

Amendment 80 Vessel Replacement Sideboards in GOA

Discussion Paper

February 2011

At its June 2010 meeting, the Council took final action on Amendment 97 that would allow Amendment 80 vessel owners to replace their vessels. During that same meeting, the Council also took final action on a new Central Gulf of Alaska (GOA) rockfish program to replace the current program in 2012. While completing final action on these actions, the Council identified a few issues that needed further examination: 1) impacts of Amendment 80 vessels on GOA flatfish fisheries as well as identified tangential issues associated with the recommended maximum length overall (MLOA) of replaced Amendment 80 vessels, 2) impacts from Amendment 80 vessels and replacement vessels on catcher processor sideboards for West Yakutat and Western GOA rockfish, and 3) areas of overlap of these and other peripheral issues, if any. To address these issues, the Council tasked staff to develop a discussion paper, which is provided below. This discussion paper includes a brief summary of the Amendment 80 GOA sideboards, the Amendment 80 vessel replacement action, Central GOA rockfish program sideboards, and a discussion of potential impacts of Amendment 80 vessels and replacement vessels on GOA flatfish and rockfish fisheries.

Overview of Amendment 80 Sideboards

The Amendment 80 program, implemented in 2008, allocates several BSAI non-pollock trawl groundfish species among trawl fishery sectors and facilitates the formation of harvesting cooperatives in the non-AFA trawl catcher processor sector. The Amendment 80 program was designed to meet the broad goals of (1) improving retention and utilization of fishery resources by the non-AFA trawl catcher processor fleet; (2) allocating fishery resources among BSAI trawl harvesters in consideration of historic and present harvest patterns and future harvest needs; (3) establishing a limited access privilege program (LAPP) for the non-AFA trawl catcher processors and authorizing the allocation of groundfish species to harvesting cooperatives to encourage fishing practices with lower discard rates and to improve the opportunity for increasing the value of harvest species while lowering costs; and (4) limiting the ability of non-AFA trawl catcher processors to expand their harvest capacity into other fisheries not managed under a limited access privilege program.

To limit the ability of the Amendment 80 fleet to expand their harvest capacity in other fisheries not allocated under the Amendment 80 program, the fleet is constrained by sector wide harvest limits in the GOA, commonly known as sideboards, that limit the catch of pollock, Pacific cod, northern rockfish, Pacific ocean perch, and pelagic shelf rockfish, as well as halibut PSC based on harvest patterns during 1998 through 2004.¹ Halibut PSC sideboard limits were designed to limit effort by GOA flatfish qualified Amendment 80 vessels in the GOA flatfish fisheries. All Amendment 80 vessels, other than the Golden Fleece, may not exceed the halibut PSC sideboard limit. Tables 1 and 2 provide Amendment 80 GOA sideboard limits for 2011.

¹ See Tables 37 and 38 to part 679 at: www.fakr.noaa.gov/regs/default.htm

Table 1. 2011 GOA groundfish sideboard limits for Amendment 80 vessels

Species	Apportionments and allocations by season	Area	Ratio of Amendment 80 sector vessels 1998-2004 catch to TAC	2011 TAC (mt)	2011 Amendment 80 vessel sideboards (mt)
Pollock	A Season—January 20–February 25	Shumagin (610)	0.003	7,342	22
		Chirikof (620)	0.002	11,129	22
		Kodiak (630)	0.002	5,823	12
	B Season—March 10–May 31	Shumagin (610)	0.003	7,342	22
		Chirikof (620)	0.002	13,128	26
		Kodiak (630)	0.002	3,824	8
	C Season—August 25–September 15	Shumagin (610)	0.003	10,022	30
		Chirikof (620)	0.002	6,451	13
		Kodiak (630)	0.002	7,820	16
	D Season—October 1–November 1	Shumagin (610)	0.003	10,022	30
		Chirikof (620)	0.002	6,451	13
		Kodiak (630)	0.002	7,820	16
	Annual	WYK (640)	0.002	2,666	5
Pacific cod	A Season ¹ —January 1–June 10	W	0.02	15,419	308
		C	0.044	27,314	1,202
	B Season ² —September 1–December 31	W	0.02	10,280	206
		C	0.044	18,210	801
	Annual	WYK	0.034	2,496	85
	Pacific ocean perch	Annual	W	0.994	2,797
WYK			0.991	1,937	1861
Northern rockfish	Annual	W	1	2,549	2,549
Pelagic shell rockfish	Annual	W	0.784	607	484
		WYK	0.896	405	363

¹The Pacific cod A season for trawl gear does not open until January 20.

²The Pacific cod B season for trawl gear does not open until November 1.

Table 2. 2010 and 2011 halibut PSC limits for Amendment 80 vessels in the GOA

Season	Season dates	Target fishery	Historic Amendment 80 use of the annual halibut PSC limit catch (ratio)	2010 and 2011 annual PSC limit (mt)	2010 and 2011 Amendment 80 vessel PSC limit (mt)
1	January 20–April 1	shallow-water	0.0048	2,000	10
		deep-water	0.0115	2,000	23
2	April 1–July 1	shallow-water	0.0189	2,000	38
		deep-water	0.1072	2,000	214
3	July 1–September 1	shallow-water	0.0146	2,000	29
		deep-water	0.0521	2,000	104
4	September 1–October 1	shallow-water	0.0074	2,000	15
		deep-water	0.0014	2,000	3
5	October 1–December 31	shallow-water	0.0227	2,000	45
		deep-water	0.0371	2,000	74

To limit effort in the GOA flatfish fisheries by Amendment 80 participants, only those Amendment 80 vessels that fished more than 10 weeks in the GOA flatfish fisheries from 1998 through 2004 are allowed to fish for GOA flatfish. Flatfish fisheries include arrowtooth flounder, deep-water flatfish, flathead sole, rex sole, and shallow-water flatfish. Amendment 80 vessels eligible to target flatfish in the GOA are listed in Table 3.

Table 3. Amendment 80 vessels eligible to fish GOA flatfish

Vessel	Vessel size (ft)	LLP licenses and endorsements currently on vessel
Alliance	107	LLG 2905 (124 ft) – CG
American No. 1	160	LLG 2028 (160 ft) – CG, WG
Defender	124	LLG 3217 (124 ft) – CG, WG
Golden Fleece	104	LLG 2524 (124 ft) – CG
Legacy	132	LLG 3714 (132 ft) – CG, WG
Ocean Alaska	107	LLG 4360 (124 ft) – CG, WG
Ocean Peace	219	LLG 2138 (219 ft) – WG
Seafreeze Alaska	295	LLG 4692 (296 ft) – WG
U.S. Intrepid	185	LLG 3662 (185 ft) – CG, WG
Unimak	185	LLG 3957 (185 ft) – CG
Vaerdal	124	LLG 1402 (124 ft) – CG, WG

One Amendment 80 vessel, the *Golden Fleece*, is exempt from the GOA halibut PSC sideboard limits. The exemption was the result of the Council identifying those Amendment 80 vessels that are primarily dependent on the GOA flatfish fisheries. Any vessel that fished in GOA flatfish fisheries for at least 80 percent of all weeks that the vessel was used to fish during the 2000 through 2009 time period was considered heavily dependent on the GOA flatfish fisheries by the Council. Therefore to prevent any adverse effects from GOA halibut sideboard limits on these GOA flatfish dependent Amendment 80 vessels, the Council recommended exempting these vessels from GOA halibut PSC sideboards. The Council recommended this exemption under the assumption that GOA halibut PSC used by the Amendment 80 exempt vessels would not be expected to increase the amount of halibut PSC used by Amendment 80 vessels overall.

Overview of Amendment 80 Vessel Replacement Action

In June 2010, the Council recommended that Amendment 80 vessel owners be allowed replace their Amendment 80 vessels with another vessel for any reason (i.e., to improve safety or to improve operational efficiency, as well as to replace a lost or permanently ineligible vessel). The Council recommended that replacement vessels be limited to less than 295 feet LOA. This recommendation, if approved by the Secretary of Commerce, would allow the owner of an Amendment 80 vessel to assign a quota share permit from an original qualifying Amendment 80 vessel to the replacement vessel or to the LLP license derived from the originally qualifying vessel. A replacement vessel cannot enter an Amendment 80 fishery without quota share being assigned to that vessel or the associated permit. Persons holding a quota share permit associated with a vessel that is permanently ineligible to re-enter US fisheries is eligible to replace that vessel.

The Council also recommended that an Amendment 80 replacement vessel would be allowed to participate in the GOA flatfish fishery if the replaced vessel was qualified to participate in that fishery (see Table 3). In addition, if the replacement vessel for the *Golden Fleece* is greater than the MLOA of the license that was originally assigned to the *Golden Fleece*, then that replacement vessel will be subject to all sideboards that apply to other Amendment 80 vessels, with the catch and PSC use of the *Golden Fleece* added to the existing GOA sideboards. If the *Golden Fleece* replacement vessel is less than or equal to the MLOA, then the original sideboard exempt for the vessel apply.

The Council also recommended any vessel replaced under the program may replace other Amendment 80 vessels, but these replacement vessels must be classed and loadlined or meet the requirements of the Alternative Compliance and Safety Agreement (ACSA). Replaced vessels not assigned to the

Amendment 80 fishery would have a sideboard limit of zero in the BSAI and GOA groundfish fisheries to prevent expanded effort in other North Pacific groundfish fisheries.

