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First Progress Report
Sustainable Oyster Population and Fishery Act of 2016 (Senate Bill 937)
December 1, 2016

The Sustainable Oyster Population and Fishery Act of 2016 requires the Maryland Department of Natural Resources, in consultation with the University of Maryland Center for Environmental Science (UMCES), to conduct a study related to the public oyster fishery and identify oyster management strategies to address the maintenance of a sustainable oyster population and fishery. The bill also requires three reports to be submitted to the Oyster Advisory Commission (OAC), Governor and General Assembly before December 1, 2018. This is the first interim progress report to be submitted on or before December 1, 2016.

In accordance with the Act, the department will, in consultation with UMCES, conduct a stock assessment and develop biological reference points based on the biological characteristics of the oyster population and other appropriate factors affecting the population. The assessment will be conducted by a scientific team comprised of the department and university personnel, and will be conducted in a transparent manner with opportunity for stakeholder engagement. The stock assessment will be reviewed by an independent panel of individuals with expertise in fisheries stock assessment. The results of the stock assessment will provide the basis for the department to work with stakeholders to determine if additional management approaches are necessary, and if so, identify a suite of possible management approaches. While possible management approaches will be identified within the final report, the process for selecting, refining and implementing specific management approaches will require public and stakeholder input and will continue beyond the December 2018 deadline.

To date, the department has developed study objectives, study phases, and a timeline (Table 1) for the study components, as well as drafted terms of reference for the stock assessment.

The objectives of this study include:

- Develop Terms of Reference (TOR) for the stock assessment in consultation with the OAC. TORs are the protocols and responsibilities when developing a stock assessment for peer review, and include details about elements to be included in the assessment, questions to be addressed and approaches to explore.
- Complete a peer-reviewed, scientifically credible stock assessment that provides guidance for the development of biological reference points.
- Based on the stock assessment outcomes, work with the OAC, the county oyster committees, and the Tidal and Sport Fisheries Advisory Commissions to identify a suite of potential management approaches for the public oyster fishery.

The first phase of the study will occur approximately from November 2016 to May 2017, and will include the following components:

- The department will convene a team to develop draft TOR, develop educational presentations about stock assessments and map out a detailed timeline for completing the stock assessment. The department would begin developing an inventory of available data sources for assessment. The department would identify and engage the independent review panel.
- Potential meeting 1: Convene the OAC to present educational materials on stock and present draft TOR. Stakeholders can ask questions about stock assessments in general and provide feedback on the TOR. Based on stakeholder input, the department may edit the TOR.
- Potential meeting 2: Convene the OAC to review the TOR. Since the team will be working from an approved set of TOR, all parties should have the same expectation as to the content and process of the stock assessment analysis. After the TORs are finalized, the department will present a timeline for assessment and peer review.
- Potential meeting 3: Stock assessment update for the OAC. A key element of this meeting will be a presentation of available data sources to be used in the assessment and what sort of assessment approaches the data may support.

The second phase of the study will occur approximately from June 2017 – May 2018. It will focus on conducting the stock assessment and include the follow components:

- Process data so it can be used in the assessment model(s) (e.g., calculate harvest on the relevant spatial resolution, develop indices of recruitment, abundance, etc.)
- Develop the assessment model(s)
- Implement model(s), test their performance and choose a “base” model
- Submit the model and assessment to a peer review panel composed of stock assessment experts
- Potential meeting 4: Stock assessment update for the OAC

The third phase of the study will occur approximately from June 2018 – December 2018. It will focus on presenting the stock assessment and developing potential management strategies, and include the following components:

- The department will work with stakeholders to identify a suite of potential management approaches based on assessment outcomes.
- Potential meeting 5: The team will present the outcomes of the stock assessment and a member of the peer review panel will present the results of the peer review to the OAC. Initiate discussion with the OAC on possible management approaches.
- Potential meeting 6: Refine a list of possible management approaches. This list will serve as a starting point for a broader stakeholder process to determine if additional management approaches are needed, and if so, to identify a suite of possible management approaches. This process will extend beyond the December 2018 deadline.
- Additional meetings with the county oyster committees, the Tidal and Sport Fisheries Advisory Commissions will be held during this phase.

