



2016 State of the Program

Goal Implementation Teams (GITs)

The unique, regional Chesapeake Bay Program (CBP) partnership brings together leaders and experts from a vast range of agencies and organizations. Each CBP partner uses its own resources to implement Chesapeake Bay restoration and protection activities. Partners work together through CBP's goal implementation teams, workgroups and committees to collaborate, share information and set goals.

Goal Implementation Team #1 – Sustainable Fisheries

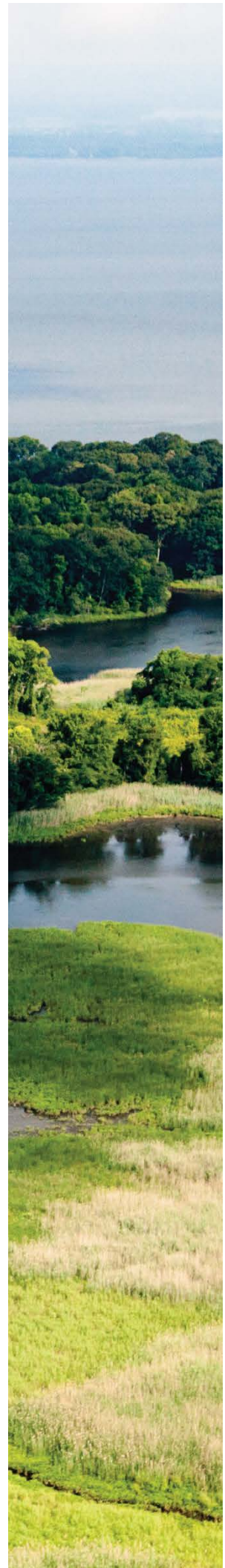
In 2015-16, the Sustainable Fisheries Goal Implementation Team focused on their priorities outlined in the *Chesapeake Bay Watershed Agreement*: blue crab abundance and management, oyster restoration, forage species and fish habitat.

Accomplishments

The Maryland and Virginia Oyster Interagency workgroups continue to develop and implement oyster restoration tributary plans for the six selected tributaries (three each in Maryland and Virginia). In Maryland, in-water implementation (>350 acres of reef construction and 2 billion seeds planted) was completed in Harris Creek in September 2015. Monitoring will continue through 2021, and preliminary [data](#) show that all reefs seeded in 2012 have exceeded the restoration threshold for oyster density. In the Tred Avon River, in-water restoration began in 2015 and the draft tributary plan is being finalized; and in the Little Choptank River, in-water restoration began in 2014 and the tributary plan is now final. In Virginia, tributary plans are being drafted for the Lafayette, Lynnhaven and Piankatank Rivers. In the Lafayette River, the restoration target is 80 acres, and 70 acres have either already been restored or are natural reefs that meet restoration criteria. The restoration target for the Lynnhaven River is being developed and 63 acres have already been restored; and in the Piankatank River, reef construction began in 2015 and partners are surveying the condition of existing oyster reefs.

The Chesapeake Bay Stock Assessment Committee delivered the 2016 Blue Crab [Advisory Report](#) on the status of the Chesapeake Bay blue crab stock and management advice for Maryland, Virginia and Potomac River jurisdictions. In 2016, the blue crab stock in the Chesapeake Bay is not depleted and overfishing is not occurring based on the female-specific reference points in the current management framework. The 2016 estimated age 1+ female abundance was 194 million (92% increase from 2015), which is between the threshold of 70 million age 1+ female crabs and the target of 215 million age 1+ female crabs. The 2015 female exploitation fraction was 15%, which was below the target (25.5%) and threshold (34%) levels.

The Forage Action Team and its partners identified a list of priority forage species in the Chesapeake Bay based on a 2014 [Forage Workshop](#). Following the workshop, the Chesapeake Bay Program/EPA funded a project (now complete) to develop forage indicators for these priority species and the predator species they support. The results of this project are currently being used to inform a study investigating the environmental drivers of forage populations.



Goal Implementation Team #2 – Protect & Restore Vital Habitats

The Habitat Goal Implementation Team (GIT) seeks to facilitate the implementation of projects that restore and enhance a network of land and water habitats to support priority species while providing recreational, scenic and economic benefits to the public.

