



Please stay muted with your camera off unless you are scheduled to present

Virtual Meeting
DAY 1: May 12, 2021
10am – 3pm



Welcoming Remarks

Michelle Price-Fay
CBPO Acting Director

Welcoming Remarks

Denice Wardrop
CRC Executive Director, Biennial Meeting Co-Chair

Biennial Meeting Purpose & Outcomes

Purpose:

Clarify actions and roles for the next two years to meet the Outcomes in the 2014 Chesapeake Bay Watershed Agreement.

Outcomes:

1. Understanding of the **status in meeting the Agreement Outcomes**, particularly **where we are behind** in achieving our targets.
2. Incorporation of **new approaches based on what we have learned through the SRS process** (e.g., DEIJ, social sciences, local engagement, climate resiliency, and ecosystem services) into the partnership's processes and efforts.
3. Application of additional lessons learned (particularly related to new understanding of science, policy or economics) and best practices in our **future actions in addressing our gaps in progress**.
4. Participants have a **renewed commitment and collective call to action** for their **unique roles** in achieving the Agreement Outcomes.



Welcoming Remarks

Governor Ralph Northam
Chair, Chesapeake Executive Council

Admin & Logistics

Sherry Witt
Biennial Meeting Facilitator

Recording Disclaimer

- This meeting will be recorded for internal distribution. By joining this meeting, you are consenting to such recordings. If you do not consent to being recorded, please do not join this meeting.



Admin & Logistics

- Be mindful of the **meeting housekeeping notes**:
 - Stay muted with your camera off unless you are presenting or are asking a question
 - Use the chat box for questions and brief comments, or use the Raise Hand icon to be called on during the discussion or Q&A sessions
 - For technical questions/problems, email shirley@greenfinstudio.com
- For the **breakout sessions**:
 - Participate actively and turn your webcams on
 - Determine your break time
 - Follow broadcast message directions
 - Please remain in your assigned breakout room
- For **presenters**:
 - Turn webcam when you present and respond to questions
 - The facilitator will turn her webcam on to signal your wrap up time
 - If you wish to drive your slides, share your presentation via Zoom, select “stop sharing” when done. If you wish for support to run your slides, send slides to sherry_witt@gdit.com in advance
- Engage in our **meeting tools**: Jamboard, Mentimeter, post-meeting survey



Day 1 Agenda

Schedule	Topic
10:00-10:20 am	I. Welcoming Remarks
10:20-10:45 am	II. Status of Achieving the Watershed Agreement Outcomes
10:45-12:30 pm	III. Where is the Learning Happening? <ul style="list-style-type: none"> • Introduction • Showcase of Successes • Breakout Group Session: Identifying the Learning* • Breakout Group Report-outs and Discussion
12:30-1:00 pm	Lunch Break
1:00-2:45 pm	IV. Our Roles in Achieving the Agreement Outcomes <ul style="list-style-type: none"> • Introduction and Presentation; How Does the Partnership Work? • Breakout Group Session #1: Defining Our Roles* • Breakout Group Session #1 Report-outs and Discussion • Breakout Group Session #2: Refining Our Roles* • Breakout Group Session #2 Report-outs and Discussion
2:45-3:00 pm	V. Summary, Wrap-up & Preparation for Day 2



Tracking Achievement of our Chesapeake Bay Watershed Agreement Outcomes

Strategy Review System Biennial Meeting
May 12, 2021

Katheryn Barnhart, *Indicators Coordinator*, Barnhart.Katheryn@epa.gov

Watershed Agreement Outcomes

Sustainable Fisheries	Vital Habitats	Clean Water	Conserved Lands	Engaged Communities	Climate Change
<ul style="list-style-type: none"> • Blue Crab Abundance & Management • Oyster Restoration • Fish Habitat • Forage fish 	<ul style="list-style-type: none"> • Black Duck • Brook Trout • Fish Passage • Forest Buffers • Stream Health • SAV • Tree Canopy • Wetlands 	<ul style="list-style-type: none"> • Watershed Implementation Plans - 2017 & 2025 • Water Quality Standards Attainment & Monitoring • Toxic Contaminants Research • Toxic Contaminants Policy and Prevention • Healthy Watersheds 	<ul style="list-style-type: none"> • Protected Lands • Land Use Options Evaluation • Land Use Methods & Metrics 	<ul style="list-style-type: none"> • Diversity • Public Access • Citizen Stewardship • Local Leadership • Sustainable Schools • Environmental Literacy Planning • Student MWEEs 	<ul style="list-style-type: none"> • Climate Monitoring and Assessment • Climate Adaptation

Watershed Agreement Outcomes Status

Categories Based on Ability to Measure Progress

Have Targets, Indicators, and Data Support	Have Targets, Indicators, but NEED Data Support	No Targets, Have Indicators and Data Support	Progress Assessed by Qualitative Information
<ul style="list-style-type: none"> • Blue Crab Abundance 😊 • Blue Crab Management 😊 • Oyster Restoration 😊 • Fish Passage 😞 • Forest Buffers 😞 • SAV 😊 • Watershed Implementation Plans (WIPs) – 2017 😊 and 2025 😞 • Protected Lands 😊 • Diversity 😞 • Public Access 😊 • Student MWEEs 😞 • Tree Canopy* 😞 	<ul style="list-style-type: none"> • Wetlands • Brook Trout • Black Duck • Stream Health <div style="text-align: center; font-size: 2em;">😞</div>	<ul style="list-style-type: none"> • Water Quality Standards Attainment & Monitoring • Sustainable Schools • Citizen Stewardship • Environmental Literacy and Planning • Toxic Contaminants Policy and Prevention • Climate Monitoring and Assessment <div style="text-align: center; font-size: 2em;">😊</div>	<ul style="list-style-type: none"> • Fish Habitat • Forage Fish • Toxic Contaminants Research • Land Use Options and Evaluation • Land Use Methods and Metrics • Local Leadership • Climate Adaptation • Healthy Watersheds <div style="display: flex; justify-content: space-around; font-size: 2em;"> 😊 😞 </div>

* Has indicator and data support, but is awaiting first update

Outcomes
with targets
and
indicators
with
established
data support

Blue Crab Abundance

Blue Crab Management

Oyster Restoration

Fish Passage

Forest Buffers

SAV

2025 Watershed Implementation Plans (WIPs)

Protected Lands

Diversity

Public Access

Student MWEs

Message

We know the status of our progress towards these outcomes because they have:

- A numeric target;
- Established monitoring support; and
- Data are of known quality.

Example 1: Blue Crab Abundance

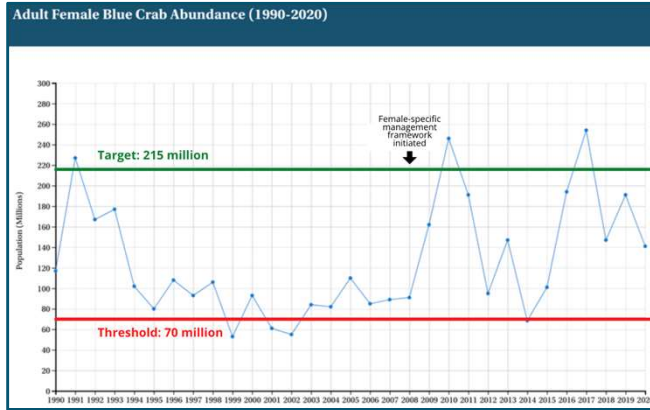
Maintain a sustainable blue crab population based on the current 2012 target of 215 million adult females. Refine population targets through 2025 based on best available science.

Current Progress

Between 2019 and 2020, the abundance of adult (age 1+) female blue crabs decreased 26% from 191 million to 141 million. This number is above the 70 million threshold, but lower than the target of 215 million.

On Track to Achieving Outcome 😊

Since female-specific management was implemented in 2008, female abundance has increased and remained above the threshold (or at the threshold in 2014) of 70 million crabs, and even surpassed the target of 215 million crabs in 2010 and 2017.



Example 2: Protected Lands

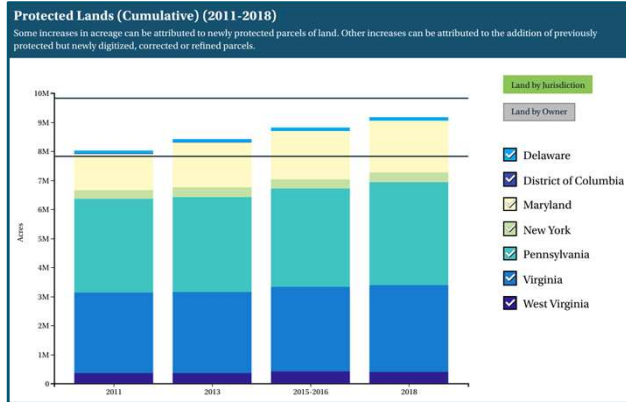
By 2025, protect an additional two million acres of lands throughout the watershed—currently identified as high-conservation priorities at the federal, state or local level—including 225,000 acres of wetlands and 695,000 acres of forest land* of highest value for maintaining water quality.

