

PART 1

Questions the Council should address for the record at final action**Trawl PSC Limits:**

- 1) Specify the reduction (in MT and Percent)

Confirm the approach in the analysis that the reduction applies to the trawl PSC limit minus the 191.4 rockfish allocation and 27.4 mt PSC reduction previously taken. (If a different interpretation is desired, further analysis would have to be provided in a subsequent draft.) Based on Council direction in June 2011, the Rockfish Program allocation of 191.4 MT would not be subject to any reduction. The reduction would be applied to all other fisheries.
- 2) If the Council selects the option to remove deep- and shallow-water complex PSC designations for the remainder of the second season - after May 15. Should halibut PSC used during that period be deducted from:
 - a. The fishery complex in which it was used. (e.g., if one complex exceeds the second season PSC limit, the overage is deducted from the 3rd season limit for that complex). (This option would not require modifying the catch accounting system). OR
 - b. The fishery where the PSC limit was originally designated for use. (NOAA Fisheries has indicated that selecting this option would require revising the catch accounting system. Implementing this option may not be possible with current funding)

Note: any unused PSC will be rolled-over to the fisheries where it was initially assigned.
- 3) Specify the actual tonnage associated with its Preferred Alternative option for the total halibut trawl PSC limit for the record.

Hook-and-Line PSC Limits

- 1) Set the halibut PSC limit for the demersal shelf rockfish in the Southeast Outside District. Status quo is 10 mt. Are proposed reductions to be applied to the DSR PSC limit?
- 2) Set the halibut PSC limit for non-DSR hook-and-line fishery. Status quo is 290 mt.
 - a. Any proposed reduction applied to the CV and/or CP sectors would not be available for use as hook-and-line PSC (i.e., it lowers the cap).
 - b. If the same percentage reduction is applied to both sectors then the overall non-DSR hook-and-line fishery PSC limit (290 mt) would be reduced.
 - c. However, if *different* percentage reductions are applied to the CV and/or CP sectors then the 290 mt non-DSR hook-and-line fishery PSC limit would remain in regulation and the reduction would be applied after the current Pacific cod split formula is applied to the overall limit.
- 3) Under Alternative 2, Option 2, confirm that the sideboard percentages for Amendment 80/AFA/GOA rockfish would not change but would be applied to a revised trawl halibut PSC limit by season and fishery category, where applicable.
- 4) Specify the actual tonnage associated with the Preferred Alternative option for the total halibut hook-and-line PSC limit for the record.

Supplemental Table. GOA halibut PSC usage by gear, sector, and category for 2003-2011.

Year	Hook-and-Line			Trawl																			
	Catcher Processor	Catcher Vessel	Total	Sideboarded PSC Usage									Rockfish Program Allocation	Total PSC Usage									
				Non-exempt AFA CVs*			Am 80			Rockfish Program (July)				Catcher Vessels			Catcher Processors			Trawl Total			
				Deep	Shallow	Total	Deep	Shallow	Total	Deep	Shallow	Total		Deep	Deep	Shallow	Total	Deep	Shallow	Total	Deep	Shallow	Total
PSC Limit	117**	173**	290	56	302	420	418	137	555	50	2	52	191.4	N/A			N/A			N/A			2,000
2003	107	179	287	4	23	27								193	1,041	1,233	750	102	852	943	1,143	2,085	
2004	123	171	294	0	9	0								572	1,099	1,671	303	470	773	876	1,569	2,444	
2005	43	164	207	0	9	9								441	1,127	1,568	392	146	538	833	1,274	2,106	
2006	141	192	333	0	0	0								571	1,001	1,572	342	70	412	913	1,071	1,984	
2007	105	185	290	11	47	58				47	71	118	41	445	1,250	1,695	226	24	249	671	1,274	1,945	
2008	101	395	496	4	26	32	285	22	307	67	100	167	36	440	1,163	1,604	311	39	350	751	1,203	1,954	
2009	95	183	278	2	8	18	245	53	298	58	22	80	27	390	1,103	1,494	247	87	335	638	1,191	1,828	
2010	122	104	226	0	8	8	284	24	308	31	46	77	62	546	762	1,308	210	119	329	755	881	1,637	
2011	130	111	242	4	25	34	288	25	313	38	11	49	72	542	794	1,336	426	84	510	968	878	1,846	

Source: AKFIN summary of NOAA Catch Accounting System data (*except non-AFA CV data was taken from Catcher Vessel Intercooperative annual reports)

** Will change annually based on the Pacific cod TACs in the Western and Central GOA

N/A means not applicable because of roll-overs and the 5th season allowance is not defined as deep or shallow water complex and PSC is not divided between CVs and CPs

The 191.4 MT Rockfish Program allocation is divided such that CVs are allocated 117.3 MT and CPs are allocated 74.1 MT.