Accomplishments

In spring 2016, we hosted state wildlife agency leaders to present priority areas for habitat conservation and restoration as outlined in State Wildlife Action Plans. With support from the North Atlantic and Appalachian Landscape Conservation Cooperatives, we are now working to coalesce regional, state and local tools and priorities to build a shared habitat connectivity vision that is tailored to the Chesapeake Bay watershed. During the first half of 2016, the Habitat Team developed work plans for each of six outcomes (Black Duck, Brook Trout, Fish Passage, Submerged Aquatic Vegetation, Stream Health and Wetlands). The team shifted focus in the second half of the year toward (1) alignment of actions in those work plans with state and local efforts, and (2) building capacity of Chesapeake Bay Program partners to apply regional science-based tools and funding mechanisms to such actions.

The Submerged Aquatic Vegetation (SAV) workgroup reached out to Riverkeeper organizations via a monitoring workshop in July 2016 to secure funding to supply them with the equipment and training necessary to expand SAV monitoring beyond boundaries of the aerial survey. The SAV workgroup and Black Duck action team are collaborating with the Climate Resiliency workgroup to hold workshops in the fall of 2016 that will inform restoration actions based on the Climate Resiliency Assessment and Decision-Making Matrix. The Stream Health workgroup is nearing completion of establishing an updated baseline of stream health and function based on benthic monitoring data collected by the states. The Fish Passage workgroup continues successful pursuit of dam removal and passage projects under the new “Upstream Functional Network” mileage measurement method. Increasing incentives for voluntary wetland restoration on agricultural land remains a priority for the Wetland workgroup; a GIT funded project will apply lessons learned from last year’s landowner survey to engage landowners in more effective, efficient ways. The Brook Trout action team is applying the Fish Habitat Decision Support Tool that went online in 2016 to identify target areas in each of five watershed states with this species to focus projects to both conserve and restore stream habitat in support of this popular recreational fishery.

As part of the ongoing Riparian Forest Buffer Initiative, several states have been able to revise their riparian forest buffer incentive packages to be more attractive to landowners. Farm Services Agency and US Forest Service has made funding available for 10 new riparian foresters to provide technical assistance to landowners in the watershed. These steps are urgently needed as riparian forest buffer progress for 2015 was the lowest in 15 years.

Goal Implementation Team #3 – Protect & Restore Water Quality

The Water Quality Goal Implementation Team has made significant progress towards addressing the priorities identified for the 2017 Midpoint Assessment under the Total Maximum Daily Load (TMDL). Key amongst these efforts has been the collection of local land cover, land use, zoning or parcel data from over 85 percent of the counties and municipalities across the six states and the District of

Columbia. This information greatly improves the CBP partnership's characterization of the landscape and allows the partnership to more effectively target restoration and conservation efforts.

In addition, an evaluation of the two year milestones, developed by the six states and the District of Columbia to demonstrate incremental progress towards achieving the TMDL, has indicated that for the first time, annual progress in the wastewater sector effectively meets its 2025 nutrient pollution limits. This progress is thanks to upgrades and operational efficiencies at wastewater treatment plants throughout the Chesapeake Bay watershed that have resulted in steep reductions in nitrogen and phosphorus pollution and put the sector at the forefront of Chesapeake Bay restoration efforts.

Accomplishments

In 2016, the Water Quality Goal Implementation Team has approved five Best Management Practice (BMP) expert panel reports across the urban and agriculture sectors.

The Water Quality Goal Implementation Team developed and approved a Phase III Watershed Implementation Plan (WIP) Stakeholder Assessment and associated Action Plan, in order to identify lessons learned from the Phase I and Phase II WIP processes and apply them to the Phase III WIPs.

Goal Implementation Team #4 – Maintain Healthy Watersheds


The Maintain Healthy Watershed Goal Implementation Team (GIT) continues its work to protect state-identified healthy waters and watersheds that are recognized for their exceptional water quality and high ecological value. Its focus is proactive, bringing attention to the challenges of protecting streams and watersheds that are healthy today, rather than reactive, in which efforts focus on the costly work of restoring "dirty waters" and watersheds to health after they have been degraded. The team is working on the development of a system for tracking watershed health and protection status, development and communication of key information to priority audiences that can actively protect healthy watersheds, and providing a forum for the facilitation among government and non-government efforts to achieve the team's objectives.