Overview of the Rockfish Program

Under the Central GOA rockfish program, which was implemented in 2007, 95 percent of the directed fishery TACs of three target rockfish species (Pacific ocean perch, northern rockfish, and pelagic shelf rockfish) are allocated to the eligible trawl catcher vessels and catcher processors. The remaining 5 percent of the TAC for these species are set aside to support an entry level fishery (50 percent trawl / 50 percent non-trawl) for vessels not eligible to participate. TACs are apportioned into 1) exclusive shares that are allocated to cooperatives 2) rockfish program limited access fisheries, and 3) entry level limited access fisheries. Eligible harvesters can choose to join a cooperative or fish in the limited access fisheries, or opt-out of the program (only catcher processors). Allocations to cooperatives are based on members' fishing histories. Allocations to the limited access fisheries are based on histories of eligible harvesters that choose to fish in the limited access. The fishery is open for the harvest of cooperative allocations May 1 to November 15. The limited access fisheries open July 1 and close for each target rockfish species upon harvest of the TAC of that species. In addition to the allocation of target rockfish, cooperatives also receive allocations of valuable secondary species, which include sablefish, shortspine thornyhead rockfish, Pacific cod (for catcher vessel cooperatives), and shortraker and roughey rockfish (for catcher processor cooperatives only). Each cooperative also receives an allocation of halibut PSC, which is based on historic halibut bycatch in the target rockfish fisheries and the target rockfish allocation of the cooperative.

There are a suite of GOA sideboard limits for catcher processor and catcher vessels operating in the Central GOA rockfish program. There are two broad categories of sideboards – those that establish catch limits, and those that prohibit directed fishing. Catch limits are divided into limits on harvest in other GOA rockfish fisheries and limits on the amount of halibut PSC mortality that can be incurred in GOA fisheries. The sideboard limits are in effect only during the month of July. The sideboards are designed to restrict fishing during the historical season for that fishery, but allow eligible rockfish harvesters to participate in fisheries before and after the historical rockfish season. Sideboards apply in State waters, in the “parallel” fishery.

Catcher processors and catcher vessel sectors have sideboard limits for West Yakutat pelagic shelf rockfish and POP; and Western GOA pelagic shelf rockfish, POP, and northern rockfish. The sideboard limits are based on each sector's historical catch of target species in GOA fisheries during July. The calculation of GOA rockfish sideboard limits is based on the sector's retained catch, as a percentage of total retained catch in a fishery, from July 1 to July 31, in each year from 1996 through 2002. There are separate sideboard ratios for each rockfish sideboard fishery and for each sector. Sideboard limits for the catcher vessel sector are applied at the sector level. For the catcher processor sector, sideboard limits are applied at the rockfish cooperative level. Each catcher processor rockfish cooperative is assigned a sideboard limit, as a percent of the general sideboard ratio for each fishery for the CP sector. The general sideboard ratio for each fishery is presented in Table 4 along with 2009 sideboard limit. Table 5 provides a summary of the sideboard activity for the catcher processors from 2007 to 2009 for Western GOA and West Yakutat rockfish species. There is no sideboard activity to report for the catcher vessel sector, given that NOAA Fisheries has routinely closed these sideboard fisheries to directed fishing, due to insufficient sideboarded species amounts.

Table 4. 2009 rockfish program harvest limits by sector for West Yakutat and Western GOA rockfish species

Management Area	Fishery	C/P sector (% of TAC)	CV sector (% of TAC)	2009 TAC (mt)	2009 C/P limit (mt)	2009 CV limit (mt)
West Yakutat	Pelagic Shelf rockfish	72.4	1.7	247	179	4
	Pacific ocean perch	76	2.9	1,105	840	32
Western GOA	Pelagic Shelf rockfish	63.3	0	986	624	0
	Pacific ocean perch	61.1	0	3,704	2,263	0
	Northern rockfish	78.9	0	2,047	1,615	0

Table 5. Catcher processor sideboard activity for West Yakutat and Western GOA rockfish species

Management Area	Fishery	2007			2008			2009		
		Number of vessels	Catch (mt)	Percent of sideboard limit	Number of vessels	Catch (mt)	Percent of sideboard limit	Number of vessels	Catch (mt)	Percent of sideboard limit
West Yakutat	Pelagic Shelf rockfish	1	•	•	1	•	•	1	•	•
	Pacific ocean perch	1	•	•	1	•	•	1	•	•
Western GOA	Pelagic Shelf rockfish	4	489	53%	7	290	48%	8	531	103%
	Pacific ocean perch	4	2,579	99%	7	2,044	91%	8	1,801	79%
	Northern rockfish	4	996	88%	6	1,178	70%	8	1,438	89%

*Withheld for confidentiality
Source: NMFS Catch Accounting Data

Sectors are also limited in their catch by a second sideboard limit that is intended to constrain harvest from fisheries that are typically closed because of insufficient halibut PSC (Table 6). Sideboard limits are established for the catcher vessel and catcher processor sectors, separately. NMFS administers the halibut PSC sideboard on the deep-water complex, and on the shallow-water complex.² The sideboards are set for Gulf-wide halibut PCS usage, as halibut is currently managed on a Gulf-wide basis. If, in July, eligible vessels have caught the sideboard halibut PSC amount within a complex, they would be precluded from participating in specific halibut PSC sideboarded fisheries in the complex for the remainder of July. Table 7 provides a summary of the halibut PSC sideboard activity for both catcher processors and catcher vessels, from 2007 through 2009, for shallow-water and deep-water complex fisheries.

Table 6. 2008 and 2009 rockfish program halibut mortality sideboard limits by sector

Sector	Shallow-water complex halibut PSC sideboard percentage	Deep-water complex halibut PSC sideboard percentage	Annual halibut mortality limit (mt)	Annual shallow-water complex halibut PSC sideboard limit (mt)	Annual deep-water complex halibut PSC sideboard limit (mt)
Catcher/Processor	0.54	3.99	2,000	11	80
Catcher vessel	6.32	1.08	2,000	126	22

Table 7. Catcher processor and catcher vessel halibut PSC sideboard activity for shallow-water and deep-water complex fisheries

Sector	Halibut PSC fishery	2007			2008			2009		
		Number of vessels	Catch (mt)	Percent of sideboard limit	Number of vessels	Catch (mt)	Percent of sideboard limit	Number of vessels	Catch (mt)	Percent of sideboard limit
Catcher processors	Shallow water complex	0	0	n/a*	0	0	n/a*	0	0	n/a*
	Deep water complex	5	21.45	26.82%	10	30.24	37.80%	11	26.28	32.85%
Catcher vessels	Shallow water complex	9	32.06	25.44%	11	45.84	36.38%	4	9.19	7.29%
	Deep water complex	0	0	n/a*	0	0	n/a*	0	0	n/a*

Source: NMFS Catch Accounting Data
*Closed to directed fishing due to insufficient sideboard limit

In June 2010, the Council took final action that defines a catch share program for the Central GOA directed rockfish fisheries. The program is intended to replace the current pilot program under which the

² The deep-water complex includes sablefish, rockfish, deep-water flatfish, rex sole, and arrowtooth flounder. The shallow-water complex includes flathead sole, shallow-water flatfish, pollock, and Pacific cod.

fisheries are currently managed, as that pilot program expires after the 2011 season. Similar to the pilot program, the new program would allocate target rockfish species (Pacific ocean perch, northern rockfish, and pelagic shelf rockfish), secondary species (Pacific cod, sablefish, shortraker rockfish, roughey rockfish, thornyhead rockfish), and halibut prohibited species catch to eligible participants. The Council's action would establish cooperative programs for both catcher processors and catcher vessels. Licenses qualifying for the program would annually form cooperatives that would receive allocations based on the catch histories of members.

Similar to the current pilot program, the new program includes sideboards to limit the activities of program participants in other fisheries. Catcher vessels sideboards include a prohibition for directed fishing in Western GOA and West Yakutat rockfish (Northern rockfish, Pacific ocean perch, and Pelagic shelf rockfish) during the month of July. These same vessels would also be prohibited from directed fishing in other deep-water complex fisheries, which include arrowtooth flounder, deep-water flatfish, and rex sole in GOA during the month of July.

For rockfish qualified catcher processors, sideboards for West Yakutat and Western GOA rockfish (pelagic shelf rockfish, Pacific ocean perch, and northern rockfish) during the month of July would be based on retained catch of the rockfish species from July 1 to July 31 from 2000 through 2006. Rockfish qualified non-Amendment 80 qualified catcher processors will be prohibited from West Yakutat and Western Gulf rockfish species fisheries during the month of July. There would also be a GOA halibut PSC sideboard limit for both deep-water complex and shallow-water complex.

Table 8 provides a detailed one page summary of Amendment 80 and rockfish program sideboard limits. Management of sideboard limits are similar to other sideboard programs in that once the sideboard limits are reached, directed fishing is closed.

