

Appendix C
DETAILED ANALYSIS OF THE INTEGRATED
ALTERNATIVES

2011-2012 GROUND FISH HARVEST SPECIFICATIONS
DRAFT ENVIRONMENTAL IMPACT STATEMENT

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This section provides more detailed information behind the analysis of the integrated alternatives, compared to what was presented in Chapter 2, Section 2.4. The impacts of implementing the strategic combination of overfished species ACLs along with the management measures necessary to stay within those ACLs or achieve other management objectives outlined in the GFMP are presented by alternative and fishery.

C.1 The No Action Alternative

C.1.1 Limited Entry Non-Whiting Trawl

If no action were taken by the Council, the 2010 OYs and management measures current trip limits specified in Federal regulations would prevail for the 2011-2012 fisheries. The trip limits, RCA boundaries, and projected impacts are listed in Table C-1 and Table C-2.

Model projections before the June 2010 Council meeting estimated overages of 48 metric tons (101.6% of harvest guideline) for sablefish and 131 metric tons (107.8% of harvest guideline) for petrale sole for 2010. Trip limit reductions were instituted at the June Council meeting to reduce projected impacts beneath the LE trawl portion of the ACLs for these species. Sablefish and petrale sole trip limits were reduced directly from May 1, 2010 trip limits, along with Dover sole and other flatfish in periods 4, 5, and 6, in order to meet model targets. The RCA was not changed from the May 1, 2010 lines. In a precautionary response to a GAP request for a chilipepper trip limit increase to 20,000 pounds per 2 months, the chilipepper bimonthly trip limit was increased from 12,000 to 17,000 pounds, in the area south of 40° 10' N. lat, to be implemented by September 1, 2010 through the remainder of 2010. Although there was some potential for increased impacts on bocaccio rockfish (a rebuilding species), since they co-occur; it is likely that only a few vessels will target chilipepper, and only in the area south of 38° north latitude, and there is considerable residual in the scorecard compared to the bocaccio OY.

Table C-1. No action alternative for limited entry trawl; 2010 trip limits after June inseason adjustment.

2-month period	RCA lines (fm)		2-month cumulative-poundage limits							
	shallow	deep	sable-fish	long-spine	short-spine	Dover sole	petrale sole	arrow-tooth	other flatfish	slope rockfish
N. of 40°10' N lat.										
Large/small footrope limits										
1	75	150	20,000	24,000	18,000	110,000	9,500	150,000	110,000	2,000
2	75	200	20,000	24,000	18,000	110,000	9,500	150,000	110,000	6,000
3	75	150/200	24,000	24,000	18,000	110,000	9,500	150,000	110,000	2,000
4	100	150/200	21,000	24,000	18,000	100,000	6,300	150,000	100,000	2,000
5	75	200	21,000	24,000	18,000	100,000	6,300	150,000	100,000	2,000
6	75	200	21,000	24,000	18,000	100,000	6,300	150,000	100,000	2,000
Selective gear limits										
1	75	150	9,000	5,000	5,000	65,000	9,500	90,000	90,000	
2	75	200	9,000	5,000	5,000	65,000	9,500	90,000	60,000	
3	75	150/200	9,000	5,000	5,000	65,000	9,500	90,000	60,000	
4	100	150/200	9,000	5,000	5,000	65,000	6,300	90,000	60,000	
5	75	200	9,000	5,000	5,000	65,000	6,300	90,000	60,000	
6	75	200	9,000	5,000	5,000	65,000	6,300	90,000	60,000	
38° - 40°10' N lat.										
1	100	150	22,000	24,000	18,000	110,000	9,500	10,000	110,000	15,000
2	100	150	22,000	24,000	18,000	110,000	9,500	10,000	110,000	15,000
3	100	150	22,000	24,000	18,000	110,000	9,500	10,000	110,000	15,000
4	100	150	21,000	24,000	18,000	100,000	6,300	10,000	100,000	15,000
5	100	150	21,000	24,000	18,000	100,000	6,300	10,000	100,000	15,000
6	100	150	21,000	24,000	18,000	100,000	6,300	10,000	100,000	15,000
S. of 38° N lat.										
1	100	150	22,000	24,000	18,000	110,000	9,500	10,000	110,000	55,000
2	100	150	22,000	24,000	18,000	110,000	9,500	10,000	110,000	55,000
3	100	150	22,000	24,000	18,000	110,000	9,500	10,000	110,000	55,000
4	100	150	21,000	24,000	18,000	100,000	6,300	10,000	100,000	55,000
5	100	150	21,000	24,000	18,000	100,000	6,300	10,000	100,000	55,000
6	100	150	21,000	24,000	18,000	100,000	6,300	10,000	100,000	55,000

*Chilipepper rockfish trip limit = 17,000 pounds/2 months.

Table C-2. No action alternative for limited entry trawl. Projected groundfish total fishing mortality for major target species and overfished species, under trip limits adjusted inseason, in June 2010.

	Projected Total Catch (mt)			Model Target (mt)	Proj. - Target (mt)	Proj. % of Target
	North of 40°10'	South of 40°10'	Projected Total			
Sablefish	2,539	376	2,915	2,955	-40	98.6%
Shortspine	1,180	168	1,335	1,567	-232	85.2%
Longspine	1,210	302	1,512	2,129	-617	71.0%
Dover sole	12,567	1,261	13,829	16,093	-2,264	85.9%
Petrale	904	207	1,111	1,140	-28	97.5%
Arrowtooth	5,168	13	5,181	9,755	-4,574	53.1%
English	515	83	598	9,645	-9,047	6.2%
Other flatfish	965	231	1,196	4,685	-3,489	25.5%
Canary	10.8	1.5	12.3	21.3	-9.0	57.9%
POP	94.3	0.2	94.5	100.8	-6.3	93.8%
Darkblotched	170.5	19.7	190.2	230.0	-39.8	82.7%
Widow	7.1	8.2	15.4	21.6	-6.2	71.3%
Bocaccio	1.4	6.1	7.5	16.1	-8.6	46.6%
Yelloweye	0.3	0.0	0.3	0.6	-0.3	43.6%
Cowcod	0.0	0.3	0.3	1.5	-1.2	20.4%

C.1.2 Limited Entry Trawl Whiting

A Pacific whiting OY of 193,935 mt was used to manage the 2010 west coast whiting fisheries and forms the basis for the No Action Alternative (75FR23620). The 2010 tribal allocation was set at 49,939 mt, based on an interim formula for tribal allocations for the 2010 season. An additional 3,000 mt of whiting was set aside from the U.S. OY to accommodate research catch and incidental bycatch in non-whiting fisheries. This left approximately 140,996 mt for the non-tribal whiting fleets. Under the fixed allocations for these fleets specified in the FMP and in Federal regulations, the 2010 whiting quotas were 59,218 mt (42 percent) for the shoreside whiting sector, 33,839 mt (24 percent) for the at-sea mothership sector, and 47,939 mt (34 percent) for the at-sea catcher-processor sector.