Accomplishments

There are two GIT funding projects, awarded last year that the Healthy Watersheds GIT is currently working on. The *Healthy Watersheds Forest/TMDL Project (Phase II)*, being conducted by the Virginia Department of Forest, uses findings from Phase I to negotiate with local officials to implement land use policies that retain forestland in healthy watersheds. The project will also create a toolbox of approaches and guidelines that can help local governments retain and conserve forests during land use planning. The *Evaluation of Land Use policy options, incentives and planning tools to reduce the rate of conversion of agriculture lands, forests, and wetlands* project, being conducted by The National Center for Smart Growth at University of Maryland College, is a comprehensive study to implement one of the tasks in the Land Use Options Evaluation Management Strategy. It will determine what tools and options are available to local governments in land use planning and will serve as a starting point for developing strategies that could support local government.

Two project proposals received by the Healthy Watershed GIT for FY16 have been recently awarded funding. Regina Campbell from West Virginia will lead the *Back Creek Watershed Demo – Getting Water Off the Road*, a pilot project studying road sediment erosion and reduction mitigation. The Back





Creek Watershed does not have any water quality impairments, but contains many miles of dirt and gravel roads which have been identified as significant sediment contributors that could threaten water quality. For this project, a grade break installation and training demonstration will be conducted and offered to a broad audience in order to facilitate continued erosion and sediment runoff control. The Land Use Workgroup will conduct the second project, *Methodology for Developing High-Resolution Stream and Waterbody Datasets for the Chesapeake Bay Watershed*. Spatially accurate stream maps are necessary for understanding stream networks that have or could be restored to achieve habitat and water quality outcomes. This project will evaluate existing and novel methods for mapping streams from Light Detection and Ranging (LiDAR) imagery and recommend an approach that meets the management needs of the CBP partners.

Goal Implementation Team #5 – Fostering Chesapeake Stewardship

The Fostering Chesapeake Stewardship Goal Implementation Team works to increase citizen action, support environmental education for all ages and build public support for restoration and conservation efforts, while increasing citizen engagement and active stewardship. Over the past year the Fostering Chesapeake Stewardship GIT continued to focus on meeting progress under the *Chesapeake Bay Watershed Agreement* for stewardship, public access, environmental literacy and diversity.

Accomplishments

Over the last year, a survey instrument was developed to quantify the extent to which the public is taking or willing to take individual stewardship related actions and behaviors. Pilot level data were collected via a randomly sampled general population survey to test the viability of the survey instrument as well as provide preliminary data to inform the development of an aggregate index of citizen stewardship.

The public access action team continued to advance the Bay Watershed Public Access Plan. Key implementation elements include meeting the needs of a diverse population, sustainable sites and accessibility. As of the end of 2015, a total of 108 new public access sites have been developed. This is on target to meet the 300 new public access sites goal by 2025.

State departments of education worked with the National Oceanic and Atmospheric Association (NOAA) to administer the Environmental Literacy Indicator Tool, which gathered self-reported data from school systems around the watershed about the status of their environmental literacy efforts. The data is being used to establish baselines for tracking progress over time for the environmental literacy outcomes of the *Chesapeake Bay Watershed Agreement*.

Consistent with the goal of increasing the diversity of local stewards in restoration activities for the watershed, the diversity workgroup and the Alliance for the Chesapeake Bay (ACB) conducted the first ever assessment of leadership diversity for the CBP and its partners. The ACB developed a demographic profile assessment tool and asked members of CBP's Principal Staff Committee, Management Board, advisory committees, goal implementation teams, workgroups and staffers to submit demographic information to reflect diversity. Almost 50% of the recipients responded to the questionnaire which asked a series of questions to determine diversity of the staff and leadership of the program. Of those who responded, approximately 13.4 % were non-white and approximately 3% of this group defined themselves as leaders.

Goal Implementation Team #6 – Enhance Partnering, Leadership and Management

The Enhance Partnering, Leadership and Management Goal Implementation Team (GIT) has focused on several areas this year: creating a Biennial Strategy Review System to support the development of *ChesapeakeDecisions* and implementation of adaptive management practices; coordinating the FY2016 GIT Funding process; continuing the design of local leadership initiatives; and forming the Budget and Finance Workgroup.