Estimated PSC limits based on 1,973 MT cap

Reducing the overall trawl PSC limit to 1,973 MT from 2,000 MT and using that amount to determine the seasonal and fishery limits results in minor changes to those apportionments relative to those reported in the analysis. It does not change the overall PSC limits that were presented. A series of tables depicting the trawl PSC limits as well as trawl sideboard limits are presented in this paper. If the Council were to select this methodology to modify trawl PSC limits, these are the halibut PSC apportionments that would be anticipated, if the seasonal and fishery allowances were not modified during the annual harvest specifications process.

Table 1 shows how the 1,973 MT PSC limit would be divided among the trawl seasons and fishery complexes, if the current percentages for each are maintained. Note that summing the seasonal totals may not equal the total allowance due to rounding. In each case the seasonal apportionment is within 8 MT of when they were based on the 2,000 MT PSC limit. After the seasonal limits are divided among the shallow-water and deep-water complexes, the maximum difference between the current status quo limit and applying the 1,973 MT limit is 6 MT.

Table 1 Trawl halibut PSC limits based on an overall limit of 1,973 MT.

	Total allowance**	1st season January 20 to April 1	2nd season April 1 to July 1	3rd season* July 1 to September 1	4th season September 1 to October 1	5th season October 1 through December 31
Total Allowance						
seasonal share		27.5 percent	20 percent	30 percent	7.5 percent	15 percent
Status quo	1,973	543	395	592	148	296
Deep-water complex						
seasonal share		12.5 percent	37.5 percent	50 percent*	0 percent	NA
Status quo	789	99	296	203 (or 395)	0	
Option 1 - 5 % reduction	759	94	281	193 (or 385)		
Option 2 - 10% reduction	729	89	266	183 (or 374)		
Option 3 - 15% reduction	700	84	252	173 or (364)		
Shallow-water complex						
seasonal share		50 percent	11.1 percent	22.2 percent	16.7 percent	NA
Status quo	888	444	99	197	148	
Option 1 - 5 % reduction	843	422	94	187	141	
Option 2 - 10% reduction	799	400	89	177	133	
Option 3 - 15% reduction	755	377	84	168	126	
Undesignated						
seasonal share						100 percent
Status quo	296					296
Option 1 - 5 % reduction	281					281
Option 2 - 10% reduction	266					266
Option 3 - 15% reduction	252					252

All values are metric tons, except where noted as percentages.

* Number in bracket is total allocation plus 191.4 metric ton rockfish program halibut PSC allocation.

** The current 2,000 MT limit is reduced by the 27.4 MT Rockfish Program halibut PSC reduction.

^ PSC available: Status quo (1,973 MT), 5% reduction (1,884 mt), 10% reduction (1,795 mt), 15% reduction (1,706 MT)

Because sideboard limits are calculated based on either the current 2,000 MT limit or seasonal apportionments, reducing the 2,000 MT limit to 1,973 MT as the starting point for the calculations requires adjusting the sideboard limits. Table 2 presents the Amendment 80 halibut PSC sideboard limits. Overall the largest change is associated with the 3rd season deep-water limit. That PSC limit changed by 2 MT from the current amount, prior to applying any of the proposed percentage reductions to the overall limit.

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Table 2 Amendment 80 halibut PSC sideboard limits

	Total sideboard	<u>1st season</u> January 20 to April 1	<u>2nd season</u> April 1 to July 1	<u>3rd season*</u> July 1 to September 1	<u>4th season</u> September 1 to October 1	<u>5th season</u> October 1 through December 31
Deep-water complex						
Status quo (assumes 1,973 MT)	414	23	212	103	3	73
Option 1 - 5% reduction	394	22	201	98	3	70
Option 2 - 10% reduction	371	20	190	93	2	66
Option 3 - 15% reduction	350	19	180	87	2	62
Shallow-water complex						
Status quo (assumes 1,973 MT)	135	9	37	29	15	45
Option 1 - 5% reduction	128	9	35	27	14	43
Option 2 - 10% reduction	122	9	34	26	13	40
Option 3 - 15% reduction	114	8	32	24	12	38

All values are metric tons, except where noted as percentages.

* Note: excludes rockfish program halibut PSC allowance and usage.

The rockfish program sideboard limits applied to catcher processors are listed in Table 3. The deep-water allowance was reduced by 1 MT using the 1,973 MT limit instead of 2,000 MT. The shallow-water sideboard limit was unchanged, due to the small initial allocation to that species grouping.

