

MEMORANDUM

TO: Council, AP, and SSC

FROM: Chris Oliver
Executive Director

ESTIMATED TIME 8 HOURS (All C-3 items)
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DATE: November 28, 2011

SUBJECT: BSAI Groundfish SAFE Report and 2012/2013 harvest specifications

ACTION REQUIRED

(b) Approve the Bering Sea/Aleutian Islands (BSAI) Stock Assessment and Fishery Evaluation (SAFE) Report and final BSAI groundfish harvest specifications for 2012 and 2013:

1. Total Allowable Catch (TAC)
2. Prohibited Species Catch (PSC) limits and seasonal apportionments of Pacific halibut, red king crab, Tanner crab, opilio crab, and herring to target fishery categories

BACKGROUND

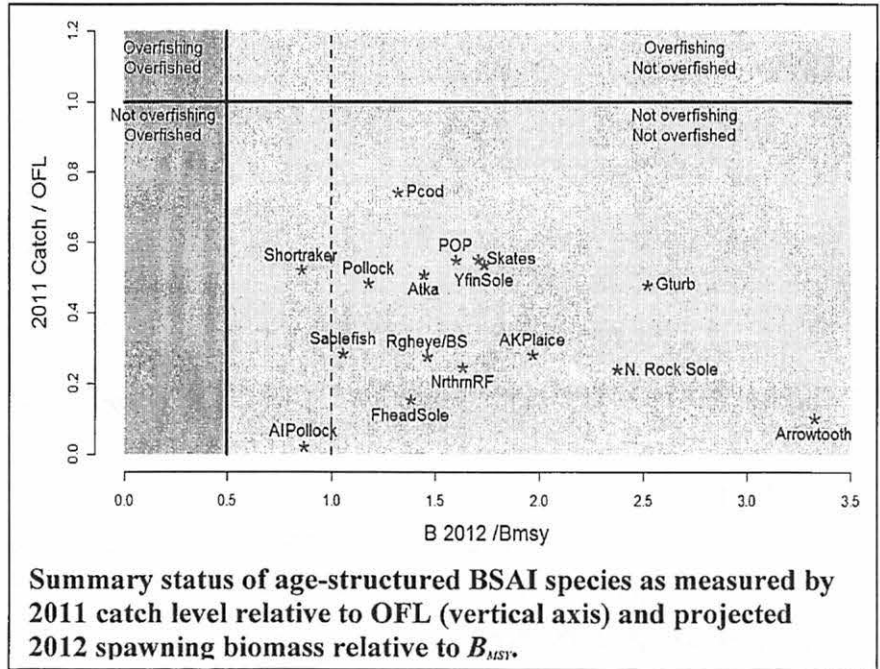
At this meeting, the Council will adopt the BSAI SAFE Report and final recommendations on groundfish harvest specifications and PSC limits to manage the 2012 and 2013 Bering Sea/Aleutian Islands (BSAI) groundfish fisheries. Upon publication in the *Federal Register*, the final 2012 specifications will replace the specifications adopted last year for 2012 fisheries.

BSAI SAFE Report. The BSAI Groundfish Plan Team met in Seattle on November 14-18, 2011 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 was mailed to the Council and Advisory Panel on November 23, 2011; it summarizes the Plan Team recommendations for each stock/complex. The full report, including the Economic SAFE report and Ecosystems Considerations chapter, was distributed to the SSC and is available through the Council website. The Council will review and adopt the full report at this meeting.