Accomplishments

The GIT is assisting in the implementation of adaptive management throughout the CBP by working with the *ChesapeakeStat* Project Team to develop a strategy review system, which brings to reality the biennial cycle in the *Chesapeake Bay Watershed Agreement*. This review system sets the stage for progress evaluation and adaptive problem-solving, encourages enhanced accountability, and offers greater ability to redirect work as knowledge and understanding changes. The GIT also led the FY2016 GIT Funding process by defining criteria for proposal submission, working with the Goal Implementation Teams to develop measurements for ranking proposals, and working with the Chesapeake Bay Trust to help Goal Implementation Teams refine scopes of work. A total of fifteen projects designed to support Goal Team work plan implementation were funded for a total amount of \$894,000.

The Local Leadership Workgroup continues their work to develop initiatives to increase the capacity of local officials. The Workgroup is laying the groundwork by collecting information regarding the types of information local officials need to foster a watershed-scale understanding of CBP goals and outcomes, and the most effective delivery mechanisms by which to deliver such information.

The Budget and Finance Workgroup held its inaugural meeting in June 2016. A Charge to the Workgroup was created, with the goal of building a more comprehensive awareness among the GITs of available funding sources and financing mechanisms, and how these can be used to advance progress on goals and outcomes.

Communications Workgroup and Office


Over the last year, the CBP Communications Office and Workgroup focused on strengthening communications and collaboration across the Chesapeake Bay Program partnership. While continuing to update the public on progress in the watershed, the Communications Office developed a strategic plan to more cohesively and effectively communicate the work of the CBP partnership.

Accomplishments

The CBP Communications Office created a new brochure for the partnership based on the communications themes related to the *Chesapeake Bay Watershed Agreement*. The office also released the *2014-2015 Bay Barometer*, a summary of CBP's health and restoration indicators.

The Communications Office completed a five-year strategic communications plan for the partnership, as well as its own internal action plan that lays out specific and measurable actions for the office to take. In order to address the identified need for increased outreach efforts, the office has added a new Communications and Outreach Specialist position.





The Communications Workgroup hosted its first ever retreat in which members participated in a training and identified ways for further collaboration among workgroup members.

The CBP Web and ChesapeakeStat Teams launched a new website, ChesapeakeProgress, which serves as an online tool to help oversight groups hold the partnership accountable for its environmental restoration and protection commitments.

Scientific, Technical Assessment and Reporting (STAR)

STAR continues to coordinate modeling, monitoring, indicator and information management activities that help CBP partners and Goal Implementation Teams prioritize the types and locations for management activities. It has also continued to evaluate and synthesize information for cross-cutting CBP products and to serve as liaison to federal, state, academic and non-governmental organizations to identify opportunities to address science needs of the GITs.

Accomplishments

STAR focused its support on indicator needs of the GITs, integrating Citizen Science, trend evaluation and reporting, and modeling supporting the 2017 mid-point assessment. STAR representatives worked to inform the structure of the CBP Indicator Framework. The Indicator Framework is being used by the Status and Trends Workgroup to organize assessment of outcome assessment support in the *Chesapeake Bay Watershed Agreement* and for tracking progress in efforts to fill the gaps. Coincidentally, STAR staff led a gap analysis of the GITs and their workgroups on indicator support to provide guidance on targeting partnership resources during the year toward addressing those gaps. Cross-GIT priority workshops were held to foster progress on gap-filling needs of the GITs. Science and Technical Advisory Committee (STAC)-sponsored workshops led by STAR leadership and STAR workgroups included the STAC Climate Change Projection Scenario Workshop and the Integrated Monitoring Networks Workshop. STAR also provided support for new STAC Workshop proposals that were accepted for 2017 workshops additionally addressing cross-GIT priorities. The workshops are: *Quantifying Ecosystem Services and Co-benefits of Nutrient and Sediment Reducing BMPs* (partner with the Water Quality GIT), *Understanding and Explaining 30+ years of Water Clarity Trends In the Bay's Tidal Waters* (partner with Chesapeake Bay Commission, Water Quality GIT, Vital Habitats GIT and Leadership GIT) and *Monitoring needs and trend analyses to assess potential effects of climate change and adaptively manage for multiple outcome targets* (Climate Resiliency Workgroup under STAR).