Table 3 Rockfish Program CP sideboards for the month of July

		3rd season	July sideboard	
		PSC allowance*	tonnage	As percent of 1,973 MT
Deep-water complex				
Status quo		203	49	2.50%
Maintain current sideboard percentage	Option 1 - 5% reduction	193	47	2.50%
	Option 2 - 10% reduction	183	44	
	Option 3 - 15% reduction	173	42	
Maintain current sideboard tonnage	Option 1 - 5% reduction	193	50	2.67%
	Option 2 - 10% reduction	183		2.82%
	Option 3 - 15% reduction	173		2.98%
Shallow-water complex				
Status quo		197	2	0.10%
Maintain current sideboard percentage	Option 1 - 5% reduction	187	2	0.10%
	Option 2 - 10% reduction	177	2	
	Option 3 - 15% reduction	167	2	
Maintain current sideboard tonnage	Option 1 - 5% reduction	187	2	0.11%
	Option 2 - 10% reduction	177		0.11%
	Option 3 - 15% reduction	167		0.12%
* Excludes rockfish program halibut PSC allowance and deduction.				

Table 4 reports the estimated sideboard limits for the AFA non-exempt catcher vessel fleet. Recall that AFA sideboard limits are calculated as a percentage of the seasonal apportionments and not the overall limit. The greatest change occurred in the 1st season shallow-water allowance. That limit was reduced by 2 MT, before percentage reductions were applied, compared to the current limit. Most limits were not changed or only changed by 1 MT. Note that the third season AFA PSC limit used 395 MT as the basis for the calculation.

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Table 4 AFA non-exempt catcher vessel sideboard limits.

	Total sideboard	<u>1st season</u> January 20 to April 1	<u>2nd season</u> April 1 to July 1	<u>3rd season</u> July 1 to September 1	<u>4th season</u> September 1 to October 1	<u>5th season</u> October 1 through December 31
<u>Deep-water complex</u>						
Status quo (assumes 1,973 MT)	56	7	21	28	0	NA
Option 1 - 5 % reduction	53	7	20	26		
Option 2 - 10% reduction	50	6	19	25		
Option 3 - 15% reduction	47	6	18	24		
<u>Shallow-water complex</u>						
Status quo (assumes 1,973 MT)	302	151	34	67	50	NA
Option 1 - 5 % reduction	287	143	32	64	48	
Option 2 - 10% reduction	272	136	30	60	45	
Option 3 - 15% reduction	257	128	28	57	43	
<u>Undesignated</u>						
Status quo (assumes 1,973 MT)	61	NA				61
Option 1 - 5 % reduction	58					58
Option 2 - 10% reduction	55					55
Option 3 - 15% reduction	52					52
All values are metric tons, except where noted as percentages.						

Applying Different Halibut PSC Percentage Reductions to the Hook-and-Line CV and CP Fleets

The Council has included the option of applying a different halibut PSC reduction percentage to the hook-and-line gear catcher vessel and catcher processor fleets. This is possible given the current PSC regulations for the two sectors, but it would require a two-step process to apply the reductions, rather than simply reducing the overall (non DSR) hook-and-line PSC limit of 290 mt. Reducing the overall PSC limit, similar to the approach used for the trawl fleet, may be done if the same percentage reduction is applied to both sectors. To explain the issues associated with applying different percentage reductions, the method of dividing the PSC limit implemented under Amendment 83 must be discussed.

Amendment 83 was implemented at the start of the 2012 fishing year. That amendment set gear and seasonal apportionments for the GOA Pacific cod fisheries. It also implemented formulas to divide the hook-and-line halibut PSC limit among catcher vessels and catcher processors annually, based on their respective Pacific cod allocations and the annual Pacific cod TACs in the Western GOA and Central GOA. Those formulas are presented below and are taken from Federal Regulations at § 679.21(d)(4)(iii)(B). The formulas provide each sector (e.g., catcher processors and catcher vessels) with a share of the available halibut PSC equal to its share of the combined hook-and-line TACs in the Central and Western Gulf. In other words, in a year when the hook-and-line catcher processors receive 41 percent of the combined Central and Western Gulf hook-and-line TACs, that sector would also receive 41 percent of the hook-and-line halibut PSC apportionment.