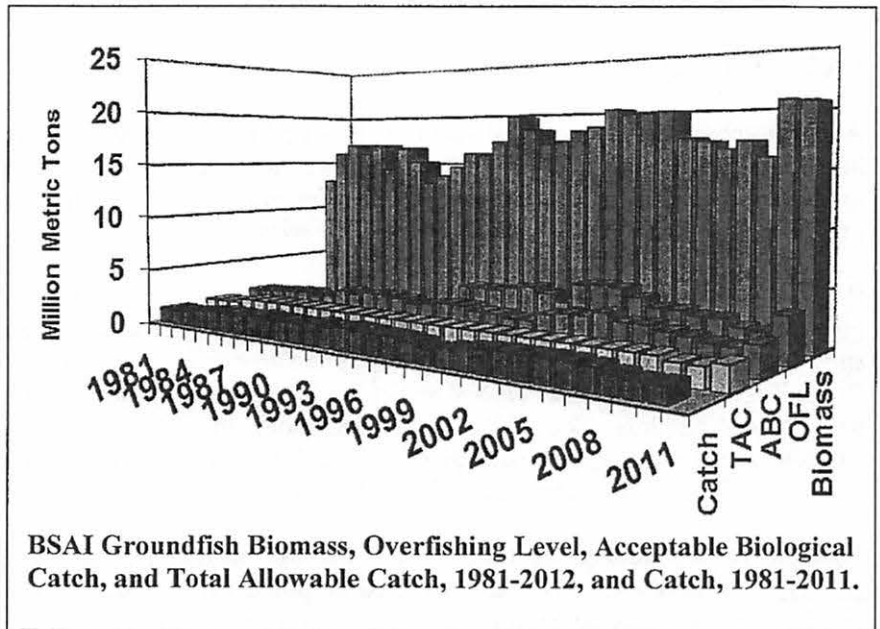
The Plan Team's recommendations for final harvest specifications for 2012 and 2013 are attached as Item C-3(b)(1). In October, the Council adopted proposed harvest specifications of OFL and ABC for 2012 and 2013 that were based on last year's stock assessments (Item C-3(b)(2)). In this SAFE report, the 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 2011 Plan Team minutes are attached as Item C-3(b)(3). Joint Team minutes are included in GOA memo as C-3(a)(2). The SSC and AP recommendations will be provided to the Council during the meeting.

ABCs, TACs, and Apportionments The sum of the recommended ABCs for 2012 and 2013 are 2.51 million t and 2.64 million t, respectively. These are 20,000 t less than and 110,000 t more than the sum of the 2011 ABCs (2.53 million t), indicating relative stability in 2012, after a rebound in stock status in 2011 that followed declines in 2009 and 2010. Total BSAI catches through November 5, 2011 totaled 1,778,959 t (89 percent of total TACs and OY).

The status of BSAI groundfish stocks continues to appear favorable. Nearly all stocks are above B_{MSY} or its proxy of $B_{35\%}$. Many stocks are rebounding due to increased recent recruitments. The abundances of EBS pollock, Pacific cod, sablefish, all rockfishes managed under Tier 3, all flatfishes managed under Tiers 1 or 3, and Atka mackerel are projected to be above B_{MSY} or its proxy in 2012. The abundance of AI pollock is projected to be about 14 percent below $B_{35\%}$.



The sum of the biomasses for 2012 (19.4 million t) is down approximately six percent compared to 2011 (20.6 million t). Pollock and Pacific cod biomasses are increasing after a period of decline. Flatfishes generally are trending upwards.



Adopt prohibited species catch limits for Pacific halibut, crab, and herring

Beginning in 2008, the head and gut trawl catcher/processor sector, which targets flatfish, Pacific cod, Pacific ocean perch, and Atka mackerel, was allocated groundfish TACs and PSC limits and members of the “Amendment 80” sector were allowed to join a cooperative to manage its allocations. Regulations require that crab and halibut trawl PSC limits be apportioned between the BSAI trawl limited access and Amendment 80 sectors after subtraction of prohibited species quota (PSQ) reserves, as presented in Table 8a for proposed 2012 and 2013 PSC limits under Item C-3(b)(4). Crab and halibut trawl PSC limits assigned to the Amendment 80 sector is then sub-allocated to Amendment 80 cooperatives as PSC cooperative quota (CQ) as presented in Table 8c.

