## MEMORANDUM

| TO: | Council, SSC, and AP Members |  |
| :--- | :--- | :---: |
| FROM: | Chris Oliver |  |
|  | Executive Director |  |
| DATE: | January 30, 2013 | ESTIMATED TIME |
| 6 HOURS |  |  |
| (All C-1 items) |  |  |

SUBJECT: Habitat Issues - Review discussion paper on Bristol Bay red king crab

## ACTION REQUIRED:

(b) Review discussion paper on Bristol Bay red king crab

## BACKGROUND:

During the Council's 5 -year review of essential fish habitat (EFH) provisions in April 2010, a consideration was raised by the Crab Plan Team with respect to the analysis evaluating fishing effects on crab stocks. To respond to these issues, the Council initiated a discussion paper to further examine the Crab Plan Team's concerns.

This discussion paper was originally presented to the Council in April 2011, and a revised version presented again in February 2012. The focus of the papers included a discussion of the importance of southwestern Bristol Bay for red king crab populations, particularly an area southwest of Amak Island, and whether and how trawl fisheries in that area may be impacting the crab habitat. It was proposed that eggs released here have greater chance of survival through larval and juvenile life history stages due to oceanographic currents in this area and that the extent of the Bering Sea cold pool affects the distribution of ovigerous females and subsequently, the location of larval release.

Given the potential redistribution of crab in the area southwest of Amak Island due to temperature changes, the Council also requested that the discussion paper look at the efficacy of existing red king crab protection areas, such as the Red King Crab Savings Area and the Nearshore Bristol Bay Trawl Closure, to see whether these closed areas are still providing both habitat and bycatch protection to red king crab.

The objective of the revised discussion paper (attached as Item C-1(b)) is to update on the status of analyses to address these two discrete red king crab issues. The paper provides an update on the timing of research that has now been funded to address the importance of southwestern Bristol Bay as red king crab habitat, and its sensitivity to environmental variables. The second issue, regarding the efficacy of existing red king crab closure areas, is a much larger task than originally anticipated, and will involve considerable staff time by the Alaska Fisheries Science Center. A summary of the work to date is provided in the paper, along with some discussion of possible objectives that may be achieved through this type of evaluation. Staff is requesting feedback from the Council as to the priority of the closure efficacy work.