Limited entry whiting trawl management measures include sector-specific bycatch limits, the ability for NMFS to restrict the depths whiting vessels fish if necessary to reduce bycatch on a sector-specific basis, full monitoring of all whiting catcher vessels fishing in the RCA during the primary season, a request that NMFS automatically close the non-tribal whiting fishery upon projection of attainment of a bycatch limit rather than waiting until the limit is attained, 100 percent observer coverage for vessels fishing in the RCA during the primary season and sorting their catch at sea (observer coverage to be paid by the vessel owner), and an exemption from the at-sea processing rules for vessels less than or equal to 75 ft in length in the shoreside whiting sector to allow them to freeze and tail their whiting to allow for value-added product delivery.

In 2010, bycatch limits for canary, darkblotched, and widow rockfish were apportioned according to the pro-rata distribution of the whiting allocation with 34 percent of the available yields of these species' bycatch limits allocated to the catcher-processor sector, 24 percent to the mothership sector, and 42 percent to the shoreside sector. A rollover provision is also available for unused bycatch limit yields, such that when a whiting sector is closed by attaining its whiting allocation or if it is closed by projected attainment of a sector-specific bycatch limit, any remaining yield of the bycatch limit is distributed to the other non-tribal whiting sectors using the same pro-rata apportionment used to allocate whiting quota and sector-specific bycatch limits.

The No Action Alternative for the non-tribal whiting fisheries gives NMFS the ability to implement depth-based closures for the whiting fishery on a sector-specific basis as an inseason measure upon the projected attainment of one or more total catch bycatch limits for canary, darkblotched, widow rockfish, or any other bycatch species managed with a total catch limit. Any of the specified management lines between the 75-fm and 150-fm lines may be used to restrict fishing depths for the non-tribal sectors. Management measures also maintain the authority for NMFS to implement the Ocean Salmon Conservation Zone (i.e., fishing restricted to depths seaward of the 100 fm line) if the Chinook HG is projected to be attained inseason.

In 2010, the Council considered the historical performance of the Pacific whiting fisheries relative to overfished species bycatch (Table C-3) as well as the bycatch model estimates (

Table C-4) in order to set the 2010 bycatch limits that would also apply under the No Action Alternative. For canary rockfish, the Council recommended setting a bycatch cap of 14 mt in an effort to balance an increasing canary rockfish bycatch rate in the whiting fishery and the needs of the non-whiting sectors. Similarly, the whiting fishery has seen an increasing widow rockfish bycatch rate as the widow rockfish stock rebuilds. The GMT provided a linear interpolation of widow rockfish bycatch rates from 2006-2009 that resulted in an estimate of 279 mt. The Council considered this calculation and specified a 279 mt widow rockfish bycatch limit for 2010. For darkblotched rockfish the GMT discussed the rationale for maintaining the 2009 bycatch limit (25 mt) as reflected in the 2009-2010 specifications and management measures EIS (PFMC 2008a). Bycatch of shelf rockfish like canary is inversely proportional to bycatch of darkblotched. As such even though the darkblotched limit has not been fully attained in any year from 2006-2009, enough should be available to the fleet to prevent shutting down the fishery during the season. Given the recommendation to reduce the amount of canary available to the fleet (from 18 mt in 2009 to 14 mt in 2010), the GMT recommended and the Council approved maintaining the 25 mt darkblotched limit for the 2010 fisheries.

Table C-4 displays the adopted bycatch limits for the non-tribal limited entry 2010 Pacific whiting fishery as follows, which would apply under the No Action Alternative.

Table C-3. History of Pacific whiting harvest and bycatch impacts 2006-2009.

Species	Sector	2006		2007		2008		2009	
		Alloc/ Cap (mt)	Catch (mt)	Alloc/ Cap (mt)	Catch (mt)	Alloc/ Cap (mt)	Catch (mt)	Alloc/ Cap a/ (mt)	Catch (mt)
Pacific whiting	SS	97,469	97,297	87,398	73,280	58,669	50,423	40,738	40,771
	CP	78,903	78,864	70,751	73,263	115,789	108,121	35,376	34,620
	MS	55,696	55,355	49,942	47,809	58,087	57,432	24,034	24,091
	TOTAL	232,068	231,516	208,091	194,352	232,545	215,976	100,148	99,482
Canary	SS		1.64		2.01		1.66		2.31
	CP		0.10		0.35		2.43		0.23
	MS		0.85		1.62		0.74		0.60
	TOTAL	4.7	2.59	4.7	3.98	4.7 - 6.7	4.83	18.0	3.14
DRK	SS		2.28		0.95		0.94		0.87
	CP		6.73		5.28		2.40		0.11
	MS		4.24		6.73		3.93		0.20
	TOTAL	25.0	13.25	25.0	12.96	40.0	7.27	25.0	1.18
POP	SS		0.14		23.14		0.07		4.70
	CP		0.75		2.92		12.83		0.06
	MS		1.88		0.73		2.93		1.40
	TOTAL		2.77		26.79		15.83		6.16
Widow	SS		49.38		88.97		99.09		108.64
	CP		67.00		72.77		52.37		0.96
	MS		71.80		72.99		60.75		24.94
	TOTAL	220	188.18	220 - 275	234.73	275 - 287	212.21	250.0	134.54
YE	SS		0.06		0.04		0.00		0.00
	CP		0.01		0.01		0.01		0.00
	MS		0.02		0.00		0.00		0.00
	TOTAL		0.09		0.05		0.01		0.00

a/ In 2009, bycatch caps were divided among the three whiting sectors pro-rata. The totals of those sector-specific limits are given here.

Table C-4. Whiting bycatch model predictions of canary, darkblotched, and widow rockfish distributed pro-rata by sector under the 2010 whiting OY of 140,996 mt.