PSC CQ assigned to Amendment 80 cooperative(s) is not allocated to specific fishery categories. Regulations require the apportionment of each trawl PSC limit not assigned to an Amendment 80 cooperative be assigned into PSC bycatch allowances for seven specified fishery categories. The Council may change PSC limits assigned to the 2012 and 2013 fishery category allocations for the BSAI trawl limited access sector as shown in Tables 8b, and 8c.

Categories used for prohibited species catch limits	
Trawl fisheries	
1.	Greenland turbot, arrowtooth flounder and sablefish
2.	rock sole, flathead sole, and "other flatfish"
3.	yellowfin sole
4.	rockfish
5.	Pacific cod
6.	pollock, Atka mackerel and "other species"
Non-trawl fisheries	
1.	Pacific cod
2.	other non-trawl (longline sablefish and rockfish, and jig gear)
3.	groundfish pot (exempt in recent years)

Halibut Trawl Fisheries: The halibut PSC limit can be apportioned to the trawl fishery categories as shown in the box at right. While an overall PSC limit of 3,675 t has been established for trawl gear, Amendment 80 effectively will reduce the PSC limit by 149 mt by 2012 (3,526 t).

Schedule for Halibut Trawl PSC Limits for 2012		
2012	3,526	Total Trawl Halibut Apportionment
	2,325	Amendment 80
	875	Trawl Limited Access
	326	CDQ Allocation

Additional reductions of 5 percent would occur if PSC limit amounts are transferred from the trawl limited access sector to the Amendment 80 trawl sector during a fishing year.

Halibut Fixed Gear Fisheries: A 900 t non-trawl gear halibut mortality limit can be apportioned to the fishery categories listed in the adjacent box. Beginning in 2008, Amendment 85 divided the halibut PSC limit for the hook-and-line Pacific cod fishery 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 (see Table 8c).

Crab: 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 2010 estimate of

PSC limits for red king crab and <i>C. bairdi</i> Tanner crab			
Species	Zone	Crab Abundance	PSC Limit
Red King Crab	Zone 1	≤ 8.4 million mature crab threshold or	32,000
		> 8.4 million lb effective spawning biomass (ESB)	
		$> \text{threshold, but } < 55$ million lb ESB	97,000
		≥ 55 million lb ESB	197,000
Tanner Crab	Zone 1	0-150 million crab	0.5% total abundance - 20,000
		150-270 million crab	730,000
		270-400 million crab	830,000
		> 400 million crab	980,000
Tanner Crab	Zone 2	0-175 million crab	1.2% total abundance - 30,000
		175-290 million crab	2,070,000
		290-400 million crab	2,520,000
		> 400 million crab	2,970,000

effective spawning biomass of 43.1 million pounds, the PSC limit for 2012 is 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 limit has generally been allocated among the pollock/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 2011 abundance (670 million crab), the PSC limit in 2012 for *C. bairdi* will be 980,000 *C. bairdi* crab in Zone 1 and 2,970,000 crab in Zone 2.

Snow crab (*C. opilio*) PSC limits are based on total abundance of *opilio* crab as indicated by the NMFS standard trawl survey. The limit is set at 0.1133% of the total snow crab survey abundance index, with a minimum limit of 4.5 million snow crab and a maximum limit of 13 million snow crab; the cap is further reduced by 150,000 crab. The 2011 survey estimate of 6,336,734,734 crabs result in a 2012 *opilio* crab PSC limit of 7,029,520 crabs. Snow crab taken within the "*C. opilio* Bycatch Limitation Zone" accrues toward the PSC limits established for the trawl sectors.

Herring: In 1991, an overall herring PSC bycatch limit of 1 percent of the EBS biomass of herring was implemented. This limit is apportioned to the seven PSC fishery categories. The ADF&G estimate of herring spawning biomass for the eastern Bering Sea in 2011 is 209,419 t, which is 8 percent lower than the 2011 estimate of 227,269 t (Item C-3(b)(5)). The corresponding herring PSC limit for 2012 at 1 percent of this amount is 2,094 t.

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

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.