

## Open Access Fishery License Limitation Qualification Criteria Report requested by Groundfish Allocation Committee<sup>1</sup>

### Introduction

The Groundfish Allocation Committee (GAC) requested an additional B permit qualification criteria analysis at its January 27-29, 2009 meeting. The intent of the request was to develop a set of B permit qualification criteria that would (1) achieve a directed fishery fleet size of 713 vessels (the fleet size the last year of the window period, 2006), and (2) to qualify vessels based on target species strategy in the same proportion as occurred in the 2004-2006 directed fishery.

The GAC concern was that nearly all of the vessel qualification criteria contained in the September 2008 preliminary draft Environmental Assessment (EA) was based on total B species pounds landed without regard to target species strategy. It was noted that the total pounds landed approach favors vessels that target species with relatively high trips limits (e.g., sablefish and sharks) and excludes a high proportion of vessels that target species with relatively low trip limits (e.g., lingcod and shelf rockfish). This situation was explained and analyzed in EA Appendix E.

Additional instructions for the analysis included (1) use Qualification Framework 3 (QF-3) for basic permit qualification (total landings during the 1998-2006 window period years with at least one directed fishery landing during 2004-2006) (2) vessels should be sorted into Target Species Vessel Groups (TSVGs) as used in Appendix E<sup>2</sup> and (3) qualification criteria should be developed giving equal weight to each TSVG over the entire Washington, Oregon, and California (WOC) management area (i.e., do not include sub-area constraints).

The analysis showed that a more “balanced” assemblage of vessels could be achieved by setting qualification criteria based on a vessel’s target species strategy. The geographic distribution of vessels by this approach would favor permitting of vessels from some areas over others. The analysis showed potentially reduced sablefish landings due to non-qualification of a relatively large number of sablefish vessels. However, the redistribution of fish from non-permitted vessels to permitted vessels (i.e., higher trip limits) or redirection of effort (from sablefish inactive to sablefish active vessels) would likely result in full attainment of the open access fishery sablefish allocation under the GAC request.

### Methods

Vessel-specific open access fishery directed fishery data from the window period in combination with hindcast analysis of 2004-2006 window period landings were used to analyze the potential impact of the GAC request. The analyses done for the GAC request were previously done for EA Alternatives 1 (A-1, no action) and Alternative 4, criterion 713v-3 (hereafter, A-4) (see **Appendix E**). The A-4 analysis was very similar to the GAC request, but used the conventional approach of qualifying vessels based on total B species groundfish landed during the 1998-2006 window period with at least one directed fishery landing during 2004-2006 window period (QF-3 approach).

The economic impact analysis used the species-specific expansion factors reported in Appendix E. As in the previous analyses no attempt was made to redistribute fish from non-qualifying vessels to qualify in

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<sup>1</sup> Prepared by LB Boydstun, CDFG Retired, February 5, 2009.

<sup>2</sup> Vessels were assigned to TSVGs using a >50% revenue criterion for landings during 2004-2006 window period years for the following species groups: lingcod, shelf rockfish, slope rockfish, sablefish, federal sharks (sharks), and other species (e.g., flatfishes, grenadiers). Vessels that did not meet the >50% revenue criterion for a single group were assigned to the non-TSVG.

vessels or to estimate the amount of fish that would be allowed for landing by non-qualifying vessels under incidental fishery regulations.

**Results**

It was determined that about 65 percent (713 of 1,103 vessels) of each TSVG would be needed to meet the GAC request for balanced TSVG representation based on 2004-2006 window period data (**GAC Table 1**). This resulted in as few as 16 vessels for the non-TSVG to 289 vessels for the sablefish TSVG. The B species qualifying poundage ranged from as few as 127 lbs for the Other species TSVG to 3,816 lbs for the sablefish TSVG (**GAC Table 1**). The comparative data for A-4 ranged from 10 vessels (27.8 percent of A-1) for the other species TSVG to 387 vessels (86.6 percent of A-1) for the sablefish TSVG. The A-4 data showed relatively high fleet proportions for the sablefish, slope rockfish and non-target TSVGs, which is consistent with the results produced in Appendix E showing relatively large catch histories for vessels in these TSVGs.