Table 8. GOA sideboard limits under Central GOA Rockfish Program and Amendment 80 Program

Management Area	Species	LAPP	Sideboard limit
Western GOA (Area 610)	Northern rockfish (NR), pelagic shelf rockfish (PSR), and Pacific ocean perch (POP)	Amendment 80	NR = 100 % of TAC PSR = 76.4 % of TAC POP = 99.4 % of TAC
		Central GOA Rockfish Program	NR = 78.9% of TAC PSR = 63.3% of TAC POP = 76.0% of TAC
	Pacific cod, and Pollock	Amendment 80	Pacific cod = 2.0 % of TAC Pollock = 0.3 % of TAC
Central GOA (Area 620 & 630)	Pacific cod, and Pollock	Amendment 80	Pacific cod = 4.4 % of TAC Pollock (Area 620) = 0.2 % of TAC Pollock (Area 630) = 0.2 % of TAC
West Yakutat (Area 640)	NR, PSR, POP	Amendment 80	PSR = 89.6 % of TAC POP = 96.1 % of TAC
		Central GOA Rockfish Program	PSR = 72.4% of TAC POP = 76.0% of TAC
	Pacific cod, and Pollock	Amendment 80	Pacific cod = 3.4 % of TAC Pollock = 0.2 % of TAC
All GOA	Shallow water Halibut PSC species	Amendment 80	Season 1 = 0.48 % of trawl PSC limit Season 2 = 1.89 % of trawl PSC limit Season 3 = 1.46 % of trawl PSC limit Season 4 = 0.74 % of trawl PSC limit Season 5 = 2.27 % of trawl PSC limit
		Central GOA Rockfish Program	(Season 3) = 0.54 % of trawl PSC limit
	Deep water Halibut PSC species	Amendment 80	Season 1 = 1.15 % of trawl PSC limit Season 2 = 10.72 % of trawl PSC limit Season 3 = 5.21 % of trawl PSC limit Season 4 = 0.14 % of trawl PSC limit Season 5 = 3.71 % of trawl PSC limit
		Central GOA Rockfish Program	(Season 3) = 3.99 % of trawl PSC limit
Additional vessel specific sideboard restrictions			
All GOA for F/V <i>Golden Fleece</i>	N/A	Amendment 80	F/V <i>Golden Fleece</i> is prohibited from directed fishing Western GOA and West Yakutat rockfish, All GOA Pacific cod and pollock. Vessel is not subject to Amendment 80 halibut PSC sideboard limits.
All GOA for directed flatfish			Only the 11 Amendment 80 vessels listed in Table 39 to part 679 may directed fish for flatfish in the GOA.

Effects of Amendment 80 Vessels and their Replacements on GOA Sideboards

Tables 9 through 11 identify the TAC of select GOA groundfish species and species groups that historically have been targeted by Amendment 80 vessels, total catch by all vessels, catch by Amendment 80 vessels, and the percentage of TAC and total catch attributed to Amendment 80 vessels. Table 9 describes catch in the Western GOA (Area 610), and Table 10 describes the Central GOA (Areas 620 and 630). Data from the West Yakutat District (Area 640) is presented in Table 11, but all of the Amendment 80 data are masked to protect confidential data.

Table 9. Total groundfish catch of select groundfish species by all vessels and Amendment 80 vessels in the Western GOA (Area 610) from 2003 through 2009

Species	Year	TAC (mt)	Total catch (mt) (all vessels)	% of TAC	Amendment 80 Catch (mt)	Amendment 80 catch as % of total catch
Arrowtooth flounder	2003	8,000	8,211	103	7,818	95
	2004	8,000	9,518	119	2,565	27
	2005	8,000	2,545	32	2,077	82
	2006	8,000	2,042	26	1,369	67
	2007	8,000	3,147	39	2,507	80
	2008	8,000	3,175	40	2,074	65
	2009	8,000	1,521	19	1,210	80
Flathead sole	2003	2,000	525	26	424	81
	2004	2,000	2,585	129	730	28
	2005	2,000	611	31	567	93
	2006	2,000	462	23	400	87
	2007	2,000	696	35	567	81
	2008	2,000	288	14	203	70
	2009	2,000	303	15	178	59
Northern Rockfish	2003	890	449	50	432	96
	2004	770	1,030	134	1,015	99
	2005	808	575	71	569	99
	2006	1,483	972	66	879	90
	2007	1,439	1,108	77	1,063	96
	2008	2,141	1,918	90	1,871	98
	2009	2,054	1,947	95	1,943	100
Pacific cod	2003	15,450	16,235	105	644	4
	2004	16,957	15,614	92	644	4
	2005	15,687	12,470	79	261	2
	2006	20,141	14,775	73	232	2
	2007	20,141	13,417	67	576	4
	2008	19,449	14,888	77	465	3
	2009	16,175	15,165	94	466	3
Pelagic shelf rockfish	2003	510	226	44	211	93
	2004	370	285	77	244	86
	2005	377	121	32	106	88
	2006	1,438	558	39	524	94
	2007	1,466	595	41	571	96
	2008	1,003	577	58	565	98
	2009	819	717	88	699	97
Pacific ocean perch	2003	2,700	2,124	79	2,114	100
	2004	2,520	2,196	87	2,194	100
	2005	2,567	2,338	91	2,335	100
	2006	4,155	4,051	97	4,019	99
	2007	4,244	4,430	104	4,330	98
	2008	3,686	3,682	100	3,453	94
	2009	3,713	3,806	103	3,453	91
Shallow water flatfish	2003	4,500	202	4	104	51
	2004	4,500	186	4	72	39
	2005	4,500	122	3	81	66
	2006	4,500	240	5	99	41
	2007	4,500	281	6	60	21
	2008	4,500	761	17	56	7
	2009	4,500	97	2	69	71

Source: Table 7 from Amendment 97 and Catch Accounting for Pacific cod from 2005 through 2008

Table 10 Total groundfish catch of select groundfish species by all vessels and Amendment 80 vessels in the Central GOA (Areas 620 & 630) from 2003 through 2009

Species	Year	TAC (mt)	Total catch (mt) (all vessels)	% of TAC	Amendment 80 Catch (mt)	Amendment 80 catch as % of total catch
Arrowtooth flounder	2003	25,000	22,149	89	14,524	66
	2004	25,000	16,169	65	3,872	24
	2005	25,000	17,379	70	7,035	40
	2006	25,000	25,579	102	10,504	41
	2007	30,000	22,187	74	14,561	66
	2008	30,000	26,048	87	7,790	30
	2009	30,000	23,303	78	2,913	13
Flathead sole	2003	5,000	1,934	39	1,300	67
	2004	5,000	2,473	49	524	21
	2005	5,000	1,941	39	1,215	63
	2006	5,000	2,679	54	1,469	55
	2007	5,000	2,467	49	1,037	42
	2008	5,000	3,135	63	1,427	46
	2009	5,000	3,355	67	427	13
Pacific cod	2003	22,690	24,869	110	1,568	6
	2004	27,116	27,421	101	832	3
	2005	25,086	22,751	91	877	4
	2006	28,405	23,171	82	1,029	4
	2007	28,405	26,213	92	640	2
	2008	28,426	27,747	98	554	2
	2009	23,641	23,227	98	707	3
Shallow water flatfish	2003	13,000	4,442	34	54	1
	2004	13,000	3,010	23	278	9
	2005	13,000	4,676	36	347	7
	2006	13,000	7,411	57	279	4
	2007	13,000	8,511	65	35	0
	2008	13,000	8,922	69	37	0
	2009	13,000	8,384	64	70	1

Source: Table 8 from Amendment 97 and Catch Accounting for Pacific cod from 2005 through 2008

Table 11 Total groundfish catch of select groundfish species by all vessels and Amendment 80 vessels in the West Yakutat (Area 640) from 2003 through 2009

Species	Year	TAC (mt)	Total catch (mt) (all vessels)	% of TAC	Amendment 80 Catch (mt)	Amendment 80 catch as % of total catch
Pelagic Shelf Rockfish	2003	640	*	*	*	*
	2004	210	*	*	*	*
	2005	211	*	*	*	*
	2006	301	173	58	*	*
	2007	307	293	96	*	*
	2008	251	196	78	*	*
	2009	324	*	*	*	*
Pacific Ocean Perch	2003	810	606	75	*	*
	2004	830	*	*	*	*
	2005	841	846	101	*	*
	2006	1,101	1,259	114	*	*
	2007	1,140	1,242	109	*	*
	2008	1,100	1,100	100	*	*
	2009	1,108	1,148	104	*	*

Source: Weekly production reports

*Withheld for confidentiality

Western GOA Rockfish Effects

In general, Amendment 80 vessels are the primary participants in the Western GOA and West Yakutat rockfish fisheries (Table 9 and Table 11). To protect non-Amendment 80 participants, the sector is restricted by West Yakutat and Western GOA rockfish sideboards, although some of these sideboard limits are nearly as large as or the same as the TAC (see Table 8).

Since the implementation of Amendment 80, the number of Amendment 80 participants and the rate of harvest in the Western GOA rockfish fisheries have increased. Table 12 shows harvest rates in the Western GOA Pacific ocean perch fishery which is the primary rockfish fishery in the Western GOA and is targeted more intensively than northern rockfish and pelagic shelf rockfish fisheries. Management of those two fisheries is more difficult to describe, because the species are harvested together and it is often difficult to discern clear fishery patterns. Table 12 also shows that the number of directed fishing days has declined significantly since 2007.