Sector	Canary	Darkblotched	Widow
Mothership	0.87	1.12	42.72
CP	1.24	1.59	60.52
Shoreside	1.53	1.96	74.76
Total	3.64	4.67	178.01

Table C-5. No Action. Non-tribal limited entry Pacific whiting trawl bycatch limits for 2011-2012.

Species	Total	Shoreside (42%)	Catcher-Processor (34%)	Mothership (24%)
Canary	14 mt	5.9 mt	4.8 mt	3.3 mt
Darkblotched	25 mt	10.5 mt	8.5 mt	6.0 mt
Widow	279 mt	117 mt	95 mt	67 mt

C.1.3 Non-Nearshore Fixed Gear

The non-nearshore bycatch model projects overfished species impacts for both the limited entry fixed gear sector and the open access daily trip limit fishery for sablefish north of 36° N. latitude, seaward of the non-trawl RCA. Inputs assume that the limited entry and open access sablefish allocations are completely harvested, and if reductions to overfished species impacts are needed, then adjustments are typically made to the non-trawl RCA in the areas with highest bycatch rates. In the event that non-trawl RCA adjustments do not accomplish the necessary overfished species impact reductions, then the target catch of sablefish could be reduced.

Under the No Action alternative, the 2010 sablefish OY and allocations specified in regulation are carried forward for 2011-2012 (Table C-6).

Table C-6. No Action Alternative: Sablefish north of 36° N. latitude limited entry fixed gear and open access allocations for 2011-2012.

Species	ACL (mt)	Fishery	Allocation (mt)
Sablefish N. 36° N. Lat.	6,471	LE Fixed Gear Primary	1,819
		LE Fixed Gear Daily Trip Limit	321
		LE Fixed Gear Total	2,140
	Open Access	529	

Limited Entry North of 36° N. latitude

Under the No Action alternative, the sablefish ACL would be equal to the 2010 sablefish OY and the limited entry fixed gear allocation would be 2,140 mt (Table C-6). The current RCA configuration would remain in place under the no-action alternative (Figure C-1). Modeled-

bycatch projections of overfished species would therefore be equivalent to those estimated for 2010 (Table C-7).

Seaward RCA Boundary	36° - 40° 10'	40°10'- Col/Eur 43°	Col/Eur 43°- Cascade Head 45.064°	Cascade Head 45.064° - Pt. Chehalis 46.888°	North of Pt. Chehalis 46.888°
Shoreward boundary to 100 fm					
100 fm					
125 fm					
150 fm					
>150 fm					

Figure C-1. No Action Alternative: Non-trawl RCA seaward configuration. The shoreward configuration of the RCA is driven by the nearshore model. Grey shading indicates areas closed to fishing.

Table C-7. No Action Alternative: Modeled-overfished species projected impacts for the limited entry fixed gear sector north of 36° N. latitude.

Species	Projected Impacts (mt)
Bocaccio	0.0
Canary rockfish	2.2
Darkblotched rockfish	3.9
Pacific ocean perch	0.4
Widow rockfish	0.0
Yelloweye rockfish	0.8

Open Access Sablefish DTL north of 36° N. latitude

As mentioned above, the open access sablefish DTL fishery impacts are projected by the non-nearshore model, which assumes the entire sablefish allocation is harvested. The open access and limited entry fixed gear sablefish fisheries are held to the same non-trawl RCA structure, which is driven by overfished species impacts.

Under the No Action alternative, the sablefish ACL would be equal to the 2010 sablefish OY with an open access allocation of 529 mt (Table C-6) and the current RCA configuration would remain in place (Figure C-1). Modeled-bycatch projections would therefore be equivalent to those estimated for 2010 (Table C-8). As in 2009-10, these projected impacts only cover bycatch for fishing in areas seaward of the RCA and north of 36° N. latitude.

Table C-8. No Action Alternative: Modeled-overfished species impacts for the open access sablefish daily trip limit fishery north of 36° N. latitude under the No Action alternative.

Species	Projected Impacts (mt)
Bocaccio	0.0
Canary rockfish	0.4
Darkblotched rockfish	0.6
Pacific ocean perch	0.1
Widow rockfish	0.0
Yelloweye rockfish	0.1

C.1.4 Nearshore Fixed Gear

Under the No Action alternative, landings projections for 2011-2012 would be based on final 2009 landings. It is important to recognize that landings in 2009-2010 were held at reduced levels, compared to historical harvest, by restrictive trip limits or state caps implemented to reduce impacts to overfished species (particularly yelloweye). As such, the No Action alternative does not represent full attainment of nearshore species ACLs.

Since 2003 the shoreward RCA boundary in the nearshore fishery was set at 30 fm for the entire area north of 34°27' N. latitude and 60 fm south of 34°27' N. latitude. In 2009 NMFS implemented a more restrictive 20 fm depth restriction between 43° N. latitude and 40°10' N. latitude and restricted target species landings to reduce yelloweye and canary impacts {[Final Environmental Impact Statement \(FEIS\) for the Proposed ABC/OY Specifications and Management Measures for the 2009-2010 Pacific Coast Groundfish Fishery](#)}

The 20 fm shoreward non-trawl RCA depth restriction currently in regulation would remain in effect between 43° N. latitude and 40°10' N. latitude (Appendix 1) to reduce yelloweye impacts. An April 2008 report from the WCGOP {NWFSC 2008} indicated that nearshore effort and yelloweye rockfish bycatch rates were low north of 43° N. latitude, compared to the area between 43° N. latitude and 40°10' N. latitude. Therefore, for 2009-2010 the Council recommended and NMFS implemented the status quo and less restrictive shoreward RCA (i.e., 30 fm) north of 43° N. latitude. Effort is exceptionally low between 20–30 fm in this northern area and yelloweye rockfish abundance is thought to be much lower relative to the area between 43° N. latitude and 40°10' N. latitude, which is supported by observer bycatch rates reported in an April 2008 report provided by WCGOP. A request to WGCOP will be made in 2010 to update catch data and verify the assumptions. Should observer data indicate that bycatch rates are not negligible north 43° N. latitude, inseason action may be taken in 2011 to move the shoreward RCA for the entire state of Oregon (north of 42° N. latitude) to 20 fm

Under the No Action alternative, depth restrictions south of 40°10' N. latitude would remain unchanged (30 fm between 40°10' N. latitude and 34°27' N. latitude; 60 fm south of 34°27' N. latitude).

