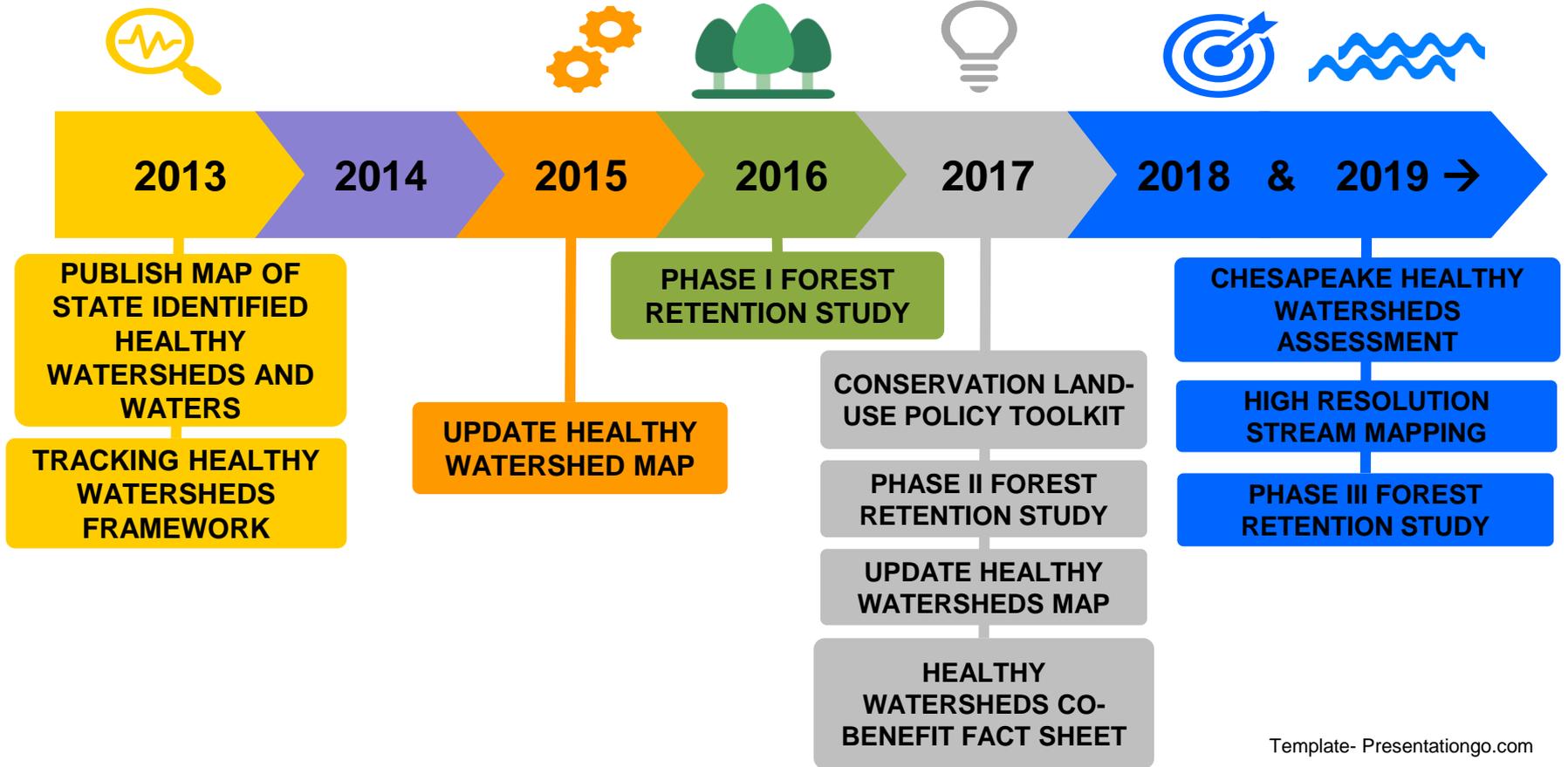


What is our Expected and Actual Progress?

