

Renee Thompson, Geographer
Lower-Mississippi Gulf WSC, USGS,
Chesapeake Bay Program, MD
Coordinator, Maintain Healthy Watersheds Goal Implementation Team



SESSION 6. PROTECTION GOALS, MILESTONES AND METRICS

MAINTAINING CHESAPEAKE HEALTHY WATERS AND WATERSHEDS



Chesapeake Bay Program

Science. Restoration. Partnership.

**The Chesapeake
Bay Agreement of
1983**

**The 1987
Chesapeake Bay
Agreement**

Chesapeake 2000

**Chesapeake Bay
Executive Order
and Two-year
Milestones (2009)**

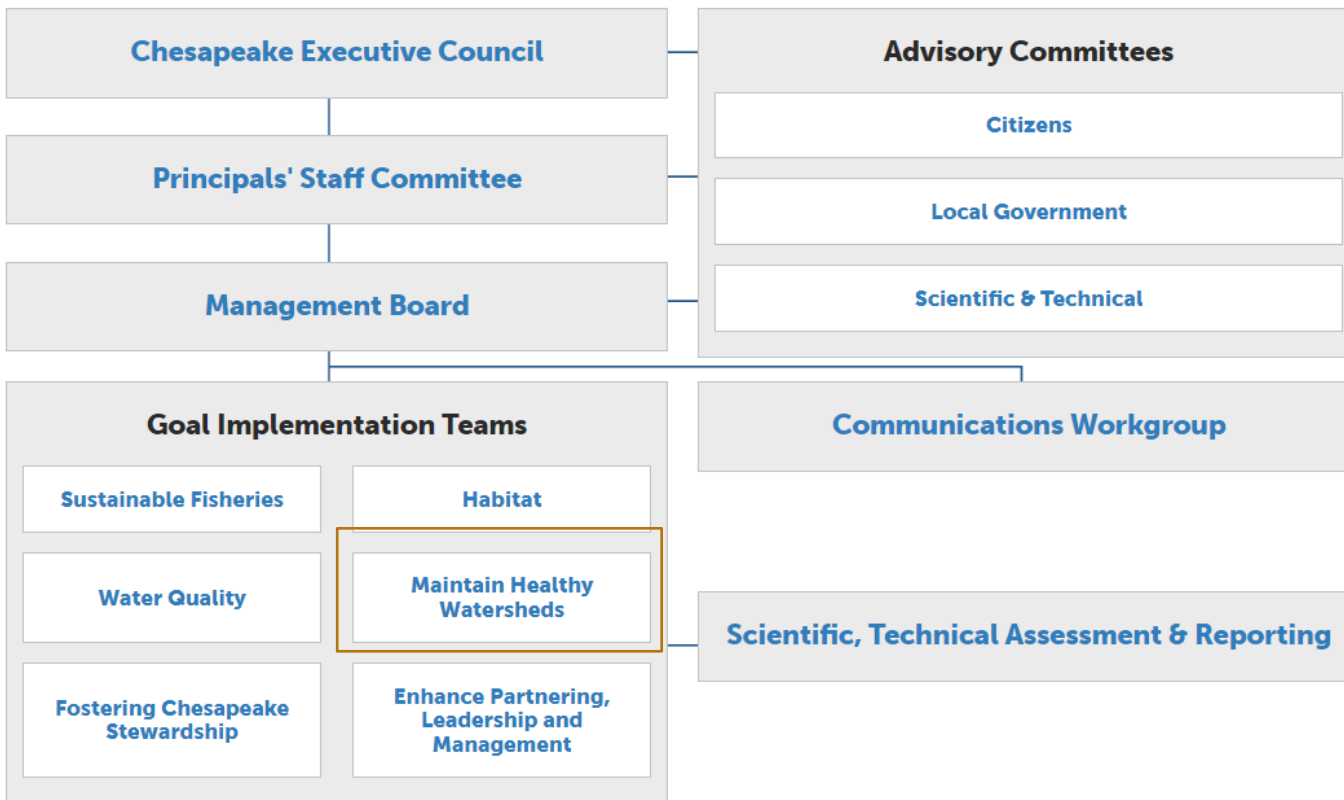
**Chesapeake Bay
TMDL and
Watershed
Implementation
Plans (2010)**

**The Chesapeake
Bay Watershed
Agreement (2014)**



Chesapeake Bay Program
Science. Restoration. Partnership.

CHESAPEAKE BAY PROGRAM 101



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.



