

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver *Chris*  
Executive Director

DATE: January 31, 2013

SUBJECT: Crab bycatch limits in BSAI groundfish fisheries

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| ESTIMATED TIME<br>6 HOURS<br>(All C-2 items) |
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**ACTION REQUIRED**

Discussion paper on crab bycatch limits in BSAI groundfish fisheries. Review/revise alternatives and action as necessary.

**BACKGROUND**

In conjunction with taking action to meet annual catch limit (ACL) requirements in 2010, the Council initiated an analysis of PSC limits and bycatch management measures for the ten BSAI crab stocks under the Crab FMP. Since 2011, BSAI crab stocks now have annually-specified overfishing limits (OFLs) and Acceptable Biological Catch (ABC) levels. Total allowable catch (TAC) levels (and GHs for the Norton Sound red king crab stock and Pribilof Islands golden king crab stock) are established exclusively by the State. All catch accrues towards the ABC (or ACL). Additional bycatch outside of the directed crab fisheries occurs in the BSAI groundfish fisheries. Total catch from all sources may not exceed the ACL, thus currently the State must annually assume anticipated levels of bycatch for each stock in order to set TAC or GH at a level where the total catch from directed and non-directed sources will not exceed the ACL. As noted in the accountability measures for the ACL requirements under Amendment 38, if an ACL is exceeded, the TAC or GH in the following year will be reduced in order to prevent against exceeding the ACL concurrently. Thus all accountability measures associated with exceeding an ACL are currently borne solely on the directed crab fishery regardless of what caused the overage.

The current problem statement and alternatives from the Council are attached as Item C-2(a)(1). Per Council request the Crab Plan Team reviewed and made recommendations on the previous set of alternatives and these alternatives were then revised to their current form by the Council in October 2011. A discussion paper (attached as Item C-2(a)(2)) has been prepared which reviews existing measures for trawl and pot bycatch management in the BSAI groundfish fisheries as well as trends in bycatch by stock. The paper also provides the Council some staff suggestions for moving forward with the analysis should the Council still wish to initiate crab bycatch management measures for all stocks in the BSAI. As currently formulated with the options for various area closures and the application broadly across all crab stocks and all BSAI groundfish fisheries, this would be a massively complex analysis. As such, it would be very difficult to estimate relative impacts and costs with so many variables considered in the same analysis. If the intent of the Council in pursuing this is to provide guidance to the State of Alaska in establishing appropriate buffers beneath the ABC for groundfish bycatch in order to establish appropriate TAC levels, the current alternative set may be overly complex for achieving that objective.

The table below from the discussion paper provides a summary of the information available in assessing the ten crab stocks as well as whether or not there are existing management measures for bycatch and the relative proportion of the bycatch by gear type compared to the 2011/12 ABC level. It is clear that for most stocks, while variable across years, groundfish bycatch represents a small (often <1%) component of the catch accruing towards the ABC. For those stocks for which the bycatch is more variable and/or stock status fluctuates dramatically (e.g. Bristol Bay red king crab, EBS Tanner crab, St. Matthew blue king crab), assumptions of bycatch needs in the groundfish fisheries becomes more problematic in setting a TAC level for the directed crab fishery.

*Summary of information availability by crab stock, current management measures and bycatch by gear type between 2003/04 – 2011/12 as a proportion of the 2012/13 ABC.*

| Stock                            | Abundance estimate | Current fishery | Existing Bycatch controls         | Trawl bycatch mortality as % of ABC | Fixed gear mortality as % of ABC | Assumption in TAC-setting   |
|----------------------------------|--------------------|-----------------|-----------------------------------|-------------------------------------|----------------------------------|---|
| Bristol Bay red king crab        | √                  | √               | Trawl PSC limits and closure area | 0.72%-2.10%                         | 0.19%-0.35%                      | Maximum mortality in last 20 years (0.84 million pounds)          |
| EBS Tanner crab                  | √                  |                 | Trawl PSC Limits                  | 1.25%-2.15%                         | 0.55%-2.93%                      | Varies based upon estimates of needs in the snow crab fishery     |
| EBS snow crab                    | √                  | √               | Trawl PSC Limits                  | 0.20%-1.14%                         | 0.04%                            | Depends on stock status and buffer below ABC                      |
| St. Matthew blue king crab       | √                  | √               | Bottom trawl closure area         | 0.02%-0.05%                         | 0.08%-7.09%                      | Maximum mortality in last 20 years (0.077 million pounds)         |
| Pribilof Island red king crab    | √                  |                 | Pot/Trawl closure area*           | 1.42%-4.73%                         | 0.13%-1.54%                      | No directed fishery due to PIBKC stock status                     |
| Pribilof Island blue king crab   | √                  |                 | Pot/Trawl closure area*           | 1.9%-11.00%                         | 12.55%-204%                      | No directed fishery, stock overfished                             |
| Norton Sound red king crab       | √                  | √               |                                   | NA                                  | NA                               | NA  |
| Aleutian Island golden king crab |                    | √               |                                   | 0.02%-0.10%                         | 0.16%-0.9%                       | TAC set in regulation and is well below current average catch ABC |
| Adak red king crab               |                    |                 |                                   | 1.93%-11.76%                        | 2.67%-12.47%                     | Directed fishery closed due to poor stock status                  |

\*Pribilof area closure to pot gear pending approval

At this meeting the Council will review the discussion paper and may make recommendations on the alternative set, the problem statement, the relative prioritization of establishing bycatch management measures for specific crab stocks, as well as to evaluate the priority of this analysis within the larger context of the Council's priorities.