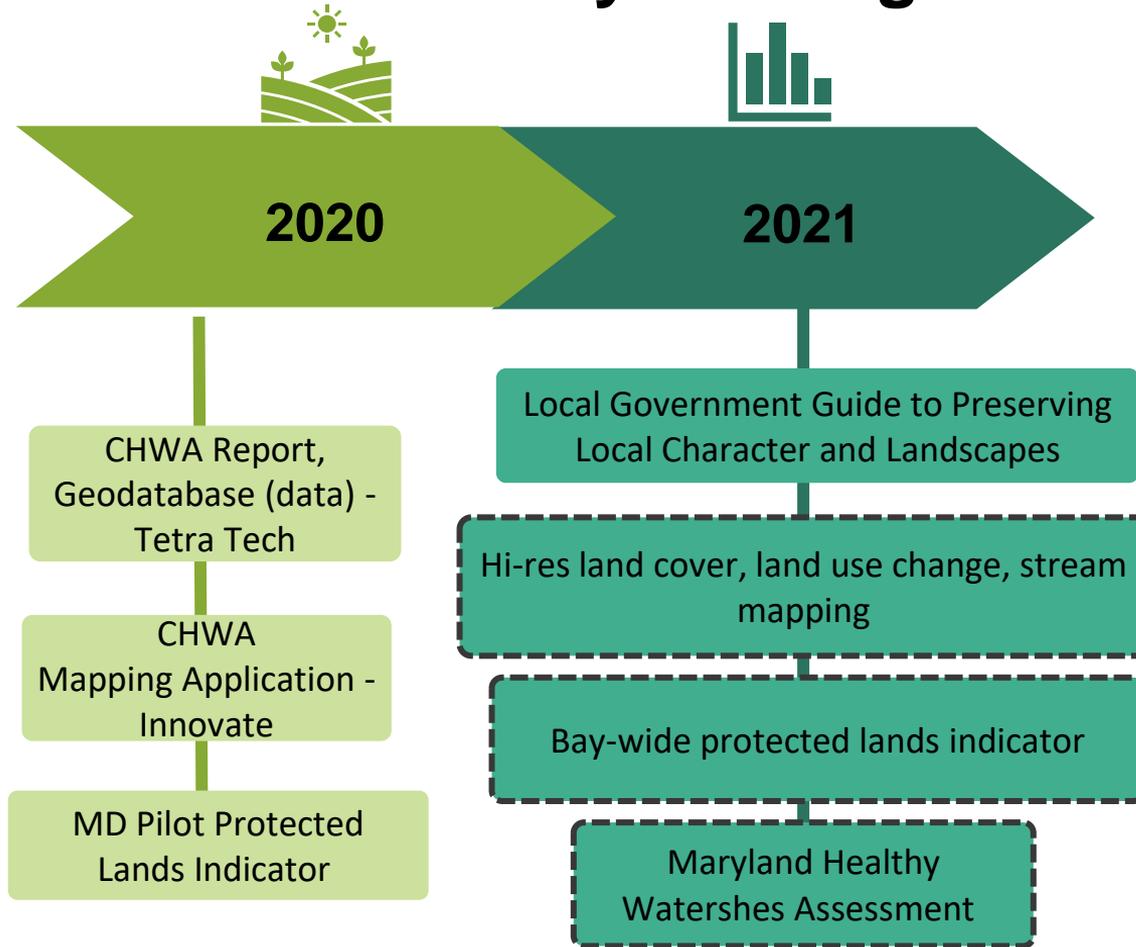
35



2019 SRS Cycle Progress Milestones



2021 SRS Cycle Progress Milestones



Management Approaches:

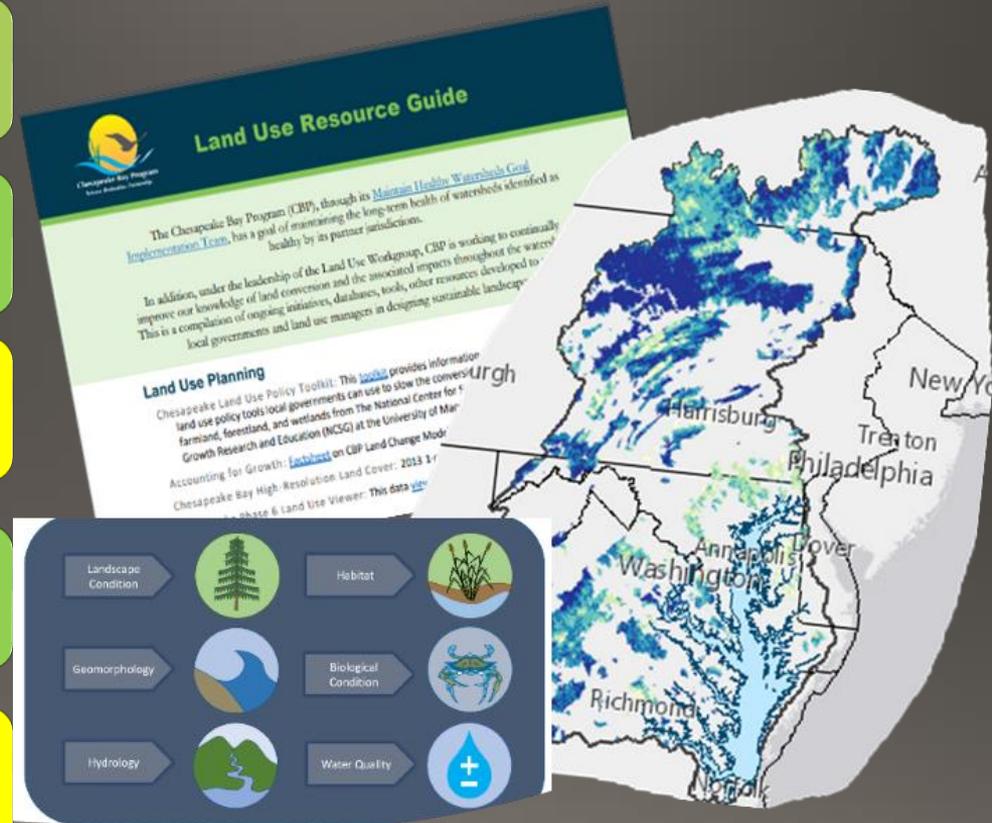
Tracking Healthy Watersheds

Local leadership strengthen capacity and commitment to protect healthy watersheds

Federal and State Leadership

Support State Based Efforts

Cooperation, Coordination and Integration



Accomplishments

Data and Tools

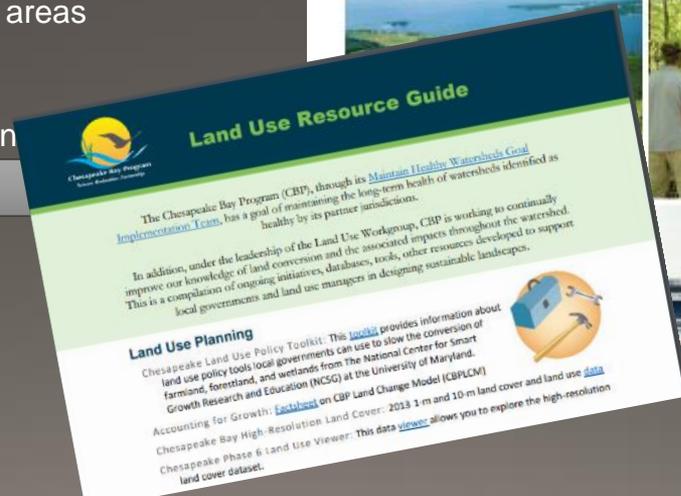
- Hi-res land cover
- Phase 6 Land Use Viewer
- Data Dashboard
- Chesapeake Healthy Watersheds Assessment / Maryland Pilot
- Environmental Justice and Equity Dashboard