Current Progress

According to data collected through early 2019, nearly 1.36 million acres of land in the Chesapeake Bay watershed have been permanently protected since 2010. This marks an achievement of 68% of the land conservation goal and brings the total amount of protected land in the watershed to 9.16 million acres.

On Track to Achieving Outcome 😊

The actual average annual rate of protection (169,807 acres) since 2010 is above the average annual rate required (133,333 acres) for meeting the 2025 two-million-acre goal.



*isn't currently being measured but that info would be helpful for climate resiliency purposes.

What have we learned?

These outcomes:

- Are on track to reach their targets by 2025.
- Can serve as examples of successful management and tracking that we can learn from and apply to other outcomes in need.

Outcomes
with targets
and
indicators but
need data
support

Wetlands

Brook Trout

Black Duck

Stream Health

Message

These outcomes need support to tell the full story of our progress because:

- Additional monitoring support is needed;
- Data are missing and some available data are of inconsistent quality; or
- Additional data or indicators are needed in order to accurately depict the progress we are making.

Example 1: Wetlands

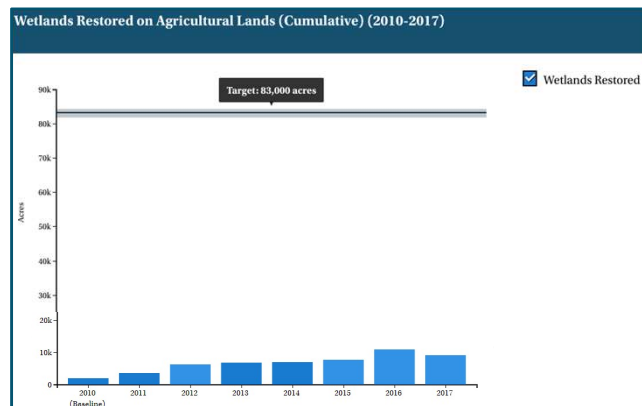
Continually increase the capacity of wetlands to provide water quality and habitat benefits throughout the watershed. Create or reestablish 85,000 acres of tidal and non-tidal wetlands and enhance function of an additional 150,000 acres of degraded wetlands by 2025. These activities may occur in any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

Current Progress

Between 2010 and 2017, 9,103 acres of wetlands were established, rehabilitated or reestablished on agricultural lands. While this 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. The wetlands restored on agricultural lands between 2010 and 2017 mark an 11% achievement of the 83,000-acre goal.

Outcome Achievement Uncertain 😞

Wetland acreage data are inconsistently reported and inaccurate for assessing progress toward this outcome. Work is underway to identify a consistent means for collecting data by maximizing existing data reporting processes.



Example 2: Brook Trout

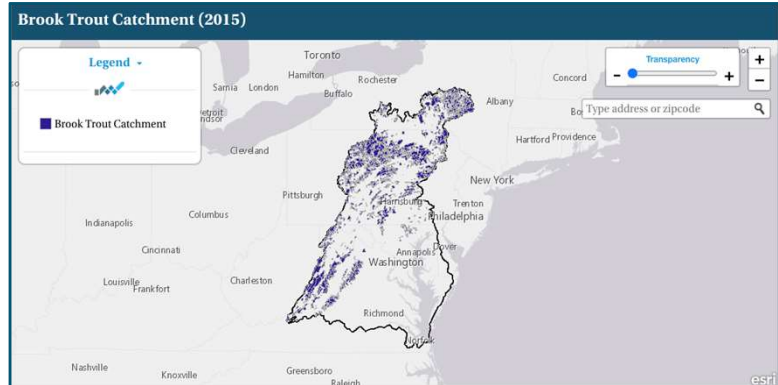
Restore and sustain naturally reproducing brook trout populations in Chesapeake Bay headwater streams, with an 8% increase in occupied habitat by 2025.

Current Progress

According to an assessment completed in 2015 by the Eastern Brook Trout Joint Venture (EBTJV), wild brook trout occupy 33,200 square kilometers of habitat in the Chesapeake Bay watershed. This includes the streams they share with brown and/or rainbow trout.

Outcome Achievement Uncertain 😞

The limited available data indicate we are well below the target of 108 sq. km/yr and the indicator is under refinement. Support to develop a database framework and data collection is needed to measure progress toward this outcome.



What have we learned?

- The presence of quantifiable targets in the outcome isn't enough to measure progress without:
 1. Dedicated resources to resolve data issues, and
 2. An established monitoring plan to ensure we can continue to regularly track progress.
- Identifying needed support via the Quarterly Progress meetings and the Logic & Action Plans helped but dedicated ongoing CBP support is needed to track progress accurately.

Outcomes
without
targets, but
have
indicators
supported by
established
data

Water Quality Attainment and Monitoring

Sustainable Schools

Citizen Stewardship

Environmental Literacy and Planning

Toxic Contaminants Policy and Prevention

Climate Monitoring and Assessment

Message

- These outcomes are represented by indicators with good data that can inform us about the impacts of our efforts; however,
- Establishing targets or interim metrics would provide more useful information about expected progress and whether we need to adjust our work efforts and approach.

Example 1: Citizen Stewardship

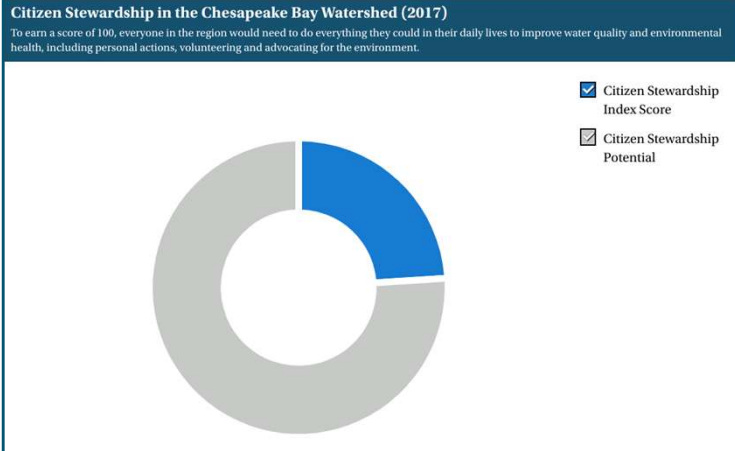
Increase the number and diversity of trained and mobilized citizen volunteers who have the knowledge and skills needed to enhance the health of their local watersheds.

Current Progress

In 2017, residents of the Chesapeake Bay region scored a 24 out of 100 on the Citizen Stewardship Index: the first comprehensive survey of stewardship actions and attitudes in the Chesapeake Bay watershed.

Goal Achievement Trajectory Uncertain 😞

No target was established in the outcome and the 2017 score serves as a baseline.



Example 2: Environmental Literacy Planning

Each participating Bay jurisdiction should develop a comprehensive and systemic approach to environmental literacy for all students in the region that includes policies, practices and voluntary metrics that support the environmental literacy Goals and Outcomes of this Agreement.

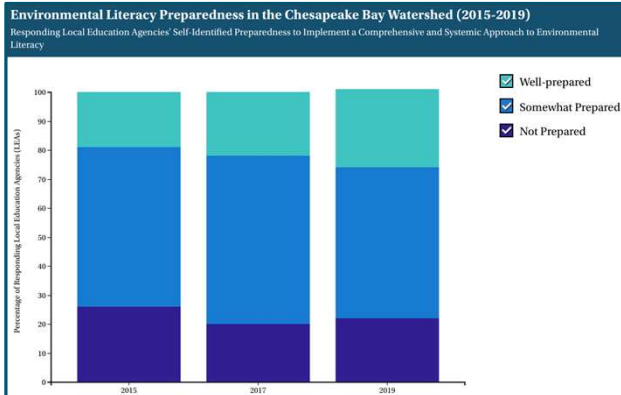
Current Progress

In 2019, local education agencies—55% of the total (when combined with a small subset of 2017 data)—responded to the Chesapeake Bay Program’s Environmental Literacy Indicator Tool (ELIT) that measures the degree of environmental literacy preparedness among school districts across the watershed:

- 27% of respondents self-identified as “well-prepared” to put a comprehensive and systemic approach to environmental literacy in place.
- 52% of respondents self-identified as “somewhat prepared” to put a comprehensive and systemic approach to environmental literacy in place.
- 22% of respondents self-identified as “not prepared” to put a comprehensive and systemic approach to environmental literacy in place.

