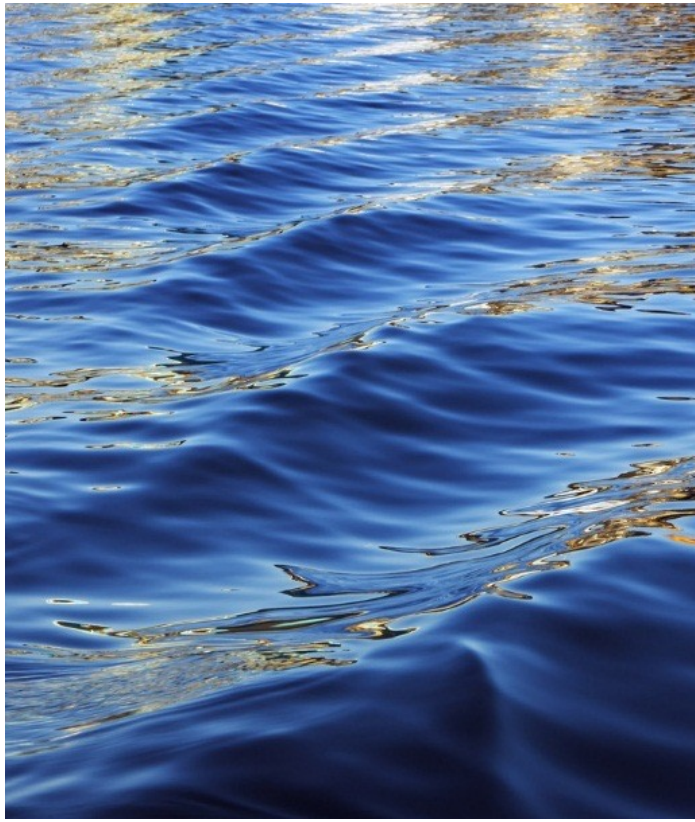
Chesapeake Bay Management Today: Goal Implementation Team Scale

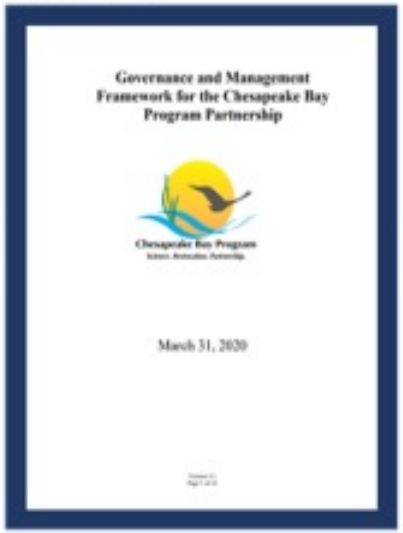
Kristin Saunders, Cross Program Coordinator, UMCES
STAC Quarterly Meeting March 9, 2022



"Frankly, I wasn't thinking about the fish."
Anonymous

How does the partnership work?

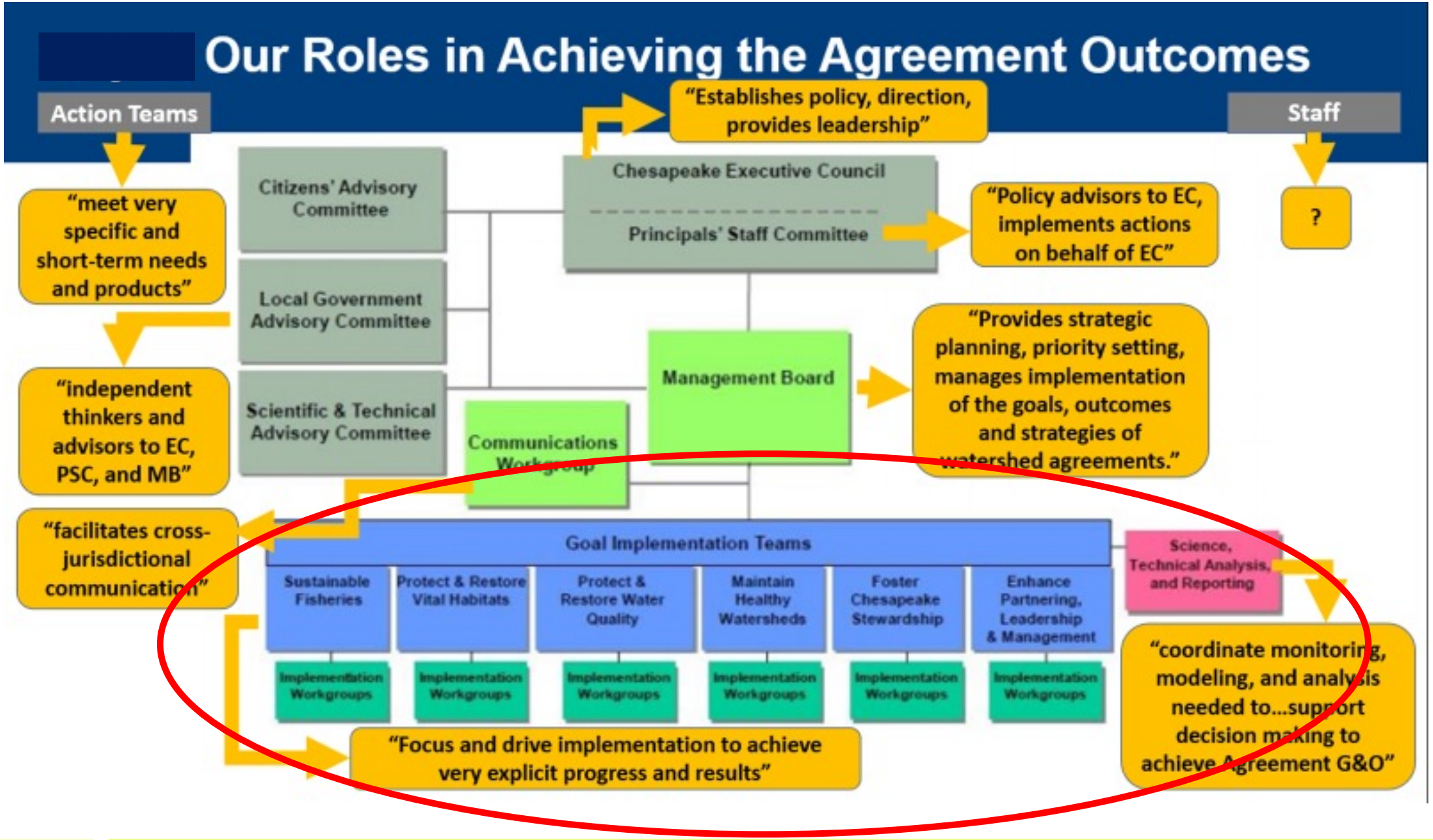
We've got a Governance Document!