The No Action alternative is modeled assuming the bycatch rates, weather, and market conditions experienced in 2009 are the same in 2011 and 2012. In 2009, inclement weather and soft markets affected landings south of 42 N. latitude, and as such, landings in 2009 were lower for California than in previous years for many species (landings were similar or slightly higher for Oregon

during 2009 relative to previous years). Under the No Action alternative, this fishery would still be held to the projected yelloweye impacts (1.1 mt) regardless of weather or market conditions. The few remaining management measures available to reduce yelloweye impacts in this fishery (if needed) include drastic reductions to landed catch or total fishery closure north of 40°10' N. latitude (vessel safety concerns preclude implementing a shallower depth restriction north of 40°10' N. latitude). Modifications to depth restrictions or reductions in landed catch south of 40°10' N. latitude would provide little (if any) yelloweye savings because this is an area of low bycatch.

Public testimony indicates that the 20 fm line has created unintended consequences in the nearshore fishery and inseason requests were submitted in 2009 {Agenda Item G.4.b, Supplemental GMT Report} and 2010 {Agenda Item E.5.b, Supplemental GMT Report} to modify the line back to 30 fm. The 20 fm depth restriction has caused gear conflicts in the nearshore fishery by forcing fishermen to concentrate in smaller areas and other individuals are afraid to fish with line gear for fear of gear drifting into deeper depths resulting in enforcement violations. In addition, this increased concentration of effort not only eliminated access to productive fishing grounds, but it also may lead to increased local depletion of certain species that show limited migration patterns. Inseason requests to liberate the 20 fm line to 30 fm were not recommended due to increased overfished species impacts {Agenda Item E.5.b, Supplemental GMT Report}.

In June 2010, the GAP recommended additional yelloweye be provided to the nearshore fishery to restore fishing opportunities citing loss of infrastructure and weak market conditions {Agenda Item B.7.b, Supplemental GAP Report}. Numerous letters received through public testimony in June 2010 also mirrored the GAP recommendation {Agenda Item B.5.c, Public Comment}. In summary, the restrictive RCAs and low available yelloweye will continue to constrain the nearshore fishery under the No Action alternative.

Table 9. No Action Alternative: Nearshore fishery projected total catch by area for 2011-2012.

Area	Projected Total Catch (mt) 2011/12
Grand Total	456
Black rockfish	224
Blue rockfish	8
Cabezon	48
Deeper nearshore RF	27
Kelp greenling	22
Lingcod	68
Other minor RF	13
Shallow nearshore RF	47
North of 40°10' N. lat.	343
Black rockfish	220
Blue rockfish	5
Cabezon	32

Area	Projected Total Catch (mt) 2011/12
Kelp greenling	21
Lingcod	52
Other minor nearshore rockfish	13
South of 40°10' N. lat.	113
Black rockfish	4
Blue rockfish	3
Cabazon	16
Deeper nearshore rockfish	27
Kelp greenling	1
Lingcod	16
Shallow nearshore rockfish	47

Shoreward RCA Boundary	South 34°27'	34°27'-40°10'	40°10' – Col/Eur 43°	North Col/Eur 43° - 46°16'	North of 46°16'
Shore					
<20 fm					
<30 fm					
<60 fm to seaward RCA boundary					

Figure 2. No Action Alternative: Nearshore shoreward RCA configuration. Grey shading indicates areas closed to fishing.

Table 10. No Action Alternative: Overfished species bycatch projections for the nearshore fixed gear fisheries.

Species	Area	Projected Total Impacts (mt) 2011/12
Bocaccio		0.3
	North of 40°10'	0
	South of 40°10'	0.31
Canary		2.9
	North of 40°10'	1.6
	South of 40°10'	1.3
Widow		0.3
	North of 40°10'	0.3
	South of 40°10'	0.0
Yelloweye		1.1
	North of 40°10'	1.1
	South of 40°10'	0.1

C.1.5 Washington Recreational

The following recreational seasons applied in 2009 and 2010 and would remain in place under the No Action Alternative.

Groundfish Seasons and Bag Limits

Under the No Action Alternative, the Washington recreational fishery would be open year-round for groundfish except lingcod. The recreational groundfish bag limit would be 15 fish per day including rockfish and lingcod. Of the 15 recreational groundfish allowed to be landed per day, sub limits of 10 rockfish and 2 lingcod would apply. Washington would continue to prohibit the retention of canary and yelloweye rockfish in all areas.

Lingcod Seasons and Size Limits

The lingcod season in Marine Areas 1-3 (Washington-Oregon border at 46°16' N. Latitude to Cape Alava at 48° 10' N. Latitude) was open from the Saturday closest to March 15 through the Saturday closest to October 15, which was March 14 through October 17 in 2009 and March 13 through October 16 in 2010. Marine Area 4 (Cape Alava to the U.S. Canadian border) was open from April 16 through the Saturday closest to October 15, or October 15, whichever is earlier, which was April 16 through October 15 in 2009 and 2010.

Under the No Action Alternative, the following lingcod seasons and size limits for 2011 and 2012 would be as follows:

- Marine Areas 1-3: open from March 12 through October 1 in 2011 and March 17 through October 13 in 2012.
- Marine Area 4: open from April 16 to October 15 in 2011 and April 16 to October 13 in 2012.
- The lingcod minimum size limit during the open lingcod season would be 22 inches in Marine Areas 1-3 and 24 inches in Marine Area 4.

Area Restrictions

Under the No Action Alternative the Washington recreational groundfish and Pacific halibut fisheries would continue to be prohibited from fishing for, retention or possession of groundfish and halibut in the C-shaped yelloweye rockfish conservation area in the north coast and South Coast and Westport YRCAs in the south coast as they were in the 2009 and 2010 seasons.

Coordinates defining these YRCAs are provided in Federal regulations at 50 CFR 660.390.

Washington Recreational Groundfish Season under the No Action Alternative

Marine Area	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
3 & 4 (N. Coast)	Open all depths					Open <20 fm May 21-Sep 30 a/				Open all depths		
2 (S. Coast)	Open all depths		Open <30 fm Mar 15 - June 15 b/,c/			Open all depths except lingcod prohibited on Fri. and Sat. >30 fm d/			Open all depths			
1 (Col. R.)	Open all depths					Open all depths e/				Open all depths		
a/ Groundfish retention allowed >20 fm on days when Pacific halibut is open. b/ Retention of sablefish and Pacific cod allowed seaward of 30 fm from May 1- June 15. c/ Retention of lingcod allowed on days that the primary halibut season is open (applied in 2010 only). d/ Retention of lingcod prohibited >30 fm, south of 46°58' on Fri. and Sat. from July 1 – August 31. e/ Retention of groundfish, except sablefish and Pacific cod, prohibited with Pacific halibut on board.												

