



# CHESAPEAKE BAY COMMISSION

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The Chesapeake Bay Commission held its fourth quarterly meeting of 2024 on Thursday and Friday, November 14-15, 2024. The meeting was held in Kennett Square, PA.

## Commission members in attendance:

Delegate Alex Askew  
Representative Kerry Benninghoff  
Delegate Robert Bloxom  
Delegate David Bulova  
Warren Elliott, PA Citizen Member  
Representative Carol Hill-Evans  
Secretary Josh Kurtz  
RADM Carl Lahti  
Vincent Leggett, MD Citizen Member  
Senator Sara Love  
Senator Scott Martin  
Senator Jeremy McPike  
Delegate Sheila Ruth  
Acting Secretary Jessica Shirley  
Delegate Dana Stein  
Representative Mike Sturla  
Secretary Travis Voyles  
Senator Mary Washington  
Senator Gene Yaw

## Not in attendance:

Delegate Julian Ivey  
Senator Richard Stuart  
Missy Cotter Smasal, VA Citizen Member

## Member Staff:

MD David Goshorn  
VA Stefanie Taillon  
PA Jill Whitcomb  
DoD Kevin Du Bois

## CBC Staff:

Jen Dieux  
Mark Hoffman  
Anna Killius  
Marel King  
Adrienne Kotula

**Friday, November 14, 2024**

**WELCOME AND NEW MEMBER INTRODUCTIONS**

Commission Chair Bulova called the formal meeting to order at 11:42 A.M. and welcomed members to the Stroud Water Research Center. Chair Bulova then introduced newly appointed Maryland Members, Senators Mary Washington and Sara Love. Both Senators spoke briefly about their backgrounds and interests in furthering the work of the Commission. They fill vacancies left by Senator Guy Guzzone and Senator Sarah Elfreth, respectively. The Chair then recognized the retirement of PA Representative Mike Sturla and his 19 years of service on the Commission.

The Chair then welcomed two guests from the Pennsylvania General Assembly, State Senator Carolyn Comitta and Representative Christina Sappey, whose districts include our meeting locations – both welcomed the Commission members to this corner of the Commonwealth.

**ROLL CALL**

Chair Bulova then asked Executive Director Anna Killius to call the roll. A quorum was present.

**ADOPTION OF MINUTES**

Chair Bulova called for approval of the minutes from the May meeting. The motion was adopted by unanimous consent.

**ADOPTION/MODIFICATION OF AGENDA**

Chair Bulova asked for comments or questions on the agenda from the members. Hearing none, the agenda was approved unanimously.

**FOLLOW-UP FROM SEPTEMBER MEETING**

Chair Bulova asked Executive Director Killius to present the group with follow-ups from the September Meeting. Ms. Killius provided updates as follows:

**FISHERIES**

**BLUE CRABS**

Ms. Killius reminded the members that the Virginia Marine Resources Commission (VMRC) held a vote in June that resulted in the repeal the 16-year prohibition on the winter dredge fishery for blue crabs. The winter dredge fishery has been closed since 2008 when a Federal Fisheries Disaster was declared for blue crabs and all three regulatory entities -- Virginia, Maryland, and the Potomac River Fisheries Commission -- focused their efforts on maintaining a high abundance of female crabs to maximize reproductive potential. Recent population surveys suggest that continued management to protect mature female crabs and juvenile crabs is warranted.

When VMRC voted to end the prohibition, it did not, in effect, immediately reopen the dredge fishery. For that, VMRC would need to develop and approve regulations to manage the dredge fishery ahead of any proposed winter season. Last month, VMRC held a public hearing on reopening the dredge fishery and ultimately voted to maintain the closure for the 2024/2025 winter season. The Commission also decided to maintain the current length of the crab pot season, rather than extending its length.

This concludes the controversial management question for now, but VMRC will have to revisit the decision next year. The Commission's crab management advisory committee recommended that VMRC reconsider the closure after the results of the 2026 benchmark stock assessment for blue crabs is completed.