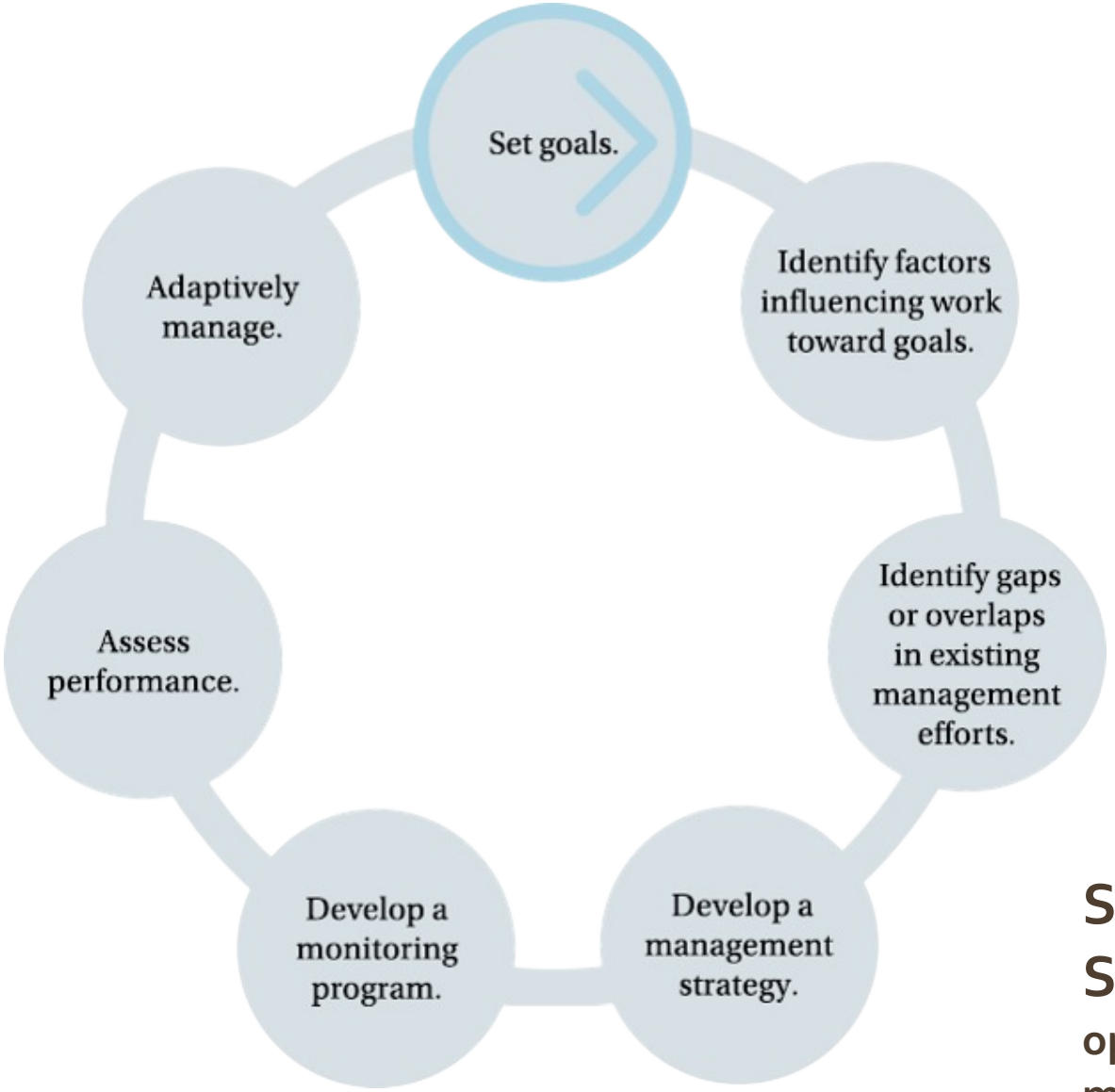
"Collaborate to achieve the Goals and Outcomes of the Agreement"

https://www.chesapeakebay.net/documents/CBP_Governance_Document_version_3.1_%28updated_03.31.2020%29.pdf