GAC Table 1. Number of vessels that made directed B species fishery landings during 2004-2006 window period by target species vessel group (TSVG) and comparative data for GAC request and A-4 B permit qualification criteria for 713v-3 (A-4) (see Appendix E)

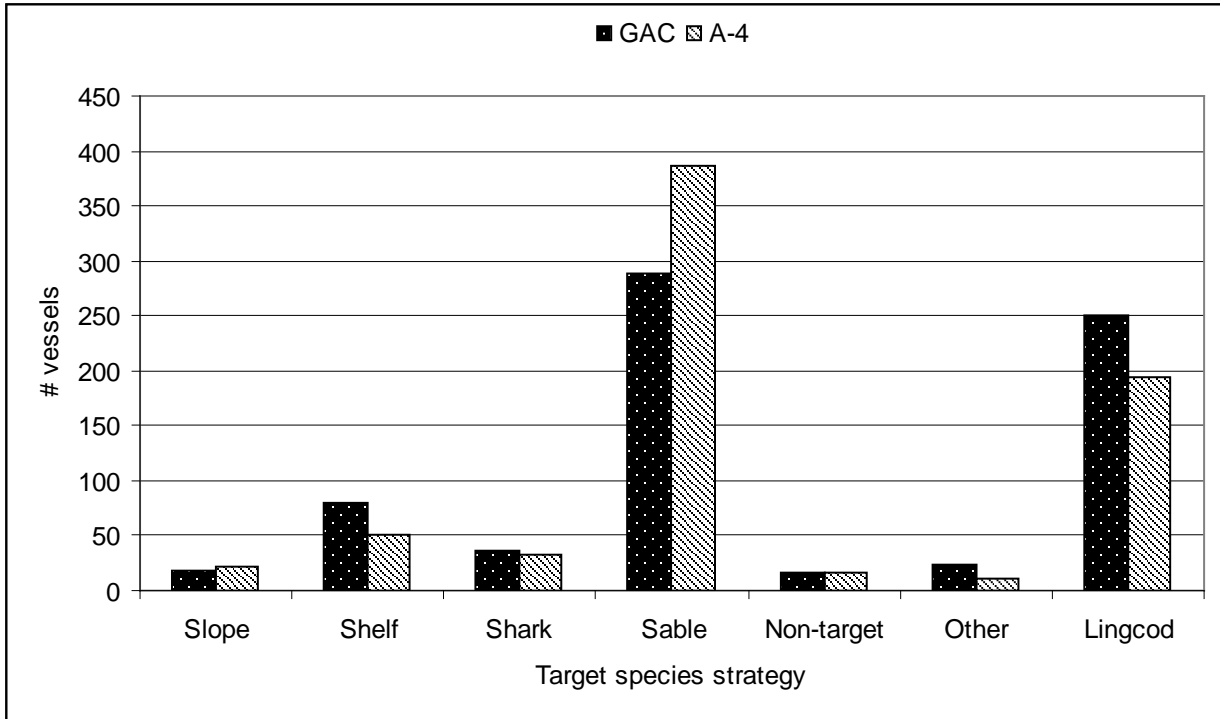
TSVG	A-1		GAC Request			A-4 1/	
	# vsls	Prop 2/	# vsls	Prop 3/	Qualify lbs	# vsls	Prop 3/
Slope	29	2.6%	19	65.5%	1,972	21	72.4%
Shelf	123	11.2%	79	64.2%	283	51	41.5%
Shark	57	5.2%	37	64.9%	640	33	57.9%
Sable	447	40.5%	289	64.7%	3,816	387	86.6%
Non-target	25	2.3%	16	64.0%	2,154	17	68.0%
Other	36	3.3%	23	63.9%	127	10	27.8%
Lingcod	386	35.0%	250	64.8%	576	194	50.3%
Total	1,103	100.0%	713	64.6%	NA	713	64.6%