Catcher vessels using hook-and-line gear will be apportioned part of the GOA halibut PSC limit in proportion to the total Western and Central GOA Pacific cod hook-and-line allocations, where X is equal to the annual area TAC, as follows:

$$CV \text{ apportionment} = \text{Total HAL PSC limit mt} \cdot \frac{(1.4\%(X_{WGOA}) + 21.3\%(X_{CGOA}))}{((19.8\% + 1.4\%)(X_{WGOA}) + ((5.1\% + 21.3\%)(X_{CGOA}))}$$

Catcher/processors using hook-and-line gear will be apportioned part of the GOA halibut PSC limit in proportion to the total Western and Central GOA Pacific cod allocations, where X is equal to the annual area TAC, as follows:

$$CP \text{ apportionment} = \text{Total HAL PSC limit mt} \cdot \frac{(19.8\%(X_{WGOA}) + 5.1\%(X_{CGOA}))}{((19.8\% + 1.4\%)(X_{WGOA}) + ((5.1\% + 21.3\%)(X_{CGOA}))}$$

No later than November 1, any halibut PSC limit (described above) that is projected by the Regional Administrator to not be used by one of the hook-and-line sectors during the remainder of the fishing year will be made available to the other sector.

Because fluctuations in the Pacific cod TACs determine the distribution of the 290 mt halibut PSC for catcher vessels and catcher processors, only the formulas are fixed in regulation. The percentage and amount each sector is apportioned varies from year-to-year and is therefore not fixed in regulation. The current analysis shows the distribution of PSC in 2012 only, and thus applies the Council's options to reduce PSC to each sector to the PSC amounts that resulted for 2012. Because the PSC limits to each sector can vary annually, a 5%, 10%, or 15% reduction in PSC would equate to a different amount (mt) each year.

Table 1 shows the estimated PSC apportionments of halibut PSC that would have occurred if the current apportionment method was in place during each year 2002 - 2012. The data in the table indicates that the maximum difference in the PSC apportionment among years would have been 17 MT, from 2007 to 2012. Catcher vessels would have had their largest apportionment in 2012 (173 MT) and smallest in 2007 (156 MT). Because a total limit is shared by the two sectors, the catcher processors would have experienced the largest apportionment in 2007 (117 MT) and the smallest apportionment in 2012 (134 MT).

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Table 1 Estimated apportionment of halibut PSC to hook-and-line catcher vessels and catcher processors from 2002 through 2012 using current apportionment methodology under GOA Am 83.

Year	Pacific cod		PSC MT		PSC %	
	WG TAC	CG TAC	CV	CP	CV	CP
2012	21,024	42,705	173	117	59.7%	40.3%
2011	22,785	40,362	167	123	57.6%	42.4%
2010	20,764	36,782	167	123	57.6%	42.4%
2009	16,175	23,641	158	132	54.4%	45.6%
2008	19,449	28,426	158	132	54.4%	45.6%
2007	20,141	28,405	156	134	53.8%	46.2%
2006	20,141	28,405	156	134	53.8%	46.2%
2005	15,687	25,086	162	128	55.9%	44.1%
2004	16,957	27,116	162	128	55.9%	44.1%
2003	15,450	22,690	158	132	54.5%	45.5%
2002	16,849	24,790	158	132	54.5%	45.5%
Average	18,675	29,855	162	128	55.9%	44.1%
Maximum	22,785	42,705	173	134	59.7%	46.2%
Minimum	15,450	22,690	156	117	53.8%	40.3%

Source: NOAA Fisheries TAC and Federal Regulations

Applying the Council’s options for PSC reductions to the two sectors, results in the estimated apportionments presented in Table 2. The columns labeled PSC MT are the status quo apportionments. Reductions to the status quo are presented in the columns to the right of the status quo.

Table 2 Estimated sector PSC reductions (2002 through 2012) based on Council options

Year	PSC MT		CV			CP		
	CV	CP	5%	10%	15%	5%	10%	15%
2012	173	117	164	156	147	111	105	99
2011	167	123	159	150	142	117	111	105
2010	167	123	159	150	142	117	111	105
2009	158	132	150	142	134	126	119	112
2008	158	132	150	142	134	126	119	112
2007	156	134	148	140	133	127	121	114
2006	156	134	148	140	133	127	121	114
2005	162	128	154	146	138	121	115	109
2004	162	128	154	146	138	121	115	109
2003	158	132	150	142	134	125	119	112
2002	158	132	150	142	134	125	119	112
Average	162	128	154	146	138	121	115	109

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To apply different percentage reductions to the different hook-and-line sector’s PSC limits, the overall PSC limit of 290 MT must remain in regulation. After each sector’s apportionment is determined using the formula above, the PSC percentage reduction could be applied to each sector. Those numbers would be reported annually as the PSC apportionment for each sector. It should be noted that in sector’ PSC limits may vary by year depending on the distribution of the Pacific cod TAC between the Central GOA and Western GOA, the 290 mt would remain in regulation as the total (non-DSR) hook-and-line PSC limit, but the entire 290 MT would no longer be-allocated to the two sectors in total, For example, if a 5% reduction was established for the CV sector and 10% for the CP sector, the approach would be as follows. First, use the current calculations under Am. 83 to determine the portion of the 290 mt that is allocated to the hook-and-line CP sector and CV sector. Upon establishing those amounts, reduce the CV PSC limit by 5% and reduce the CP PSC limit by 10%. Thus, while the overall limit continues to be 290 mt, the full 290 mt is not allocated each year.