Our Roles in Achieving the Agreement Outcomes



Adaptive Management is our decision framework

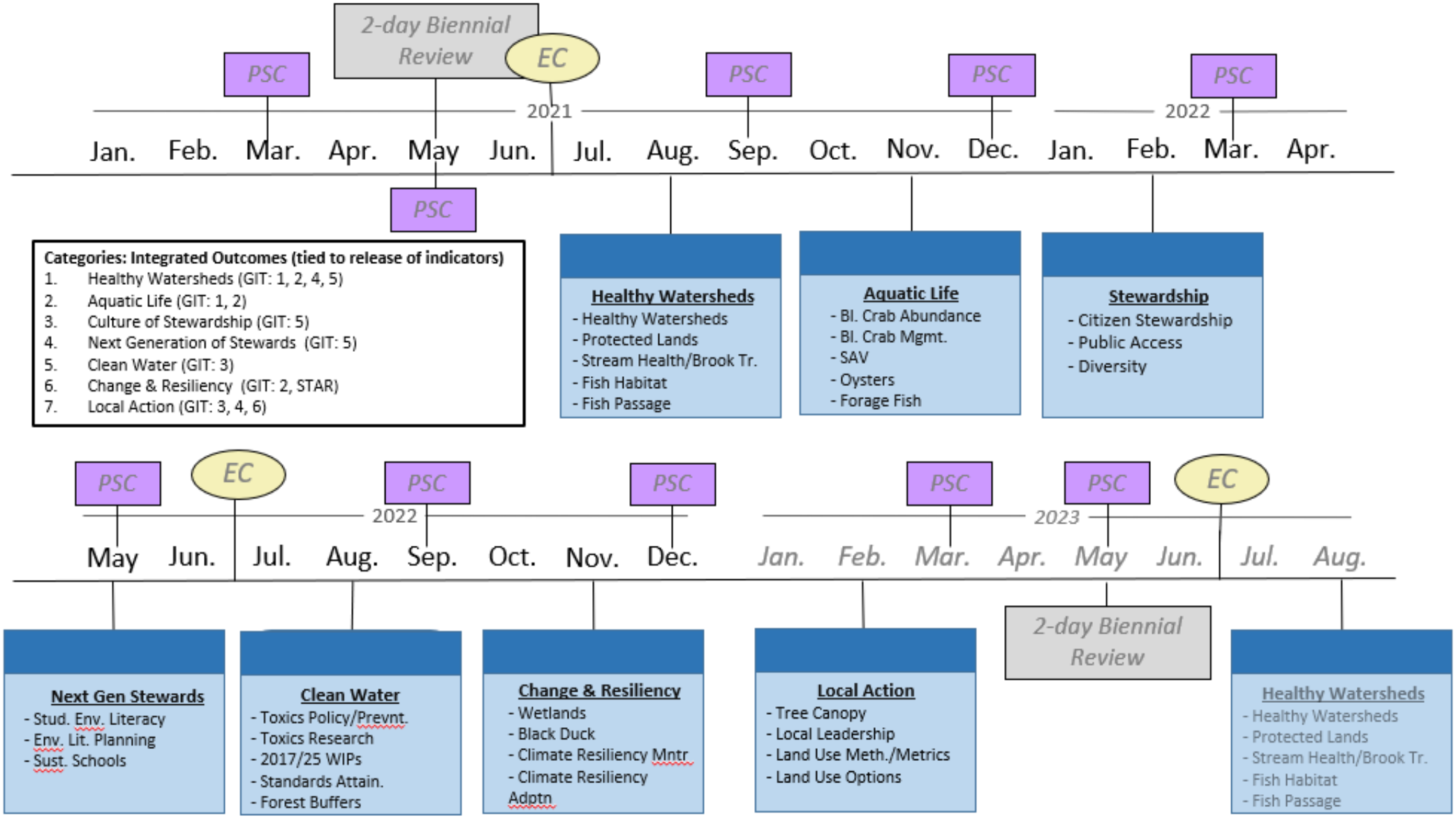


Strategy Review System

operationalizes adaptive management

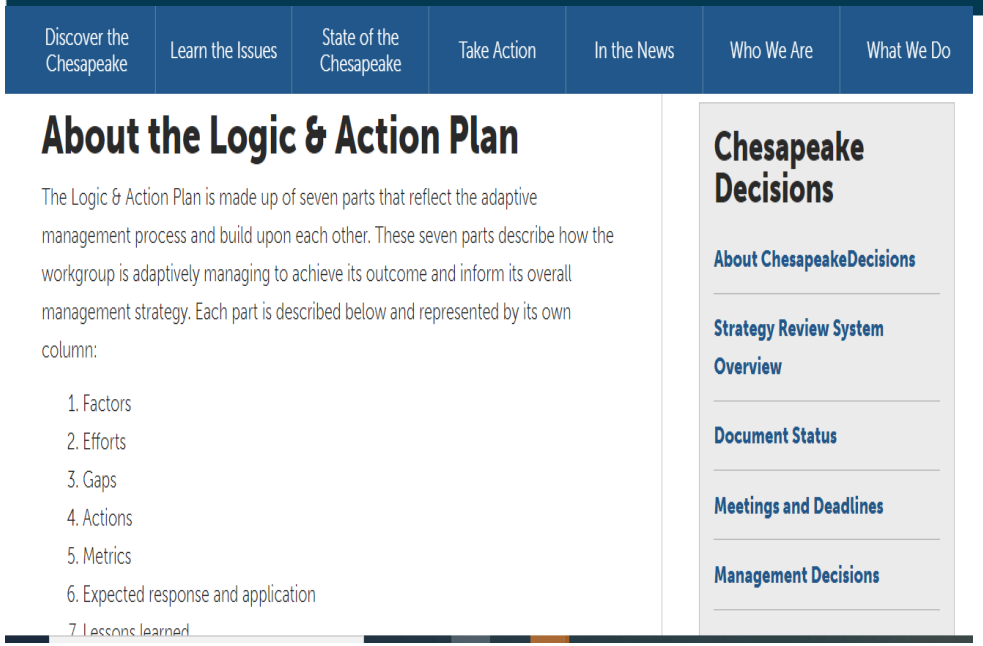
2021-2023 Biennial SRS Outcome Groupings