1/ Data from Appendix E Table E-14; 1,071 lbs to qualify

2/ Proportion of Total

3/ Proportion of TSVG under A-1

The GAC request resulted in proportionately more lingcod and shelf rockfish vessels (250, 35 percent and 79, 11 percent, respectively) than the A-4 approach (194, 27 percent and 51, 7 percent)(**GAC Table 1; GAC Figure 1**). The Other species TSVG also fared better under the GAC approach (23, 3.2 percent) than under A-4 (10, 1.4 percent)(**GAC Table a; GAC Figure 1**). For sablefish the GAC request resulted in a fleet of 289 vessels (41 percent) compared to 387 vessels (54 percent) under A-4 (**GAC Table 1; GAC Figure 1**). These results could be expected because of generally larger catch histories of sablefish vessels compared to lingcod, shelf rockfish and other species vessels, as reported in Appendix E. There were other relatively small differences in number of qualifying vessels among the other TSVGs between A-4 and the GAC request (**GAC Table 3; GAC Figure 1**).



GAC Figure 1: Number of vessels that would qualify for B permits under the GAC request and A-4 by vessel target species strategy. Fleet size goal=713 vessels.

The qualifying vessels under A-4 and the GAC request landed very high proportions ( $\geq 95$  percent) of total B species landings (shown under A-1), either in terms of pounds or revenues, during 2004-2006 window period years (GAC Table 2). A slightly higher proportion of the landings were made under A-4 than under the GAC request (98 percent compared to 95-96 percent, respectively) (GAC Table 2). The non-qualifying vessels for both groups were highly dependent ( $\geq 91$  percent) on associated species landings for their total commercial fishery revenues (GAC Table 2). Associated fisheries include Dungeness crab, salmon, and albacore in particular.

More California vessels qualified under the GAC request (423, 59 percent) than under A-4 (374, 53 percent), while both Washington and Oregon qualified fewer vessels under the GAC request (213, 30 percent and 11, 11 percent, respectively) than under A-4 (228, 32 percent and 111, 16 percent, respectively) (GAC Table 3). These differences indicate generally larger catch histories of California vessels compared to Oregon and Washington vessels within individual TSVGs.

GAC Table 2. Landings data from 2004-2006 for vessels that WOULD qualify for a B permit under A-1 (no action), A-4 (713v-3) and the GAC request 1/

Option	B criterion	Criterion	# vsls	Directed fishery metrics						Associated fishery metrics						Total fishery metrics					
				lbs		Rev		BGF		lbs		Rev		BGF		lbs		Rev		BGF	
				P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/
A-1	N/A	N/A	1,103	6,163,951	1,000	\$8,531,439	1,000	94,180,993	0.939	\$116,160,405	0.932	100,344,944	1.00	\$ 124,691,844	1.00	100,344,944	1.00	\$ 124,691,844	1.00	100,344,944	
A-4	713v-3	Top lbs	713	6,058,802	0.983	\$8,339,657	0.978	77,687,112	0.928	\$93,037,615	0.918	83,745,914	1.00	\$ 101,377,272	1.00	83,745,914	1.00	\$ 101,377,272	1.00	83,745,914	
GAC	TSVG	65%	713	5,906,740	0.958	\$8,104,979	0.950	64,574,005	0.916	\$76,743,055	0.904	70,480,745	1.00	\$ 84,848,034	1.00	70,480,745	1.00	\$ 84,848,034	1.00	70,480,745	

GAC Table 2. Landings data from 2004-2006 for vessels that WOULD NOT qualify for a B permit under A-1 (no action), A-4 (713v-3) and the GAC request 1/

Option	B criterion	Criterion	# vsls	Directed fishery metrics						Associated fishery metrics						Total fishery metrics					
				lbs		Rev		BGF		lbs		Rev		BGF		lbs		Rev		BGF	
				P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/	P 2/	P 3/
A-1	N/A	N/A	0	0	NA	\$0	NA	0	NA	0	\$0	NA	0	NA	0	NA	0	NA	0	NA	
A-4	713v-3	Top lbs	390	105,149	0.017	\$1,783	0.022	16,493,881	0.994	\$23,122,790	0.992	16,599,030	1.00	\$ 23,314,573	1.00	16,599,030	1.00	\$ 23,314,573	1.00	16,599,030	
GAC	TSVG	65%	390	257,212	0.042	\$426,461	0.050	29,606,988	0.991	\$39,417,350	0.989	29,864,200	1.00	\$ 39,843,811	1.00	29,864,200	1.00	\$ 39,843,811	1.00	29,864,200	