The tables below show how the PSC limits could vary each year under the Council’s options, based on three example TAC scenarios. The total hook-and-line PSC limit for each option based on the 2007, 2012, and average (2002 - 2012) TAC distribution are presented in Table 3. Information presented in the table indicates that Pacific cod TAC distributions in the Central GOA and Western GOA from 2002 through 2012 could change the hook-and-line PSC limit by as much as 2 MT when different percentage reductions are applied to the two sectors.

Table 3 Total hook-and-line halibut PSC available under each Council option for three example years.

CV / CP PSC allowances based on 2002-2012 average

		CV		
		5%	10%	15%
CP	5%	276	267	259
	10%	269	261	253
	15%	263	255	247

CV / CP PSC allowances based on 2012 (largest CV allowance)

		CV		
		5%	10%	15%
CP	5%	276	267	258
	10%	270	261	252
	15%	264	255	247

CV / CP PSC allowances based on 2007 (largest CP allowance)

		CV		
		5%	10%	15%
CP	5%	276	268	260
	10%	269	261	253
	15%	262	254	247

Retrospective Analysis of Current Allocation Formula:

Applying the current methodology for allocating halibut PSC and Pacific cod among hook-and-line CVs and hook-and-line CPs to past fishing years is presented in this section. Data from the 2003 through 2011 fishing years analyzed. Reported catch in the Pacific cod target fishery and halibut PSC usage for the Central and Western GOA were used to estimate a halibut PSC usage rate for each sector by area. A weighted average halibut PSC rate was then calculated using the Central and Western GOA rates and prorating them by the percentage of the Pacific cod TAC the sector is allocated from each area. Dividing the sectors halibut PSC limit by the weighted PSC rate yields the estimated amount of catch in the Pacific cod target fishery the PSC limit would support. These estimates are provided for the status quo and each PSC reduction the Council is considering. Estimates of the Pacific cod allocation are presented in the column to

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the right of the weighted average. This estimate was generated using the current Pacific cod distribution formula.

The highlighted cells indicate that the halibut PSC limit would constrain the sector's Pacific cod harvests, at that year's halibut PSC usage rates. Neither the CP nor CV sectors are estimated to have been constrained during the 2010 through 2011 fishing years under any PSC reduction option. This is due to the relatively low PSC usage rates relative to earlier years. So, even though the Pacific cod allocation was relatively high those years, low PSC usage would allow their allocation to be harvested before PSC closed the fishery. During the years 2004 through 2007 both the CV and CP fleets were estimated to be constrained by the new allocation of Pacific cod and halibut PSC.

Table 4 Retrospective analysis of HAL CP and CV Pacific cod allocations and potential catch under the proposed halibut PSC limits

Vessel Type	Year	CG (Reported Catch)			WG (Reported Catch)			Wt. Avg. Pacific cod Rate	Pacific cod Allocation	Max Catch at W.A. Rate For Each Option			
		Halibut PSC	Total Weight	Rate	Halibut PSC	Total Weight	Rate			Status Quo	5%	10%	15%
CP	2011	38	3,306	0.011	92	5,676	0.016	0.015	6,570	8,080	7,676	7,272	6,868
CP	2010	46	3,421	0.014	74	4,923	0.015	0.015	5,987	8,310	7,894	7,479	7,063
CP	2009	11	1,169	0.010	83	3,900	0.021	0.019	4,408	6,968	6,620	6,271	5,923
CP	2008	40	1,817	0.022	61	3,100	0.020	0.020	5,301	6,558	6,230	5,902	5,574
CP	2007	33	1,435	0.023	72	2,778	0.026	0.025	5,437	5,291	5,026	4,762	4,497
CP	2006	46	1,021	0.045	91	2,533	0.036	0.038	5,437	3,564	3,385	3,207	3,029
CP	2005	5	241	0.022	33	700	0.048	0.043	4,385	3,008	2,857	2,707	2,557
CP	2004	26	1,496	0.017	97	2,870	0.034	0.030	4,740	4,204	3,993	3,783	3,573
CP	2003	10	1,447	0.007	95	4,126	0.023	0.020	4,216	6,683	6,349	6,015	5,681
CP	Average	28	1,706	0.019	78	3,401	0.027	0.026	4,600	5,573	5,294	5,016	4,737
CV	2011	83	6,681	0.012	14	869	0.016	0.013	8,916	13,206	12,545	11,885	11,225
CV	2010	62	5,689	0.011	28	1,736	0.016	0.011	5,220	14,822	14,081	13,340	12,599
CV	2009	120	5,415	0.022	51	2,280	0.022	0.022	8,125	7,106	6,750	6,395	6,040
CV	2008	371	6,270	0.059	20	455	0.044	0.058	5,262	2,713	2,578	2,442	2,306
CV	2007	162	6,530	0.025	22	674	0.033	0.025	6,327	6,172	5,864	5,555	5,247
CV	2006	172	6,611	0.026	15	343	0.045	0.027	6,332	5,749	5,462	5,174	4,887
CV	2005	158	4,298	0.037	6	236	0.027	0.036	6,332	4,500	4,275	4,050	3,825
CV	2004	166	5,458	0.030	2	152	0.015	0.029	5,563	5,523	5,246	4,970	4,694
CV	2003	75	3,244	0.023	4	257	0.017	0.023	6,013	6,956	6,608	6,261	5,913
CV	Average	161	5,439	0.029	19	767	0.027	0.029	5,049	6,693	6,358	6,023	5,689