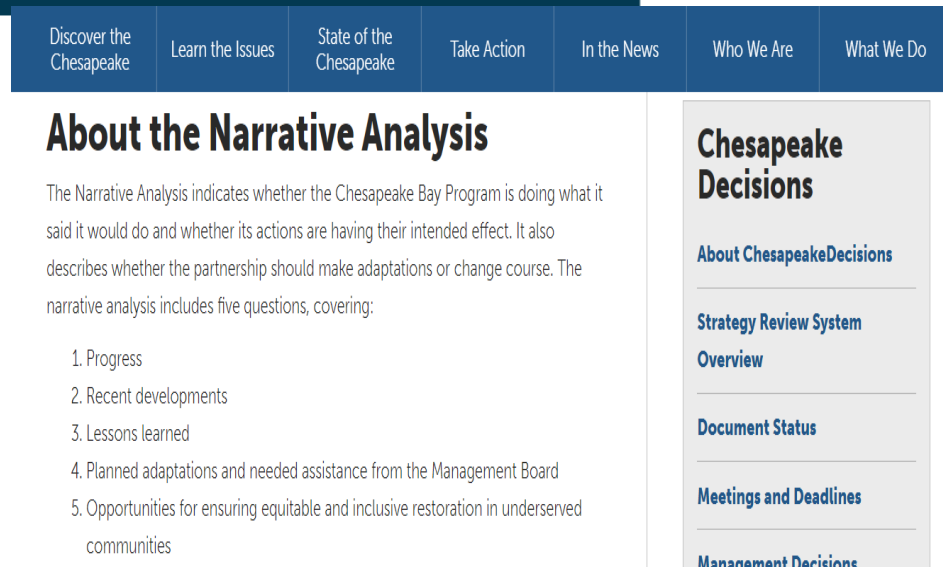
Final 11/2020

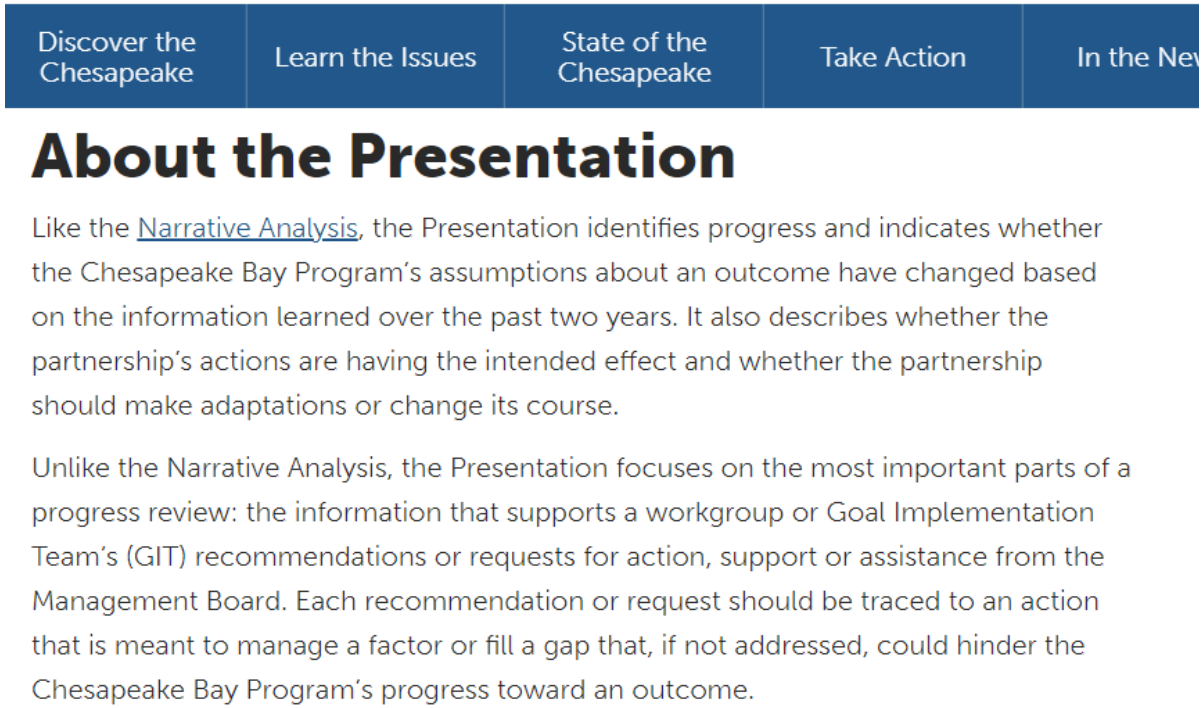


CHESAPEAKE DECISIONS

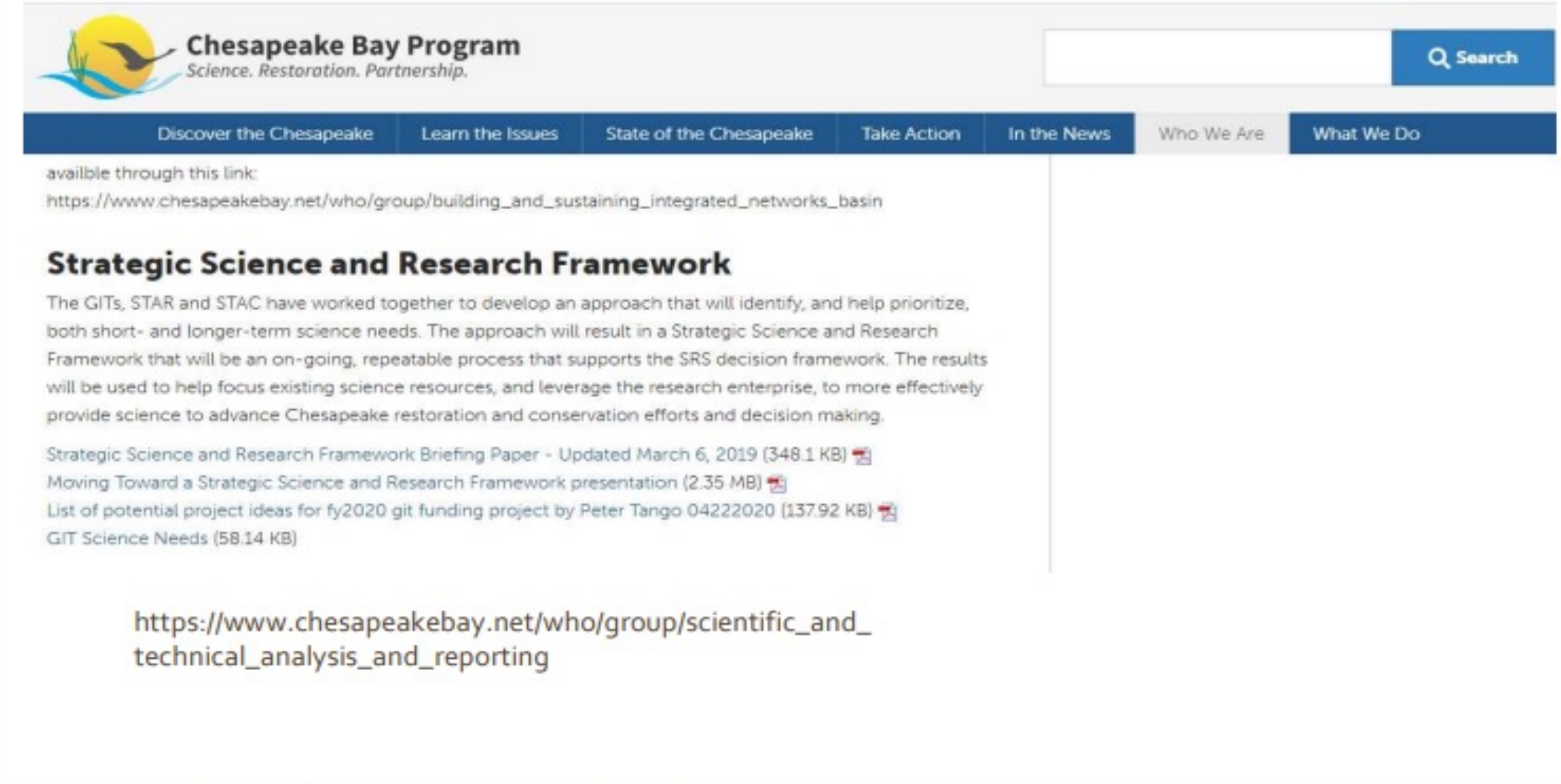
https://www.chesapeakebay.net/decisions







Quarterly Progress Review with Management Board


Chesapeake Bay Program
Science. Restoration. Partnership.
Search
Discover the Chesapeake
Learn the Issues
State of the Chesapeake
Take Action
In the News
Who We Are
What We Do
availble through this link:
https://www.chesapeakebay.net/who/group/building_and_sustaining_integrated_networks_basin
Strategic Science and Research Framework
The GITs, STAR and STAC have worked together to develop an approach that will identify, and help prioritize, both short- and longer-term science needs. The approach will result in a Strategic Science and Research Framework that will be an on-going, repeatable process that supports the SRS decision framework. The results will be used to help focus existing science resources, and leverage the research enterprise, to more effectively provide science to advance Chesapeake restoration and conservation efforts and decision making.
Strategic Science and Research Framework Briefing Paper - Updated March 6, 2019 (348.1 KB)
Moving Toward a Strategic Science and Research Framework presentation (2.35 MB)
List of potential project ideas for fy2020 git funding project by Peter Tango 04222020 (137.92 KB)
GIT Science Needs (58.14 KB)
https://www.chesapeakebay.net/who/group/scientific_and_technical_analysis_and_reporting

STAR Needs Tracking

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Goals Goal Filter

Primary Outcomes Primary Outcome Filter