STAR has provided guidance to the Alliance for the Chesapeake Bay on specific project developments fostering integration of citizen science and nontraditional partner monitoring programming to inform Chesapeake Bay Program decision-making needs. The Citizen Science Project Team has developed a 3-tier data classification, established Quality Assurance Project Plans to support water quality and benthic macroinvertebrate sampling and data reporting, surveyed over 100 Citizen Science groups regarding their program capacities, and initiated development of a Citizen Science database. STAR Workgroups and Action Teams have worked on methods improving water quality attainment status assessments and trend detection on water quality measures in the watershed and the Bay. A Criteria Assessment Protocol's technical document is under STAC review. Further, the most recent water quality assessment results for the Bay and watershed have been completed and a press release is scheduled for September 2016. Finally, Phase 6 watershed model updates will support a product informing the 2017 mid-point assessment of the Chesapeake Bay TMDL. The latest model phase has been advancing through beta-testing stages.

Climate Resilience Workgroup

Changing environmental conditions will affect not only the health of our ecosystem, but the success of restoration and protection work across the watershed. Effective programs and policies rely on good stakeholder engagement as we facilitate the continual assessment of and adaptation to the influence climate change has on our work. In 2016, the Climate Resiliency Workgroup finalized its Biennial Work Plan, which lays out the Partnership's planned actions for monitoring and assessing of trends and impacts, as well as specific activities and on-the-ground projects to build resilience.

Implementation of key-elements of the Work Plan is now underway.

Accomplishments

The Climate Resiliency Workgroup met monthly over the last year, focusing their time together to explore, discuss and collaborate on a range of climate change issues and management needs. Issue-based meetings concentrated on promoting green infrastructure solutions for coastal resiliency; identifying and fulfilling data and information needs to support the 2017 midpoint assessment; developing a climate change research agenda; and exploring pathways to connect the Partnership's work on climate change and diversity.

The Workgroup coordinated the first phase on an ongoing decision-making process to integrate climate change considerations into the 2017 midpoint assessment for the Chesapeake Bay TMDL. Specific activities include:

- Hosted the workshop, "Development of Climate Projections for Use in Chesapeake Bay Program Assessments." This workshop brought together national and regional scientists, resource managers, and decision-makers to explore, discuss and recommend climate change projections and scenarios for use in assessing the likely impacts of changing climatic and sea level conditions on the Chesapeake Bay ecosystem.
- Provided guidance and input on the suite of ongoing climate change modeling efforts underway as part of the mid-point assessment. Focus to date has been on the preliminary results of estimates and model runs for 2025 and 2050 depicting pollution load changes due to precipitation, temperatures, and rainfall intensity in the application of the Chesapeake Bay Watershed Model.
- Developed written recommendations for, "Incorporating Climate-Related Data Inputs and Assessments: Selection of Sea Level Rise Scenarios and Tidal Marsh Change Models to inform the Chesapeake Bay TMDL 2017 Mid-Point Assessment."

The Workgroup undertook a project to develop a *Climate Resiliency Analysis and Decision-Making Matrix*, which will be used in the Fall of 2016 to conduct a structured decision-making process with the SAV and Wetland/Black Duck workgroups to: 1) review management goals and outcomes and establish baselines; 2) identify data, research, monitoring and assessment needs; 3) evaluate the effectiveness of existing BMP's; and 4) consider appropriate adjustments, revisions or modifications to proposed management actions or best management practices.

The Workgroup published the Report, "Climate Change Adaptation and Research Efforts in the Chesapeake Bay Watershed: A Compendium of Current and Ongoing Efforts." This compendium is intended to be a living document, to be updated and distributed annually to program partners. They also published four editions of the quarterly newsletter, *Chesapeake Resiliency*. This news service is a great resource for Chesapeake Bay Program partners, including scientists, researchers, planners, policymakers and practitioners working on and/or interested in learning more about climate related efforts underway in the Chesapeake Bay watershed. To subscribe, visit [Chesapeake Resiliency](#).