Projects

- Cross-Outcome Watershed Educational Materials
- Conservation of Working Lands-Finance Forum consultants
- Improving Technical Service Delivery for Private Landowners
- Targeted local outreach for green infrastructure in vulnerable areas
- Chesapeake Watershed Finance Intensive Workshop
- MD Protected Lands Pilot project - completed
- Chesapeake Protected Lands data collection automation - un

Communications

- Land Use Resources Guide
- Forest Restoration Strategy
- Land Policy Data Dashboard resources
- Land conservation module for local governments
- Presenter, panelist, speaker



USGS Land Change Monitoring, Assessment, and Projection Data Thirty Years of Change (1985 – 2015)

Increasing knowledge at a scale that is locally relevant

LCMAP_Reclassified

- No Pattern
- Aforestation
- Deforestation
- Harvest_TC
- Harvest_UTC
- Urbanization
- Crop Rotation
- Wetland Dynamics
- Pre-Development_D
- Pre-Development_UD
- Water
- Not Classified
- Mideatlantic_Counties
- Chesapeake_Bay
- Chesapeake_Bay

Parcel-Level Deconstruction of Urban Development (1985 – 2017)

Year-Built Attributes
from Tax Records

yearbtl

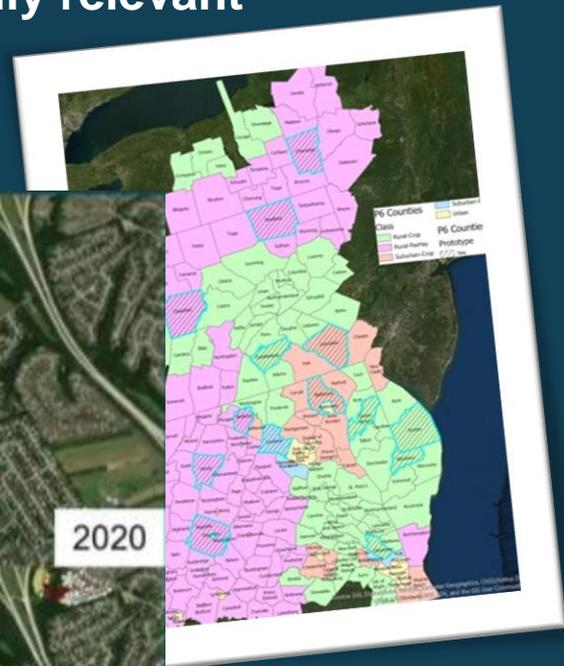
- 1985-1989
- 1990-1994
- 1995-1999
- 2000-2004
- 2005-2009
- 2010-2014
- 2015-2017

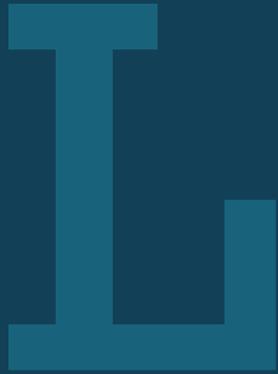
Year-Built Attributes
from USGS' LCMAP

Rates of conversion:

- Farmland
- Forest
- Wetland
- Impervious Cover

Slides courtesy of Peter Claggett, USGS CBP





Learn

What have we learned in the last two years?



Challenges

- Expertise in **translation and communication** of science for targeted audiences
- Literature Review progress
- Healthy Watersheds Storymap progress
- Underfunded GIT funding project (MD healthy watersheds assessment).
- **Delayed projects**, 2021 Protected Lands dataset, MD pilot time and budget issues
- Jurisdiction participation
- Leadership





On the Horizon

Biden's commitment to conserve 30 percent of U.S. land by 2030 will require a huge increase in protected areas.

Only 12 percent of total U.S. area has sufficient protections to meet the 30 by 30 conservation goal.



Diversity, Equity, Inclusion and Justice

...considerations to distribute benefits equitably and reduce disproportionate adverse environmental impacts in communities of color, low-income communities and other underrepresented groups

User experience

Reviewing existing research and incorporating direct feedback, focus on function and meeting end user needs.