Table 12. Harvest rates and season length in Western GOA Pacific ocean perch fishery

Year	Average daily catch rate of three highest days of catch	Season (noon to noon openings)	Directed fishing days	Number of Amendment 80 vessels fishing	TAC (mt)
2003	365 m/day	June 29 - July 3	4	9	2,700
2004	346 m/day	July 4 - July 17	13	11	2,520
2005	336 m/day	July 5 - July 16	11	9	2,567
2006	720 m/day	July 1 - July 11	10	9	4,155
2007	323 m/day	July 1 - July, Aug 1 - Aug 6	27	5	4,244
2008	701 m/day	July 1 - July 4, July 14 - July 18	7	10	3,686
2009	812 m/day	July 1 - July 4, July 14 - July 18	3	13	3,713
2010	989 m/day	July 1 - July 3	2	11	2,895

Source: Table 22 of Amendment 97 for 2003 to 2009 and Sustainable Fisheries for 2010

Participation in the West Yakutat has not changed since Amendment 80 was implemented, although vessels could expand their harvests in these areas if they hold LLP licenses with a Central GOA endorsement. Competition in the West Yakutat rockfish fisheries appears to be limited, primarily, due to the relatively small TACs of the rockfish fisheries relative to the Western GOA and the presence of a competitive long term participant in the fishery.

Is not clear how the Amendment 80 vessel replacement action will affect the Western GOA or West Yakutat rockfish fishery given the short season length of these fisheries. As noted above, data in Table 12 highlights a potential sideboard issue that was brought up by Amendment 80 qualified Central GOA rockfish program participants during the June 2010 final action to revise the Central GOA rockfish program. At issue is the varying degree of access to the Western GOA and West Yakutat non-pollock groundfish between the different Amendment 80 vessels. Specifically, Central GOA rockfish qualified Amendment 80 vessels have standdowns and rockfish program specific sideboard limits for Western GOA and West Yakutat rockfish that are more constraining than the Amendment 80 program specific sideboards for Western GOA and West Yakutat rockfish, which allows the non-rockfish qualified Amendment 80 vessels with the correct endorsements to capitalize on this difference in start dates and sideboard limits. In the past, many of the non-rockfish qualified Amendment 80 vessels participated in BSAI fisheries during the GOA rockfish fisheries. However, with implementation of Amendment 80, many of these vessels now have the flexibility and an economic incentive to fish in the Western GOA and West Yakutat rockfish fishery. As a result, the differences in Western GOA and West Yakutat rockfish sideboard limits between the two groups of Amendment 80 vessels appears to have created a situation being exploited by Amendment 80 vessels not qualified for the Central GOA rockfish program.

As shown in Table 12, since implementation of Amendment 80 program in 2008, the number of directed fishing days for Western GOA Pacific ocean perch has declined from an average of 13 days during the 2003 through 2007 period, to 2 day directed fishery in 2010.

Assuming implementation of the new Central GOA rockfish program in 2012, changes to the standdowns in the Western GOA and West Yakutat rockfish fisheries could increase effort, as previously restricted vessels enter these fisheries on July 1. Currently, rockfish qualified catcher processors that join the trawl limited access fishery must standdown from the July 1 Western GOA and West Yakutat rockfish fisheries. Under the new rockfish program, catcher processors that normally were restricted from entering the fishery due to standdowns will be allowed to start July 1, if they join a rockfish cooperative and maintain adequate monitoring plans during all fishing for Central GOA rockfish sideboard fisheries. Since the implementation of the Central GOA rockfish program, the number of eligible license holders that have elected to participate in the limited access fishery has ranged from four in 2007, to seven in both 2008 and 2009. Of those participants, the number of eligible licenses that have been required to stand-down due to having more than 5 percent of the Central GOA Pacific ocean perch qualified history has ranged from 2 in 2007, to 3 in 2008 and 2009. Overall, the new Central GOA rockfish program will resolve the unfair start for the rockfish program participants.

Tempering some of the potential increase in effort is the change in the sideboard limits under the new rockfish program. Proposed sideboard limits for Central GOA rockfish participants will be more restrictive for northern rockfish and Pacific ocean perch, but less restrictive for pelagic shelf rockfish with implementation of the new rockfish program in 2010 due to differing catch years used to calculate the sideboard limit (see Table 13).

Table 13. Amendment 80 program rockfish sideboard limits and GOA rockfish sideboard limits

Management area	Species	Amendment 80 sideboard percentage	Rockfish program sideboard percentages	
			Current (1996-2002)	New program (2000-2006)
WG	Northern rockfish	100.0%	78.9%	74.3%
	Pacific ocean perch	99.4%	61.1%	50.6%
	Pelagic shelf rockfish	76.4%	63.3%	72.3%
WY	Pacific ocean perch	96.1%	76.0%	*
	Pelagic shelf rockfish	89.6%	72.4%	*

*Withheld for confidentiality

Since the Amendment 80 sector is the primary participant in the Western GOA rockfish fishery, the sector may have the ability to reduce effort on the fishing grounds through cooperative or intercooperative agreements. If the Amendment 80 sector cannot reduce effort on the Western GOA rockfish fishing grounds, then the Council could pursue action to limit effort in this fishery. Some potential options might include a quota-based catch share program, or Western GOA and/or West Yakutat rockfish specific sideboards for non-rockfish qualified Amendment 80 vessels.

Effects to the GOA Flatfish Fisheries

Looking at the impacts of Amendment 80 vessels and their replacements on GOA flatfish TACs, fishing patterns of qualified Amendment 80 flatfish vessels indicate that there would be little expected negative impacts from Amendment 80 vessels and their replacements on these TACs. As seen in Table 14, the flatfish TACs are rarely fully harvested, but the GOA flatfish fisheries are important fisheries a small group of trawl catcher vessels and Amendment 80 vessels. Although, it is possible that participation in an Amendment 80 cooperative could allow flatfish qualified vessels to participate in the GOA and increase effort, data from Table 9 and Table 10 do not indicate a substantial increase of flatfish harvest in 2008 and 2009. In addition, all of the Amendment 80 vessels eligible to directed fish for flatfish in the GOA were assigned to the Amendment 80 cooperative in 2008 and 2009, with one exception (i.e., *F/V Ocean*

Alaska). This suggests that any effect of Amendment 80 cooperatives on GOA flatfish patterns should have been observed, assuming other factors such as the need to use vessels to harvest the relatively large BSAI TAC of flatfish species in 2008 and 2009, has not diverted effort that would have been used in the GOA under typical circumstances. Specific Amendment 80 vessels active in the GOA directed flatfish fisheries in 2008 and 2009 were consistently active in prior years as well. It is not clear why the number of vessels active in GOA flatfish fisheries has declined in 2008 and 2009 (Table 14). Potentially, the private contractual arrangements within the Amendment 80 sector to manage GOA halibut PSC in 2008 and 2009 have allowed some vessel owners to coordinate their fishing operations and consolidate their flatfish operations onto fewer vessels.

Table 14. Number of Amendment 80 qualified GOA flatfish vessels and non-Amendment 80 trawl vessels that targeted GOA flatfish from 2001 through 2010

Year	Number of vessels that targeted flatfish in GOA	
	Amendment 80 qualified flatfish vessels	Non-Amendment 80 trawl vessels (including Golden Fleece)
2001	9	8
2002	8	7
2003	11	9
2004	7	7
2005	7	6
2006	7	9
2007	9	9
2008	6	9
2009	6	9
2010	6	7

The GOA flatfish participants are also constrained by halibut PSC limits, so Amendment 80 vessels and their replacements could impact the flatfish fishery through increasing halibut mortality. Halibut PSC mortality is apportioned to the deep-water species complex and shallow-water complex (see Table 15 for this PSC apportionment). The deep-water complex includes rockfish species, deep-water flatfish, rex sole, arrowtooth flounder, and sablefish, while the shallow-water complex includes flathead sole, shallow-water flats, pollock, and Pacific cod. Halibut PSC limits often constrain harvest of species assigned to the deep- and shallow-water fishery complexes³, particularly the deep- and shallow-water flatfish fisheries. If vessels do not have adequate amounts of halibut PSC to cover their target fisheries, harvest for those target species will not occur. The halibut PSC allotment is set for the entire GOA, and is therefore is not divided by sub-area. Therefore when the halibut mortality allotment for the deep-water complex is taken, all the deep-water fisheries in the GOA are closed to directed fishing.

³ Shallow-water groundfish include flathead sole, shallow-water flatfish, pollock, and Pacific cod. Deep-water groundfish include sablefish, rockfish, deep-water flatfish, rex sole, and arrowtooth.