The next interim report on progress required by the Sustainable Oyster Population and Fishery Act of 2016 will be submitted December 1, 2017.

Month-Year	Tasks	Phase
Nov-16	<ol style="list-style-type: none"> 1) Complete a contract with UMCES for hiring of postdoctoral student to lead the stock assessment 2) Begin recruitment search (advertising) for postdoctoral student candidates 3) Meet with UMCES to discuss TOR and preliminary data needs 4) Begin internal data assembly 5) Determine funding source for project 	1
Dec-16	<ol style="list-style-type: none"> 1) Postdoctoral student recruitment continues; Applications accepted 2) Finalize draft TOR 3) Internal data assembly 4) First interim report due 	
Jan-17	<ol style="list-style-type: none"> 1) Interview postdoctoral student candidates 2) Internal data assembly 3) Select a postdoctoral student 	
Feb-17	<ol style="list-style-type: none"> 1) Postdoctoral student to start work 2) Review TOR and tasking with postdoctoral student 3) Prepare for the OAC meeting 	
Mar-17	<ol style="list-style-type: none"> 1) OAC meeting #1 2) Review feedback on TOR from the OAC 3) Prepare for OAC meeting #2 4) Prepare data sources for presentation to the OAC 	
Apr-17	<ol style="list-style-type: none"> 1) OAC meeting #2 2) Prepare for OAC meeting #3 3) Present final TORs and timeline for project to the OAC 	
May-17	<ol style="list-style-type: none"> 1) OAC meeting #3 2) Data review and assessment approaches presentation to the OAC 	
Jun-17	<ol style="list-style-type: none"> 1) Stock assessment work (processing data, creating and running model) 	
Jul-17	<ol style="list-style-type: none"> 1) Stock assessment work (processing data, creating and running model) 	
Aug-17	<ol style="list-style-type: none"> 1) Stock assessment work (processing data, creating and running model) 	
Sep-17	<ol style="list-style-type: none"> 1) Stock assessment work (processing data, creating and running model) 	
Oct-17	<ol style="list-style-type: none"> 1) Stock assessment work (processing data, creating and running model) 2) Prepare for OAC meeting #4 	
Nov-17	<ol style="list-style-type: none"> 1) OAC meeting #4 2) Present stock assessment progress to the OAC 3) Begin peer review planning 	
Dec-17	<ol style="list-style-type: none"> 1) Stock assessment work (processing data, creating and running model) 2) Second interim report due 3) Peer review planning 	

Jan-18	1) Stock assessment work (processing data, creating and running model) 2) Peer review planning	
Feb-18	1) Stock assessment work (processing data, creating and running model) 2) Peer review planning	
Mar-18	1) Stock assessment work (processing data, creating and running model) 2) Peer review planning	
Apr-18	1) Peer review	
May-18	1) Finalize peer review report 2) Finalize assessment report 3) Internal discussion of potential management approaches 4) Prepare for OAC meeting #5	
Jun-18	1) OAC meeting #5 2) Assessment and peer review presentation to the OAC 3) Initiate discussion of possible management approaches and review process for selecting refining and implementing management 4) Solicit input from county oyster committees, Tidal and Sport Fisheries Advisory Commissions	3
Jul-18	1) OAC meeting #6 2) Refine list of management approaches	
Aug-18	1) Prepare final report	
Sep-18	1) Prepare final report	
Oct-18	1) Prepare final report	
Nov-18	1) OAC meeting #7 2) Review final report to the OAC 3) Conduct meetings with county oyster committees, Tidal and Sport Fisheries Advisory Commissions, and other stakeholders to present the final report findings	
Dec-18	1) Submit final report	