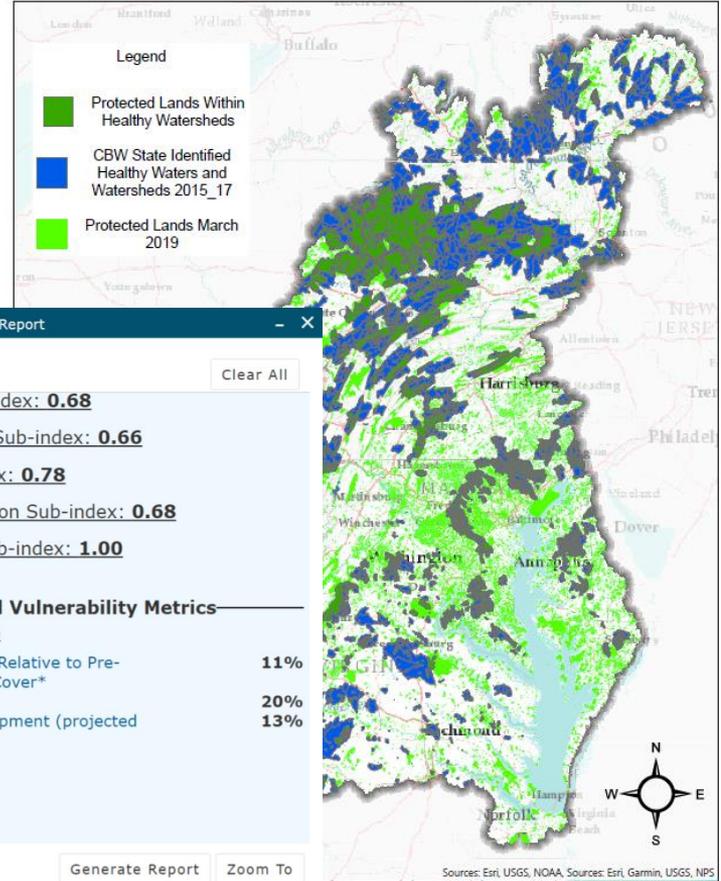
Climate

How best to utilize climate and resiliency data within the healthy watershed framework.

Interim Indicators

- Prioritize protection (Action 1.3)

State Identified Healthy Waters and Watersheds (2017) and Protected Lands (2019)



Chesapeake Healthy Watersheds Assessment

Find address or place

Legend

Chesapeake Healthy Watersheds Assessment

Reference Layers

- Chesapeake Bay Watershed Boundary
- State Boundaries
- Chesapeake Bay Shoreline

All Catchments

Health Index Overall Score

- Low
- Medium-Low
- Medium
- Medium-High
- High

Filter

- % Average Forest Loss is Enter a value between 0.0 and 1.0
- % Protected Lands is between 0 and 100 Enter a value between 0.0 and 1.0
- % Increase in Development (2050) is between 0.1 and 1.0 Enter a value between 0.0 and 1.0
- Domestic Water Use (mil gal per day) is between and Enter a value between 0.0 and 1.0
- Industrial Water Use (mil gal per day) is between and Enter a value between 0.0 and 1.0

Watershed Catchment Report

(1 of 1) Clear All

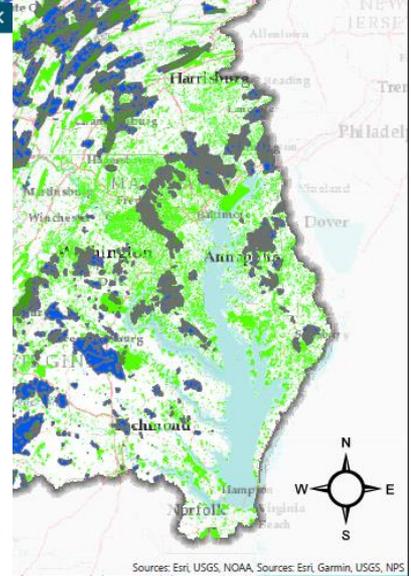
- Hydrology Sub-index: **0.68**
- Geomorphology Sub-index: **0.66**
- Habitat Sub-index: **0.78**
- Biological Condition Sub-index: **0.68**
- Water Quality Sub-index: **1.00**