Table 15. 2009 and 2010 apportionment of Pacific halibut PSC trawl limits between the trawl gear deep-water species complex and the shallow-water species complex

Season	Shallow-water species complex	Deep-water species complex ¹	Total
January 20–April 1	450	100	550
April 1–July 1	100	300	400
July 1–September 1	200	400	600
September 1–October 1	150	Any remainder	150
Subtotal January 20–October 1	900	800	1,700
October 1–December 31 ²	n/a	n/a	300
Total	n/a	n/a	2,000

¹ Vessels participating in cooperatives in the Central Gulf of Alaska Rockfish Pilot Program will receive a portion of the third season (July 1–September 1) deep-water category halibut PSC apportionment. At this time, this amount is unknown but will be posted later on the Alaska Region Web site at <http://www.alaskafisheries.noaa.gov> when it becomes available.
² There is no apportionment between shallow-water and deep-water fishery complexes during the 5th season (October 1–December 31).

Information on deep and shallow-water openings and closures that occurred as a result of halibut mortality in the GOA is provided in Table 16. The information provided in that table shows that halibut PSC limits have traditionally caused fisheries in those groups to close early and frequently. Recall that these closures are Gulf-wide, so the closures apply to the Western, Central, West Yakutat, and Eastern Areas of the GOA. The table also shows that the number of trawl closures triggered by halibut PSC mortality have declined dramatically in 2009 and 2010. The primary reason for the decline in halibut mortality triggered closures is due to a reduction in halibut mortality by trawl catcher vessels through better coordination across the fleet on halibut PSC usage, peer pressure from fellow participants of the trawl catcher vessel fleet, and having observers onboard vessels that are a better representative of fishing in the GOA.

As shown in Table 9 **Error! Reference source not found.** and Table 10, Amendment 80 vessels are most active in the deep-water complex, which include rockfish and flatfish fisheries (e.g., rex sole, arrowtooth flounder) with very limited participation in shallow-water species. The non-Amendment 80 trawl catcher vessels are most active in the shallow-water complex fisheries (Pacific cod) with some effort in the deep-water complex (rockfish and flatfish) during the first half of the year. The effort by the Amendment 80 sector in the deep-water complex is reflected in Table 17 and Table 19, which provides yearly and seasonal GOA halibut mortality in the deep-water complex for both the Amendment 80 vessels and the non-Amendment 80 trawl catcher vessels during the 2003 through 2010 period. Effort by the Amendment 80 sector in the shallow-water is very limited (see Table 18), so seasonal halibut PSC usage in the shallow-water complex is confidential.

There is little expected impact from Amendment 80 vessels or their replacements on halibut mortality in the shallow-water complex fisheries due to the sector's limited halibut PSC usage and sideboards. However, Amendment 80 vessels and their replacements could increase their halibut mortality in deep-water complex fisheries, specifically during the second season (Table 19). Looking specifically at second season halibut mortality for the deep-water complex, the largest portion of halibut mortality by Amendment 80 vessels and non-Amendment 80 trawl catcher vessels occurs in this season. Since implementation of the Amendment 80 program, Amendment 80 vessels have averaged 68% of its second season sideboard limit, which would allow these vessels and their replacements the opportunity to utilize more of the halibut PSC if available. As Amendment 80 vessels and their replacements utilize a greater share of its second season deep-water halibut PSC sideboard limit, there will be less halibut PSC for the other halibut dependent GOA trawlers. Without a rollover of unused halibut PSC, a fully utilized sideboard limit by Amendment 80 vessels would allow 86 mt of deep-water halibut PSC for other GOA trawlers in the second season. In addition, as Amendment 80 vessels are replaced with newer vessels, it is possible that replacement vessels will have greater harvest capacity relative to their replaced vessels, which could result in greater halibut mortality. Overall though, any impact from Amendment 80 vessels and their replacements to other GOA trawl participants in the halibut dependent fisheries will be limited because of the 214 mt sideboard limit for the Amendment 80 sector.

If the Council were to pursue action to limit the impacts of replacement vessels on non-Amendment 80 vessels in the GOA, the Council could employ a GOA flatfish sideboard limit for replacement vessels, an option considered in Amendment 97. Another option would be to limit replacement vessels to a separate halibut PSC sideboard in the deep-water complex. If the Council were to pursue GOA flatfish or GOA deep-water halibut sideboards, the Council would need to determine how these sideboards would be applied and the mechanism to limit catch only by replacement vessels.

Table 16. Deep- and shallow- water complex trawl openings and closures triggered by halibut PSC mortality over the past 6 years

Year	Halibut Allotment	Opening 1	Closure 1	Opening 2	Closure 2	Opening 3	Closure 3	Opening 4	Closure 4	Opening 5	Closure 5	Opening 6	Closure 6	Opening 7	Closure 7	Opening 8	Closure 8	Opening 9
2005	Deep-water	20-Jan	23-Mar	1-Apr	8-Apr	24-Apr	3-May	5-Jul	24-Jul	1-Sep	4-Sep	8-Sep	10-Sep	1-Oct	1-Oct			
	Shallow-water	20-Jan	19-Aug	1-Sep	4-Sep	1-Oct	1-Oct											
2006	Deep-water	20-Jan	27-Apr	1-Jul	5-Sep	1-Oct	8-Oct											
	Shallow-water	20-Jan	23-Feb	27-Feb	10-Jun	1-Jul	1-Sep	6-Sep	6-Sep	20-Sep	20-Sep	25-Sep	25-Sep	1-Oct	8-Oct			
2007	Deep-water	20-Jan	17-May	1-Jul	10-Aug	1-Sep	8-Oct	10-Oct	15-Oct	22-Oct								
	Shallow-water	20-Jan	4-Jun	1-Jul	10-Aug	1-Sep	1-Sep	6-Sep	6-Sep	11-Sep	11-Sep	21-Sep	23-Sep	1-Oct	8-Oct	10-Oct	15-Oct	22-Oct
2008	Deep-water	20-Jan	21-Apr	1-Jul	9-Sep*	1-Oct	11-Sep	16-Nov	6-Nov									
	Shallow-water	20-Jan	23-Jan*	29-Jan*	10-Mar	21-Mar	21-May	1-Jul	7-Aug	1-Sep	3-Sep	10-Sep	11-Sep	1-Oct	6-Nov	16-Nov		
2009	Deep-water	20-Jan	3-Mar	1-Apr	23-Apr													
	Shallow-water	20-Jan	2-Sep	1-Oct														
2010	Deep-water	20-Jan	28-Apr	1-Jul														
	Shallow-water	20-Jan	3-Sep	11-Sep														

* Amendment 80 vessels restricted by halibut sideboard limits

Season 1 - Jan 20 - Apr 1, Season 2 - Apr 1 - July 1, Season 3 - Jul 1 - Sep 1, Season 4 - Sep 1 - Oct 1, Season 5 - Oct 1 - Dec 31

Table 17. Annual halibut PSC usage for deep-water complex fisheries from 2003 through 2010

Year	GOA deep-water halibut PSC (mt) by non-AM80 trawl vessels (Includes Golden Fleece)	GOA deep-water halibut PSC (mt) by AM80 vessels (Golden Fleece and Rockfish halibut not included)	Total GOA deep-water halibut PSC (mt)	% of GOA deep-water halibut PSC by AM80 vessels	% of AM80 GOA deep-water halibut PSC sideboard limit (418 mt*) by AM80 vessels
2003	338	604	943	64	
2004	652	224	876	26	
2005	473	360	833	43	
2006	504	408	913	45	
2007	366	304	671	45	
2008	720	285	1,005	28	68
2009	613	245	857	29	59
2010	872	284	1,156	25	68

* Based on trawl halibut PSC limit of 2,000 mt

Table 18. Annual halibut PSC usage for shallow-water complex fisheries from 2003 through 2010

Year	GOA shallow-water halibut PSC (mt) by non-AM80 trawl vessels (Includes Golden Fleece)	GOA shallow-water halibut PSC (mt) by AM80 vessels (Golden Fleece and Rockfish halibut not included)	Total GOA shallow-water halibut PSC (mt)	% of GOA shallow-water halibut PSC by AM80 vessels	% of AM80 GOA shallow-water halibut PSC sideboard limit (137 mt**) by AM80 vessels
2003	1,035	87	1,122	8	
2004	1,403	141	1,544	9	
2005	1,211	63	1,274	5	
2006	1,021	51	1,071	5	
2007	1,246	28	1,274	2	
2008	1,191	22	1,214	2	16
2009	1,184	53	1,237	4	39
2010	*	*	714	*	*

* Withheld due to confidentiality requirements

** Based on trawl halibut PSC limit of 2,000 mt

Table 19. Seasonal halibut PSC usage for deep-water complex fisheries from 2003 through 2010 (halibut PSC sideboard limit is based on a GOA trawl halibut PSC limit of 2,000 mt)