Goal Achievement Trajectory Uncertain 😞

There is no established target for this outcome and a narrative analysis statement for its progress has not yet been provided.



What have we learned?

These outcomes:

- Provide examples for how to develop and establish indicators to measure progress toward outcomes without quantitative targets.
- May have different needs for identifying a target, including:
 - Science needs, such as more data collection periods
 - Other needs not yet identified.

Outcomes
without
targets or
indicators

Fish Habitat

Forage Fish

Toxic Contaminants Research

Land Use Options and Evaluation

Land Use Methods and Metrics

Local Leadership

Climate Adaptation

Healthy Watersheds

Message

- These outcomes lack established, quantifiable targets.
- They also lack indicator data to show if our efforts are impacting progress towards the outcome.
- Work continues to inventory data, develop indicators, and establish baseline information to determine appropriate targets.

Example 1: Forage Fish

Continually improve the Partnership's capacity to understand the role of forage fish populations in the Chesapeake Bay. By 2016, develop a strategy for assessing the forage fish base available as food for predatory species in the Chesapeake Bay.

Current Progress

This outcome targets the habitats that fish and shellfish use at critical points in their life histories. Due to the range of areas that comprise fish habitat and the existing gaps in our understanding of which habitats offer the highest value for fish reproduction, feeding, growth or refuge, there is no established baseline for this outcome at this time.

Outcome Achievement Uncertain 😞 ***Indicators in development***

In September 2020, the Forage Action Team developed a Forage Indicator Development Plan to provide an overview of previous efforts and present a framework toward developing forage indicators moving forward. The Plan identified seven initial indicators to develop, potential data sources for indicator development and approximate timelines for each proposed indicator.

Example 2: Toxic Contaminants Research

Continually increase our understanding of the impacts and mitigation options for toxic contaminants. Develop a research agenda and further characterize the occurrence, concentrations, sources and effects of mercury, polychlorinated biphenyls (PCBs) and other contaminants of emerging and widespread concern. In addition, identify which best management practices might provide multiple benefits of reducing nutrient and sediment pollution as well as toxic contaminants in waterways.

Current Progress

Working with stakeholders, the Toxic Contaminants Workgroup determined its research agenda should address the following issues: supplying information related to the safe consumption of fish and shellfish; understanding the influence of contaminants degrading the health and contributing to the mortality of fish and wildlife; documenting the sources, occurrence and transport of contaminants in different landscapes; providing science to help mitigate contaminants and emphasize the co-benefits of nutrient and sediment reductions; and gathering information on issues of emerging concern. Our understanding of each of these issues differs.

Outcome Achievement Uncertain 😞 *Research Phase*

The research outcome currently does not have specific measures of progress. Workgroup is currently looking at qualitative ways to measure progress.

What have we learned?

- Outcomes without quantitative goals or targets have required workgroups to invest significant effort and time for the partnership to understand their progress.
- Availability of resources is a key limiting factor for a GIT or workgroup's ability to measure progress toward these outcomes.
- They are using the SRS process to identify interim measures of progress to determine whether their efforts are yielding the desired results.

Important Takeaway: These Categories are Dynamic



Watershed Agreement Outcomes Status Categories Based on Ability to Measure Progress

Have Targets, Indicators, and Data Support	Have Targets, Indicators, but NEED Data Support	No Targets, Have Indicators and Data Support	Progress Assessed by Qualitative Information
<ul style="list-style-type: none"> • Blue Crab Abundance 😊 • Blue Crab Management 😊 • Oyster Restoration 😊 • Fish Passage 😞 • Forest Buffers 😞 • SAV 😊 • Watershed Implementation Plans (WIPs) – 2017 😊 and 2025 😞 • Protected Lands 😊 • Public Access 😊 • Student MWEs 😞 • Tree Canopy* 😞 	<ul style="list-style-type: none"> • Wetlands • Brook Trout • Black Duck • Stream Health <p style="text-align: center;">😞</p>	<ul style="list-style-type: none"> • Water Quality Standards Attainment & Monitoring • Sustainable Schools • Citizen Stewardship • Environmental Literacy and Planning • Toxic Contaminants Policy and Prevention • Climate Monitoring and Assessment <p style="text-align: center;">😞</p>	<ul style="list-style-type: none"> • Fish Habitat • Forage Fish • Toxic Contaminants Research • Land Use Options and Evaluation • Land Use Methods and Metrics • Local Leadership • Climate Adaptation • Healthy Watersheds • Diversity <p style="text-align: center;">😞 😞</p>

* Has indicator and data support, but is awaiting first update

Diversity Outcome

Identify stakeholder groups not currently represented in the leadership, decision-making or implementation of current conservation and restoration activities and create meaningful opportunities and programs to recruit and engage these groups in the Partnership's efforts.*

**In January 2020, the outcome was modified from the original language.*

In 2016, the Partnership:

Defined a metric of interest;

Established a baseline from watershed demographics;

Set two targets and will conduct 3rd survey in 2021 to measure progress toward those targets.

- → Increase the percentage of people of color in the Chesapeake Bay Program to 25% by 2025.
- → Increase the percentage of people of color in leadership positions to 15% by 2025.

What have we learned?

- The Diversity Workgroup identified two aspects of their outcome on which to focus their efforts; and
- After seeking approval through the PSC, they can now report progress toward the outcome.
- This strategy can be applied to other outcomes without established targets or indicators.

Questions?

Katheryn Barnhart, *Indicators Coordinator*, Barnhart.Katheryn@epa.gov
ChesapeakeProgress.com



2021 Strategy Review System (SRS) Biennial Meeting
Day 1: Where is the Learning Happening?

Photo by Matt Rath/Chesapeake Bay Program

Please stay muted with your camera off unless you are scheduled to present

Virtual Meeting
May 12-13, 2021
10am – 3pm



Day 1: Where is the Learning Happening?

Goal: Identification of constructive, contributory lessons and applications of the SRS process which we can now use to help accelerate progress on our Watershed Agreement Outcomes.

Approach:

- Showcases of Success (15 min)
- Breakout Group Session: Identifying the Learning (45 min)
- Report-out (40 min)

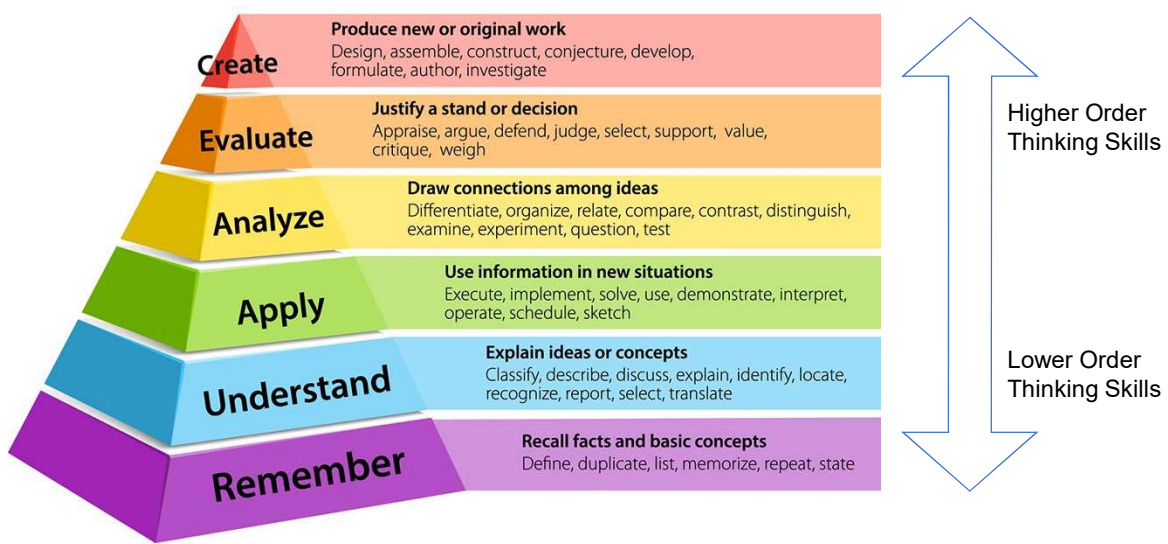


Adaptive management is a systematic approach for improving resource management by learning from management outcomes.

Learning is the process of acquiring new understanding, knowledge, behaviors, skills, values, attitudes, and preferences.