In 2021, the Commission requested the initiation of a new Blue Crab Benchmark Stock Assessment based on declining juvenile population numbers seen in recent surveys. The Chesapeake Bay Stock Assessment Committee for the Bay Program's Sustainable Fisheries Goal Implementation Team agreed with that recommendation. Our female-focused management metrics indicate that the blue crab fishery is not depleted and is not being overfished, but population survey results continue to show a disconnect between how we are managing our current spawning stock and the level of juvenile recruitment we are seeing year to year. A benchmark stock assessment should take place every 3-5 years to review and potentially incorporate new data and develop a new assessment model. That new model will undergo peer review by independent fisheries scientists before being accepted. Once a stock assessment model is in place, it is updated yearly with the most recent data to determine the stock status.

At the request of the Commission, Ms. Killius noted that she checked in on the progress of the 2026 blue crab benchmark stock assessment and can report it is moving at the expected pace. The current assessment model is being updated with new data and a new assessment model is under development and nearing completion. They will then apply the new data to the new model. A testing framework will look at the performance of both the current and new model. The fisheries scientists leading the effort have cautioned that very little will be shared about the models until they have gone through peer review to avoid confusion and misinformation. Nothing will be settled until after that peer review process is complete, to ensure the assessment model is credible, reflects sound science, and is appropriate for management use. We should see results in early 2026.

### **STRIPED BASS**

Ms. Killius then updated the members on the status of the striped bass stock in the Chesapeake Bay. While blue crabs are managed by Virginia, Maryland, and the Potomac River Fisheries Commission, striped bass are managed by the Atlantic States Fisheries Management Commission (ASMFC). But like blue crabs, ASMFC looks at female spawning stock and juvenile recruitment to assess the status of the stock. Based on the latest stock assessment update, striped bass are overfished – which means the female spawning stock are below the level that can be replaced by the current recruitment class – but is no longer experiencing overfishing – meaning we do not have excessive harvest. The Atlantic Striped Bass Management Board continues to be concerned about low recruitment. The young-of-year index for 2024 marked the 6<sup>th</sup> consecutive year of poor reproduction.

Based on Amendment 7 to the Interstate Fishery Management Plan for Striped Bass (2022), the Management Board is required to rebuild the stock by 2029. Based on current projections, which anticipate higher fishing mortality in 2025, the probability of rebuilding the striped bass stock by 2029 is less than 50%. In response, the Board will hold a special meeting in December to consider changes to the 2025 management measures to reduce fishing mortality.

To manage fishery mortality, the Board has a few management tools at its disposal. The commercial fishery is managed by a quota system, divided between the Chesapeake Bay and the ocean. The recreational fishery is managed by bag limits, size limits, gear restrictions, and seasonal closures. For 2024, ASMFC limited recreational anglers to one fish between 19 to 24 inches. Maryland favored an option that would allow a two-fish limit on charter vessels. The Board also reduced the commercial quota by 7%. When the Board meets in December, it expects to consider changes to the 2025 recreational seasons and size limits, and to the commercial quotas, with the aim of achieving a 50% probability of rebuilding the stock by 2029.

One thing for us to consider moving forward is how difficult it is to manage migratory species like Striped Bass, when there are so many factors potentially impacting their success beyond fishing pressures. Habitat loss, low oxygen levels, and warmer temperatures may be negatively impacting striped bass larvae when they are most sensitive to water conditions and food availability during their first few weeks of life.

## **OYSTERS**

Ms. Killius noted that at our September meeting in Hampton Roads we heard from Andrew Button, Head of Conservation and Replenishment at VMRC, and Chris Moore, the Chesapeake Bay Foundation's Virginia Director, on the status and future of oyster restoration and aquaculture in the Commonwealth. She noted she was now pleased to share an update from Maryland on the topic of oysters. As Maryland approaches the completion of large-scale restoration in the five sanctuary sites identified in the Chesapeake Bay Watershed Agreement, the Department of Natural Resources has turned its sights on the next phase of restoration. Three sites for future large-scale restoration have been selected: Herring Bay, the Nanticoke River, and Hoopers Strait. In choosing these sites, DNR received recommendations from the Department's Oyster Advisory Commission that DNR should consider the potential for a self-sustaining oyster population, the economic efficiency of the project, and diversifying work in different salinity zones to mitigate disease risk. The selected sanctuaries reach the eastern and western shores as well as the mid and lower segments of the Bay.

