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Second Progress Report: Oyster Advisory Commission Consensus Recommendations on Oyster Management

A REPORT TO THE MARYLAND GENERAL ASSEMBLY

December 1, 2020

As required by Natural Resources Article §4-215 and §4-204

**Maryland Department of Natural Resources Fishing and Boating Services
in consultation with the
University of Maryland Center for Environmental Science**

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Introduction

The [Oyster Advisory Commission \(OAC\)](#) has the duty of advising the department on matters related to oysters in Maryland's portion of the Chesapeake and Coastal bays. This will be accomplished by:

- Providing the department with advice on matters related to oysters in the Chesapeake Bay;
- Reviewing the best possible science; recommending changes to the framework and strategies for rebuilding and managing the oyster population in the Chesapeake Bay under the Chesapeake Bay Oyster Management Plan;
- Reviewing the latest findings relevant to the Environmental Impact Statement evaluating oyster restoration alternatives for the Chesapeake Bay;
- Reviewing any other scientific, economic, or cultural information relevant to oysters in the Chesapeake Bay, and as of 2020
- Developing a package of consensus recommendations, in coordination with the department, for enhancing and implementing the fishery management plan for oysters as required per statute.

With the assistance of external conflict resolution and facilitation specialists, OAC must develop a package of consensus recommendations through a facilitated consensus solutions process, based on a 75% majority agreement level for each recommendation. In accordance with [Senate Bill 808 of 2020](#) (and Maryland Code, Natural Resources § 4-215), the department shall, in coordination with the University of Maryland Center for Environmental Science and the Oyster Advisory Commission, develop recommendations for enhancing and implementing the fishery management plan for oysters, informed by a collaboratively developed, science-based modeling tool to quantify the long-term impacts of management actions and possible combinations of management actions on:

- Oyster abundance;
- Oyster habitat;
- Oyster harvest;
- Oyster harvest revenue;
- Nitrogen removal.

The fishery management plan must:

- Maintain a harvest in the fishery while ending the overfishing of oysters in all areas and regions of the Chesapeake Bay and its tributaries, according to biological reference points established by the most recent oyster stock assessment;
- Achieve fishing mortality rates at target levels;
- Increase oyster abundance;
- Increase oyster habitat;
- Facilitate the long-term sustainable harvest of oysters, including the public fishery.

Membership

Under the consensus building process defined in statute (§4–204), 60% of the OAC members must be oyster industry orientated (e.g., public fishery and aquaculture) and 40% non-industry orientated (e.g., environmental groups and academia). Member organizations are codified in statute, and the list of individual commissioners selected by their organization are:

Type	Commissioner	Organization
Voting Members	Keith Bradley	Wicomico County Oyster Committee
	Robert T Brown	Maryland Watermen's Association
	Mark Bryer	The Nature Conservancy
	Keith Busick	Baltimore County Oyster Committee
	Allison Colden	Chesapeake Bay Foundation
	Jack Cover	National Aquarium
	Bill Cox	Aquaculture Coordinating Council
	Simon Dean	Calvert County Oyster Committee
	Ron Fithian	Kent County Oyster Committee
	Matt Fowler	Charles County Oyster Committee
	Jeff Harrison	Talbot County Oyster Committee
	Brian Hite	St Mary's County Oyster Committee
	Jesse Iliff	Arundel Rivers Federation
	Scott Knoche	PEARL (Morgan State University)

	Vincent Leggett	Blacks of the Chesapeake
	Tom Miller	University of Md Center for Environmental Science
	Jim Mullin	Maryland Oystermen Association
	Matt Pluta	ShoreRivers
	Larry Powley	Dorchester County Oyster Committee
	Jason Ruth	Harris Seafood Company (Seafood Dealer)
	Johnny Shockley	Blue Oyster Environmental
	Dave Sikorski	Coastal Conservation Association
	Ann Swanson	Chesapeake Bay Commission
	Daniel Webster	Somerset County Oyster Committee
	Troy Wilkins	Queen Anne's County Oyster Committee
	Rob Witt	Anne Arundel County Oyster Committee
	<i>Vacant (Opted Not to Participate)</i>	BaySavers
	<i>Vacant (Recused Themselves)</i>	Oyster Recovery Partnership
Non-Voting Members	Sean Corson	National Oceanic and Atmospheric Administration
	Sarah Elfreth	Maryland Senate
	Steve Hershey	Maryland Senate
	Marvin Holmes	Maryland House of Delegate
	Chris Judy	Department of Natural Resources
	Johnny Mautz	Maryland House of Delegates
	Angie Sowers	U.S. Army Corps of Engineers

Progress To Date

Due to the COVID-19 pandemic, monthly meetings have been held virtually allowing the OAC to continue their work. Technology, internet access and hardware have been a challenge for some commissioners, especially those in rural areas of the state. To address this, facilitators have offered to loan iPads to commissioners that needed them. At the request of some commissioners, a decision was made to hold the November meeting with a hybrid option allowing commissioners a choice between meeting in-person or using the virtual meeting

format. All meetings have been open to the public, have allowed for public comment and have adhered to Centers for Disease Control and Prevention and Maryland Department of Health guidance. The site visits required by legislation have been temporarily placed on hold due to the pandemic.