North Coast (Marine Areas 3 and 4)

Prohibit the retention of groundfish seaward of a line approximating 20 fathoms from May 21-September 30, except on days that halibut fishing is open.

South Coast (Marine Area 2)

Prohibit the retention of groundfish seaward of a line approximating 30 fathoms from March 15-June 15. Prohibit the retention of groundfish, except sablefish and Pacific cod seaward of a line approximating 30 fathoms from May 1-June 15. Lingcod retention allowed seaward of 30 fathoms on days that the primary halibut season is open. Prohibit the retention of lingcod south of 46°58' N. latitude and seaward of 30 fathoms on Fridays and Saturdays from July 1 through August 31.

Columbia River (Marine Area 1)

Prohibit the retention of groundfish, except sablefish and Pacific cod, with halibut onboard from May 1 through September 30.

Washington Recreational Harvest Share and Projected Impacts under the No Action Alternative

No Action Alternative	WA Recreational Harvest Share	Projected Impacts (mt)
Canary	4.9	0.6

C.1.6 Oregon Recreational

Oregon and Washington shared harvest guidelines for canary and yelloweye rockfish of 20.9 mt and 5.1 mt, respectively in 2009-10. This same structure would remain in 2011-2012 under the No Action alternative for canary rockfish, Oregon’s share of the canary harvest guideline 16.0 mt. At the June 2010 Council meeting, total yelloweye impacts had to be reduced from 17 mt to 14 mt to comply with the results of a lawsuit. Actions taken included reducing the Oregon and Washington shared harvest guideline for yelloweye rockfish to 4.9 mt, Oregon’s share was reduced from 2.4 mt to 2.3 mt. Under the No Action alternative the Oregon recreational fisheries would operate under the 2.3 mt harvest guideline for yelloweye rockfish.

If either of the harvest guidelines were attained inseason, ODFW and WDFW would consult and decide if inseason state actions would be needed to maintain impacts within these harvest guidelines. Such state management actions included closing recreational fisheries, restricting recreational fishery seasons, and/or restricting the depths where the fishery was allowed to continue.

The following seasons, bag limits, size limits, and area restrictions also applied to 2009 and 2010 Oregon recreational groundfish fisheries and would apply under the No Action alternative (16.0 mt of canary and 2.3 mt of yelloweye rockfish).

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Open all depths			Open < 40 fm						Open all depths		

Figure C-3. No Action Alternative: Oregon recreational groundfish season structure for 2011-2012.

Bag and Size Limits

Under the No Action alternative, the marine fish daily bag limit of 10 fish in aggregate that was allowed in 2009-10 Oregon recreational fisheries and would carry forward for 2011-2012. The marine bag included all species other than lingcod, salmon, steelhead, Pacific halibut, flatfish, surfperch, sturgeon, striped bass, pelagic tuna and mackerel species, and bait fish such as herring, anchovy, sardine and smelt. A flatfish daily bag limit of 25, which includes all soles and flounders except Pacific halibut, was allowed in addition to the marine fish daily bag limit. Additionally a 3 fish bag limit was allowed for lingcod. Retention of canary and yelloweye rockfish was prohibited in 2009-10 and would also be prohibited under the No Action alternative.

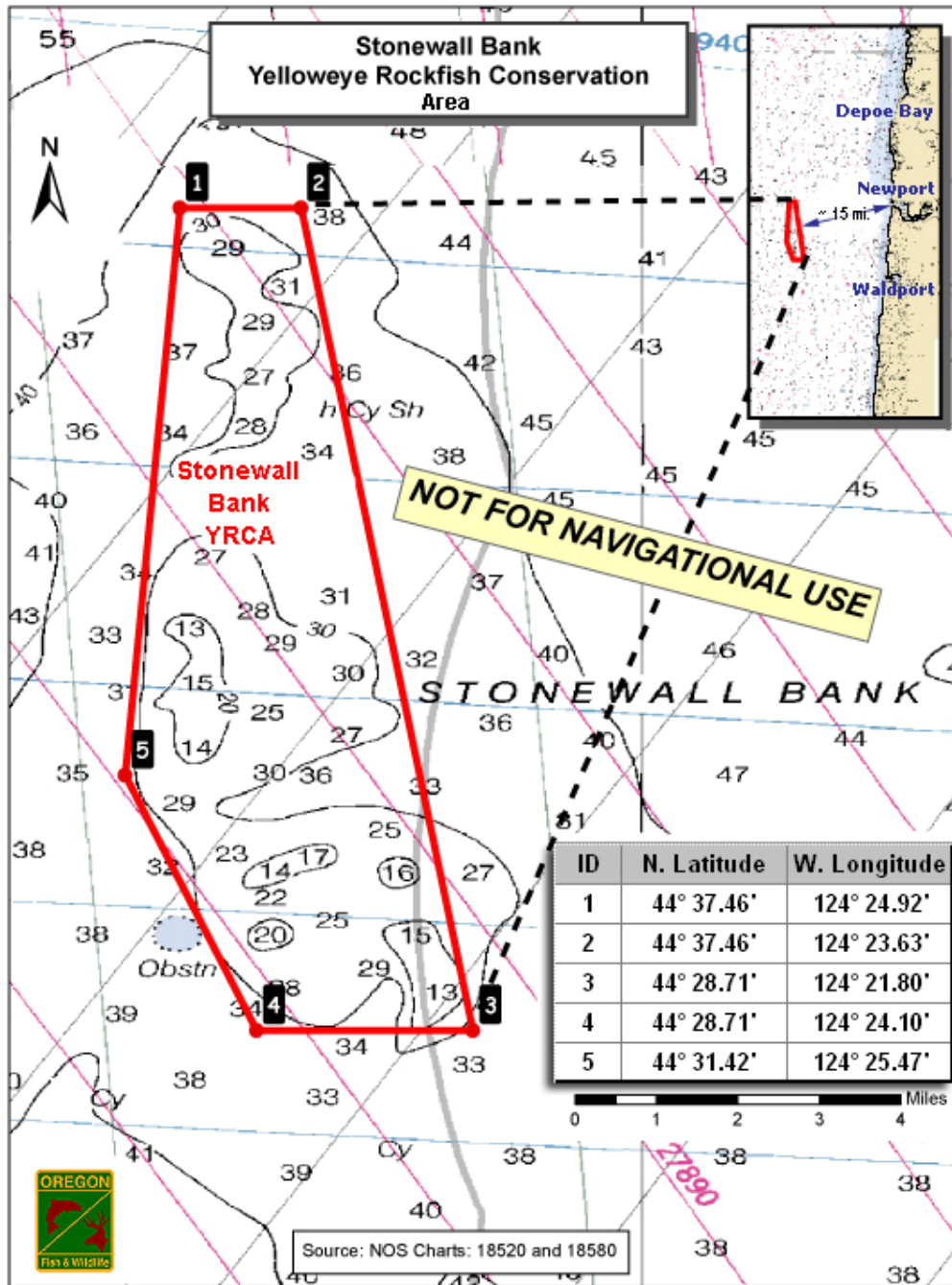
The following minimum size limits applied to 2009-10 Oregon recreational fisheries and would be carried forward under the No Action alternative:

- lingcod – 22 in.
- cabezon – 16 in.
- kelp greenling – 10 in.

Area Restrictions

A YRCA has been in place on Stonewall Bank since 2006 and would also remain under the No Action alternative (Figure C-4). No recreational fishing for groundfish and Pacific halibut can occur within this YRCA, which is bounded by the following waypoints:

44°37.458' N lat	124°24.918' W long;
44°37.458' N lat	124°23.628' W long;
44°28.71' N lat	124°21.798' W long;
44°28.71' N lat	124°24.102' W long;
44°31.422' N lat	124°25.5' W long.



ODFW, 05/22/06. Reprinted 12/12/06

Figure C-4. The Stonewall Bank Yelloweye Rockfish Conservation Area where recreational fishing for groundfish and Pacific halibut is prohibited. Under the No Action alternative, the area would remain closed.

C.1.7 California Recreational

The 2009-2010 California recreational groundfish fisheries were managed under harvest guidelines for canary and yelloweye rockfish. The harvest guideline for canary rockfish was 22.9 mt. The yelloweye harvest guideline was originally specified as 2.8 mt but it was revised downward on July 1, 2010 to 2.7 mt as a result of the court ruling (75FR38030). As of May

2010, CRFS estimates indicate that yelloweye rockfish catch is accruing at a lower rate than projected, in part due to bad weather and the closure of the tractor launch at the high catch site of Shelter Cove in the early months of the season. The California Recreational Fisheries Survey (CRFS) catch through May and projected impacts for the remainder of the year are below the 2.7 mt HG. If either of these harvest guidelines are projected to be attained inseason, CDFG would enact management actions, including closing recreational fisheries, restricting recreational fishery seasons, and/or restricting the depths where the fishery would be allowed to continue. Season and depth restriction diagrams are provided below (Figure C-5) under the No Action Alternative. Projected impacts to modeled species are presented in Table C-11 and Table C-12.

Management Area	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months
Northern	CLOSED				May 15 - Sept 15 <20 fm								4
North-Central North of Pt. Arena	CLOSED				May 15 - Aug 15 <20 fm								3
North-Central South of Pt. Arena	CLOSED					June 13–Oct < 30 fm							4.5
South-Central Monterey	CLOSED				May – Nov 15 < 40 fm								6.5
South-Central Morro Bay	CLOSED				May – Nov 15 < 40 fm								6.5
Southern	CLOSED		Mar –Dec < 60 fm									10	

Figure C-5. Rockfish, cabezon and greenling season and depth restrictions in each management area under the No Action Alternative.

Table C-11. No Action. California recreational projected impacts to overfished species.

Species	Projected Impacts (mt)	HG (mt)
Bocaccio	67.3	N/A
Canary Rockfish	22.9	22.9
Cowcod	0.3	N/A
Widow Rockfish	6.2	N/A
Yelloweye Rockfish	2.7	2.7

Table C-12. No Action. California recreational projected impacts to non-overfished species for 2011-2012.

Species	Projected Impacts (mt)
Black Rockfish	151.0
Blue Rockfish	178.3
Cabazon	23.3
California Scorpionfish	63.8
California Sheephead	31.7
Greenlings	10.5
Lingcod	196.0
Minor Nearshore Rockfish North	7.8
Minor Nearshore Rockfish South	308.6

All divers (boats permitted while diving for rockfish or other closed species during closed periods provided no hook-and-line gear on board or in possession while diving to catch rockfish) and shore-based anglers were exempt from the seasonal closures and depth restrictions for rockfish, greenlings, California scorpionfish, California sheephead, and ocean whitefish.

In the South Region, California scorpionfish was open 12 months: 0-40 fm January-February, 0-60 fm in March-December.

Bag Limits and Size Limits

Under the No Action Alternative, a statewide 10 fish rockfish, cabazon, and greenling bag limit with a sub-bag limit of 2 fish for bocaccio, cabazon and greenlings would be in place. Retention of cowcod, bronzespotted, canary, and yelloweye rockfish was prohibited in 2009-2010 and would also be prohibited under the No Action alternative. The following bag limits would also apply:

- Leopard Shark – 3 fish
- Scorpionfish – 5 fish
- Sheephead – 5 fish
- Soupfin Shark – 1 fish
- Pacific Halibut – 1 fish
- Sanddabs – None
- Petrale Sole – None
- Starry Flounder – None

A daily bag limit of 10 fish of any one species within the 20 finfish maximum bag limit would apply to the remaining species in the groundfish FMP.

The following minimum size limits applied to 2009-2010 California recreational fisheries and would be carried forward under the No Action alternative:

- Lingcod – 24 inches
- Cabazon – 15 inches
- Kelp Greenling – 12 inches
- Leopard Shark – 36 inches
- Scorpionfish – 10 inches
- Sheephead – 12 inches

Area Restriction Alternatives

CDFG evaluated and has available four potential YRCAs which include habitat in both state and Federal waters where high yelloweye encounter rates have been documented. If implemented, YRCAs are anticipated to reduce yelloweye impacts during the open fishing seasons in both the Northern Groundfish Management Area and the North-Central North of Pt. Arena Groundfish Management Area, possibly allowing for a longer fishing season.

The four areas identified for possible use in the 2009-2010 seasons are in the general area of Point St. George, South Reef, Reading Rock, and Point Delgada. The boundaries for these areas and the latitude and longitude coordinates can be found in (50CFR660.385(e)). To date, these YRCAs have not been implemented but would remain available management measures under the No Action Alternative.