Monitoring and planned second plantings will continue in the original big five sanctuaries. And restoration work is already occurring in Eastern Bay under a multi-use approach including sanctuaries aquaculture leases, and public harvest areas. As a result of legislation passed in 2022, with the leadership of former Commission member, U.S. Representative-Elect Elfreth, \$2 million per year is committed for oyster restoration in Eastern Bay from FY 2024 to 2026, equally divided between spat planting in sanctuaries and enhancement of the public fishery.

## **FUTURE MEETING DATES**

Ms. Killius noted for the members that in their folders are the approved dates and locations for our quarterly meetings in 2025 as well as proposed dates for 2026. The members will be asked to approve the 2026 dates at the May meeting, but it would be helpful if members could put all of these in your calendars now and let Commission staff know of any major conflicts we might want to take into consideration.

As for 2026, she noted we are proposing to move our annual Annapolis meeting to the springtime, since we have heard that many of you would like to see the city in warmer weather! We are exploring what sort of locations and opportunities that might open up for us. We are also working with the Chesapeake Bay Foundation to host our September 2026 meeting at their education center, Port Isobel, at Tangier Island. The Commission last visited Tangier in 2014, at the start of the current Watershed Agreement, so it will be very appropriate to return and reconnect with our at-risk Bay Islands as we refresh that agreement.

## **UPCOMING LOCATIONS & TOPICS**

In the more immediate future, when we reconvene in Annapolis this coming January, we will be meeting the first day at the Wiley Bates Legacy Center, which for 30 years was the only high school for African American students in Anne Arundel County and is named for Wiley Bates, a prominent Black Annapolitan, businessman, civic leader, and philanthropist. We are planning an agenda that focuses on diversity, equity, inclusion, and justice, with discussions on best practices in targeting resources, building local capacity, and growing the next generation of Bay leaders and practitioners. We are also working with the Chesapeake Legal Alliance to provide you with an updated jurisdiction comparison – a well-received presentation and resource first developed 5 years ago.

For May, as it is an odd year, we will be making our biennial trip to Washington, D.C. We will be in the Navy Yard neighborhood, meeting in the very beautiful and modern Reservoir Center for Water Solutions on the banks of the Anacostia River. The Reservoir Center is a consortium of water sector non-profits committed to collaborate as thought leaders to solve global water issues. Given our host and our metropolitan setting, surrounded by examples of urban stormwater management, we are planning to focus on the developed sector, municipal separate storm sewer systems or MS4s, and issues impacting urban ecosystems.

### **STROUD WATER RESEARCH CENTER**

Chair Bulova then introduced two speakers from the Stroud Water Research Center, Dr. David Arscott, Executive Director and President, and Matt Ehrhart, Director of Watershed Restoration.

Established in 1966 as a field station of the Academy of Natural Sciences, the Stroud Center began in the garage of the Stroud family farm and focused on the freshwater ecosystem of the local White Clay Creek. After three decades, the Center has grown to a multi-building campus, a multi-million-dollar budget, and research projects around the globe. Now an independent non-profit corporation, Stroud remains dedicated to advancing the knowledge and stewardship of freshwater ecosystems through research, education, and watershed restoration.

Dr. Arscott welcomed the Commission members to the Center and walked them through a presentation giving the history and current function of the Research Center. He noted the interdisciplinary nature of their work, and their goal to help translate academic research into on-the-ground management actions.

Mr. Ehrhart then walked the members through a high-level assessment of the work he and his colleagues at Stroud have been doing to evaluate what is, and is not, working related to watershed restoration. He discussed the legal foundations of current efforts, the costs and benefits of various restoration approaches, and the science that has been undertaken to fully assess each.

### **AMAZON WEB SERVICES**

Dr. Arscott then briefed the members on a project they have undertaken with Amazon Web Services' (AWS). AWS has pledged to be "water positive" by 2030 -- returning more water to communities and the environment than it uses. AWS has partnered with Stroud on a three-year initiative to support ecosystem health, soil health, and groundwater recharge on farmland in the Bull Run and Broad Run watersheds of Virginia.

### **RESEARCH TOUR**

The members then went on a tour of the Stroud Center's Moorhead Environmental Complex, a LEED® Platinum facility that is both well-equipped for sophisticated scientific research and education and filled with art that inspires creativity and dialogue. The tour included the microbial lab and the "wet lab," where Stroud replicates stream conditions to look at the chronic impacts of complex stream stressors.