To guide the work of the OAC, the commissioners developed a working vision statement:

Our goal is to increase oyster abundance/population and habitat in Maryland's Chesapeake Bay. We will rely on science and stakeholder knowledge to work comprehensively towards:

- *Shared stewardship, supporting oysters in harvest areas, aquaculture, and in sanctuaries;*
- *A healthy ecosystem, and*
- *A sustainable fishery and aquaculture industries that contribute to the economic health of the state.*

Per the statute, a collaboratively developed, science-based modeling tool is being developed to quantify the long-term impacts of potential management actions proposed by the commissioners.

[Stock assessment results](#), which were presented to the OAC at the June 2020 meeting, will provide the basis for the simulation model that will be used in the consensus process. Highlights from the updated 2020 stock assessment include:

- Market abundance - 453 million in 2019, the fifth highest in the time series (1999-2019). Highest in the Choptank River and Tangier regions. Market-sized oysters are greater than three inches in size which could be harvested.
- Small abundance - 433 million in 2019, which is slightly below the long-term mean of 480 million. Highest in the Choptank River and Tangier regions. Small-sized oysters are more than one year old and less than three inches in size and are not harvestable.
- Spat abundance - 284 million in 2019, the sixth lowest in the time series (1999-2019). Highest in the Choptank River and Tangier regions. Spat are oysters less than one year old.
- Harvest fraction - 75% of areas decreased the harvest fraction between the terminal year in the last assessment (2017, and 2019).
- Overfishing status - Showing progress from the prior assessment, the number of NOAA Codes above the upper limit reference point declined from 18 in the terminal year in the last assessment (2017) to five (lower Choptank, Broad Creek, north and sound Tangier Sound, and Wicomico River east) in 2019, while the number of NOAA Codes at or below the target fishing reference point increased from 15 to 25.
- Depleted status - Three NOAA Codes (Severn, lower Chester, and upper Chester) were below the lower limit abundance reference point (depleted abundance) most likely due to environmental causes and not harvest since these areas include sanctuaries (69%, 98% and 100% of NOAA Codes lower Chester, Severn and upper Chester, respectively, are sanctuary areas) and these codes were not estimated to be experiencing overfishing in the last two years. The department has requested that the commission address management options for these areas in 2021.

OAC members have also received presentations from the University of Maryland Center for Environmental Science (UMCES) modeling team and discussed modeling methodology. These presentations and discussions have included why modeling is important, the value of their participation in the process, and how the model fits into the consensus process. Much discussion was centered around developing an oyster habitat map needed for the modeling, and to achieve agreement on where oyster habitat exists and the quality of those habitats. Larval transport modeling, a component of the model, was also introduced to the commission and discussion on the methodology was held.

The commission started discussing management options that they would like to see modeled, such as general management options for the whole bay, as well as specific topics on substrate and the upper bay. The discussions were conducted with small breakout groups who then reported back to the whole commission and the public. The public was also included in the process and their feedback was reported back to the whole commission.

Future Actions

Under the current timeline for the OAC, it will continue to meet monthly to advance the goals of the consensus process, and consider oyster-related policy and management decisions. Future meetings will advance the development of the model with the goal of having the model fully developed and accepted by the commission in Spring 2021. The commission will also start modeling different management options that they select through consensus: actions that they want to evaluate and consider for future management.

All meetings will continue to be open to the public and allow for public comment.

While the update to the stock assessment is required every two years by statute (due in 2022), the next stock assessment update will be run in June 2021 to provide more real-time information.

The next progress report is due August 1, 2021. A final report is due December 1, 2021.

Past Meeting Agendas

All past meeting information, presentations and summaries can be found at dnr.maryland.gov/fisheries/Pages/mgmt-committees/oac-meetings.aspx

August 8, 2020

- Vision Statement
- Initial Discussion on Management Options to Model
- Oyster Habitat Maps
- Oyster Consensus Model Overview

September 9, 2020

- Larval Transport Model
- Review Proposed Guidelines of the Commission
- Habitat Maps - Defining Habitat Quality
- Use of Substrate

October 12, 2020

- Habitat Maps - Revised
- Modeling potential options for management in the Consensus Process
- Management Options for Upper Bay

November 9, 2020

- Mapping Habitat Quality
- Modeling Larval Mortality