Season	Year	GOA deep-water halibut PSC (mt) by non-AM80 trawl vessels (Includes Golden Fleece)	GOA deep-water halibut PSC (mt) by AM80 vessels (Golden Fleece and CGOA Rockfish Program halibut not included)	Total GOA deep-water halibut PSC (mt)	% of GOA deep-water halibut PSC by AM80 vessels	% of AM80 GOA deep-water halibut PSC sideboard by AM80 vessels
Season 1 (Jan 20 - Apr 1) (PSC limit 100 mt & halibut PSC sideboard 23 mt)	2003	.	.	116	.	-
	2004	.	.	173	.	-
	2005	97	81	178	46	-
	2006	.	.	96	.	-
	2007	.	.	106	.	-
	2008	.	.	80	.	.
	2009	185	0	185	0	0
	2010	.	.	170	.	.
Season 2 (Apr 1 - Jul 1) (PSC limit 300 mt & AM80 sideboard 214 mt)	2003	43	264	307	86	-
	2004	212	102	314	32	-
	2005	227	44	271	16	-
	2006	251	49	300	16	-
	2007	225	125	350	36	-
	2008	325	134	459	29	63
	2009	240	141	381	37	66
	2010	266	162	428	38	76
Season 3 (Jul 1 - Sep 1) (PSC limit 400 mt** & AM80 sideboard 104 mt***)	2003	177	109	286	38	-
	2004	279	107	386	28	-
	2005	144	181	325	56	-
	2006	90	212	302	70	-
	2007	13	81	94	86	-
	2008	224	97	321	30	93
	2009	92	81	173	47	78
	2010	98	84	182	46	81
Season 4 (Sep 1 - Oct 1) (PSC limit any remainder & AM80 sideboard 3 mt)	2003	13	16	29	55	-
	2004	.	.	2	.	-
	2005	.	.	58	.	-
	2006	28	57	85	67	-
	2007	.	.	72	.	.
	2008	.	.	51	.	.
	2009	.	.	33	.	.
	2010	.	.	183	.	.
Season 5 (Oct 1 - Dec 31) (PSC limit is 300 mt**** & AM80 sideboard 74 mt)	2003	2	203	206	205	-
	2004		Trawl Fisher Closed Oct 1 due to halibut PSC closure			-
	2005		Trawl Fisher Closed Oct 1 due to halibut PSC closure			-
	2006	.	.	132	.	-
	2007 ¹	.	.	47	.	-
	2008 ²	.	.	94	.	.
	2009 ³	.	.	86	.	.
2010	.	.	192	.	.	

* Withheld due to confidentiality requirements

** Due to CGOA Rockfish Program, 3rd season deep-water halibut PSC limit reduced to account for CV and CP vessels participating in rockfish cooperative (2007 PSC limit was 224 mt, 2008 was 229 mt, 2009 was 229 mt, and 2010 was 191 mt)

*** AM80 sideboard limit reduced to accommodate rockfish CP cooperative CQ

**** There is no apportionment between deep-water and shallow-water complexes during the 5th season

¹ Includes 128 mt of rollover halibut CQ from CGOA Rockfish

² Includes 135 mt of rollover halibut CQ from CGOA Rockfish

³ Includes 139 mt of rollover halibut CQ from CGOA Rockfish

EXECUTIVE SUMMARY

This Regulatory Impact Review/Environmental Assessment/Initial Regulatory Flexibility Analysis (RIR/EA/IRFA) evaluates the costs and benefits, environmental impacts, and small entity impacts of a proposed regulatory amendment. The proposed amendment would revise the current GRS program to remove the minimum groundfish retention standards. The proposed action would also require the Amendment 80 sector to report to the Council the sector's groundfish retention performance for the year.

This action is needed to mitigate management and enforcement costs that were not foreseen when the regulation was promulgated. In addition, this action is needed to mitigate higher than expected compliance costs of the groundfish retention standard borne by the non-AFA trawl catcher processors.

The Council has yet to adopt a purpose and need statement for this action. In developing its alternatives, the Council spoke to its rationale for undertaking this action.

The Council identified two reasons for removing the groundfish retention standards. First, the Council stated that the removal of the groundfish retention standards is necessary due to the difficulty of monitoring performance and the potential high costs of prosecuting violations of the requirement, particularly at the cooperative level. These difficulties and potential costs arise from the need to verify estimates of retention and substantiate records for each vessel in a cooperative. In addition, the Council noted that estimates of groundfish retention used to establish the groundfish retention standards in Amendment 79 differ substantially from measures employed in the implementation of Amendment 79. These differences may result in substantially greater compliance costs than anticipated at the time of Council action.

This analysis considers two alternatives. Under Alternative 1 (no action), the GRS program would remain unchanged which requires non-AFA trawl catcher processors of all sizes, including those catcher processors less than 125 ft. LOA to retain and utilize a minimum percentage of groundfish caught during fishing operations, or groundfish retention standard, which is scheduled to be 85 percent in 2001 and each year after. The GRS may be applied to a cooperative by aggregating the retention rate of all vessels assigned to a cooperative. Alternative 2 would remove groundfish retention requirements included in the GRS program. The alternative also includes a requirement that the Amendment 80 sector would report to the Council on annual basis the sector's groundfish retention performance

Regulatory Effect of the Alternatives

Under Alternative 1, the GRS program would remain unchanged which requires non-AFA trawl catcher processors of all sizes, including those catcher processors less than 125 ft. LOA to retain and utilize a minimum percentage of groundfish caught during fishing operations, or groundfish retention standard.

As the GRS increases to 85 percent in 2011, vessels that met the GRS regulatory requirement in 2010, will face additional challenges meeting this standard. Many participants in this sector have expressed strong reservations whether it will be possible to achieve the 2011 GRS percentages under existing regulatory provisions. The likelihood that additional vessels may be unable to meet the GRS in coming year may unnecessarily increase compliance and enforcement costs, considering that the Council's objectives of Amendment 79 appear to be met.

In addition, provisions of Amendment 80, which promote cooperative formation and are intended to increase retention and utilization of groundfish in the non-AFA trawl catcher processor sector, will be undermined as more vessels are unable to meet the regulatory standard. There is little incentive under this alternative for an Amendment 80 cooperative to include underperforming vessels due to the potential for reduced retention rates at the cooperative level. Therefore, the GRS may unduly disadvantage some participants, or force vessel operators to consolidate their catch or retire vessels that may be unable to meet the 2011 retention standard without the benefits of the Amendment 80 catch share program.

As noted in Section 2.2.6, monitoring and enforcement of violations of the retention standard is complex, challenging, and potentially very costly. Since the sufficiency of data sets for prosecution purposes must be evaluated for each alleged GRS violation, the difficulty of prosecution increases greatly with a violation involving a cooperative of multiple vessels (or multiple cooperatives) because reliable data must be available for each vessel. OLE experiences with investigations of GRS compliance of a single vessel's potential violation suggest that the GRS cannot be practicably monitored and enforced.

Alternative 2 would remove the required minimum groundfish retention standard for the Amendment 80 sector. The Amendment 80 sector would instead be required to internally monitor the groundfish retention rates and provide an annual report on groundfish retention rates for the sector. The retention performance report could be submitted in conjunction with the Amendment 80 cooperative report, which is due annually on March 1st.

In removing the required minimum groundfish retention standards for the Amendment 80 sector, the groundfish retention rate could continue rising, stay the same, or decrease. It is difficult to predict how retention rates might change with the removal of the standards, but the sector has indicated that higher rates than those currently are not likely to be attainable in the future, which reduces an argument for increasing retention rates under this alternative. Much of the recent increase in the retention rate of the Amendment 80 sector can be attributed to the sector's adjustment to the GRS program during the 2008 through 2010 period and adjustments to rules for 100 percent retention of pollock and Pacific cod. In fact, improvements in the sector's retention rates through 2009 would appear to have met Council objectives of significantly higher retention of groundfish and better utilization. In addition, the Amendment 80 sector has operated under a cooperative system for nearly three years in a manner that seems to facilitate compliance with the existing GRS. However, with the removal of the groundfish retention standard for the Amendment 80 sector, there is no direct regulatory incentive for the sector to further improve its retention. Although non-regulatory incentives (such as the sector's stated commitment to enter a civil contract that would hold each entity accountable to meet retention standards, public pressure, and the knowledge that the Council could take future action should retention rates decrease) may lead the Amendment 80 sector to maintain (or even improve on) current retention rates.

The recently released draft 2010 Steller Sea Lion Biological Opinion could also impact the proposed action. The biological opinion includes a proposed Reasonable and Prudent Alternative (RPA) that would modify groundfish management in the Aleutian Islands to limit competition between commercial fishing for groundfish and the Steller sea lions. One of the likely impacts from the proposed RPA is an increased difficulty for the Amendment 80 sector to achieve continued high retention rates. Historically, the Atka mackerel fishery has had relatively high retention rates. The loss of Atka mackerel harvests from areas 543, 542, and 541 could put

downward pressure on the overall groundfish rate for the sector as retention in the Atka mackerel fisheries, will not be able to compensate for lower retention rates in other groundfish fisheries.

If the sector maintains its current high retention rate, the sector could experience continued lower net revenues from additional holding/processing, transporting, and transferring fish that are of relatively low value or even in some cases unmarketable. However, given the lack of regulatory incentives in the proposed action, there is a potential that retention rates for the Amendment 80 sector could decrease over time, increasing net revenues for the sector. The extent of the change to net revenues from the removal of the retention standards cannot be determined with any certainty. The magnitude of the change depends on 1) how much the additional fish retained decreases the vessel's hold space available for more valuable product; 2) whether there will be any revenue earned from product derived from the additional retained fish; and 3) the willingness and success of the Amendment 80 sector in administering and monitoring internal sector groundfish retention standards. However, the ability for cooperative formation combined with continued changes in technology, fishing techniques, and developing markets could affect net revenues associated with changes in retention rates. Smaller Amendment 80 vessels are disproportionately affected by retention, as they are more likely to be constrained by hold space, and have less capacity to process a variety of fish.