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Clear Filters

Goal	Primary Outcome	Category	Need	
All	All	Analysis, Data Gathering	Ecosystem services identification, quantifiation and valuation	Detail
Sustainable Fisheries	Fish Habitat	Analysis	Regional Fish Habitat Assessment: 1. compile habitat and environmental, stressor, biological dataset; 2. analyze biological response data for relevance; 3. pilot fish habitat assessment; 4. conduct watershed regional assessment; 5. ID/develop spatial tools useful to partners	Detail
Sustainable Fisheries	Fish Habitat	Monitoring	Maintaining a telemetry network tracking fish movements at mouth of Chesapeake Bay	Detail
Sustainable Fisheries	Fish Habitat	Monitoring	Explore cost-effective methods/approaches to phytoplankton and zooplankton monitoring	Detail
Sustainable Fisheries	Fish Habitat	Monitoring	Develop shallow water monitoring survey proposal for gaps	Detail

https://star.chesapeakebay.net/

Goal Implementation Team Initiative Projects

The Chesapeake Bay Trust has been designated to receive federal funds from the U.S. Environmental Protection Agency as part of the Chesapeake Bay Program Goal Implementation Team Project Initiative. The work funded by this initiative advances outcomes identified in the 2014 Chesapeake Bay Watershed Agreement. Each year, certain outcomes are chosen by the Chesapeake Bay Program as top priorities to address, and these stretch across all Goal Implementation Teams (GIT) and workgroups. For more information about the program visit the GIT main page.

Awarded projects funded from Fiscal Year 2014 to today and access to final reports are below. Projects without links to final report are still in progress.

