Outcome: Blue Crab Abundance and Management

Goal: Sustainable Fisheries-Protect, restore and enhance finfish, shellfish and other living resources, their habitats and ecological relationships to sustain all fisheries and provide for a balanced ecosystem in the watershed and Bay.

Outcomes: Maintain a sustainable blue crab population based on the current 2012 target of 215 million adult females. Refine population targets through 2025 based on the best available science. Manage for a stable and productive crab fishery including working with the industry, recreational crabbers and other stakeholders to improve commercial and recreational harvest accountability. By 2018, evaluate the establishment of a Bay-wide, allocation-based management framework with annual levels set by the jurisdictions for the purpose of accounting for and adjusting harvest by each jurisdiction.

Long term Target: Maintain a sustainable blue crab population according to targets determined by the best available science and evaluate an jurisdictional allocation framework.

2 year Target: Provide support for the annual winter dredge survey and the 2017 comprehensive stock assessment. Analyze the data from the dredge survey and stock assessment to determine the new target for blue crab abundance.

Management Approach 1: Planning and implementing the next stock assessment.

Key Action** *Description of work/project. Define each major action step on its own row. Identify specific*	**Performance Target(s)** *Identify incremental steps to achieve Key Action.*	**Participating Entity** *Identify responsible partner for each step.*	**Geographic Location**	**Timeline** *Identify completion date (month & year) for each step)*	**Factors Influencing and/or Gap** *Identify related factor or gap in Management Strategy*
Finalize plans for the next stock assessment.	Finalize the terms of reference and scope of the assessment. Determine the timeline for each component of the assessment.	Fishery Managers (MD DNR, PRFC, VMRC), UMCES, VIMS, CBSAC	n/a	early 2016	Terms of reference have been finalized.

Finalize plans for the next stock assessment.	Identify possible funding mechanisms to support the assessment.	MD DNR, PRFC, VMRC, NCBO	n/a	early-mid 2016	Stock assessment timeline will be influenced by funding availability.
	Review proposal and scope of work for the assessment and distribute funding to Principal Investigators.	MD DNR, PRFC, VMRC, NCBO	n/a	mid 2016	
Totals					
Conduct the next stock assessment and complete the stock assessment report.	Complete necessary research, modelling and analyses for the stock assessment.	UMCES, VIMS, MD DNR, VMRC	Maryland, Virginia, Potomac River	mid 2016 through 2017	Stock assessment timeline will be determined by funding availability.
	Conduct regular check-ins with the Principal Investigators. Update the Fisheries GIT Executive Committee quarterly on progress.	NCBO and CBSAC	n/a	2016 and 2017	
	Coordinate a review of the assessment results by CBSAC, interested scientists and Fisheries GIT members. Compile a summary of comments for discussion.	NCBO (lead), CBSAC	n/a	2017	
	Present and discuss the stock assessment results with stakeholders.	MD DNR, PRFC, VMRC, CBSAC	n/a	2017	

Continue the current process of CBSAC analyzing the annual Winter Dredge Survey results and providing management advice.	Analyze the results of the Winter Dredge Survey and complete the 2016 and 2017 Blue Crab Advisory Reports.	CBSAC, NCBO	n/a	April-June 2016; April-June 2017
	After the stock assessment is complete, discuss if the annual process of data analysis and CBSAC report process should change based on the assessment results.	CBSAC, MD DNR, PRFC, VMRC	n/a	late 2017 and early 2018
The Chesapeake Bay Commission will work collaboratively with the Bay Program partners to identify legislative, budgetary and policy needs to advance the goals of the Chesapeake Watershed Agreement. CBC will, in turn, pursue action within our member state General Assemblies and the United States Congress. See CBC Resolution #14-1 for additional information on the CBC's participation in the management strategies.	Work with the blue crab management jurisdictions to identify any policy, legislative and/or budgetary needs and identify potential actions where feasible.	Chesapeake Bay Commission, MD DNR, PRFC, VMRC	MD, VA	Ongoing