Although the removal of GRS from federal regulations will not reduce the observer requirements for the Amendment 80 sector or the eliminate the need for weighing all groundfish on a certified flow scale, the removal of the standard would eliminate the need for NOAA OLE to enforce and prosecute a GRS violation, thereby reducing the financial burden for the agency. Although the total cost saving for NOAA OLE is not known, the agency's recently gained experience with enforcing the GRS compliance, as noted in Section 2.2.6, shows that enforcement costs associated with GRS would be extremely high and would only increase under a multi cooperative GRS compliance standard under proposed Amendment 93. As a result, the costs saving from the elimination of compliance monitoring would be substantial.

Environmental Effects of the Alternatives

This action would likely have no impacts on non-specified species, forage species, seabirds, habitat, or the ecosystem previously considered in the harvest specification EIS (NMFS 2007a). Therefore, this analysis will focus on the environmental components that could potentially be affected by this action, namely groundfish stocks, prohibited species, benthic habitat, and Steller sea lions.

Effects on groundfish stocks from the proposed action should not be significant. Discarded catch by the Amendment 80 sector would not affect the condition of groundfish stocks more than any other removal (retained catch). As indicated in the PSEIS, management of these stocks does not allow the fishing mortality rate to exceed the overfishing level.

The effects of the groundfish fisheries in the BSAI on prohibited species are primarily managed by conservation measures developed and recommended by the NPFMC cover the entire history of the FMPs for the BSAI and implemented by federal regulation. These measures include prohibited species catch (PSC) limits on a year round and seasonal basis, year round and seasonal area closures, and gear restrictions. As a result of these management measures, changes in the retention rates by the Amendment 80 sector are likely not to impact prohibited species.

As the Amendment 80 sector operates trawl gear in benthic habitat areas, it is possible that these operations could contribute to impacts on the habitat and mortality. It is not possible to determine the extent of these fisheries contributions to changes in benthic habitat areas, or mortality, or how Alternative 2 may impact benthic habitat areas, compared with Alternative 1 (no action). However, all nonpelagic trawl vessels targeting flatfish in the Bering Sea, including the Amendment 80 sector, are required to use elevated devices on trawl sweeps to raise them off the seafloor. Studies have shown that these devices are effective in reducing trawl sweep impact effect to sea whips and reduced mortality to *C. bairdi* and *C. opilio* crabs. Based on the evaluation criteria used in previous analyses and the likelihood the sector will continue to fish in similar manner, albeit continuing to maintain the sector's current level of groundfish retention or lower, there is likely no effects to the benthic habitat as result of this action.

With regards to SSLs, this proposed action would likely not result in changes in the fisheries that could increase the potential for incidental takes or disturbance of SSLs. Although future fishing behavior cannot be determined with any certainty, the Amendment 80 sector will likely continue to fish a manner that maintains the sector's current retention of groundfish in the BSAI area. As such, the proposed alternative would likely not result in changes to the location or timing of the groundfish fisheries or the gear type that would be used in these fisheries in a manner that would increase interactions with SSLs.

Management of the Flatfish Fisheries in the Amendment 80 Sector

DISCUSSION PAPER: NMFS, ALASKA REGION

1. Overview

In December 2010, the Council requested a review of the potential use of nonspecified reserves or other alternative management measures by the Amendment 80 sector (i.e., non-American Fisheries Act trawl catcher/processors) for flatfish fisheries in the Bering Sea and Aleutian Islands Management Area (BSAI). This discussion paper focuses on the management of flathead sole, rock sole, and yellowfin sole. The paper examines one approach for providing Amendment 80 cooperatives with additional harvest opportunities for these three flatfish species without increasing the total allowable catch (TAC) assigned to those species. This approach would require regulatory changes that would need to be implemented independent of the annual harvest specification process. The analytical and rule making process could not be completed before the start of the 2012 fishing season.

2. Background

The Fishery Management Plan for Groundfish of the BSAI Management Area (FMP) establishes requirements for setting an Overfishing Level (OFL), an Acceptable Biological Catch (ABC), and a TAC for target groundfish species. The ABC is the maximum permissible annual catch. The TAC cannot be set higher than the ABC, and can be set lower depending on biological or socioeconomic factors considered by the Council and NMFS.¹ The OFL, ABC, and TAC are set through the harvest specification process. The FMP establishes an Annual Catch Limit (ACL) for each target species consistent with National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act (MSA).² For groundfish of the BSAI, including flathead sole, rock sole, and yellowfin sole, the ACL is equal to the ABC.³ Typically, the TAC for flathead sole and rock sole is set well below the ABC. Historically, the yellowfin sole TAC has been set at the ABC, but the Council recommended that TAC be set below the ABC in the 2011 and 2012 harvest specifications.⁴

Statute limits the optimum yield (OY) for groundfish species in the BSAI to two million metric tons (mt)⁵. NMFS sets the TAC less than or equal to two million mt to ensure the BSAI OY limit is not exceeded. With the recent increase in the BSAI pollock and Pacific cod biomass, there may be increasing pressure to maximize the TAC for pollock and Pacific cod during the annual harvest specification process. This could result in increased pressure to limit the TAC for flathead sole, rock sole, and yellowfin sole to ensure the total BSAI groundfish TAC does not exceed the two million mt OY limit.

¹ See regulations at 50 CFR 679.20(a)(3)

² National Standard 1 of the MSA, and National Standard 1 guidelines are described in the final rule to implement National Standard 1 guidelines (January 16, 2009; 74 FR 3178), and the final rule implementing Amendments 95 and 96 to the fishery management plans for groundfish of the BSAI and Gulf of Alaska (October 6, 2010; 75 FR 61639).

³ See section 3.2.3.3.2 of the FMP, "The ACL is equal to the ABC for each stock and stock complex in the target species category."

⁴ For example, see Table 1 of Proposed 2011 and 2012 annual harvest specifications (December 8, 2010; 75 FR 76372).

⁵ See section 803(c) of Pub. L. No. 108-199 "The optimum yield for groundfish in the Bering Sea and Aleutian Islands Management Area shall not exceed 2 million metric tons."

Rock sole and flathead sole TACs are apportioned between the Western Alaska Community Development Program (CDQ Program) and the Amendment 80 sector. NMFS also sets an incidental catch allowance (ICA) to account for incidental catch in non-CDQ and non-Amendment 80 fisheries. The yellowfin sole TAC is apportioned among the CDQ Program, the Amendment 80 sector, and the BSAI trawl limited access sector (i.e., non-Amendment 80 trawl vessels), with an ICA set aside. NMFS reallocates any portion of the TAC not projected to be harvested by the BSAI trawl limited access sector to Amendment 80 cooperatives during the fishing year.

The portion of the flathead sole, rock sole, and yellowfin sole TAC assigned to the Amendment 80 sector is further apportioned between Amendment 80 cooperatives and the Amendment 80 limited access fishery. Amendment 80 cooperatives receive an exclusive harvest privilege, cooperative quota (CQ), for each species that cannot be exceeded; NMFS retains management authority of the Amendment 80 limited access fishery.⁶

Typically, not all of three flatfish TACs have been fully harvested due to market limitations and closures resulting when halibut prohibited species catch (PSC) limits are reached.⁷ However, it is possible that Amendment 80 cooperatives could fully harvest one or more of its flatfish allocations through improved coordination and operational efficiencies gained when fisheries are managed under an exclusive harvest privilege, or catch share.⁸

Recent management measures to protect the Endangered Species Act-listed Western population of the Steller sea lion have constrained the Aleutian Islands Atka mackerel and Pacific cod fisheries that are typically targeted by the Amendment 80 sector.⁹ These constraints could result in a shift of fishing effort by Amendment 80 cooperatives from Atka mackerel and Pacific cod to of flathead sole, rock sole, and yellowfin sole.

3. A proposed approach

The potential for increased demands in the flatfish fisheries, and requirements to maintain the combined BSAI TAC below two million mt create incentives to maximize the flexibility of the Amendment 80 sector to harvest flatfish. This paper examines one potential approach to provide the Amendment 80 sector greater flexibility to fully harvest the combined allocations of the three flatfish fisheries. This paper is not intended to provide a comprehensive overview of potential flatfish management approaches. This discussion paper assumes that any management approach should:

- Ensure that the OFL and ABC for a target stock are not exceeded.
- Be consistent with the management goals established under the Amendment 80 Program.
- Not result in exceeding TAC amounts.

This paper assumes that NMFS would continue to establish individual OFLs and ABCs for each of the three species through the harvest specification process.

⁶ The methodology and rationale for apportioning the TAC among the CDQ, ICA, Amendment 80 sector, and BSAI trawl limited access fishery, as well as allocations to Amendment 80 cooperatives and the Amendment 80 limited access fishery is detailed in the proposed rule for the Amendment 80 Program (May 30, 2007; 72 FR 30061), and described in the harvest specifications (e.g., See proposed 2011-2012 harvest specifications (December 8, 2010; 75 FR 76372).

⁷ S. Whitney, Pers. Comm., January, 2011.