Sustainable Fisheries GIT | Habitat GIT | Water Quality GIT | Maintain Healthy Watersheds GIT

Foster Chesapeake Stewardship GIT | Enhance Partnering, Leadership and Management GIT

STAC: Synthesis, Workshops, Science Reviews

2019 Workshops

November 12 - 13, 2019 **Increasing Effectiveness and Reducing the Cost of Non-Point Source Best Management Practice (BMP) Implementation: Is Targeting the Answer?**
Fairfax, VA

May 22 - 23, 2019 **Integrating Science and Developing Approaches to Inform Management for Contaminants of Concern in Agricultural and Urban Settings**
Baltimore, MD

April 24 - 25, 2019 **Microplastics in the Chesapeake Bay and its Watershed: State of the Knowledge, Data Gaps, and Relationship to Management Goals**
Woodbridge, VA

March 20 - 21, 2019 **Assessing the Environment in Outcome Units (AEIOU): Using Eutrophying Units for Management**
Annapolis, MD

2020 Workshops

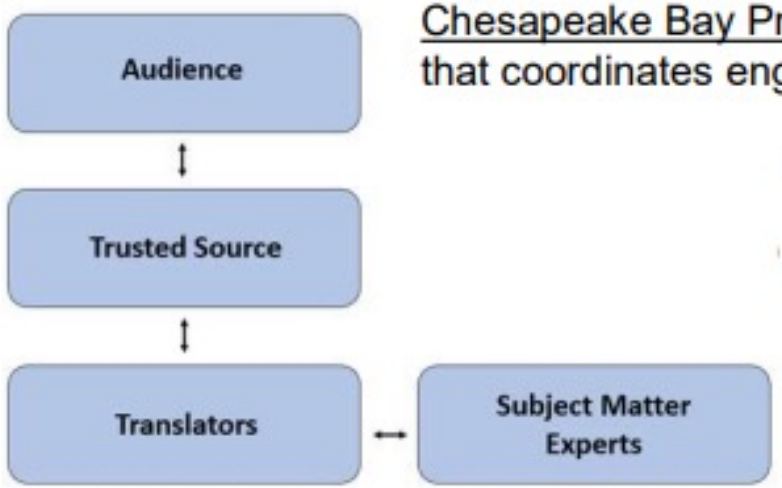
March 5 - 6, 2020 **Incorporating Freshwater Mussels in the Chesapeake Bay Partnership**
Annapolis, MD

February 25 - 26, 2020 **Exploring Satellite Image Integration for the Chesapeake Bay SAV Monitoring Program**
Gloucester Point, VA

January 23 - 24, 2020 **Linking Soil and Watershed Health to In-Field and Edge-of-Field Water Management**
Morgantown, West Virginia

Local Engagement Strategy

The Strategy is a road map for CBP engagement with local leaders.



Chesapeake Bay Program Local Engagement Team -- An internal CBP team that coordinates engagement with local audiences as outlined in the Strategy.

- Assist in identifying the local audiences and trusted sources to engage local audiences
- Catalogue state and regional networks for different local audiences
- Share datasets and toolkits that may be of value to local audiences
- Consult in 'translation' of technical material into language that will resonate with local audiences and share existing 'translated' material
- Support the application of proven social science tools

Local Government Guide

A Local Government Guide to the Chesapeake Bay

CLEAN WATER FOR THE ECONOMY

A Local Government Guide to the Chesapeake Bay is a seven-module series created to support decision making by local officials. As a local leader, your decisions set the course for your community. Your actions determine the health and vitality of your jurisdiction, as well as that of local waterways and the Chesapeake Bay. You can achieve win-win outcomes by prioritizing local economic development, infrastructure resiliency, public health, and education while also protecting your environment. This fact sheet accompanies a module focused on the economy.

GOOD FOR BUSINESS

Clean water attracts and supports businesses, including breweries, farms, restaurants, and outdoor recreation.

Turkey Hill Dairy's partnership with the Alliance for the Chesapeake Bay and the Maryland and Virginia Milk Producers cooperative helps dairy farmers implement conservation plans to prevent nutrients and sediment from flowing into local waterways. The Natural Resource Conservation Service and National Fish and Wildlife Foundation contribute funding. Farms that implement the plans using grant money receive a premium from Turkey Hill for their milk. To learn more, visit the Alliance for the Chesapeake Bay's website.

Over 120 breweries nationwide have joined the Natural Resource Defense Council's Brewers for Clean Water Campaign in support of clean water legislation, proclaiming small streams and wetlands essential to brewing craft beer. In 2019, there were almost 1,300 breweries in the Chesapeake Bay watershed states valued at $13.9 billion and employing 98,000+ people.

Data from the Brewers Association

COMMUNITY BENEFITS OF CLEAN AND HEALTHY WATERWAYS

Geese, ducks, deer, fish, and other wildlife rely on healthy habitats. In the United States, people on recreational fishing and hunting trips spent about **$30 billion** on gear, travel, and other purchases related to their craft in 2016.

Data from the Fish and Wildlife Service

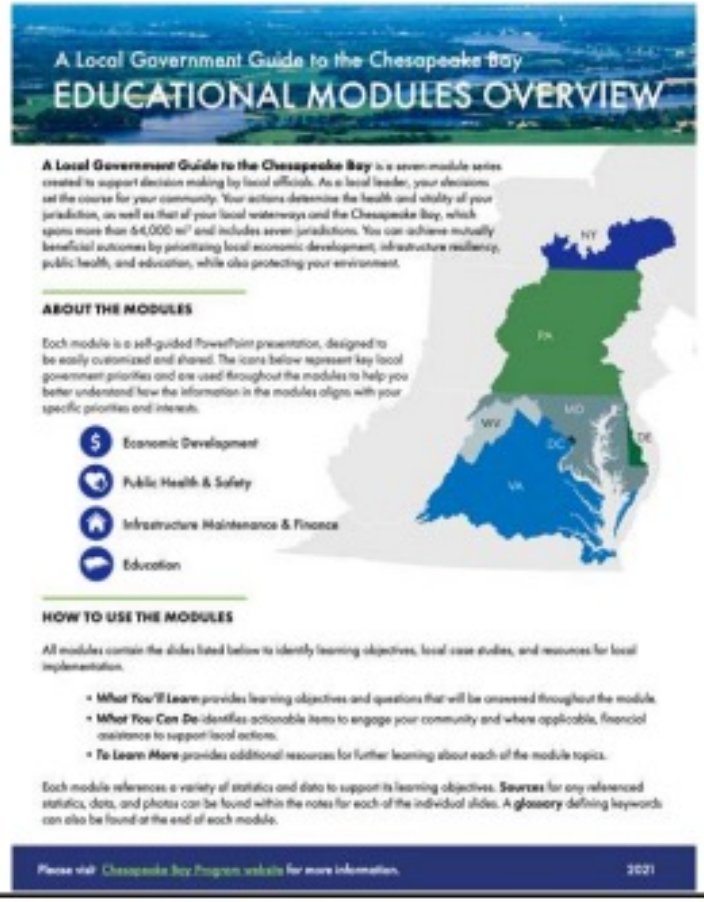
Disease-causing bacteria and harmful algal blooms caused by excessive nutrients can make people sick if they play in, on, or near the water or through fish and shellfish harvested from polluted waters.