Management Approach 2: Evaluation of an Allocation-based Management Framework					
Key Action**	**Performance Target(s)**	**Participating Entity**	**Geographic Location**	**Timeline**	**Factors Influencing**
Work to improve harvest accountability within each management jurisdiction.	Maryland will continue to expand the pilot commercial electronic reporting project.	MD DNR, Industry groups	Maryland waters	Ongoing	High-quality harvest and effort data are essential for informing management decisions and reducing uncertainty.
	PRFC will explore options to implement commercial electronic reporting in 2016.	PRFC	Potomac River	2016	
	VMRC will continue promoting their commercial online reporting system.	VMRC	Virginia waters	Ongoing	
	Continue the discussion on recreational harvest and its impact on the fishery. Utilize ongoing scientific studies and existing reports.	MD DNR, PRFC, VMRC, CBSAC	Maryland, Virginia, Potomac River	Ongoing	
	Develop standards of harvest accountability to improve the accuracy of harvest data.	MD DNR, PRFC, VMRC, CBSAC	Maryland, Virginia, Potomac River	Ongoing	
				Total	

Develop a framework to assess the feasibility of using and calculating a Baywide Total Allowable Catch (TAC) of blue crabs.	Engage stakeholders and the public to identify concerns and/or support for exploring a potential Baywide TAC. Use their comments to help guide the evaluation of a TAC.	MD DNR, PRFC, VMRC	Maryland, Virginia, Potomac River	mid 2016 - by Sept 2016: Jurisdiction Advisory Committees will develop an initial list of questions, ideas and concerns to help guide the evaluation.	
	Compile the available, necessary harvest data from the three jurisdictions.	MD DNR, PRFC, VMRC	Maryland, Virginia, Potomac River	mid 2016	
	Work with the scientists on CBSAC to determine how to calculate a TAC based on the current reference points, harvest data and abundance data.	CBSAC, MD DNR, PRFC, VMRC	Maryland, Virginia, Potomac River	late 2016	
				Total	

Explore the feasibility of allocating a percentage of the Baywide TAC to the jurisdictions. The feasibility evaluation may result in a recommendation NOT to pursue an allocation-based jurisdictional management approach.	Compile a list of potential allocation methods.	MD DNR, PRFC, VMRC	Maryland, Virginia, Potomac River	early 2017	Reliable, accurate data is critical for success of the evaluation of an allocation management framework.
	Determine which, if any, of the potential allocation methods have sufficient data to support them. Consult CBSAC scientists if needed.	MD DNR, PRFC, VMRC, CBSAC	Maryland, Virginia, Potomac River	early 2017	
	Engage stakeholders, including jurisdictional advisory committees, to obtain public feedback on potential allocation methods, including the pros and cons of each method. The three jurisdictions will coordinate their outreach and messaging to reach industry stakeholders and the public.	MD DNR, PRFC, VMRC	Maryland, Virginia, Potomac River	<u>early and mid 2017</u> - Feb/March 2017: meet with advisory committees to discuss/review the potential allocation methods developed for consideration; - by June 2017: advisory committees will provide written feedback on those methods.	
	Identify available economic information and consider future data collection to better understand the quantitative value of the fishery and impacts of regulatory changes.	Economists, MD DNR, PRFC, VMRC	Maryland, Virginia, Potomac River	2016 and 2017	

CBSAC Members (as of April 2016)

Joe Cimino	Virginia Marine Resources Commission
Ellen Cosby	Potomac River Fisheries Commission
Glenn Davis (Chair)	Maryland Department of Natural Resources
Lynn Fegley	Maryland Department of Natural Resources
Daniel Hennen	NOAA Northeast Fisheries Science Center
John Hoenig	Virginia Institute of Marine Science
Eric Johnson	University of North Florida
Katie May Laumann	Virginia Marine Resources Commission
Rom Lipcius	Virginia Institute of Marine Science
John McConaugha	Old Dominion University
Tom Miller	University of Maryland Center for Environmental Science-Chesapeake Biological Laboratory
Rob O'Reilly	Virginia Marine Resources Commission
Amy Schueller	NOAA Southeast Fisheries Science Center
Mike Seebo	Virginia Institute of Marine Science
Alexei Sharov	Maryland Department of Natural Resources
Mike Wilberg	University of Maryland Center for Environmental Science-Chesapeake Biological Laboratory
Emilie Franke (Coordinator)	ERT/NOAA Chesapeake Bay Office

Acronyms

CBSAC	Chesapeake Bay Stock Assessment Committee
Fisheries GIT	Sustainable Fisheries Goal Implementation Team
MD DNR	Maryland Department of Natural Resources
NCBO	NOAA Chesapeake Bay Office
NOAA	National Oceanic and Atmospheric Administration
PRFC	Potomac River Fisheries Commission
UMCES-CBL	University of Maryland Center for Environmental Science-Chesapeake Biological Laboratory
VIMS	Virginia Institute of Marine Science
VMRC	Virginia Marine Resources Commission