



NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

605 W. 4th Ave. Suite 306
Anchorage, AK 99501
(907) 271-2809
Fax (907) 271-2817

Action Memo

File #: GF 16-063, Version: 1

Dan Hull, Chairman
Chris Oliver, Executive Director

SUBJECT:

BSAI Groundfish SAFE and Harvest Specifications - Plan Team report; set final specs for 2017-2018

STAFF CONTACT: Diana Stram

ACTION REQUIRED:

Approve the Bering Sea/Aleutian Islands Stock Assessment and Fishery Evaluation Report, including the Ecosystem Considerations Chapter and final BSAI groundfish harvest specifications for 2017 and 2018:

1. Overfishing Level, Acceptable Biological Catch, and Total Allowable Catch for all stocks.
2. Annual ABC reserve for 3 flatfish fisheries in 2017-2018.
3. Prohibited Species Catch (PSC) limits and seasonal apportionments of Pacific halibut, red king crab, Tanner crab, opilio crab, and herring to target fishery categories.
4. TAC considerations for the State Waters Pacific cod fishery.

BACKGROUND:

At this meeting, the Council will adopt the Bering Sea/Aleutian Islands (BSAI) Groundfish Stock Assessment and Fishery Evaluation (SAFE) Report including the Ecosystem Considerations Chapter and final recommendations on groundfish harvest specifications and PSC limits to manage the 2017 and 2018 BSAI groundfish fisheries. Upon publication in the *Federal Register*, the 2017/2018 final harvest specifications will replace harvest specifications adopted last year for the start of the 2017 fisheries.

BSAI SAFE Report

The BSAI Groundfish Plan Team met in Seattle on November 14-18, 2016 to prepare the BSAI Groundfish SAFE report. The SAFE report forms the basis for BSAI groundfish harvest specifications for the next two fishing years. The introduction to the BSAI SAFE report and the executive summary of the Ecosystem Considerations chapter are attached in items 1 and 2 and were distributed to the Council and Advisory Panel; the SAFE introduction summarizes the Plan Team recommendations for each stock/complex. The full report, including the Ecosystems Considerations chapter, was distributed to the SSC and is available on the Council website. The Council will review and adopt the full report at this meeting.

The Plan Team's recommendations for final harvest specifications for 2017 and 2018 are attached in Table 1 (item 3). In October, the Council adopted proposed harvest specifications of OFL and ABC that were based on last year's stock assessments. In this SAFE report, the Plan Team has revised those projections due to the development of new models; collection of new catch, survey, age composition, or size composition data; or use of new methodology for recommending OFLs and ABCs. The November 2016 Joint Team and BSAI Plan Team minutes are attached in items 4 and 5. The SSC and AP recommendations will be provided to the Council during the meeting.

OFLs, ABCs, TACs, and Apportionments

The sum of the recommended ABCs for 2017 and 2018 are 4,010,876 t and 4,171,722 t, respectively. These

compare with the sums of the 2016 ABCs (3,236,662) and 2015 ABCs (2,848,454 t). The primary increase from previous years is due to EBS pollock. The Team recommended maximum permissible ABCs for all stocks, except for EBS pollock, Bogoslof pollock and Sablefish

Overall, the status of the stocks continues to appear favorable. Nearly all stocks are above B_{MSY} or the B_{MSY} proxy of $B_{35\%}$. The abundances of EBS pollock, EBS Pacific cod, all rockfishes managed under Tier 3, and all flatfishes managed under Tiers 1 or 3 are projected to be above B_{MSY} or the B_{MSY} proxy of $B_{35\%}$ in 2017. The abundances of sablefish is projected to be below $B_{35\%}$ for 2017 by approximately 1%.

The sum of the biomasses for 2017 represents a 9% increase from 2016. The 2016 value, in turn, was represented an increase of 16% from 2015 after stable biomasses from 2014. This stability and current relative increases follow periods of declines since 2010.

Pacific cod TAC-setting. In setting TACs for 2017 and 2018 the Council accounts for guideline harvest levels (GHLs) for groundfish fisheries in state waters. The Board of Fisheries took action on December 1, 2015 to modify how GHLs in the Bering Sea (BS) and Aleutian Islands (AI) are set for Pacific cod. The GHL in the AI will be set at 27% of the AI ABC, with annual step up provisions if the GHL is achieved to a maximum of 39% of the ABC. The BS GHL will be set at 6.4% of the EBS Pacific cod ABC. Attached [item 6](#) is a table listing the ABCs, GHLs, and resulting maximum allowable federal TACs for 2017-2018 Pacific cod.

Flatfish flexibility ABC reserve. Amendment 105 modified the annual harvest specifications for flathead sole, rock sole, and yellowfin sole, beginning in 2015. An ABC reserve is now annually specified for the three flatfish species, which will be allocated to CDQ groups and Amendment 80 cooperatives using the same formulas that are used in the annual harvest specifications process. The ABC reserve for each species will be specified by the Council, by evaluating the ABC surplus for the species (i.e., the difference between the ABC and TAC), considering whether the amount needs to be reduced by a discretionary buffer amount based on social, economic, or ecological considerations. The Council will then designate some, all, or none of the ABC surplus as the ABC reserve. The Council should provide its rationale for setting the ABC reserve at a particular level for these three flatfish species each year. Table 13 (attached in [item 7](#)) is provided by NMFS staff based upon TAC levels for 2016 specifications.

