Outcome Justification

Goal: Sustain healthy populations of fish and wildlife which contribute to a resilient ecosystem and vibrant economy.

Outcome: Maintain sustainable blue crab population based on the current target of 215 million adult females (1+ years old) and continue to refine population targets between 2013 through 2025 based on best available science.

Current Condition:

- 2011: 191 million female blue crabs (1+ years old); 2012: 95 million female blue crabs (1+ years old); 2013: 147 million female blue crabs (1+ years old).

Supporting Details

1. **Why is this outcome important?**
   Blue crabs have important commercial, ecological, and cultural value. Restoring populations of blue crabs would protect an iconic species of the region. They are the most valuable fished species in the Chesapeake Bay, as well as play an integral role in benthic ecosystems as both prey and predators.

2. **Generally, how was the outcome derived?**
   The 2011 benchmark stock assessment recommended revision of the former reference points with a maximum sustainable yield (MSY) based threshold and target based solely on the abundance of female age 1+ crabs. Following the results of the 2011 assessment, CBSAC revised the previous interim target of 200 million from 2008 and developed the current target for female blue crab populations of 215 million.

3. **Which partners (state, federal agencies, goal teams, and committees) were involved in <u>creating</u> this outcome?**
   CBSAC, consisting of participants representing academic institutions, jurisdictional managers, scientists as well as federal partners, developed the rebuilding target of 215 million and a threshold of 70 million female crabs. Through coordination of the SFGIT, the jurisdictions adopted this new management framework and implemented supporting regulations in 2012.

4. **Which partners (state, federal agencies, other GITs) need to be involved to <u>achieve</u> the outcome?**
   CBSAC, NOAA, MD DNR, VMRC, and PRFC are all needed to effectively achieve this outcome. Since regulatory shift, populations have remained significantly above the

threshold and at an acceptable level under the new more conservative management framework.

5. **What are the major factors influencing ability to achieve the outcome?**
   Poor water quality, habitat loss, natural mortality, biological variability in populations, and climate change will all contribute to challenges in the management of blue crabs.

6. **What is the basis for the target?**
   CBSAC in 2008 recommended an "interim abundance target" of 200 million adults (+1 years old). The target was implemented as an achievable and realistic goal in the short term. It is intended that the goal will be modified over time through a peer reviewed process. In 2011 based off of the results from the 2011 benchmark stock assessment, CBSAC recommended a female-specific goal of 215 million adults that was adopted by the Fisheries GIT and all jurisdictions as the current target abundance.

7. **What management strategies will ensure the outcome is met?**
   Blue crabs are managed collaboratively by MD DNR, VMRC, and PRFC. The Fisheries GIT chaired by NOAA's Chesapeake Bay Office provides a forum for discussion for blue crab management. CBSAC, as a scientific body, provides a science based report to the GIT and jurisdictions to guide annual management decision. To ensure success in the future, the Fisheries GIT is facilitating discussions with CBSAC scientists to develop male conservation thresholds to pair with the female abundance target and thresholds and the exploitation that would achieve the desired female abundance. The jurisdictions are beginning to explore the potential for a baywide allocation of the fishery, as well as how to improve commercial and recreational accountability in blue crab fisheries.

8. **What data will be used to measure progress?**
   The winter dredge survey is conducted by MD and VA, from December through March, to estimate the number of blue crabs available in the Bay. The survey provides stock status and comprehensive estimates of male, female, and juveniles which are necessary to evaluate the performance of the fishery every year with respect to sustainability. The survey also estimates the level of harvest each year. CBSAC produces the annual Blue Crab Advisory Report based on the winter dredge survey results and estimates of annual blue crab harvests with respect to the current management framework. The report provides managers with a comprehensive break down of the status of the stock, and issues scientific recommendations to managers based on this data.

More Information:

http://chesapeakebay.noaa.gov/fish-facts/blue-crab