Wetlands absorb and filter water, protecting your infrastructure from flooding while keeping local waterways clean.

Interpretive outdoor experiences and environmental education are more impactful when learners have access to a hands-on, outdoor learning environment.

Photos by W. Hansen/Chesapeake Bay Program

Please visit the Chesapeake Bay Program website for more information. March 2021



A Local Government Guide to the Chesapeake Bay

EDUCATIONAL MODULES OVERVIEW

A Local Government Guide to the Chesapeake Bay is a seven-module series created to support decision making by local officials. As a local leader, your decisions set the course for your community. Your actions determine the health and vitality of your jurisdiction, as well as that of your local waterways and the Chesapeake Bay, which spans more than 64,000 mi² and includes seven jurisdictions. You can achieve mutually beneficial outcomes by prioritizing local economic development, infrastructure resiliency, public health, and education, while also protecting your environment.

ABOUT THE MODULES

Each module is a self-guided PowerPoint presentation, designed to be easily customized and shared. The icons below represent key local government priorities and are used throughout the modules to help you better understand how the information in the modules aligns with your specific priorities and interests.

- Economic Development
- Public Health & Safety
- Infrastructure Maintenance & Finance
- Education

NY
PA
MD
WV
DC
DE
VA

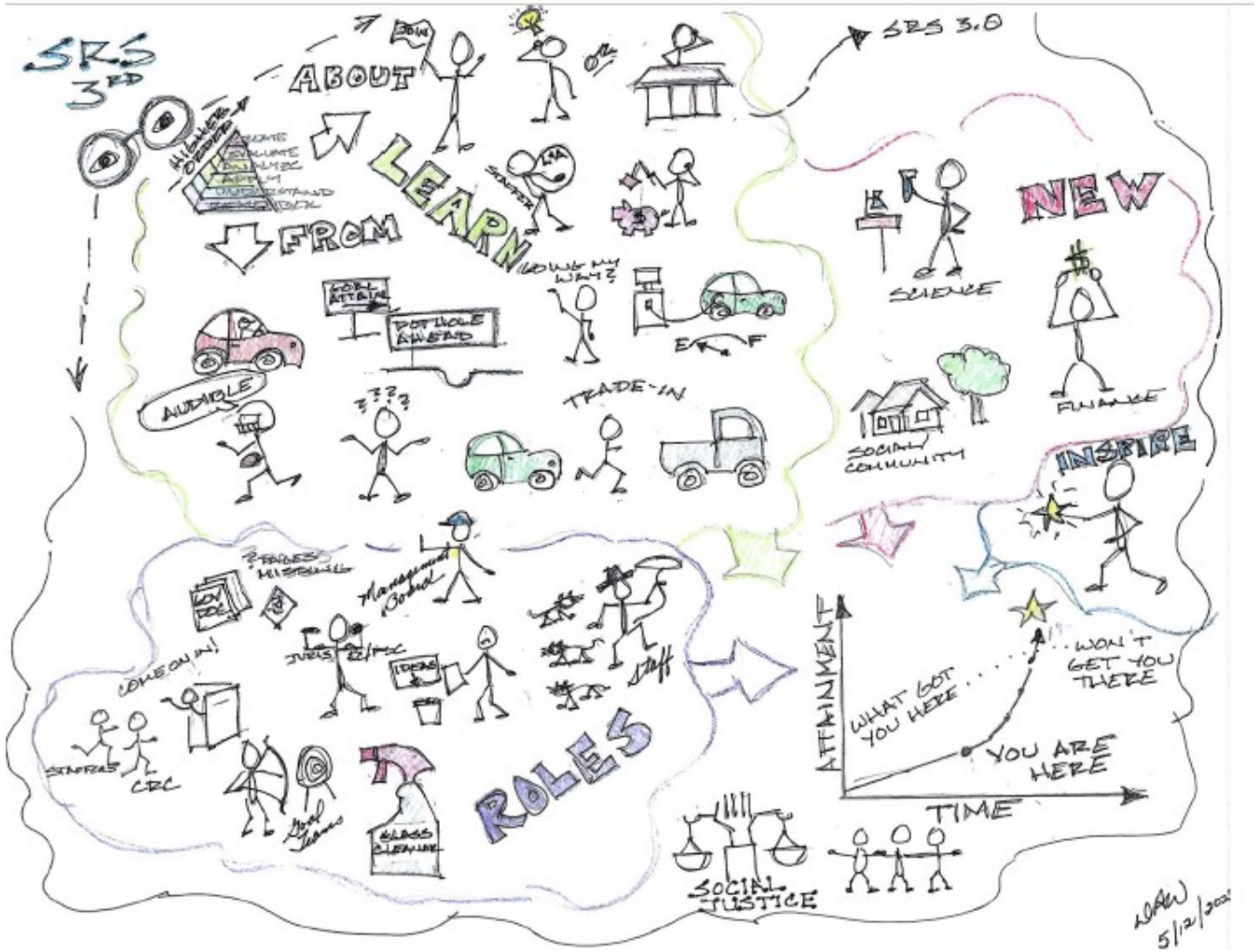
HOW TO USE THE MODULES

All modules contain the slides listed below to identify learning objectives, local case studies, and resources for local implementation.