### **INTRODUCTION TO "THE MUSHROOM CAPITAL OF THE WORLD"**

Kennett Square and the nearby region produce over one million pounds of mushrooms every day using compost made from the byproducts and waste of the region's farms. Afterward, the compost is recycled as a soil amendment and is a key link in the region's nutrient budget.

Chair Bulova introduced Rachel Roberts, President of the American Mushroom Institute and Christian Strohmaier, Managing Director of the Chester County Conservation District, to provide background and information on the industry. Ms. Roberts walked the members through the history, scope, and productivity of the mushroom industry, and the work undertaken to ensure its environmental suitability. Mr. Strohmaier focused on the close relationship

between the growers and the Conservation District to properly manage both the inputs and outputs of mushroom production.

### **TOUR YEATMAN'S MUSHROOM FARM**

The members then left the Stroud Center and toured C.P. Yeatman & Sons, Inc., a five-generation grower of organic mushrooms, sold under the Mother Earth brand, and conventional mushrooms, sold under the New Moon brand. White Button, Baby Bella, Portabella, Shiitake, and several exotics are packaged for both retail and food service customers.

Mr. Jerry Yeatman, President, and Meghan Klotzbach, Vice President for Operations, Sales & Marketing, welcomed the members, provided background on the history of their operations and led the Commission on a fascinating tour of their facilities.

### **LONGWOOD GARDENS**

The members then transitioned to Longwood Gardens, for the final briefings of the day. In 1906, Pierre S. du Pont purchased a farm to preserve a 15-acre arboretum that had been established by the previous owners. He would soon add gardens and greenhouses for his own and the public's enjoyment. Today, the property has grown to more than 1,100 acres showcasing horticulture, architecture, art, and environmental sustainability with over 1.5 million visitors each year. Additionally, educational programs are offered for students from K-12 to graduate students as well as continuing education for horticulture and landscape professionals. An ambitious \$250 million expansion, "Longwood Reimagined," has just been completed, featuring 17 acres of new buildings and gardens opening to the public on November 22nd.

Paul B. Redman, President & CEO of Longwood Gardens, welcomed the members and provided information on the history and operations of the facility. Then two of his key staff, Kate Santos, Ph.D., Associate Vice President, Science and Land Stewardship/Conservation Programs, and Kay Chubbuck, D.Phil., Vice President, Engagement and Learning, and Workforce Development, gave presentations to the members detailing the work each of their programs undertakes to advance the science and educational goals of Longwood.

The Commission adjourned for the day at 5:00 P.M.

### **Friday, November 15, 2024**

#### **DELEGATION BREAKFAST BREAKOUTS**

Delegations discussed news and issues relevant to their jurisdictions over breakfast.

#### **WELCOME & ROLL CALL**

Chair Bulova called the meeting to order at 9:19 A.M. and asked Executive Director Killius to call the roll. A quorum was present.

#### **EXECUTIVE DIRECTOR'S LIGHTNING ROUND UPDATES**

Chair Bulova asked Executive Director Killius to update the Commission on important and timely issues impacting the Chesapeake Bay watershed.

## **INVASIVE BLUE CATFISH**

The Commission and its partners are focused on a three-pronged approach: science, policy, and marketing. In August, the Commission's Executive Director joined a Congressional staff delegation event hosted by the U.S. Geological Survey (USGS) and Maryland Department of Natural Resources. During the event, USGS highlighted the scientific capabilities that the agency can bring to bear on the invasive catfish problem in the Chesapeake Bay and its tributaries. USGS data can help fisheries managers understand the magnitude of the problem (estimating the size and location of the catfish population and their predatory impacts on native species) and potential solutions (including meaningful harvest levels as well as gear or method recommendations). To ramp up USGS support, additional federal funding resources would be needed.