⁸ The proposed rule for the Amendment 80 Program details the potential benefits of catch share management for these fisheries (May 30, 2007; 72 FR 30061).

⁹ See Interim Final Rule to implement Steller sea lion protection measures (December 13, 2010; 75 FR 77535).

To ensure consistency with the overall intent of the Amendment 80 Program, this paper assumes that any additional flexibility to harvest flatfish species would be limited to Amendment 80 cooperatives. Because Amendment 80 cooperatives receive an exclusive harvest privilege, participants in a cooperative can coordinate their fishing operations to maximize catch with greater precision than is typically possible under non-catch share management. Vessels operating in the Amendment 80 limited access fishery lack an exclusive harvest privilege.

This paper does not examine the use of a nonspecified reserve in the Amendment 80 sector because that approach appears to be contrary to the goals of the Amendment 80 Program. Prior to the implementation of the Amendment 80 Program, NMFS apportioned 15 percent of the annual TAC from these flatfish species to a nonspecified reserve. A part of that nonspecified reserve was reapportioned to the CDQ Program. NMFS reallocated the remaining amount of the nonspecified reserve during a fishing year to allow increased harvest of other species. The nonspecified reserve was a necessary management buffer to ensure TACs were not exceeded. The nonspecified reserve also allowed NMFS to provide additional harvest opportunities, when possible, during the pre-Amendment 80 Program open access fisheries. NMFS managed the reallocation of the nonspecified reserve to ensure that it would not result in exceeding the TAC.¹⁰ The Amendment 80 Program removed the requirement that a portion of the TAC be assigned to a nonspecified reserve “because the Program would establish exclusive harvest privileges that are carefully monitored.... Therefore, the allocation of 15 percent of the TAC of the Amendment 80 species to the nonspecified reserve would not be required to ensure harvests are maintained with the TAC.”¹¹

The approach considered here would allow Amendment 80 cooperatives to reapportion part of their CQ from one flatfish species to another flatfish species. Under this approach the aggregate CQ amount could never be exceeded. It is a zero-sum game. For example, if 100 mt were reapportioned from flathead sole to yellowfin sole, there is 100 mt less flathead sole for harvest and 100 mt more yellowfin sole, but no change in the aggregate CQ allocation.

Regulations would need to limit the maximum amount of reapportionment to ensure that the initial allocation of CQ is set so that the potential harvest of all initially allocated CQ, reassigned CQ, and catch from other sources could not result in total catch greater than the ABC. This could be done by limiting the maximum amount of CQ that can be reassigned to some percentage (e.g., 5, 10, or 15 percent) of the amount of CQ initially assigned to a cooperative. Setting a fixed reassignment percentage in regulation would aid NMFS and Amendment 80 cooperative managers by clearly establishing the maximum amount of CQ that could be reapportioned during the annual harvest specification process prior the start of the fishing year. Establishing a percentage that could vary each year as part of the annual harvest specification process would require clearly defined criteria for establishing the appropriate percentage, and additional discussion and analysis by the Council on an annual basis. Given the complex analytic and rule making requirements in the current annual harvest specification process, a reapportionment percentage that would vary from year to year is not explored further in this paper.

Consistent with the goals and current management of the Amendment 80 Program, this paper assumes that NMFS would require that a cooperative; (1) must reconcile all CQ accounts by the end of the calendar year; and (2) could not harvest an amount greater than the combined aggregate CQ.¹²

¹⁰ M. Furuness, Pers. Comm., January, 2011.

¹¹ Amendment 80 Program Proposed Rule (May 30, 2007; 72 FR 30061).

¹² These requirements are similar to those currently in place requiring end-of-year reconciliation of CQ accounts (see 50 CFR 679.7(o)(4)(iv)).

In order to provide flexibility for the Amendment 80 sector to harvest these species, without exceeding the TAC, it would be necessary to establish an aggregate TAC for the three flatfish species. Tables 1, 2, and 3 provide an example of a potential reapportionment process using an aggregate TAC. The example described in Tables 1, 2, and 3 use information from the proposed 2011 and 2012 harvest specifications¹³. Table 1 shows the ABC, TAC, and allocations of the flatfish species.

Table 1: ABC, TAC, and allocations of flathead sole, rock sole, and yellowfin sole (amounts in mt)

Species	ABC	TAC	CDQ allocation	ICA	Amendment 80 allocation (CQ)	BSAI Trawl limited access allocation
Flathead sole	68,100	60,000	6,420	5,000	48,500	0 mt
Rock sole	242,000	90,000	9,630	10,000	70,370	0 mt
Yellowfin sole	227,000	213,000	22,791	2,000	147,983	40,226

Table 2 demonstrates the potential for the Amendment 80 sector to exceed the TAC for a species if Amendment 80 cooperatives are allowed to reapportion CQ among flatfish species without an aggregate TAC. Table 2 assumes that Amendment 80 cooperatives could receive 5, 10, or 15 percent of the amount of CQ initially assigned to that species as a reapportionment from another species. Table 2 also shows the total potential harvests from all sources (CDQ Program, ICA, Amendment 80 sector, and the BSAI trawl limited access sector). The example described in Table 2 also assumes that all of the Amendment 80 sector participants are active in an Amendment 80 cooperative, and therefore all of the Amendment 80 allocation would be issued as CQ. All Amendment 80 sector participants are participating in cooperatives in 2011.

Table 2: Maximum harvests of flathead sole, rock sole, and yellowfin sole relative to TAC under a 5, 10, and 15 percent CQ reapportionment limit (amounts in mt)

Species	TAC	CDQ, ICA, and BSAI allocation	Am. 80 CQ initial CQ allocation	Maximum tonnage if 5 percent	Maximum tonnage if 10 percent	Maximum tonnage if 15 percent	Total potential harvests from all sources at 5, 10, and 15 percent reapportionment of CQ.
				More of the CQ initially allocated can be reapportioned and harvested			
Flathead sole	60,000	11,420	48,500	50,925	53,350	55,775	5%: 62,345 10%: 64,770 15%: 67,195
Rock sole	90,000	19,630	70,370	73,889	77,407	80,925	5%: 93,519 10%: 97,037 15%: 100,555
Yellowfin sole	213,000	65,017	147,983	155,383	162,781	170,181	5%: 220,400 10%: 227,798 15%: 235,198

As shown in Table 2, under all cases, the potential maximum harvests from all sources would exceed the TAC. Table 3 describes the potential maximum harvests under a 5, 10, and 15 percent CQ reapportionment limit relative to ABC using an aggregate TAC. NMFS would continue to specify OFLs and ACLs for each species individually.

¹³ See Tables 1 and 6 of the proposed 2011-2012 harvest specifications (December 8, 2010; 75 FR 76372).

Table 3: Maximum harvests of flathead sole, rock sole, and yellowfin sole relative to ABC under a 5, 10, and 15 percent CQ reappportionment limit (amounts in mt)

Species	ABC	Aggregate TAC	CDQ, ICA, and BSAI allocation	Am. 80 CQ initial CQ allocation	Total potential harvests from all sources at 5, 10, and 15 percent
Flathead sole	68,100	363,000 (60,000 + 90,000 + 213,000)	11,420	48,500	5%: 62,345 10%: 64,770 15%: 67,195
Rock sole	242,000		19,630	70,370	5%: 93,519 10%: 97,037 15%: 100,555
Yellowfin sole	227,000		65,017	147,983	5%: 220,400 10%: 227,798 15%: 235,198

This approach would maintain harvests below the ABC only if all three of the species; (1) have a TAC that is set lower than the ABC; and (2) the combined initial allocation of CQ and percentage of reappportionment is set to ensure total maximum harvests from all sources is less than the ABC. As Table 3 demonstrates, if the initial allocations were set as described in the proposed 2011 and 2012 harvest specifications, and more than 5 percent of the CQ initially assigned to the yellowfin sole fishery could be reappportioned, potential total harvest of yellowfin sole could exceed the ABC. This concern could be addressed either by setting a lower initial allocation of yellowfin sole CQ during the annual specification process, or by setting an appropriately limiting fixed percentage (e.g., 5 percent).

4. Future steps

If the Council wished to further explore this concept, future iterations of this discussion paper would need to include additional input from NMFS Inseason Management, stock assessment scientists, and NOAA General Counsel. NOAA General Counsel has not examined the potential legal implications of the approach described in this paper. The Council should note that the approach to TAC management described in this paper represents a significant departure from the well-established policy of setting a species specific TAC when adequate biological information exists. A few additional notes:

- NMFS staff have not comprehensively reviewed the FMP to determine if an FMP amendment would be required. It may be.
- At a minimum, the approach outlined in the discussion paper would require regulatory revisions to: (1) the TAC setting process for these three species; (2) ensure that the combined initial CQ allocations and reappportionment could not result in harvests greater than the ABC; (3) specify the method for assigning the amount of the reappportionment percentage that could be used by a cooperative; and (4) year-end CQ accounting.
- Given the scope of these regulatory changes (addressing both TAC management and the Amendment 80 Program), these regulatory changes would need to be implemented independent of the annual harvest specification process with a dedicated analytical and rule making process.
- No changes in the regulations governing the management of these species could be implemented in time for the 2012 fishery, given the time required to conduct an analysis, take Council action, and proceed with proposed and final rule making