Source: AKFIN summaries of NOAA Fisheries catch accounting data and current HAL Pacific cod and halibut PSC allocation formulas

Conclusions:

If the Council wants to select a different percentage reduction of the PSC apportionment for the hook-and-line catcher vessels and catcher processors, the current 290 MT limit must remain in regulation. The PSC reductions would be taken after the current formula to apportion halibut PSC is applied to the 290 MT limit. Because the percentage of the total apportioned to the catcher vessel and catcher processors may vary annually, the overall amount of PSC that may be used by the two sectors (the overall PSC limit) may also vary annually. Based on historical catch information reported in Table 2, a 15 percent catcher processor reduction from the status quo would likely range from 18 to 20 mt, while a catcher vessel reduction of 15 percent would likely range from 23 to 26 mt (based on 2002-2011 data). A 5 percent reduction to the catcher processor sector from the status quo would likely range from 6 to 7 mt and a 5 percent reduction of catcher vessel sector PSC would range from 8 to 9 mt. The amount of difference in these reductions is minimal and likely beyond the precision of our current management system.

The retrospective analysis indicates that the low halibut PSC usage rates in 2010 and 2011 would have allowed both the CV and CP fleets to harvest their Pacific cod allocation under the current allocation formula. In earlier years, the halibut PSC limit was estimated to have often constrained harvest.

Community Analysis Errata

During the final production process for the May 2012 revised version of the document, it was discovered that the hook-and-line GOA groundfish vessel data reported in the community analysis inadvertently contain pot and jig data as well as hook-and-line data. These data also contain hook-and-line data from GHF fisheries that are under the management authority of the State of Alaska and not subject to the federal halibut PSC limits. This error has the effect of overstating community fleet engagement in, and relative dependency on, the GOA groundfish hook-and-line sector. This error, however, does not change any of the conclusions reached in this analysis, as no substantial community impacts associated with the hook-and-line sector were identified (even with a reported level of revenue potentially forgone that was substantially higher than it should have been due to the inclusion of GOA groundfish catch that is not limited by halibut PSC).

This error was uncovered too late in the process to correct in the current version of the document; the error will be corrected in the Secretarial Review draft of the document, if final action is taken at this meeting. Data for GOA groundfish trawl fisheries were not affected, nor were GOA groundfish shore processor data included in the analysis. Similarly, data associated with the halibut fisheries, including the commercial, sport charter, and subsistence halibut fisheries, were not affected by the error in data reporting for the GOA groundfish hook-and-line fisheries.

Tables 1 and 2 provide updated information for GOA groundfish hook-and-line vessels, by community of ownership,¹ that would be potentially directly affected by the proposed management action. Pot and jig gear data have been removed, as have groundfish data associated with targeted halibut and sablefish fisheries and those associated with efforts targeting state waters or state-managed fisheries (none of which would be directly affected by the proposed GOA halibut PSC revisions). This has the practical effect of excluding all GOA groundfish data except for data associated with the targeted Pacific cod hook-and-line fishery in federal waters of the Gulf.

As shown in Table 1, the GOA groundfish hook-and-line fleet ownership within Alaska is highly concentrated in Homer and Kodiak, with over two-thirds of annually participating Alaska-owned vessels coming from those two communities alone. Although the number of vessels is substantially smaller in the corrected dataset, the relative concentration of vessels in these two communities is greater than shown in the current version of the report. Both Homer and Kodiak have, on average, more than 20 hook-and-line vessels participating in the fishery each year; no other community averages five participating vessels per year, and only four other communities average at least two vessels participating each year.