The Commission continues to advocate for policies that would incentivize additional commercial fishing of invasive catfish in the Chesapeake Bay by removing processing barriers. While attempts to return catfish to FDA's regulatory oversight (consistent with all other seafood) have been blocked by farmed catfish interests, we have seen greater success in securing grant funding for new and expanding processing operations. Virginia has awarded \$500,000 in processing grants so far, with an additional \$250,000 on the way. Congress set aside \$3 million in FY2024 for USDA Rural Development's Meat and Poultry Production Expansion Program with a priority for proposals that support processing of invasive wild-caught catfish. The Commission gave notice of the upcoming funding opportunity to regional stakeholders who may be interested in applying, along with information on how to receive technical assistance. An additional \$1 million in federal funding is available through the Food Safety Inspection Service to offset inspection costs.

For commercial fishing and processing to grow at the rate needed to meaningfully reduce catfish biomass in the Bay watershed, we also need a robust market eager for the product. Maryland and Virginia's agriculture agencies are investing in marketing campaigns and workgroups to highlight opportunities for an expanded catfish market. Meanwhile, the Commission successfully advocated for appropriations language to make wild-caught catfish eligible for USDA Agricultural Marketing Service's Section 32 procurement program, through which USDA purchases products for distribution to various food nutrition assistance programs. The Commission has been working with USDA as they craft the wild-caught catfish product specification.

## **BEYOND 2025 FINAL REPORT**

The Steering Committee tasked with recommending a path forward for the Chesapeake Bay Program beyond 2025 reached consensus on its final report in September. That report was delivered to and accepted by the Bay Program's Management Board and Principals' Staff Committee last month. This report should be seen as "Phase 1" of bringing the partnership into the next generation of conservation. It provides a scope of work that should be done to direct the partnership forward. The major recommendations for that scope of work, what we refer to as the "bottom line up front," remained largely the same after the public feedback and internal discussions.

The Steering Committee recommends that the Executive Council affirm its continuing commitment to progress through partnership, that we continue to work on accomplishing the goals and outcomes in the current Agreement, but that we spend the next year reviewing all of the outcomes and refreshing the Agreement based on the latest science and the emerging challenges we are facing. Much of the Chesapeake Bay Watershed Agreement is sound, evergreen, and does not need much in the way of updating. But we do need to pay particular attention to the outcomes, the time-bound, measurable targets we use to assess our progress towards our vision of a healthy Bay and watershed. Outcomes may need to be consolidated, removed, replaced, or added to make sure that the partnership is focused and effective as

we move beyond 2025. For the outcomes we've achieved, is there a new target to aim for in the future? For outcomes where we have fallen short, do we simply need more time, or do we need to tweak our focus in the light of dynamic changes to the environment?

The Steering Committee also recommends that we work on strengthening the partnership by streamlining the structure and processes. How can we be more inclusive and more holistic in our approach, while removing complexities that confuse stakeholders, silo our work, or bury staff in too many workgroups and meetings to be effective?

These top recommendations have been fairly well-received by the public and by Bay Program leaders. They have been incorporated into a new Executive Council Charge that will kick off "phase 2" of preparing for partnership beyond 2025: reviewing our outcomes, refreshing the Agreement, and updating our structure.

### **EXECUTIVE COUNCIL MEETING**

The 2024 Executive Council meeting will be held on December 10 in Annapolis, MD. The current EC Chair, Governor Moore will preside over the meeting and will be joined by Governor Youngkin and Commission Chair Delegate Bulova. We are still waiting to hear if Governor Shapiro, DE Governor Carney or EPA Administrator Regan will be in attendance. The remaining Council members will be sending a designee.

At the meeting, the Executive Council is expected to issue the Charge for executing phase 2 of the Beyond 2025 work and sign a directive creating a new Agriculture Advisory Committee. The new advisory committee will join the three current committees representing the science and technical community, local governments, and stakeholders broadly. These committees provide independent advice to the Executive Council, their Principals' Staff Committee, and the Management Board. The addition of a new committee, providing the perspective of the agriculture community, including farmers and practitioners, can provide a two-way transfer of knowledge. They can help the Program understand how farmers make decisions and what tools they need to more effectively protect their local streams and soil; and they can help the agriculture community understand Program needs and priorities for a vibrant, sustainable watershed.

The Secretary or Commissioner of Agriculture in each of the Bay States and the Director of DC's Department of Energy and Environment will each appoint two members to the committee, one of which should be a producer. It will be important that across all appointees we have a diverse cross-section of the agriculture sector and all the practitioners and participants that help support that sector. It will also be important that the Program provides the funding and staffing resources necessary to support the new committee so that it can be a positive and productive experience for its members.