Watershed Vulnerability Metrics

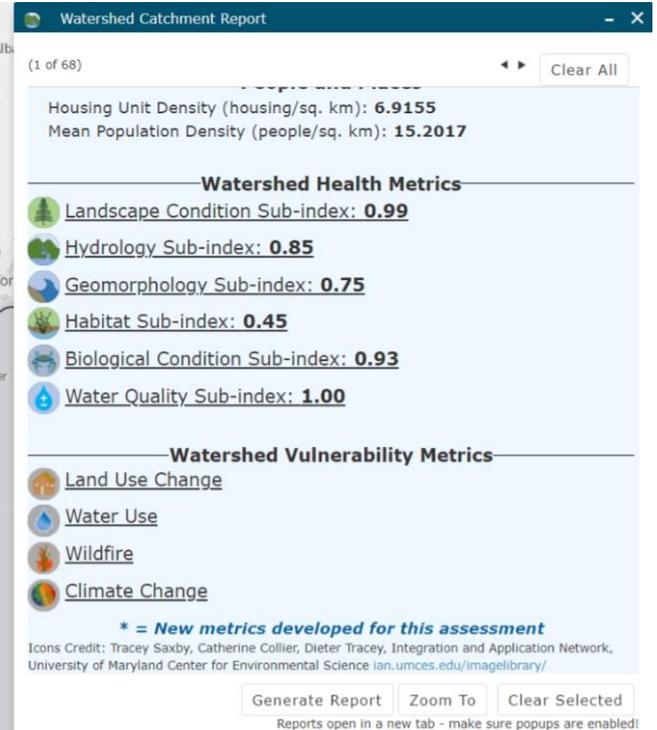
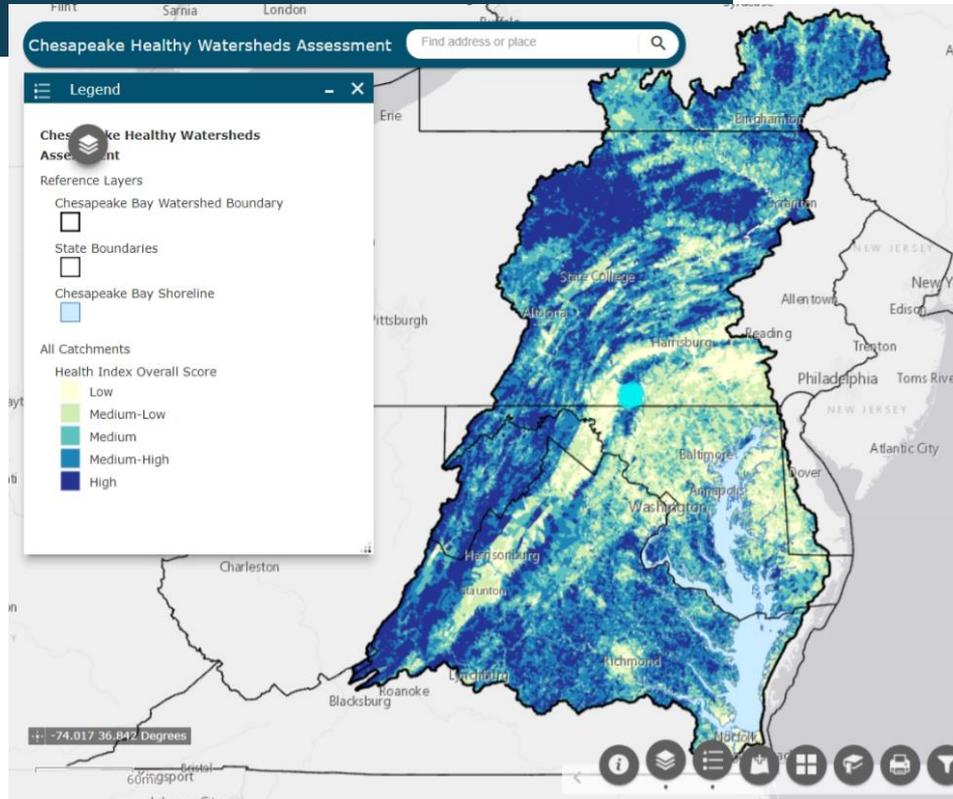
- Land Use Change**
 - % Forest Cover Loss Relative to Pre-development Forest Cover* **11%**
 - % Protected Lands* **20%**
 - % Increase in Development (projected through 2050)* **13%**
- Water Use**
- Wildfire**
- Climate Change**