Table 2 provides information on GOA groundfish exvessel gross revenues for the hook-and-line vessels enumerated in Table 1. As noted in the analysis, the level of gross revenue forgone for hook-and-line vessels would have been approximately 0.9 percent under the maximum GOA halibut PSC reduction alternative (15 percent reduction). To take the example of Kodiak-owned vessels, of the approximately

¹ Because only vessels with ownership in the communities listed are included in the data, the totals will not equal the total number of hook-and-line vessels that participated in federal groundfish fisheries.

\$1.3 million total annual average gross revenue for these vessels, the total exvessel gross revenue forgone would be about \$12,000 per year for the community-owned fleet, which spread across 22 vessels in an average year would equal about \$550 of exvessel gross revenue forgone per vessel per year. This compares to a figure of about \$700 per vessel given in the current version of the report.

**Table 1. Individual GOA Groundfish Hook-and-Line Vessels (all)
by Community of Vessel Owner, 2003-2010 (number of vessels)**

Community	Total Unique Vessels 2003-2010	Number of Vessels by Year								Annual Average Vessels 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Homer	59	27	23	28	26	35	29	36	35	29.9
Kodiak	67	17	20	23	23	24	26	21	19	21.6
Delta Junction	6	2	4	5	5	6	6	5	5	4.8
Anchor Point	12	5	3	5	0	2	5	3	2	3.1
Willow	5	3	2	2	3	4	3	3	3	2.9
Nikolaevsk	7	3	3	2	1	2	2	1	3	2.1
Petersburg	7	3	0	0	1	1	2	3	5	1.9
Cordova	5	0	0	0	2	3	4	2	3	1.8
Seward	5	0	0	0	0	1	5	1	2	1.1
Sitka	9	4	2	0	0	0	0	1	2	1.1
Wasilla	5	0	1	1	0	2	4	1	0	1.1
Sand Point	5	1	0	0	0	1	1	3	1	0.9
Sterling	1	1	1	1	0	1	0	1	1	0.8
Anchorage	3	0	1	0	0	0	2	2	0	0.6
Dutch Harbor	3	0	0	2	0	1	2	0	0	0.6
Eagle River	2	0	0	0	0	1	1	2	0	0.5
Yakutat	4	0	0	0	0	0	4	0	0	0.5
Juneau	2	0	0	0	1	0	0	1	1	0.4
Douglas	2	0	1	0	0	0	1	0	0	0.3
King Salmon	1	0	0	1	1	0	0	0	0	0.3
Unalaska	2	1	1	0	0	0	0	0	0	0.3
Adak	1	0	0	0	0	0	0	0	1	0.1
Kasilof	1	0	0	0	1	0	0	0	0	0.1
King Cove	1	0	0	0	0	0	0	0	1	0.1
Larsen Bay	1	0	1	0	0	0	0	0	0	0.1
Seldovia	1	0	0	0	0	0	1	0	0	0.1
Alaska Total	217	67	63	70	64	84	98	86	84	77.0
Oregon Total	6	0	1	0	2	2	3	1	0	1.1
Washington Total	44	18	16	11	19	20	22	21	19	18.3
Other States Total	7	3	3	2	2	3	3	1	2	2.4
Grand Total	246	88	83	83	87	109	126	109	105	98.8