C.2 The Council's Final Preferred Alternative

The Council's preferred integrated alternative for overfished species and management measures for the 2011 and 2012 fishing seasons was decided at their June 2010 meeting in Foster City, California. Impacts of the Final Preferred Alternative and preferred management measures by sector for implementation on January 1, 2011 are as follows.

C.2.1 Limited Entry Non-Whiting Trawl

Amendment 20 to the FMP is scheduled to implement a rationalized trawl fishery structure for the limited entry non-whiting trawl fishery on January 1, 2011. Under the Final Preferred Alternative for the non-whiting trawl fishery, considerations were provided for the rationalized trawl fishery along with contingency management measures in the event that trawl rationalization is delayed beyond January 1, 2011.

The Council recommended two-year trawl allocations for several species, which are further detailed in Section 2.3.1.3. This section also defines the trawl allocations that would occur under Amendment 21: Intersector Allocation, given the Council's final preferred ACL alternatives. In the event that Amendments 20 or 21 are not in place January 1, 2011, the same allocations described in Section 2.3.1.3 could be implemented. The difference would be that under a rationalized fishery structure the allocations would be unchanged during the biennium, while under the cumulative trip limit structure the allocation could be modified through routine inseason action.

C.2.1.1 Rationalized Fishery

Two-year management measures for a rationalized fishery include trawl allocations of species not covered under Amendment 21 (Section 2.3.1.3), trip limits for those species that are not managed under individual fishing quotas under Amendment 20, and RCA configurations that applies to vessels harvesting QP with trawl or fixed gear.

Further, the impacts of implementing the harvest specifications decisions on components of Amendment 20, specifically the initial allocation of individual bycatch quota for Pacific halibut, are noted. Management measure implications of Amendment 20 features such as the carry-over

provision and the potential for a mid-water opportunity are also considered. These discussions can be found in Appendix B.

Under a rationalized fishery, individuals will be held accountable for their bycatch; however there is still a risk of exceeding the trawl allocation since overfished species interactions can be unpredictable. As such, the Council expressed the desire to maintain the trawl RCA, which would continue to close the area where encounters with overfished species are considered most likely. The type of gear (i.e., trawl or fixed gear) determines which RCA structure applies (i.e., trawl or non-trawl). As such vessels who harvest IFQ species with trawl gear will be held to the trawl RCA while vessels with fixed gear will be held to the non-trawl RCA. Section 2.4.2.3 describes the seaward non-trawl RCA boundaries and Section 2.4.2.4 describes the shoreward non-trawl RCA boundaries under the Council's Final Preferred Alternative.

The decision on where to set the shoreward and seaward boundaries of the trawl RCA is largely a risk call based on available data that, under a rationalized fishery, is not something that can be evaluated within the trawl model. That is, the bycatch rates that are used in the trawl model (See Appendix A Table A.1 and Appendix B) inform the potential risk of allowing fishing opportunity in certain depths, however the trawl model calculus (e.g., trip limits, assumptions of effort distribution, RCA, etc.) will no longer be applicable under trawl rationalization. The boundaries of the non-trawl RCA are recommended by the Council based on overfished species impacts predicted by the fixed gear models (nearshore and non-nearshore).

In recommending a trawl RCA structure for a rationalized fishery, the Council considered trawl fishery bycatch rate data by depth in order to determine an acceptable level of risk (see Appendix B). The Council-preferred trawl RCA for the rationalized fishery is to set the boundaries as they exist on June 17, 2010, which would be the same structure displayed in Table 2-50 (north of 40°10' N. latitude) and Table 2-51 (south of 40°10' N. latitude). Notable features of this RCA include a modified 200 fm line in the north and a modified 150 fm line in the south during periods 1 and 6. These modified lines are designed to provide access to petrale sole. Under a rationalized trawl fishery, with individual accountability, the risk of exceeding the petrale sole trawl allocation or ACL is lower than under cumulative trip limit management where the fleet is modeled as a whole. As such, under a rationalized fishery structure the modified petrale areas can be accommodated. Under the Final Preferred Alternative, trawl RCA boundaries can be routinely adjusted inseason based upon fishery performance.

Under the Final Preferred Alternative, the Council specified incidental trip limits for species not managed with IFQ for vessels using trawl or fixed gear to harvest IFQ species with a limited entry trawl permit (Table C-13). The purpose of allowing trip limits for these species is to allow incidental catch to be landed and for the fishermen to be paid for those landings. Not having a trip limit would not prevent the fish from being caught. Rather, these species are caught incidentally regardless of whether there is a trip limit in place for them or not. When there is no trip limit, the fish must be discarded (regulatory discard) or forfeited to the state at the time of landing.

The Council recommended that the remaining fish category incidental landing limit for vessels using trawl or fixed gear to harvest IFQ species with a limited entry trawl permit remain unlimited. Should increased landings occur the Council could implement the trip limits analyzed during this biennial cycle process and implement them through routine inseason action (see Appendix B).

Table C-13. Final Preferred Alternative: Incidental trip limits for vessels using trawl or fixed gear to harvest IFQ species with a limited entry permit.

Area	Species	Incidental Landing Limit
N. and S. of 40°10 N lat.	Minor nearshore rockfish & black rockfish	300 pounds/month for periods 1-6
	Cabazon (OR and CA)	50 pounds/month for periods 1-6
	Spiny dogfish	60,000 pounds/month for periods 1-6
	Remaining fish a/	Unlimited
South of 34°27 N lat.	Longspine thornyhead	24,000 pounds/2 months for periods 1-6

a/ Remaining fish includes: longnose skate, big skate, California skate, California scorpionfish, leopard shark, soupfin shark, finescale codling, Pacific rattail (grenadier), ratfish, kelp greenling, shortbelly, cabazon in WA

C.2.1.2 Cumulative Trip Limit Management

For 2011, trip limits and RCA structures can be found in Table C-14; projected species impacts can be found in Table C-15. For 2011, the Final Preferred Alternative has markedly lower trip limits for sablefish in the northern areas, in comparison with the No Action Alternative (14,750 lbs/2 months versus an average of 21,389 lbs/2 months, respectively). This reflects the lower sablefish ACL and trawl allocation for the Final Preferred Alternative compared with the No Action Alternative (2,538 mt versus 2,955 mt, respectively). The Final Preferred Alternative also has much lower petrale sole trip limits coast-wide (4,800 lbs/2 months versus an average of 7,900 lbs/2 months) and somewhat lower trip limits for shortspine thornyheads, which is tied to the lower sablefish limits, since these fish co-occur. The Dover sole trip limits are 33 percent higher (150,000 lbs/2 months vs. 100,000 lbs/2 months in the No Action Alternative), in order to increase utilization of this species and fulfill the much higher ACL and accompanying trawl allocation in the Final Preferred Alternative (22,235 mt vs. 16,093 mt in the No Action Alternative). Since Dover sole also co-occurs with sablefish and thornyheads, the Dover sole trip limits were not increased to fully exploit the trawl allocation for this species, to be precautionary regarding other DTS species, primarily with sablefish, which are constraining, and also shortspine thornyheads, which are projected as exploited to 98 percent of the trawl allocation under this trip limit structure, in the Final Preferred Alternative scenario.