HEALTHY
WATERSHEDS
GOAL

Sustain watershed health where it is high, exceptional and/or outstanding...

to *increase the number of healthy watersheds* in the future...

Provide the forum for mutual shared learning...

Develop information resources...

and

Promote the science



HEALTHY
WATERSHEDS
VISION



CHESAPEAKE

PROGRESS

Outcome Status Summary

The Outcome Status Summary provides a visual overview of the Chesapeake Bay Program's recent progress and current course outlook toward achieving the outcomes of the *Chesapeake Bay Watershed Agreement*.



HEALTHY WATERSHEDS

Healthy Watersheds Outcome



RECENT PROGRESS
NO CHANGE

Updated April 2018



OUTLOOK
UNCERTAIN

Updated November 2021



LAND CONSERVATION

Land Use Methods and Metrics Development Outcome



RECENT PROGRESS
NO CHANGE

Updated September 2016



OUTLOOK
ON COURSE

Updated November 2021

Land Use Options Evaluation Outcome



RECENT PROGRESS
INCREASE

Updated March 2018



OUTLOOK
ON COURSE

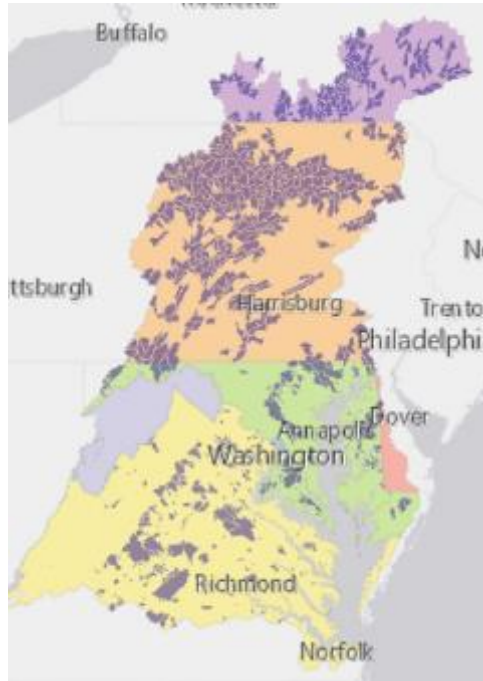
Updated November 2021

Land Use Options Evaluation Outcome

- *policy options, incentives and planning tools* for local governments reduce the rate of conversion of agricultural lands, forests and wetlands
- Development of *strategies* to support local government efforts in *reducing land conversion*

Land Use Methods and Metrics Outcome

- *improve the knowledge of land conversion and impacts* throughout the watershed.
- *methodology and local level metrics* for rate of farmland, forest and wetland conversion,impervious surface
- *public awareness* campaign to citizens, local governments, elected officials and stakeholders.



WHAT IS A STATE-IDENTIFIED HEALTHY WATERSHED?

How are they defined?

STATE IDENTIFIED HEALTHY WATERS AND WATERSHEDS

Pennsylvania

- Benthic macroinvertebrate community
- Located in designated state or national protected, owned, or managed areas
- Designated wilderness trout stream by the Fish and Boat commission
- Chemical data such as DO, toxics, pH

Virginia

- INSTAR-Interactive stream assessment resource, index of biotic integrity
- Data on fish and macroinvertebrate communities, instream and riparian habitat
- High numbers of native/broad diversity of species, few or no non-native aquatic species, few generalist species

STATE IDENTIFIED HEALTHY WATERS AND WATERSHEDS

Maryland

- Tier II streams are identified according to fish and benthic indices of biotic integrity
- Based on data collection and analysis from Maryland Biological Stream Survey (MBSS) Protocols
- Tier II streams are grouped into catchments and those with Assimilative Capacity, or the natural capacity of a water body to dilute and absorb pollutants

West Virginia

- No state-defined “healthy watersheds”
- Known as Tier 3: “outstanding national resource waters”
- Have exceptionally high benthic macroinvertebrate communities
- Located in Federal Wilderness areas, state and national parks, national forests, and protected by the Wild and Scenic Rivers Act
- Naturally reproducing trout streams

STATE IDENTIFIED HEALTHY WATERS AND WATERSHEDS

New York

- Waterbodies that have been categorized as "No Known Impact" because monitoring data and information indicate an absence of use restrictions are considered healthy.

Washington, D.C.; Delaware

- Because the District primarily urbanized, it has not currently identified healthy watersheds.
- Currently no healthy watersheds defined. All of the state's tributaries to the Chesapeake Bay are impaired by nitrogen, phosphorus, sediment and/or bacteria, and will only be considered healthy when their Total Maximum Daily Loads (TMDLs) are achieved and their surface water quality standards are met.