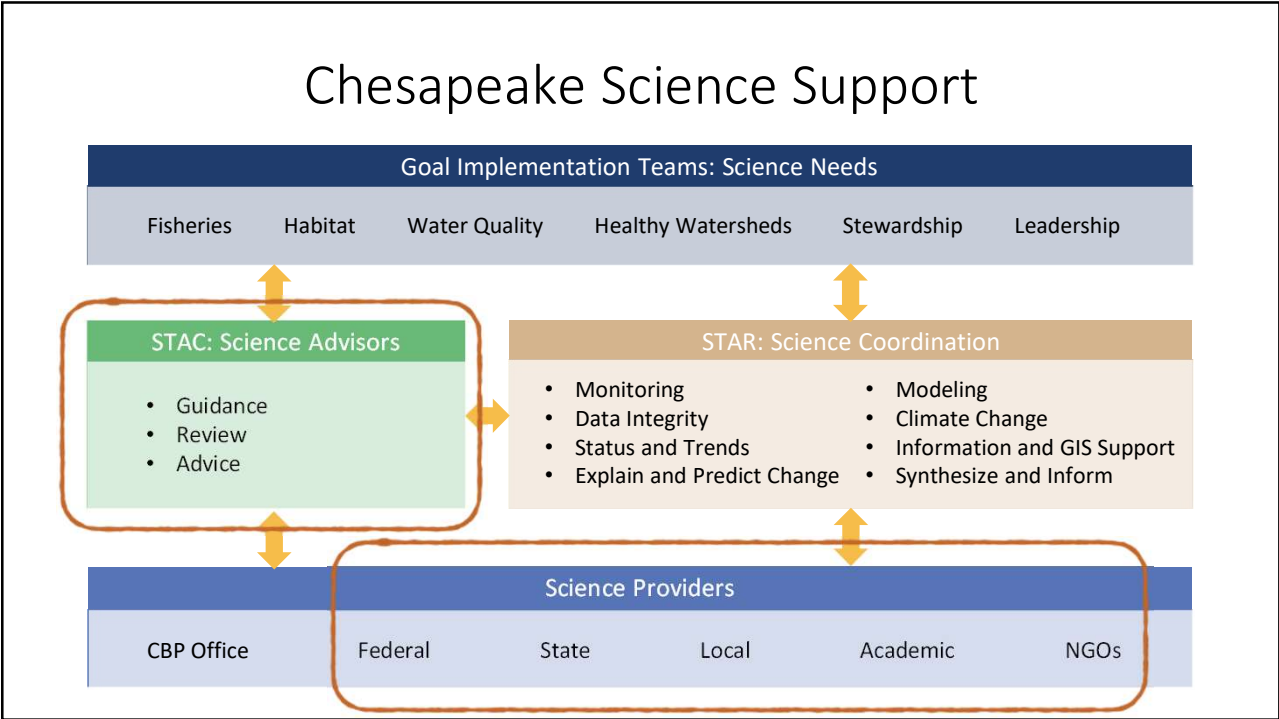
‘Any fool can know. The point is to understand.’ Albert Einstein

Bloom's Taxonomy

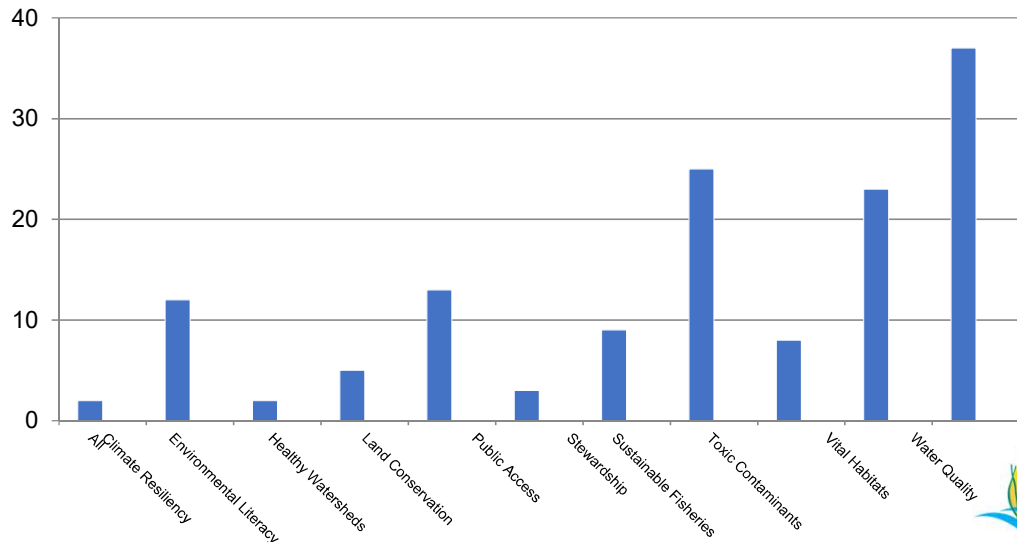


Creating a Repository

Gathering and matchmaking



Science Needs by GIT



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

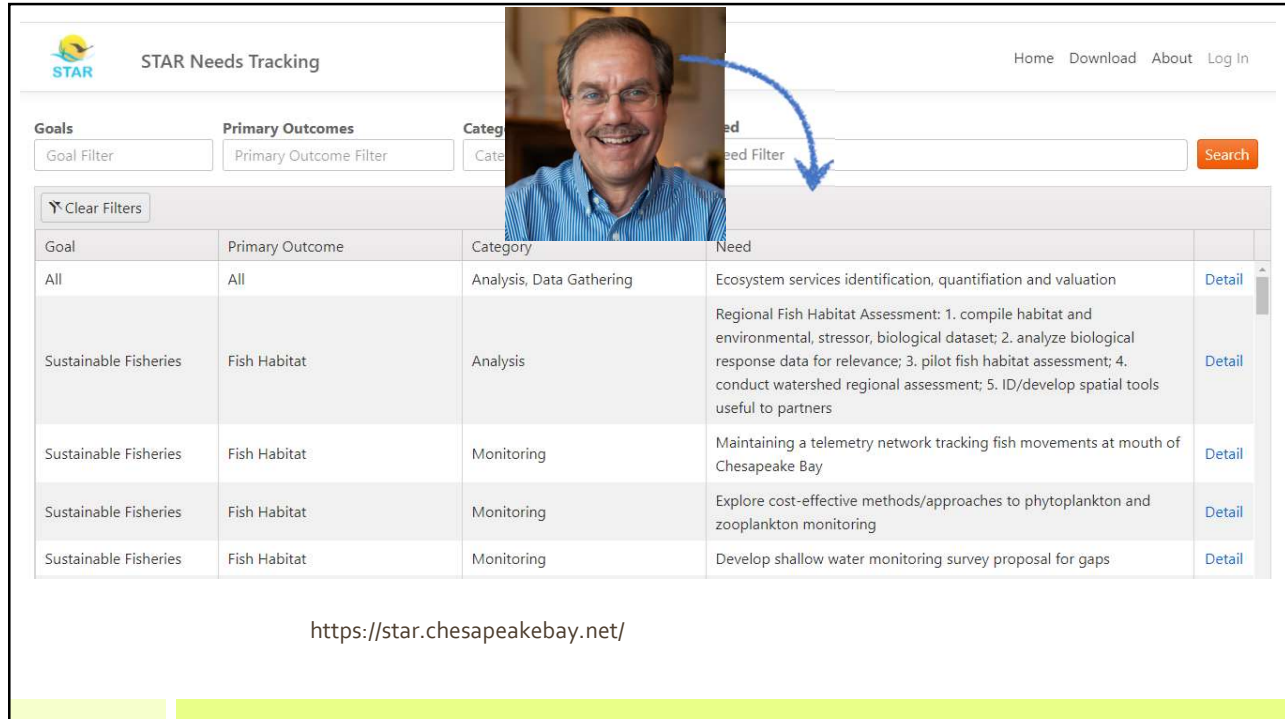
available through this link:
https://www.chesapeakebay.net/who/group/building_and_sustaining_integrated_networks_basin

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

Home Download About Log in

Goals Primary Outcomes Category

Goal Filter Primary Outcome Filter Category Filter Need Filter Search

Clear Filters

Goal	Primary Outcome	Category	Need	
All	All	Analysis, Data Gathering	Ecosystem services identification, quantification 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/>

STAC Workshops

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



STAC Workshops

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



STAC Workshops

2021 Workshops

September 28 - 29, 2021 [Understanding Genetics for Successful Conservation and Restoration of Resilient Chesapeake Bay Brook Trout Populations](#)
Thurmont, Maryland

September 28 - 29, 2021 [Assessing the Water Quality, Habitat, and Social Benefits of Green Riprap](#)