NMFS will provide a report on flatfish exchanges by the Amendment 80 cooperatives to the Council each year at this meeting, to inform the Council's decision on future annual harvest specifications as to whether to establish a buffer reducing the amount of the ABC reserve available to be exchanged by eligible entities. The report will include information on the number of vessels used to harvest cooperative quota, the number of flatfish exchanges and the dates those exchanges were approved, the types of and amounts of cooperative quota and Amendment 80 ABC reserve utilized, and the dates, types, and amounts of inter-cooperative quota transfers.

Prohibited Species Catch limits.

Prohibited Species Catch (PSC) limits are established for halibut, crab, and herring during the specifications process and are allocated amongst sectors and seasons as described below. (See [item 7](#) for summary tables (14-17) of all allocations and PSC limits by species.) In 2016, NMFS implemented Amendment 111 to the FMP. This final rule reduced halibut PSC limits in the BSAI groundfish fisheries from 4,426 to 3,515 t.

Halibut PSC in Trawl Fisheries: The halibut PSC limits are apportioned to the trawl fishery categories. The overall PSC limit is fixed under Amendment 80 at 2,805 t. Additional reductions of 5 percent would occur if PSC limit amounts are transferred from the BSAI trawl limited access sector to the Amendment 80 trawl sector during a fishing year.

Halibut Trawl and CDQ PSC Limits	
2,805 t	Total Trawl and CDQ Halibut Apportionment
1,745 t	Amendment 80
745 t	Trawl Limited Access
315 t	CDQ

Halibut PSC in Fixed Gear Fisheries: A 710 t non-trawl gear halibut mortality limit can be apportioned by fishery categories. The halibut PSC limit for the hook-and-line Pacific cod fishery is divided between the hook-and-line CP and CV sectors (CVs ≥ 60 ft (18.3 m) LOA and CVs < 60 ft (18.3 m) LOA combined). The Council can provide varying amounts of halibut PSC by season to each sector, tailoring PSC limits to suit the needs and timing of each sector.

Crab PSC in Trawl Fisheries: Prescribed bottom trawl fisheries in specific areas are closed when PSC limits of Tanner crab *C. bairdi*, snow crab *C. opilio*, and red king crab are reached. A stair step procedure for determining PSC limits for red king crab taken in Zone 1 trawl fisheries is based on the abundance of mature Bristol Bay red king crab. Based on the 2016 estimate of effective spawning biomass of 42.2 million pounds, the PSC limit for 2017 remains unchanged at 97,000 red king crabs. Up to 25% of the red king crab PSC limit can be used in the 56° - 56°10'N strip of the Red King Crab Savings Area. The red king crab PSC limit has generally been allocated among the pollock/Atka mackerel/other species, Pacific cod, rock sole, and yellowfin sole fisheries.

PSC limits for *C. bairdi* in Zones 1 and 2 are based on a percentage of the total abundance minus an additional reduction implemented in 1999 of *C. bairdi* crab as indicated by the NMFS trawl survey. Based on the 2016 model estimated total abundance (285,000,000 crabs), the PSC limit in 2017 for *C. bairdi* is unchanged from last year in Zone 1 and decreases from last year in Zone 2: 830,000 crabs in Zone 1 and 2,070,000 crabs in Zone 2.

Snow crab (*C. opilio*) PSC limits are based on total abundance of *opilio* crab. The limit is set at 0.1133% of the total snow crab abundance index, with a minimum limit of 4.5 million snow crabs and a maximum limit of 13 million snow crabs; the limit is further reduced by 150,000 crabs. The 2016 model estimate of 8,169,000,000 crabs result in a 2017 PSC limit of 9,105,477 crabs. Snow crab taken within the “*C. opilio* Bycatch Limitation Zone” accrues toward the PSC limits established for the trawl sectors.

Herring: An overall herring PSC limit is established as 1 percent of the EBS biomass of herring. This limit is apportioned to the seven PSC fishery categories. Due to State budget costs, there were no surveys in 2016 for any of the EBS herring management stocks. In the absence of biomass projections, the ADF&G recommends using a general indication of EBS population size based on long-term medians of aerial survey biomass estimates for each of the management stocks as the basis of the 2017 PSC limits. PSC cap and apportioned fishery categories based upon 2017 herring biomass is included in Tables 14 and 15 ([item 7](#)). A letter of explanation from ADF&G containing the data used to calculate the estimate, as well as previous years' estimates, is attached in [item 8](#). Supplemental information regarding the Herring Savings Areas and PSC in relation to the limits is attached as [item 9](#).

Seasonal apportionment of PSC limits. The Council may also seasonally apportion the above listed PSC limits. Regulations require that seasonal apportionments of bycatch allowances be based on information listed below.

Factors to be considered for seasonal apportionments of bycatch allowances

1. Seasonal distribution of prohibited species;

2. Seasonal distribution of target groundfish species relative to prohibited species distribution;
3. Expected prohibited species bycatch needs on a seasonal basis relevant to change in prohibited species biomass and expected catches of target groundfish species;
4. Expected variations in bycatch rates throughout the fishing year;
5. Expected changes in directed groundfish fishing seasons;
6. Expected start of fishing efforts; and
7. Economic effects of establishing seasonal prohibited species apportionments on segments of the target groundfish industry.