HWGIT MEMBERSHIP

FEDERAL

- USGS
- EPA
- USFS
- USFWS
- NOAA

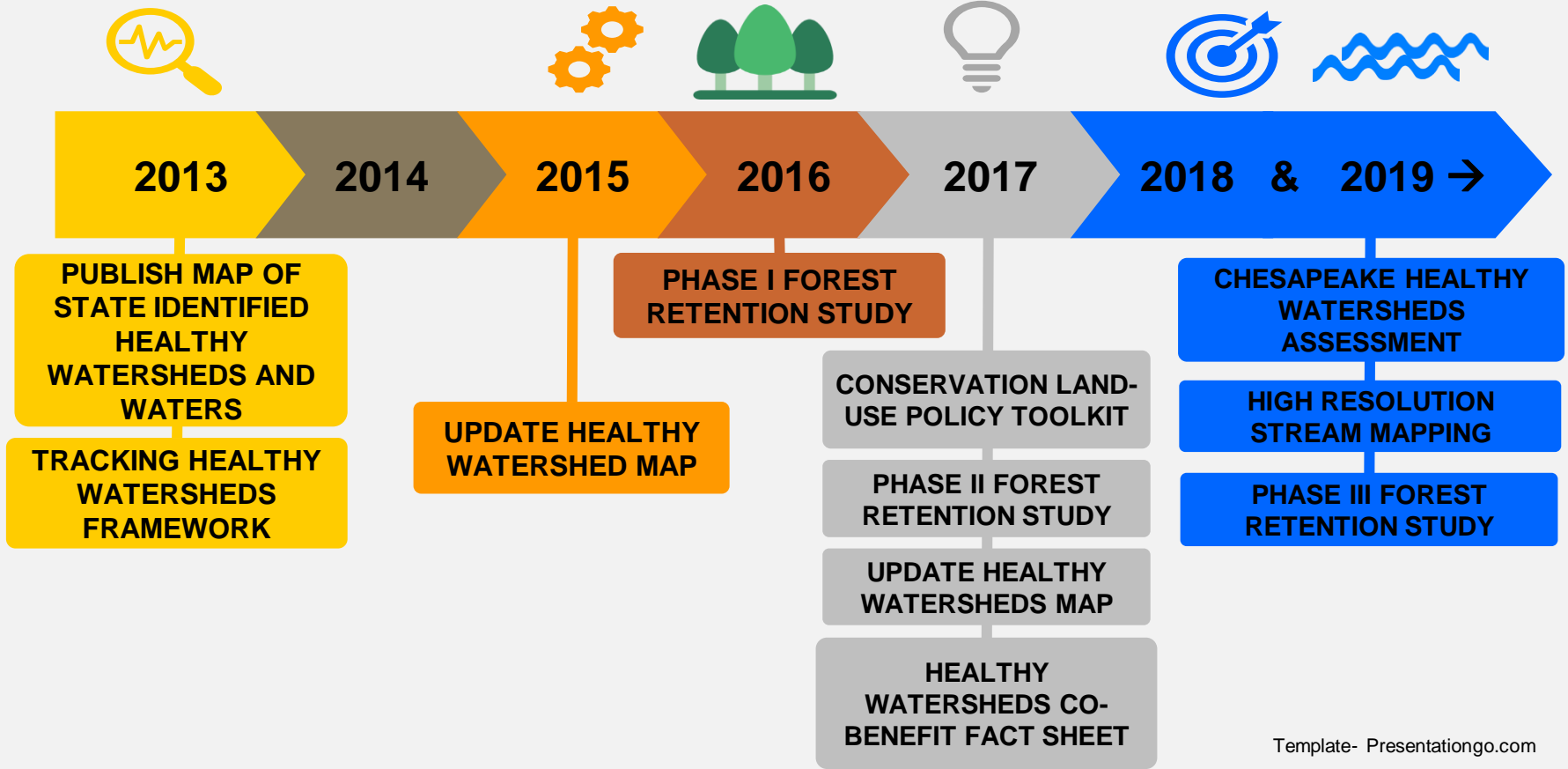
STATE

- DE DNREC
- WV DEP
- NY DEC
- MD MDP
- MD DNR
- PA DEC
- DC DOEE
- VA DCR

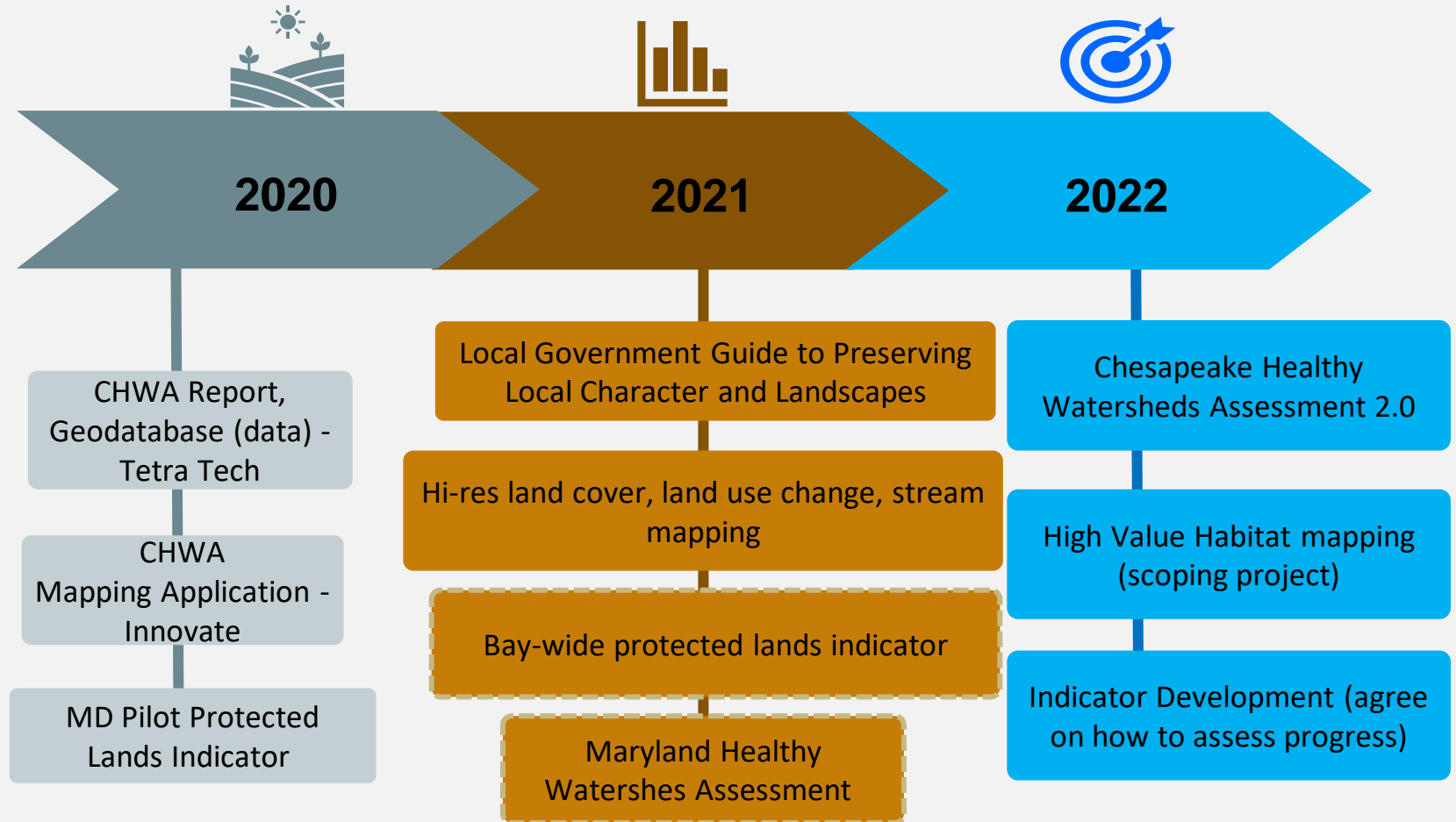
NGO


- Alliance for the Chesapeake Bay
- Land Trust Alliance
- Chesapeake Bay Foundation
- Chesapeake Research Consortium

HEALTHY WATERSHEDS GOAL TEAM MILESTONES



HEALTHY WATERSHEDS GOAL TEAM MILESTONES





Renee Thompson, Geographer
Lower-Mississippi Gulf WSC, USGS,
Chesapeake Bay Program, MD
Coordinator Maintain Healthy Watersheds
Goal Implementation Team

Rthompson@chesapeakebay.net

Rthompson1@usgs.gov



Photos: Will Parson, Chesapeake Bay Program