July 13 - 14, 2021 [Overcoming the Hurdle: Addressing Implementation of Agricultural Best Management Practices \(BMPs\) Through a Social Science Lens](#)

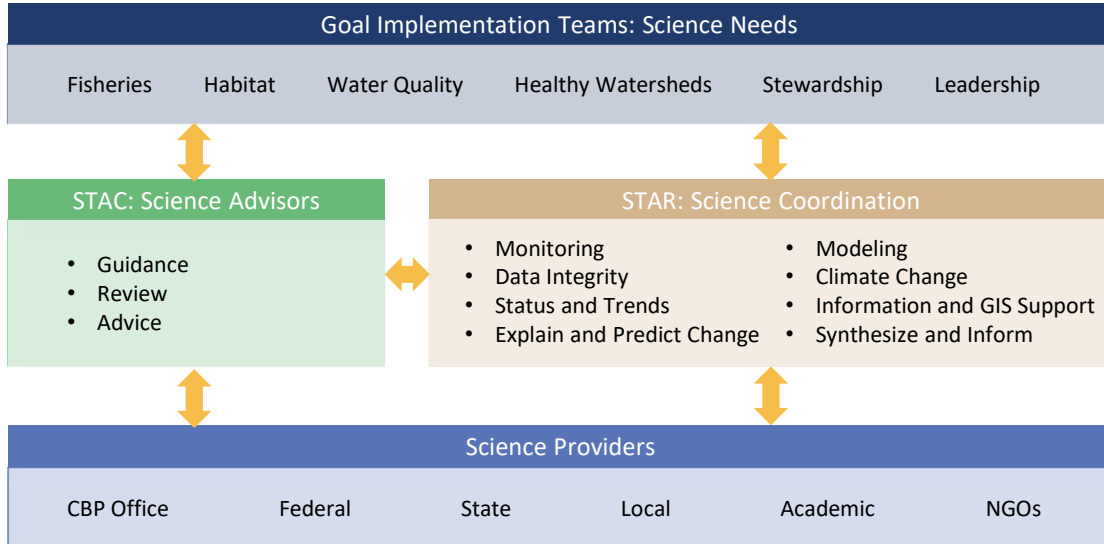
June 14, 2021 [Impacts of COVID-19 on Nutrient Dynamics](#)

June 7, 2021 [Impacts of COVID-19 on Fisheries](#)

May 24, 2021 [Impacts of COVID-19 on Local Governments](#)

January 26 - 28, 2021 [Advancing Outreach Effectiveness to Improve Conservation Practice Adoption: a virtual series of morning coffee hour discussions to improve private-public partnerships](#)

Chesapeake Science Support

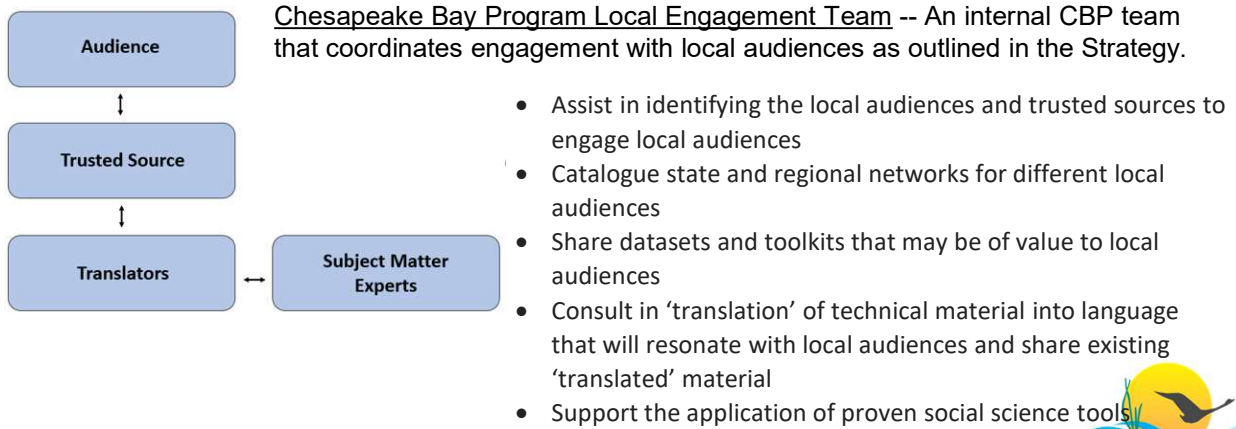


Greater than the sum of its parts

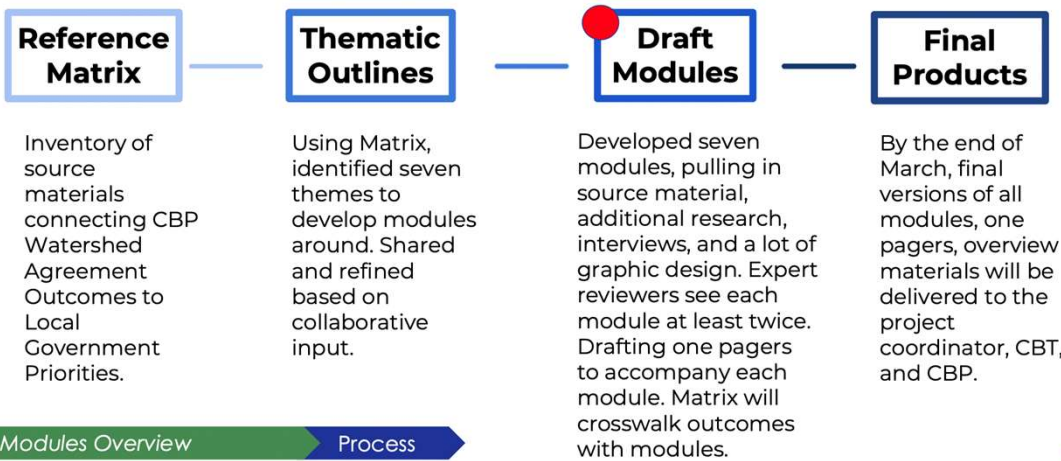
What can't be done alone

Local Engagement Strategy

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



A process to build tools



Paula Jasinski



Local Government Guide



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

Clear 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 great 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 Breweries for Clean Water Campaign in support of clean water legislation, prioritizing 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 98,050+ people.



COMMUNITY BENEFITS OF CLEAN AND HEALTHY WATERWAYS



Grass, 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.



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.

Please visit the [Chesapeake Bay Program website](#) for more information.

March 2021

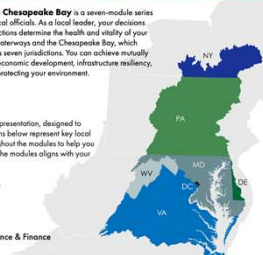


A Local Government Guide to the Chesapeake Bay is a seven-module series created to support decision making by local officials. As a local leader, your decisions set the course for your community. Your actions determine the health and vitality of your jurisdiction, as well as that of your local waterways 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



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.

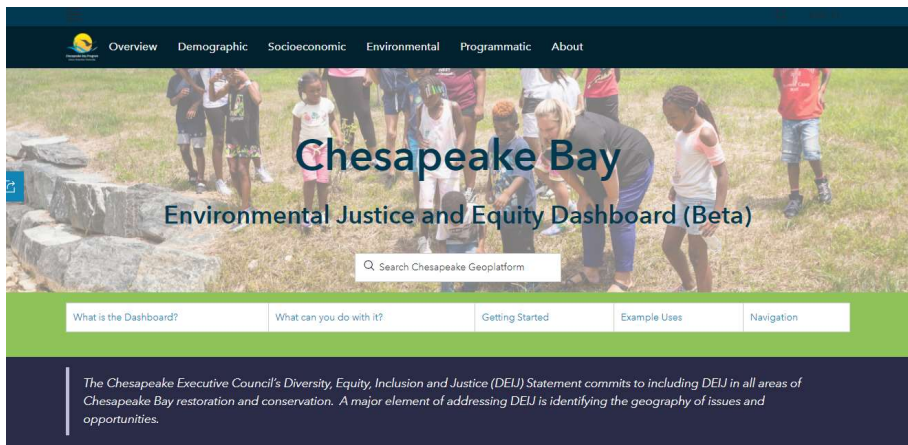
Each module references a variety of statistics and data to support its learning objectives. Sources for any referenced statistics, data, and photos can be found within the notes for each of the individual slides. A **Glossary** defining keywords can also be found at the end of each module.

Please visit [Chesapeake Bay Program website](#) for more information.

2021




EJ Screen Chesapeake




- Integrates Chesapeake Bay Program Partnership data resources.
- Provides EPA with a nationally consistent dataset and approach
- Distinguished from the national tool in ability to investigate Diversity layers in conjunction with other Outcomes of the Chesapeake Bay Watershed Agreement.