- **What You'll Learn** provides learning objectives and questions that will be answered throughout the module.
- **What You Can Do** identifies actionable items to engage your community and where applicable, financial assistance to support local actions.
- **To Learn More** provides additional resources for further learning about each of the module topics.

Each module references a variety of statistics and data to support its learning objectives. **Sources** for any referenced statistics, data, and photos can be found within the notes for each of the individual slides. A **glossary** defining keywords can also be found at the end of each module.

Please visit Chesapeake Bay Program website for more information. 2021



Strategy Review System Biennial Meeting

- Examine policy, science and economic horizon
- Identify common needs and resource them
- Develop tools that are widely applicable and help us target
- Work smarter and across silos
- Extract value from the system analysis

CHESAPEAKE PROGRESS

CHESAPEAKEBAY.NET
CHESAPEAKEPROGRESS.COM
11/18/21

Chesapeake Bay Program
Science. Restoration. Partnership.

https://www.chesapeakebay.net/documents/2021_Outcome_Attainability.pdf

SUSTAINABLE FISHERIES GOAL

Oysters Outcome

OUTLOOK ON COURSE

OUTCOME: Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. Restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.

PROGRESS AS OF 2021: The Oysters Outcome is on course. Three (Harris Creek, Lafayette River and Little Choptank River) of the 10 tributaries scheduled for restoration have been completed and formally recognized as restored. Three more were completed in 2021 (Lynnhaven, Piankatank and Tred Avon rivers) and will be formally recognized later on this year. Planning, financial resources and construction schedules are in place for the remaining four tributaries (Great Wicomico, Manokin, Lower York and Upper St. Mary's rivers). Additionally, the Eastern Branch of the Elizabeth River in Virginia has been restored to the same standard as the original ten tributaries. This outcome is expected to be met by 2025.

LAND CONSERVATION GOAL

Protected Lands Outcome

OUTLOOK ON COURSE

OUTCOME: By 2025, protect an additional two million acres of lands throughout the watershed—currently identified as high-conservation priorities at the federal, state or local level— including 225,000 acres of wetlands and 695,000 acres of forest land of highest value for maintaining water quality.

PROGRESS AS OF 2021: The Protected Lands Outcome is on course to meet its target. Based on the most recent 2018 data, 68% of the target to protect an additional two million acres has been met, including 79% of the forest acres target and 30% of the wetlands target. Given that additional acres have been protected since 2018 and not yet counted, projections indicate the potential to meet the target early, pending updated data expected by the end of 2021. Additional emphasis is now being placed on conserving large forest tracts and wetland acres, as well as on working to exceed the original two million acre target, instead reaching to protect 30% of the watershed by

Searching for the "secret sauce"

VITAL HABITATS GOAL

Forest Buffers Outcome

OUTCOME: Continually increase the capacity of forest buffers to provide water quality and habitat benefits throughout the watershed. Restore 900 miles per year of riparian forest buffer and conserve existing buffers until at least 70 percent of riparian areas throughout the watershed are forested.

PROGRESS AS OF 2021: The Forest Buffers Outcome is off course. The Chesapeake Bay Program has not met its goal for riparian forest buffers since 2002, often achieving less than 10% of the *Chesapeake Bay Watershed Agreement* goal. The most recently available data shows that between 2017 and 2018, about 158 miles of forest buffers were planted along rivers and streams in the watershed, followed by about 83 miles in 2019. While these miles progress toward the outcome, it is 742 and 817 miles below the 900-mile-per-year target, respectively. This is unfortunate since riparian forest buffers are often said to be the most important best management practice for the Chesapeake, not only because of their water quality benefits, but because they also offer key habitat, can abate flooding and provide resiliency to climate change. One impendent to achieving this outcome is that the partnership has been relying on the Forestry Workgroup to achieve this goal. While the Forestry Workgroup can provide technical guidance and program design ideas, the agricultural community and state water quality regulators are better equipped to lead. As this practice is so important, yet so far behind, it would benefit from higher-level involvement for each watershed jurisdiction, as the workgroup lacks the leadership to push this largely agricultural practice.

VITAL HABITATS GOAL

Wetlands Outcome

OUTCOME: Continually increase the capacity of wetlands to provide water quality and habitat benefits throughout the watershed. Create or re-establish 85,000 acres of tidal and non-tidal wetlands and enhance function of an additional 150,000 acres of degraded wetlands by 2025. These activities may occur in any land use (including urban), but primarily occur in agricultural or natural landscapes.

PROGRESS AS OF 2021: The Wetlands Outcome is off course. Between 2010 and 2017, 9,103 acres of wetlands were established, rehabilitated or re-established on agricultural lands. While the outcome includes a target to restore 85,000 acres of tidal and non-tidal wetlands in the watershed, 83,000 of these restored acres should take place on agricultural lands. This marks an 11% achievement of the 83,000-acre goal. No progress has been reported toward the wetlands enhancement goal. Numerous challenges in reaching this outcome have been identified, including a lack of funding and resources to complete projects, the unwillingness of landowners to take on voluntary restoration, conflicting state priorities and incomplete tracking information.

A Few Tension Points

Two-headed hydra: **Water Quality** vs. other goals and outcomes

I am here to **do** vs. I am here to **learn**

Goal team logic and action plan: does it address **what it takes to meet the outcome** or does it reflect **what the goal team can do?**

Perverse incentives

On the horizon….

- Outcome Attainability
- Infuse Diversity, Equity, Inclusion and Justice
- Infuse Climate
- Behavior Change and Social Science Analysis
- Ecosystem Services
- Comprehensive Evaluation of System Response (CESR)
- Shallow water transition zone focus
- Targeting
- Modeling Phase 7
- Monitoring improvements
- 2025

Thank you!

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Questions?