AGENDA C-4(d, e)
APRIL 2011

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver
Executive Director

ESTIMATED TIME
8 HOURS
(ALL C-4 ITEMS)

DATE: March 23, 2011

SUBJECT: BSAI Crab Management

ACTION REQUIRED

(d) Finalize alternatives for the Tanner crab rebuilding plan.
(e) BSAI Crab modeling workshop report (SSC only).

BACKGROUND

Finalize alternatives for the Tanner crab rebuilding plan.

On October 1, 2010, the Council was informed by NMFS that the Bering Sea Tanner crab (*Chionoecetes bairdi*) stock is overfished according to criteria in the Fishery Management Plan for the Bering Sea/Aleutian Islands King and Tanner crab. This notification was based on the most recent stock assessment for Tanner crabs indicating that the stock biomass had declined below its minimum stock size threshold (MSST). The 2010 estimate of mature male biomass (MMB) at mating was 62.70 million pounds, below the MSST of 92.37 million pounds. In order to comply with section 304(e)(3) of the Magnuson-Steven Act (MSA), the Council and NMFS thus have two years from that notification to develop and implement a plan to rebuild the overfished Tanner crab stock. The letter from NMFS provided to the Council last year is attached as **Item C-4(d)(1)**.

Under section 304(e)(4) of the MSA, the rebuilding plan for Tanner crab must specify a time period for rebuilding the fishery that is as short as possible, taking into account the status and biology of the stock, the needs of fishing communities, and the interactions of the stock within the marine ecosystem. The rebuilding plan shall not exceed 10 years, except if the biology of the stock of other environmental conditions dictate otherwise.

At this meeting the Council will begin consideration of alternative management measures for rebuilding the Tanner crab stock. These measures may include a combination of directed fishery constraints, bycatch constraints in other fisheries and other considerations. Once alternative management measures have been finalized by the Council, analysts will provide an analysis of these measures in an appropriate NEPA document for initial review by the Council. A discussion paper is attached as **Item C-4(d)(2)** which provides an overview of the Tanner crab stock status, development of an assessment model and recent catch estimates in both the directed Tanner crab fishery as well as non-directed catch in other crab fisheries, groundfish fisheries and scallop fisheries. A Tanner crab stock assessment model is under development and will be reviewed by the SSC at this meeting (see agenda Item C-4(d) below). An update on the assessment model development will be provided to the Council by Council staff in conjunction with the discussion paper on rebuilding alternatives for the stock.

BSAI Crab modeling workshop report (SSC only)

An NPFMC-sponsored crab modeling workshop took place from February 16-18, 2011 at the Alaska Fisheries Science Center in Seattle WA. The meeting was chaired by Steven Martell, from the University of British Columbia, and was attended by members of the Crab Plan Team (CPT), the authors of the stock assessment models and the general public. The over-arching objective of the workshop was to give the assessment authors feedback and recommendations on the assessment models that are currently in use for estimating stock status and reference points. Assessment models for Bering Sea Tanner crabs, blue and red king crabs from the Pribilof Islands, red king crabs from Bristol Bay, and selectivity experiments from the Eastern Bering Sea snow crab were presented at the workshop. Discussions about the data, assessment models, and interpretation of the results took place. The majority of the meeting focused upon review and development of the Tanner crab model. The report from the workshop (without attachments) is attached as **Item C-4(e)(1)**. The full report with attachments was mailed to you on March 11th. Dr. Steven Martell will be available to provide an overview of the workshop recommendations. Stock assessment authors from AFSC will also present preliminary results on the development of the Tanner crab stock assessment model following workshop discussion and recommendations as well as model runs to address survey selectivity recommendations in the snow crab model. Preliminary model runs addressing survey selectivity in the snow crab model are attached **as Item C-4(e)(2).**