

Blue Crab Management Strategy Outline

Blue Crab Abundance Outcome: Maintain a sustainable blue crab population based on the current 2012 target of 215 million adult females. Refine population targets through 2025 based on best available science.

Blue Crab Management Outcome: 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.

Management Strategy Definition:

- A single document that will outline the means for accomplishing these outcomes as well as monitoring, assessing, reporting progress and coordinating actions among partners and stakeholders.
- The *audience* is the general public and CBP partners, so this strategy should be written in “plain English”. The bold headings below are the key elements that all management strategies should include.

Strategy Team = Jurisdictions + Interested GIT members

VMRC	PRFC	EDF	SERC
MD DNR	CBC	MD Sea Grant	NOAA

Executive Summary

Outcome and Baselines

1. Background on current blue crab management framework
 - a. Basis for female-specific framework (2011 benchmark stock assessment)
 - b. Describe how the current fishery operates
2. Define Allocation-Based Management Framework (ABMF) and associated terms
 - a. Define Total Allowable Catch, jurisdictional allocation, etc.
 - b. Explain differences between ABMF and current management framework.

Participating jurisdictions and stakeholders

1. Describe the role of major players in the blue crab fishery
 - a. Jurisdictions (regulatory agencies)
 - b. Interested Bay-wide stakeholders including academic institutions, non-profits, and federal partners
 - c. Industry groups, design teams, recreational sector, fishery dependent groups

Factors influencing the ability to meet the goal (Key Challenges)

1. What will impact our ability to achieve the two blue crab outcomes?
 - a. Population Dynamics
 - i. Recruitment, spawning, mortality (biotic and abiotic sources), environmental conditions, habitat availability and prey accessibility.
 - b. Fishery Conditions
 - i. Fluctuating harvest motivated by regulatory changes and population levels, effort dynamics, economic drivers
 - c. Bay-wide Information Gaps
 - i. Data limitations will impact the ability to effectively evaluate an allocation framework. Information needs include accurate, timely harvest reports, gear selectivity, total mortality, latent effort, recreational landings, reproductive limitations and success, etc.
 - ii. Availability of funding, coordination, and data analysis/compilation will be crucial to completing the evaluation.

Current Efforts and Gaps

1. Describe the current annual process of the Winter Dredge Survey and CBSAC analysis/recommendations to determine the stock status each year
2. Gaps
 - a. CBSAC Critical Research Needs
 - i. Found in 2014 Advisory report, recurring research needs versus newly identified needs.
 - b. Economic information for the fishery
 - i. Profitability of harvest, spatial and seasonal data, and Supply versus Demand
 - c. Information needed to inform development of TAC
 - i. Scientific: size and sex specific mortality, discards, reproductive impacts
 - ii. Management: harvest reporting, accountability, peeler fishery.

Management Approach

1. Discuss plans for the 2015-16 benchmark stock assessment and TORs and how these will contribute to better understanding of the blue crab stock
2. Jurisdictions will evaluate the fundamental steps that would be needed to develop a TAC and jurisdictional allocation. The steps are as follows:
 - a. Calculate a Bay wide TAC of Female Blue Crabs based on the results of the annual Bay-wide winter dredge survey as well as any other surveys with improved estimates of removals.
 - i. For female crabs: empirically derived TAC using the annual estimate of the exploitable female stock and the current reference points.
 - ii. Options for male TAC could include using current conservation triggers, male-female ratios, or use information from new stock assessment.
 - iii. Consider management and scientific uncertainty in the above options.

- iv. Consider how often TAC is calculated.
- v. What science is needed to improve TAC?
- b. Develop and explore options for allocating a percentage of the Bay wide TAC to jurisdictions. Options could include using historical data and possibly weighting this data to account for the shift to female-centric management.
- c. Develop and implement a Management Plan based on the TAC and jurisdictional allocation.

Monitoring and Assessing Progress

- 1. Discuss how the outputs of the 2015-16 stock assessment will be applied to management.
- 2. Discuss the importance of the annual winter dredge survey and CBSAC analyses in determining stock status. Importance of annual harvest reporting to determine harvest levels and economic data to evaluate industry conditions.

Adaptively Manage

- 1. Reiterate the role of CBSAC analyses and annual surveys of the blue crab stock.
- 2. Discuss that if a TAC and jurisdictional allocation were adopted, the TAC and allocation would be calculated (updated) regularly based on the most current stock/harvest information.
- 3. Ongoing incorporation of new science and research in the winter dredge survey, data analysis, and TAC calculation.

Biennial Workplan

- 1. Discuss near-term actions for the next few years
- 2. Workplan will be updated as necessary