Generate Report Zoom To

Reports open in a new tab - make sure popups are enabled!



Indicator Development



A large, stylized, blue letter 'A' is positioned on the left side of the slide. The background behind it is a dark blue vertical band, which is part of a larger design consisting of horizontal stripes in shades of blue and green.

Adapt

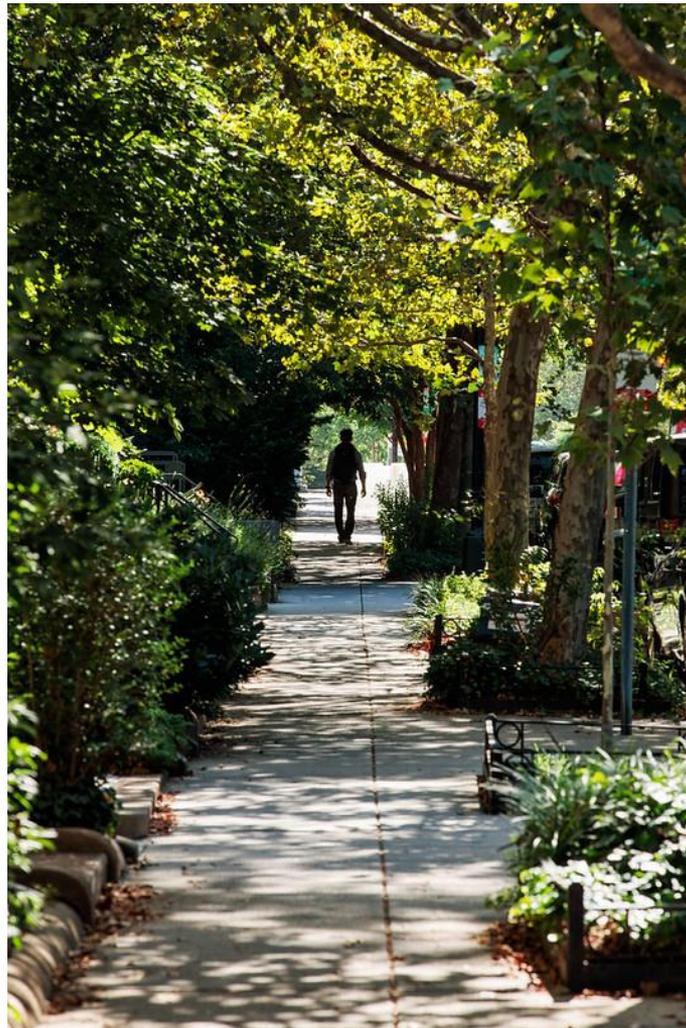
How does all of this impact our work?



**Based on what we
learned, we plan to ...**

Renewed GIT input and advising

- Monitoring needs
- DEIJ needs
- Climate considerations
- Indicator development
- Refine tools and communication based on





Help

*How can the Management Board
lead the Program to adapt?*



How You Can Help



- Renewed engagement from signatory partners including locating a new GIT chair.
- How to address 2020 MDHWA GIT funding project shortfall?



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Chesapeake Bay Program, MD
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Discussion



Help Needed

- Summarize your answer to Narrative Analysis question #5 and the impact of not meeting the identified need.



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