1/ Abbreviations: BGF=B species groundfish; P=proportion; lbs=pounds; Rev=revenues

2/ Proportion of 2004-2006 B species groundfish landings (BGF)

3/ Proportion of total commercial fishery landings (Total fishery metrics)

GAC Table 3. Number of Qualifying Vessels by Alternative, Port group and State

State/Port	A-1					A-4					GAC Request											
	Lingcod	Shelf RF	Slope RF	Sharks	Other	Non-targ	Total	Lingcod	Shelf RF	Slope RF	Sharks	Other	Non-targ	Total	Lingcod	Shelf RF	Slope RF	Sharks	Other	Non-targ	Total	
SPS	0	0	2	0	0	0	2	0	0	2	0	0	0	2	0	0	2	0	0	0	0	2
NPS	4	0	7	2	5	0	19	2	0	7	0	5	0	15	3	0	5	0	5	0	1	14
CWA	0	0	52	0	0	0	52	0	0	48	0	0	0	48	0	0	28	0	0	0	0	28
CLW	0	0	53	0	0	0	53	0	0	46	0	0	0	46	0	0	33	0	0	0	0	33
WA	4	0	114	2	5	0	126	2	0	103	0	5	0	111	3	0	68	0	5	0	1	77
CLO	0	0	45	0	0	0	45	0	0	35	0	0	0	35	0	0	23	0	0	0	0	23
TLA	35	3	12	0	0	0	50	14	3	6	0	0	0	23	22	3	2	0	0	0	0	27
NPA	14	1	36	0	0	0	51	5	0	23	0	0	0	28	8	0	13	0	0	0	0	21
CBA	38	0	52	0	0	0	90	16	0	47	0	0	0	63	22	0	36	0	0	0	0	58
BRA	71	5	33	0	0	0	109	44	3	32	0	0	0	79	51	3	30	0	0	0	0	84
OR	158	9	178	0	0	0	345	79	6	143	0	0	0	228	103	6	104	0	0	0	0	213
CCA	28	1	7	0	0	1	37	19	0	6	0	0	0	26	22	0	2	0	0	0	1	25
ERA	12	0	33	0	1	0	46	5	0	33	0	1	0	39	7	0	26	0	1	0	0	34
BGA	32	4	50	0	0	1	87	20	1	46	0	0	0	68	23	2	43	0	0	0	1	69
BDA	15	9	2	0	0	2	28	10	3	0	0	0	0	13	10	4	0	0	0	1	0	15
SFA	31	13	16	0	11	1	76	15	2	13	0	7	0	39	18	7	9	0	7	0	2	43
MNA	37	15	33	0	1	7	98	13	10	33	0	0	3	63	20	11	29	0	0	3	4	67
MRA	52	29	5	10	1	0	104	27	13	3	9	0	5	57	37	21	2	8	0	0	4	72
SBA	12	23	0	5	10	10	63	4	7	0	4	7	2	25	7	15	0	4	7	7	1	41
LAA	5	11	4	4	20	14	59	0	3	3	1	7	5	20	0	6	2	1	11	11	1	32
SDA	0	9	5	8	8	2	34	0	6	4	7	6	0	24	0	7	4	6	6	1	1	25
CA	224	114	155	27	52	36	632	113	45	141	21	28	10	374	144	73	117	19	32	23	15	423
Total	386	123	447	29	57	36	1,103	194	51	387	21	33	10	713	250	79	289	19	37	23	16	713

Under the GAC request, the economic impacts of the lingcod, shelf rockfish, shark and other species fisheries were increased by 1 percent-33 percent while the remaining fisheries were reduced by 1 percent-4 percent (**GAC Table 4**). Overall the GAC request resulted in 97 percent (\$14.7 million) the economic impact of A-4 (\$15.1 million) and 95 percent the impact of A-1 (\$15.5 million) (**GAC Table 4**). The major difference between A-4 and the GAC request was in sablefish impact, which was -\$565,789 (-4.5 percent) under the GAC request (**GAC Table 4**).