Commission staff are already thinking of topics and ideas with which to engage in this new resource for the Bay Program.

### **MANAGING A "MANURESLED"**

Chair Bulova then introduced a panel of speakers to present to the members on the concept of a "manureshed." Gary Shenk, a Hydrologist from the USGS Chesapeake Bay Program Office, Dr. Cibin Raj, an Associate Professor of Agricultural and Biological Engineering from The Pennsylvania State University, and Kristen Hughes Evans, the Executive Director of Sustainable Chesapeake.

Each speaker gave a presentation highlighting different aspects of their work and the implications for watershed restoration. Mr. Shenk focused on how manure is accounted for in the Bay model and the Partnership's goals for pollution reduction. He summarized that, in the aggregate, there is not too much manure for the Chesapeake Bay



Watershed, distribution is a solution, and the Bay Program has no information below the county level related to manure generation or application. Dr. Raj reviewed his research on manure and noted that manure transport scenarios were more effective in improving the local water quality of streams in livestock-intensive regions. His work has also found that crop phosphorus demand-based manure application, manure injection, and weather-based manure application improves water quality, but cautioned that more precise and consistent data will improve analysis. Ms. Hughes-Evans noted what is working well in the nutrient management space including incentivizing precision injection technologies, some ongoing challenges, and opportunities to improve nutrient management.

Chair Bulova thanked the presenters for their thoughtful presentations to the commission members.

### **ACROSS THE BORDER: THE DELAWARE ESTUARY**

For the meeting's final session, Chair Bulova introduced Martha Maxwell-Doyle, Programs Director at the Partnership for the Delaware Estuary. The Delaware watershed spans five states and provides drinking water for over 13.3 million people – 4% of the nation's total population – from a surface area 1/5 the size of the Chesapeake. Its living resources suffer from polluted runoff, low dissolved oxygen levels, and loss of habitat, exacerbated by the impacts of land use and climate change.

Ms. Maxwell-Doyle reviewed the structure and funding of the multi-jurisdictional efforts to improve the health of the Delaware Estuary, and the myriad science, education, and policy work undertaken by the partnership. It was very interesting for the members to hear about work very similar to their own, but with a slightly different geography and social setting.

Chair Bulova thanked Ms. Maxwell-Doyle for her time and thought-provoking comments.

### **INTERIM ACTIONS**

Chair Bulova asked Executive Director Killius to share any interim actions identified by Commission members during the meeting. She identified four topics during the meeting: 1) provide an update on ASMFC's discussions of the impact of catch-and-release fishing on striped bass, and explore a future meeting agenda item related to the latest science on problems impacting our native species beyond pollution and invasives; 2) provide any updates on invasive catfish management and the pet food industry; 3) with relation to MS4s and urban stormwater management, look at the interplay of state regulations and guidance and local implementation, as well as the differences between the states in how their MS4 programs have developed; and 4) share the text of January's lightning round updates and the Beyond 2025 steering committee report with the Commission.

Ms. Killius also noted that if any members had questions on any topic discussed during the meeting they should feel free to follow up with her or their state director.

### **NEW BUSINESS**

Chair Bulova asked if there was any new business to come before the Commission. Admiral Lahti provided an update on several items of importance for the DoD and CBC members, specifically: 1) the restoration work that the members saw in progress during their trip to Yorktown has been completed; 2) the Virginia Sentinel Landscapes project has begun; 3) the Navy is assessing the potential value of small-scale nuclear reactors to power land-based operations; and 4) if members are interested in visiting DoD facilities in their districts, he would be happy to help facilitate. Chair Bulova thanked him for his updates.

**PUBLIC COMMENT**

Chair Bulova asked if any members of the public had expressed interest in providing comments. No one had done so.

**ADJOURNMENT**

In closing Delegate Bulova again thanked the Stroud Center, C.P. Yeatman & Sons, Longwood Gardens, and the Pennsylvania members of the CBC for all the work that went into yesterday's logistics. The Commission formerly adjourned at 11:35 A.M.

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*The next meeting of the full Chesapeake Bay Commission  
will be held in Annapolis, MD on January 2-3, 2025.*