Chesapeake Bay Watershed Data Dashboard (Beta) Need Help? 

[Start Here!](#) [Rivers & Streams](#) [Tidal Waters](#) [Targeting Restoration](#) [Management Practices](#) [Land Policy & Conservation](#)



Welcome to the Chesapeake Bay Watershed Data Dashboard (Beta)

[What is the Dashboard?](#) [What can you do with it?](#) [How can I get started?](#) [Updates](#)

What is the Dashboard?

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

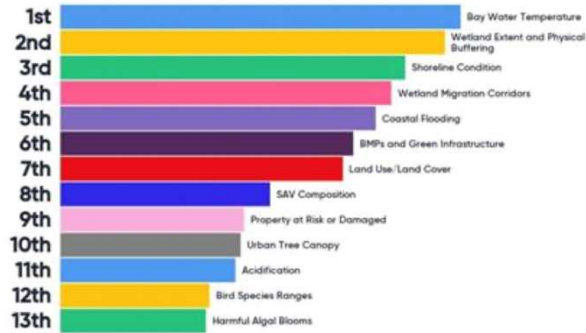
57 May 5, 2021 Resources for Collaboration and Synthesis at the Bay Program – Kristin Saunders, UMCES

Working Smarter

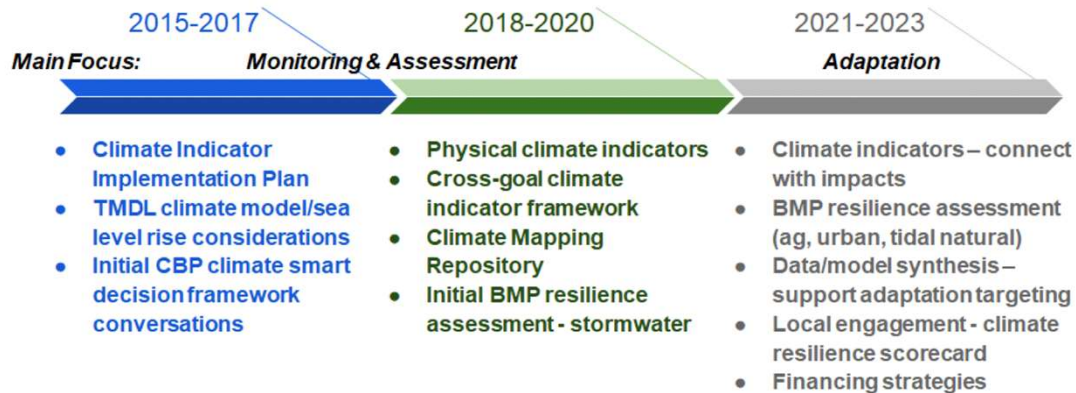
Considering reality

Climate Resiliency WG: Prioritizing

Rank in order of most to least which indicator you would recommend the CRWG develop








Climate resiliency WG: Strategizing



Learning about Process

Extracting more from SRS

The screenshot shows the Chesapeake Bay Program website. At the top left is the logo with the text "Chesapeake Bay Program Science. Restoration. Partnership." and a search bar. A navigation menu includes "Discover the Chesapeake", "Learn the Issues", "State of the Chesapeake", "Take Action", "In the News", "Who We Are", and "What We Do". The main content area features a large banner for "CHESAPEAKE DECISIONS" with a circular graphic. Below the banner is the heading "What is ChesapeakeDecisions?" and a short paragraph. To the right is a sidebar with the heading "ChesapeakeDecisions" and a list of links: "About ChesapeakeDecisions", "Strategy Review System Overview", "Document Status" (circled in red), "Meetings and Deadlines", "Management Decisions", and "FAQ". Below this is a "Download Templates" section with links for "Logic & Action Plan (.docx)" and "Narrative Analysis (.docx)". At the bottom, a URL is provided: <https://www.chesapeakebay.net/decisions/>. A footer bar contains the page number "62", the date "May 5, 2021", and the text "Resources for Collaboration and Synthesis at the Bay Program – Kristin Saunders, UMCES".

Factor	Current Efforts	Gap	Actions	Metrics	Expected Response and Application	Learn/Adapt
Best Management Practice (BMP) Implementation: Technical assistance with implementing, tracking, reporting, and verifying source control and mitigation practices	Convening a BMP Verification Ad-hoc Action Team, which includes the development of a task statement, schedule, and deliverables	A) Need additional technical assistance providers and specificity on what assistance is needed, in the agricultural sector at the local scale	More "boots on the ground" support. (A, B) Consider expanding circuit rider type programs to deliver technical assistance. (A, B)	Number of staff increases or providers to deliver technical assistance (A) Number of trainings for the Data Dashboard (B)	Increased delivery of technical assistance to support and accelerate BMP implementation, particularly in the agricultural sector (A,B)	 Knowledge  Tools  Resources 
	An optimization framework and tool is under development in CAST to help plan and target implementation efforts	B) Training to technical assistance providers on BMP verification and the Data Dashboard.	BMP verification and Data Dashboard training (B)	Number of BMP verification trainings provided (B)	Learning Leak	
The Chesapeake Bay Watershed Data Dashboard is available for use that provides comprehensive support for planning implementation efforts, such as BMP targeting and monitoring trends analyses	C) Update of BMP implementation and maintenance costs	The last update of implementation and update costs was in 2019. These costs will continue to be updated on a regular basis (C)	Updated costs in CAST 2021 (c)		Revisions to BMP verification and panel protocols that adheres to a robust scientific process and framework while recognizing application challenges (D,E)	
	D) Updates needed to the BMP verification framework to recognize resource limited verification programs	Potential refinements to the partnership's BMP Verification framework document (D) Development and approval of alternative verification methodologies. (D) Explore alternatives to BMP reverification (D) Reassess and update BMP credit durations (D)	Adoption of revisions to BMP verification framework document (D) Completion and release of the optimization framework and tool (A)	Revisions to BMP verification and panel protocols that adheres to a robust scientific process and framework while recognizing application challenges (D,E)		

Updated November 11, 2020 Page 2 of 17

WQGIT Logic & Action Plan, draft

Constructing a portfolio

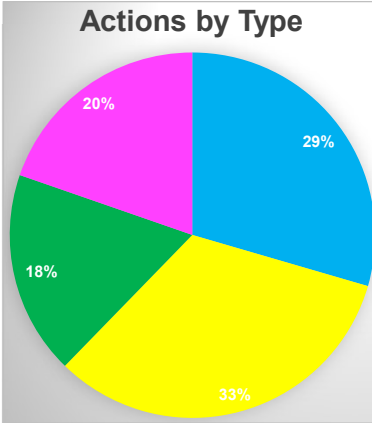
Organizing 61 Actions

Identifying potential "Learning Leaks"


Unclassified means more specificity is needed

What balance is desired?

Actions by Type



Category	Percentage
Knowledge/Information	29%
Tools/Skills	33%
Resources/Authority	18%
Unclassified	20%



ACTIONS – 2020-2021					
Action #	Description	Performance Target(s)	Responsible Party (or Parties)	Geographic Location	Expected Timeline
Management Approach 1:					
1	BMP verification training.	Increased number of trainings available to support verification program implementation and reporting	Jurisdictions, EPA	Watershed-wide	2021
2	Increased staffing support to provide technical assistance.			Watershed-wide	
3	Development and approval of alternative verification methodologies.	Updated partnership's BMP verification framework	BMP Verification Ad-hoc Action Team; Source Sector Workgroups; WQGIT	Watershed-wide	2020-2021
4	Work with the GITs and workgroups to identify new BMPs using expert panels.	Final recommendations for BMP efficiencies	WQGIT and Source Sector Workgroups	Watershed-wide	2020-2021
5	Explore alternatives to BMP reverification.	Case study on animal waste management systems	BMP Ad-hoc Verification Action Team	BMP Ad-hoc Verification Action Team	
6	Reassess and update BMP credit durations.	Recommendations to source sector groups and the WQGIT.	BMP Ad-hoc Verification Action Team, WQGIT, and Source sector workgroups	Watershed-wide	1 year through fall of 2021
7	Explore lesser-used approaches to BMP verification.				
8	Review recommendations from ongoing BMP verification work undertaken by the CBP.	Approved revised BMP verification protocols pending Partnership decisions on BMP credit duration	BMP Ad-hoc Verification Action Team, WQGIT, and workgroups	Watershed-wide	
9	Convene Expert Panels on dredging and freshwater mussels	Approved panel recommendations by the partnership and incorporated into CAST 2023	BMP Ad-hoc Verification Action Team, WQGIT, and workgroups	Watershed-wide	~1-2 years over the 2021-2022 timeframe
10	Continue updates to data and methods associated with CAST.	Findings presented to responsible party for decision Recommendations in a report Revised reported BMP history from jurisdictions	BMP Ad-hoc Verification Action Team, WQGIT, and workgroups (e.g., agriculture,	Watershed-wide	1 year, September 2021