**Table 2. GOA Groundfish Hook-and-Line Exvessel Gross Revenues
by Community of Vessel Owner, 2003-2010 (dollars)**

Community	Total Unique Vessels 2003-2010	Exvessel Gross Revenues by Year								Annual Average Exvessel Gross Revenues 2003-2010**
		2003	2004	2005	2006	2007	2008	2009	2010	
Homer	59	\$1,074,339	\$1,485,389	\$1,144,394	\$2,026,717	\$2,970,154	\$2,556,513	\$2,124,874	\$1,854,399	\$1,904,597
Kodiak	67	\$664,930	\$852,317	\$801,936	\$2,019,937	\$1,922,066	\$2,575,015	\$970,939	\$872,929	\$1,335,009
Delta Junction	6	*	\$274,269	\$307,831	\$657,793	\$735,561	\$1,021,351	\$503,197	\$514,412	\$573,488
Anchor Point	12	\$105,111	*	\$218,976	\$0	*	\$230,884	*	*	*
Willow	5	*	*	*	*	\$179,379	*	*	*	*
Nikolaevsk	7	*	*	*	*	*	*	*	*	*
Petersburg	7	*	\$0	\$0	*	*	*	*	\$3,378,066	*
Cordova	5	\$0	\$0	\$0	*	*	\$195,975	*	*	*
Seward	5	\$0	\$0	\$0	\$0	*	\$138,853	*	*	*
Sitka	9	\$377	*	\$0	\$0	\$0	\$0	*	*	*
Wasilla	5	\$0	*	*	\$0	*	\$44,524	*	\$0	*
Sand Point	5	*	\$0	\$0	\$0	*	*	*	*	*
Sterling	1	*	*	*	\$0	*	\$0	*	*	*
Anchorage	3	\$0	*	\$0	\$0	\$0	*	*	\$0	*
Dutch Harbor	3	\$0	\$0	*	\$0	*	*	\$0	\$0	*
Eagle River	2	\$0	\$0	\$0	\$0	*	*	*	\$0	*
Yakutat	4	\$0	\$0	\$0	\$0	\$0	\$2,790	\$0	\$0	*
Juneau	2	\$0	\$0	\$0	*	\$0	\$0	*	*	*
Douglas	2	\$0	*	\$0	\$0	\$0	*	\$0	\$0	*
King Salmon	1	\$0	\$0	*	*	\$0	\$0	\$0	\$0	*
Unalaska	2	*	*	\$0	\$0	\$0	\$0	\$0	\$0	*
Adak	1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*	*
Kasilof	1	\$0	\$0	\$0	*	\$0	\$0	\$0	\$0	*
King Cove	1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*	*
Larsen Bay	1	\$0	*	\$0	\$0	\$0	\$0	\$0	\$0	*
Seldovia	1	\$0	\$0	\$0	\$0	\$0	*	\$0	\$0	*
Alaska Total	217	\$3,019,395	\$3,089,039	\$2,760,464	\$5,527,134	\$7,269,801	\$8,716,585	\$5,359,826	\$7,565,900	\$5,413,518
All Other States	56	\$6,397,988	\$5,932,252	\$1,665,678	\$7,108,375	\$9,439,175	\$10,781,469	\$7,677,317	\$9,707,770	\$7,338,753
Grand Total	246	\$9,417,383	\$9,021,292	\$4,426,143	\$12,635,509	\$16,708,977	\$19,498,054	\$13,037,142	\$17,273,670	\$12,752,271

* = suppressed value due to data confidentiality considerations




** Note: Delta Junction average shown is for 2004-2010 rather than 2003-2010

Table 3 provides a graphic representation of engagement by sector for the Alaska communities profiled in the document, revised to reflect the corrected hook-and-line sector engagement. The scale of the sector has been adjusted in the figure key to account for a lower overall level of engagement, which allows for parallel engagement groupings for both trawl and hook-and-line groundfish sector community engagement.

Table 3. Graphic Representation of Annual Average Engagement in Potentially Affected Gulf Groundfish and Halibut Fisheries for Profiled Alaska Communities

Community	Relative Community Size	Gulf Groundfish Engagement		Gulf Halibut Engagement		
		Locally Owned Vessels		Shore-Based Processing Location	Local Commercial Halibut Quota Share Holders	Local Sport Charter Permit Holders
		Trawl Sector	Hook-and-Line Sector			
Anchorage	●	•	•	•	○	●
Chignik Lagoon	•	none	none	none	•	none
Homer	○	•	●	○	●	●
Juneau	●	•	•	•	○	○
King Cove	•	○	•	○	•	none
Kodiak	○	●	●	●	●	●
Petersburg	○	○	○	○	●	•
Sand Point	•	●	•	○	•	none
Sitka	○	none	○	●	●	●

Key for Table 3

Type/Level of Engagement			
Community Size	2010 population = less than 1,000	2010 population = 1,000 – 10,000	2010 population = greater than 10,000
GOA Groundfish Trawl Participation	2003-10 annual avg. = 0.1 – 0.9 vessels	2003-10 annual avg. = 1.0 – 9.9 vessels	2003-10 annual avg. = 10.0 or more vessels
GOA Groundfish Hook-and-Line Participation	2003-10 annual avg. = 0.1 – 0.9 vessels	2003-10 annual avg. = 1.0 – 9.9 vessels	2003-10 annual avg. = 10.0 or more vessels
GOA Groundfish Shore-Based Processing Participation	2003-10 annual avg. = 0.1 – 0.9 plants	2003-10 annual avg. = 1.0 – 1.9 plants	2003-10 annual avg. = 2.0 or more plants
GOA Commercial Halibut Participation	2003-10 annual avg. = 0.1 – 49.9 QS holders	2003-10 annual avg. = 50.0 – 199.9 QS holders	2003-10 annual avg. = 200 or more QS holders
GOA Sport Charter Halibut Participation	2011 (only) = 1 – 19 permit holders	2011 (only) = 20 – 39 permit holders	2011 (only) = 40 or more permit holders