GAC Table 4. Estimated West Coast economic impacts (using species expansion factors) by alternative, species group, and state. 1/

Alternative	Species	WA	OR	CA	Total
A-1	Lingcod	\$12,438	\$445,912	\$734,918	\$1,193,268
	Shelf RF	\$0	\$13,885	\$263,789	\$277,674
	Sablefish	\$2,954,253	\$3,739,317	\$5,837,187	\$12,530,757
	Slope RF	\$207	\$0	\$375,454	\$375,661
	Sharks	\$328,810	\$0	\$298,387	\$627,197
	Other	\$0	\$0	\$71,254	\$71,254
	Non-target	\$33,376	\$0	\$345,232	\$378,608
	<b>Total</b>	<b>\$3,329,084</b>	<b>\$4,199,113</b>	<b>\$7,926,222</b>	<b>\$15,454,419</b>
A-4	Lingcod	\$11,666	\$381,533	\$644,910	\$1,038,110
	Shelf RF	\$0	\$13,740	\$214,543	\$228,283
	Sablefish	\$2,943,156	\$3,686,597	\$5,824,193	\$12,453,946
	Slope RF	\$0	\$0	\$370,833	\$370,833
	Sharks	\$328,810	\$0	\$283,186	\$611,997
	Other	\$0	\$0	\$52,494	\$52,494
	Non-target	\$33,376	\$0	\$338,888	\$372,265
	<b>Total</b>	<b>\$3,317,009</b>	<b>\$4,081,870</b>	<b>\$7,729,048</b>	<b>\$15,127,927</b>
GAC request	Lingcod	\$12,319	\$419,311	\$691,263	\$1,122,893
	Shelf RF	\$0	\$13,740	\$250,667	\$264,408
	Sablefish	\$2,707,363	\$3,470,186	\$5,710,608	\$11,888,157
	Slope RF	\$0	\$0	\$365,273	\$365,273
	Sharks	\$328,810	\$0	\$291,879	\$620,690
	Other	\$0	\$0	\$69,783	\$69,783
	Non-target	\$33,376	\$0	\$334,792	\$368,169
	<b>Total</b>	<b>\$3,081,869</b>	<b>\$3,903,238</b>	<b>\$7,714,266</b>	<b>\$14,699,372</b>

1/ No attempt was made in this analysis to shift fish from non-qualifying vessels to qualifying vessels or to estimate the amount fish that would have been landed by non-qualifying vessels under incidental fishery regulations

## Discussion

The GAC request, which was aimed at a species balanced fleet of 713 vessel, resulted in more lingcod, shelf rockfish and Other species vessels (97, 38 percent, **GAC Table 3**) qualifying for B permits than under the A-4 approach of issuing permits based on total B species poundage landed without regardless to vessel target species strategy. The GAC request resulted in fewer sablefish vessels (89, 23 percent, **GAC Table 3**) qualifying for permits compared to A-4. The GAC request (using A-4 for comparison) resulted in a shift of vessels from Washington and Oregon to California (+49, 7 percent) as a result of generally larger catch histories of California vessels within individual TSVGs (**GAC Table 3**).

The economic analysis indicated the GAC request had a potentially higher negative economic impact compared to A-4 (-3 percent, **GAC Table 4**). This was largely due to reduced sablefish landings by permitted vessels during the 2004-2006 window period years (-5 percent, **GAC Table 4**) used for the hindcast analysis. However, the hindcast analysis did not attempt to redistribute fish from non-qualifying vessels to qualifying vessels or to estimate the amount of fish that would be taken by non-qualifying vessels under incidental fishery regulations. Because of the relatively small amount of fish involved

(about 3 percent) it is highly likely that the permitted fleet under the GAC request would have been able to harvest the full sablefish allocation through inseason regulation adjustments. Also, redistribution of permits between vessels in future years could further ensure that the available fish would be harvested under the GAC request (or under A-4).