Going it alone

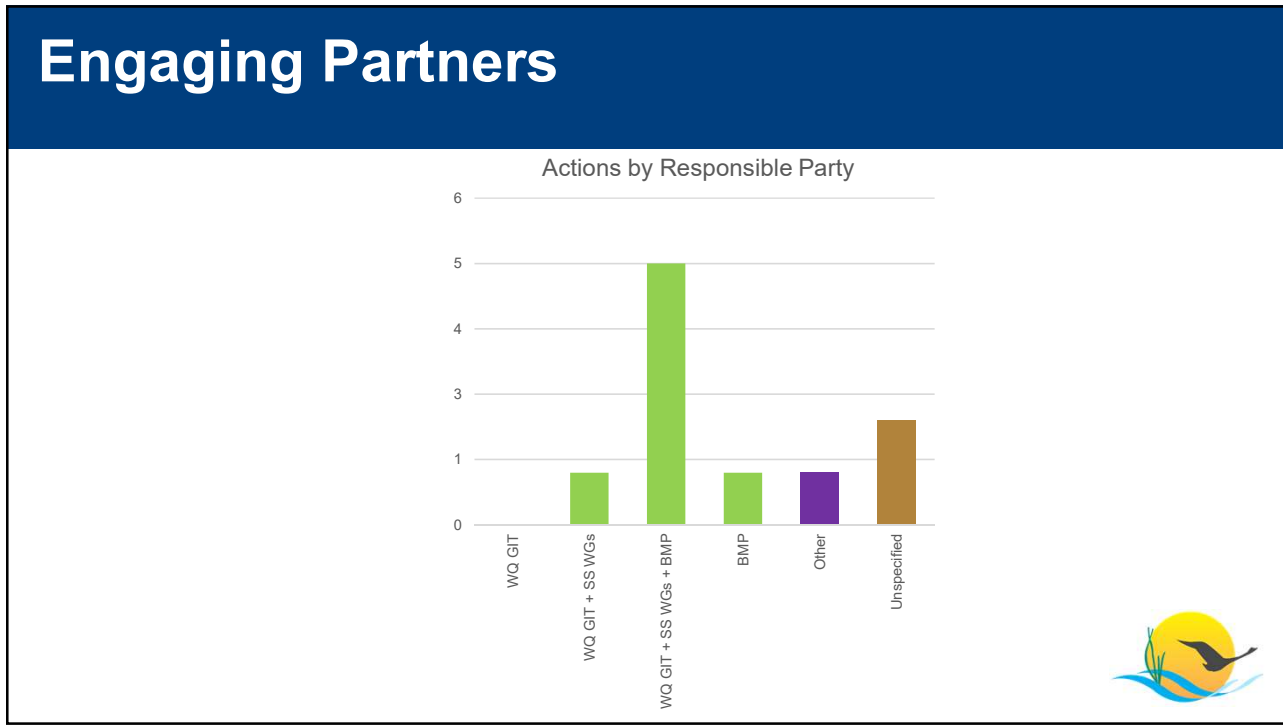


It takes two (at least)



Outside of GIT control

WQ GIT Management Actions, draft



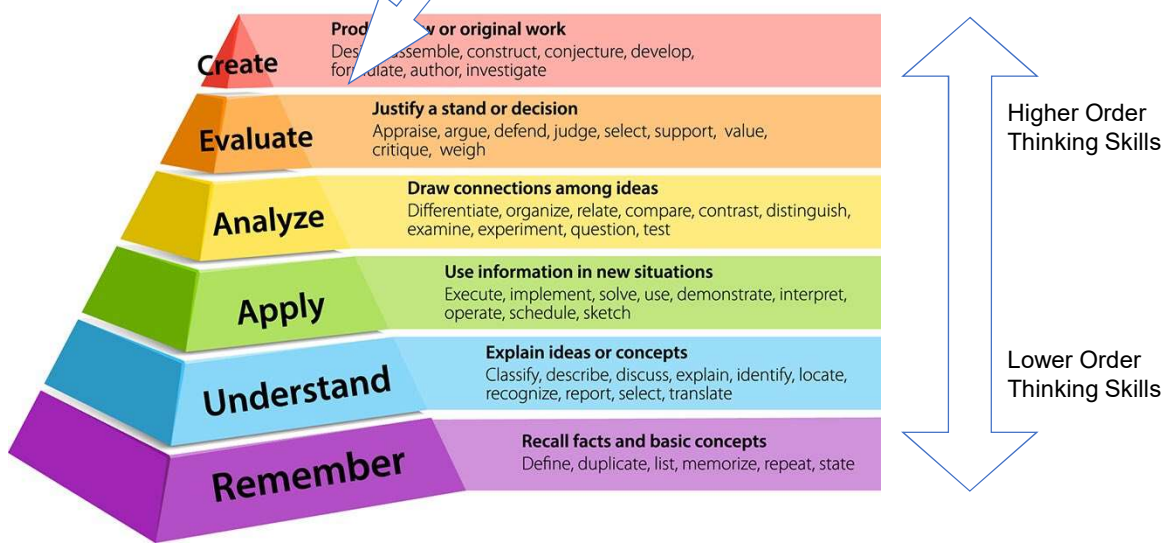
What are successful learnings?

- Gather and matchmake
- Develop tools that are widely applicable
- Working smarter
- Extracting value from SRS



Bloom's Taxonomy

You are here



Day 1: Where is the Learning Happening?

Goal: Identification of constructive, contributory lessons and applications of the SRS process which we can now use to help accelerate progress on our Watershed Agreement Outcomes.

Breakout Group Session General Instructions:

- Everyone has been pre-assigned to a breakout group of ~10 people.
- Breakout groups have been designed to include at least 1 member each from:
 - Management Board
 - GIT/Workgroup members
 - Staff
- **Quick Task #1:** Identify a leader to keep the group on task, help clarify answers, and report out on behalf of the group afterward.
- We will use **Jamboard to record answers.**
 - The Jamboard link will be shared in the chat once you are in your breakout groups.
 - Once in Jamboard, use the Jamboard page that is the same number as your Breakout Group.
- We will be in breakout for 30 minutes, during which we are asking you to address 2 questions...



Day 1: Where is the Learning Happening?

Goal: Identification of constructive, contributory lessons and applications of the SRS process which we can now use to help accelerate progress on our Watershed Agreement Outcomes.

Breakout Group Question #1:

What have you learned FROM the SRS process and what actions have resulted from those lessons?

We have all participated in the SRS process that sought to identify lessons learned from past implementation and apply those lessons as actions to improve progress in our efforts to meet our Watershed Agreement Outcomes. What a) types or specific lessons, and b) resulting actions did you find the most productive?

- The question is posted on the Jamboard page (so you don't need to copy it!)
- We are asking that everyone post at least 1 sticky on Jamboard that answers both parts "a" and "b" above (more than 1 sticky is encouraged!)
- If more than 1 person posts similar answers, the group is encouraged to combine them into one answer.
- We ask that you devote 15 minutes to this question. We will notify you in chat when the first 15 minutes are up and it is time to move on to question #2.



Day 1: Where is the Learning Happening?

Goal: Identification of constructive, contributory lessons and applications of the SRS process which we can now use to help accelerate progress on our Watershed Agreement Outcomes.

Breakout Group Question #2:

What have you learned ABOUT the SRS process and how has it helped?

The SRS process has a variety of steps which we all participate in differently based on our role. Which steps in the process have a) resulted in the most learning, and b) how has that learning been applied?

- The question is posted on the Jamboard page (so you don't need to copy it!)
- We are asking that everyone post at least 1 sticky on Jamboard that answers both parts "a" and "b" above (more than 1 sticky is encouraged!)
- If more than 1 person posts similar answers, the group is encouraged to combine them into one answer.
- We ask that you devote 15 minutes to this question.

ANY QUESTIONS?





2021 Strategy Review System (SRS) Biennial Meeting
Day 1: Our Roles in Achieving the Agreement Outcomes

Photo by Matt Rath/Chesapeake Bay Program

Please stay muted with your camera off unless you are scheduled to present

Virtual Meeting
May 12-13, 2021
10am – 3pm




Day 1: Our Roles in Achieving the Agreement Outcomes

Goal: Reach a collective understanding and embrace each other's roles in meeting our Watershed Agreement Outcomes.

Approach:

- Introduction: How does the partnership work? (15 min)
- Breakout Group Session #1: Defining our roles (20 min)
- Report-out #1 (20 min)
- Breakout Group Session #2: Refining our roles (20 min)
- Report-out #2 (30 min)

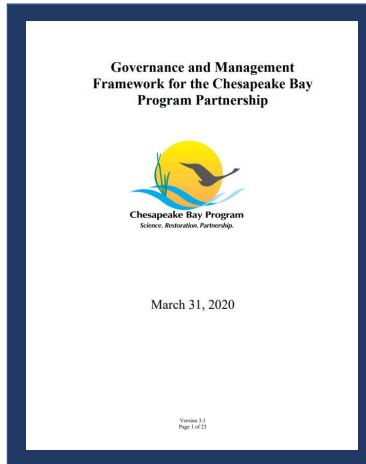


Day 1: Our Roles in Achieving the Agreement Outcomes

Goal: Reach a collective understanding and embrace each other's roles in meeting our Watershed Agreement Outcomes.

How does the partnership work?

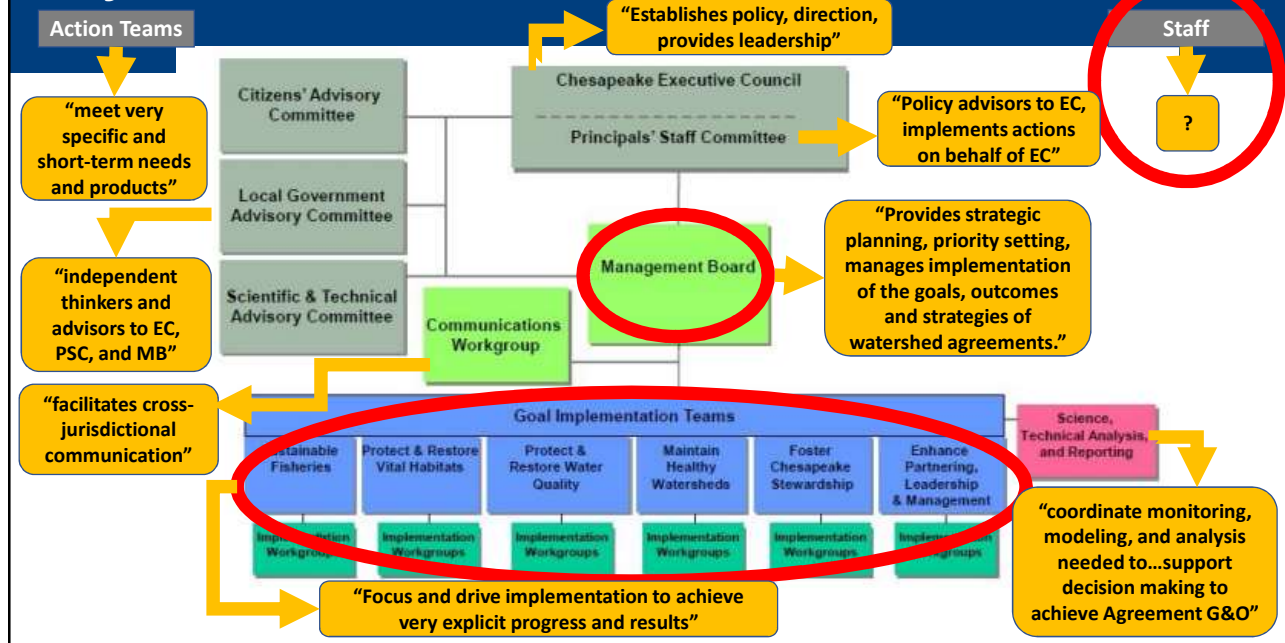
We've got a Governance Document!



“Collaborate to achieve the Goals and Outcomes of the Agreement”



Day 1: Our Roles in Achieving the Agreement Outcomes



Day 1: Our Roles in Achieving the Agreement Outcomes

Goal: Reach a collective understanding and embrace each other's roles in meeting our Watershed Agreement Outcomes.

Breakout Group Session General Instructions:

- Everyone has been pre-assigned to a breakout group of ~10 people.
- Breakout groups have been designed to include at least 1 member each from:
 - Management Board
 - GIT/Workgroup members
 - Staff
- Quick Task #1: Identify a leader to keep the group on task, help clarify answers, and report out on behalf of the group afterward.
- We will use Jamboard to record answers.
 - The Jamboard link will be shared in the chat once you are in your breakout groups.
 - Once in Jamboard, use the Jamboard page that is the same number as your Breakout Group.
- We will be in breakout for 20 minutes, during which we are asking you to address 3 questions...



Day 1: Our Roles in Achieving the Agreement Outcomes

Goal: Reach a collective understanding and embrace each other's roles in meeting our Watershed Agreement Outcomes.

Breakout Session #1: Defining our roles

Specific to 1) the MB, 2) GITs/Workgroups, and 3) Staff, and based on your experiences in the SRS process:

1. What is your role in achieving the Watershed Agreement Outcomes? Has your experience aligned with the description of your role in the Governance Document?
2. If your role and experience do not align, what changes would you make to close that gap?
3. What is your understanding and expectation of the Chesapeake Bay Program office staff (inclusive of all staff including all coordinators, staffers, etc) in meeting the Watershed Agreement Outcomes?

Once everyone has posted their answers to these 3 questions, then spend some time trying to develop collective answers, epiphanies, etc.

- The questions are posted on the Jamboard page (so you don't need to copy them!)
- Our objective is to develop more detailed descriptions of our respective roles of members of these 3 groups, but not to wordsmith.
- We are asking that everyone post at least 1 sticky on Jamboard that addresses all three above (ex. even if you are not a member of Management Board, we are interested in your answers on their role).
- If more than 1 person posts similar answers, the group is encouraged to combine them into one answer.
- You have 20 minutes to address this question, and then we will report-out.



Day 1: Our Roles in Achieving the Agreement Outcomes

Goal: Reach a collective understanding and embrace each other's roles in meeting our Watershed Agreement Outcomes.

Breakout Session #2:

Based on the general agreement we just identified in the roles of the 1) MB, 2) GITs/Workgroups, and 3) Staff, please address the following 3 questions:

1. What specific tasks should each of these groups be implementing to fulfill their role?
2. Please identify which of those tasks are unique to that group vs shared with another group(s).
3. Are there any gaps (i.e. missing tasks) that don't fit under one of these 3 groups and, if so, where should they be assigned?

Please be sure to consider where moving the partnership forward in our **DEIJ efforts** fits into all this.

- The questions are posted on the Jamboard page (so you don't need to copy them!)
- We are asking that everyone post at least 1 sticky on Jamboard that addresses each question
- If more than 1 person posts similar answers, the group is encouraged to combine them into one answer.
- We ask that you devote 20 minutes to these questions.

ANY QUESTIONS?



Our Roles in Achieving the Agreement Outcomes Breakout Group Session #2: Refining Our Roles

- Breakout Group Assignments:
 - Participants will be placed the *same* breakout groups from Session #1
- Breakout Agenda (~20 min):
 - Keep same person to facilitate the process and report out
 - Discuss the following questions and report brief responses in Jamboard page following the Session #1 page:
 - Q1: What specific tasks should each of those groups be implementing?
 - Q2: Which of those tasks are unique to that group vs. shared with another group(s)?
 - Q3: Are there any gaps (missing tasks) that don't fit under one of these 3 groups and where should they be assigned?
 - Take ~5 min break before the report-out session
 - **Sessions will end by 2:15pm for the report-outs**



Day 1 Closing Comments

Michelle Price-Fay
CBPO Acting Director

Day 2 Agenda – May 13

Schedule	Topic
10:00-10:15 am	VI. Opening Logistics & Opening Remarks
10:15-12:00 pm	VII. What's on the Horizon: Lightening Rounds on Future Trends in Science, Policy & Economics <ul style="list-style-type: none"> • Policy: Jurisdiction Policy; Tribal Engagement • Science: STAC's CESR Initiative; Social Science • Economics: Innovative Finance; USDA Funding Programs
12:00-12:30 pm	Lunch Break
12:30-2:15 pm	VIII. Opportunities for Accelerating Progress in Outcomes <ul style="list-style-type: none"> • Adaptive Management Successes and Challenges: Land Conservation; Oyster Restoration; Forest Buffers; Wetlands • Breakout Group Session • Breakout Group Report-outs
2:15-2:35 pm	IX. The Journey Forward, <i>Nainoa Thompson</i>
2:35-2:50 pm	X. Renewed Commitment & Collective Call to Action
2:50-3:00 pm	V. Wrap-up & Closing Remarks