Slope rockfish limits for the Final Preferred Alternative were set at the same levels as the beginning of 2010 (6,000 lbs/2 months), as modeling to these trip limits kept projections of POP and darkblotched rockfish impacts 15 percent to 20 percent below the trawl allocation, while allowing bycatch of other slope species within the trawl allocations. These trip limits could be lowered early in 2011 through routine inseason adjustment if future POP or darkblotched catch levels warrant, and in response to a GAP request for more temporally uniform slope rockfish trip limits structure, assuming that the fishery were managed under trip limits in 2011.

The Final Preferred Alternative for 2011 is nearly the same as Alternative 3 from the June Council meeting, except the trip limits reflect small comparative decreases to sablefish and Dover sole trawl allocations. These deductions represent removals for the at-sea whiting set-asides of 50 mt for sablefish and 5 mt for Dover sole. The at-sea whiting set asides were not included during the runs at the June Council meeting, but were addressed in the final model runs. Another notable

difference between the Final Preferred Alternative and Alternative 3 for 2011 is that the bocaccio allocation is 60 mt in the Final Preferred Alternative, while it is 29.6 mt in Alternative 3.

The Final Preferred Alternative for 2012 has a higher petrale sole ACL and associated trawl allocation than for 2011 (1,055 mt versus 871 mt, respectively). The 2012 Final Preferred Alternative also shows a lower sablefish ACL and associated trawl allocation (2,459 mt) than in 2011 (2,538 mt). The Dover sole allocation remains the same at 22,235 mt for both years.

For 2012, trip limits and RCA structures can be found in Table C-16; projected species impacts can be found in Table C-17. Sablefish trip limits are lowered further, compared with the No Action Alternative, due to a lower ACL, and concomitant decrease to the trawl allocation. Shortspine thornyhead trip limits are also lowered slightly in response to the constraining sablefish ACL. Petrale sole trip limits are markedly higher in 2012 versus 2011 (6,400 lbs/2 months versus 4,800 lbs/2 months). Slope rockfish trip limits are the same for 2012 as 2011. Dover sole trip limits remain the same as 2011. Projected impacts and trip limits for 2012 are largely for comparative purposes to explain impacts of ACLs and trawl allocations in this document, and would be likely to change, due to the latest WCGOP and updated landings data between June 2010 and January 1, 2012.

Table C-14. Final Preferred Alternative: 2011 non-whiting LE trawl cumulative trip limits and RCA boundaries.

2-month period	RCA lines (fm)		2-month cumulative-poundage limits							
	shallow	deep	sable-fish	long-spine	short-spine	Dover sole	petrale sole	arrow-tooth	other flatfish	slope rockfish
N. of 40°10' N lat.										
Large/small footrope limits										
1	75	200	14,750	20,000	17,200	150,000	4,800	150,000	110,000	6,000
2	75	200	14,750	20,000	17,200	150,000	4,800	150,000	110,000	6,000
3	75	150/200	14,750	20,000	17,200	150,000	4,800	150,000	110,000	6,000
4	75	150/200	14,750	20,000	17,200	150,000	4,800	150,000	110,000	6,000
5	75	200	14,750	20,000	17,200	150,000	4,800	150,000	110,000	6,000
6	75	200	14,750	20,000	17,200	150,000	4,800	150,000	110,000	6,000
Selective gear limits										
1	75	200	8,000	5,000	5,000	65,000	4,800	90,000	60,000	
2	75	200	8,000	5,000	5,000	65,000	4,800	90,000	60,000	
3	75	150/200	8,000	5,000	5,000	65,000	4,800	90,000	60,000	
4	75	150/200	8,000	5,000	5,000	65,000	4,800	90,000	60,000	
5	75	200	8,000	5,000	5,000	65,000	4,800	90,000	60,000	
6	75	200	8,000	5,000	5,000	65,000	4,800	90,000	60,000	
38° - 40°10' N lat.										
1	100	200	14,750	20,000	17,200	150,000	4,800	10,000	110,000	15,000
2	100	150	14,750	20,000	17,200	150,000	4,800	10,000	110,000	15,000
3	100	150	14,750	20,000	17,200	150,000	4,800	10,000	110,000	15,000
4	100	150	14,750	20,000	17,200	150,000	4,800	10,000	110,000	15,000
5	100	150	14,750	20,000	17,200	150,000	4,800	10,000	110,000	15,000
6	100	200	14,750	20,000	17,200	150,000	4,800	10,000	110,000	15,000
S. of 38° N lat.										
1	100	200	14,750	20,000	17,200	150,000	4,800	10,000	110,000	55,000
2	100	150	14,750	20,000	17,200	150,000	4,800	10,000	110,000	55,000
3	100	150	14,750	20,000	17,200	150,000	4,800	10,000	110,000	55,000
4	100	150	14,750	20,000	17,200	150,000	4,800	10,000	110,000	55,000
5	100	150	14,750	20,000	17,200	150,000	4,800	10,000	110,000	55,000
6	100	200	14,750	20,000	17,200	150,000	4,800	10,000	110,000	55,000

Table C-15. Final Preferred Alternative: Non-whiting LE trawl target and bycatch species' allocations and projected impacts for 2011.

	Projected Total Catch (mt)			Harvest Allocation (mt)	Proj. - Allocation (mt)	Proj. % of Alloc.
	North of 40°10'	South of 40°10'	Projected Total			
Sablefish	2,181	327	2,509	2,538	-29	98.8%
Longspine	1,091	250	1,341	1,966	-625	68.2%
Shortspine	1,258	142	1,400	1,430	-30	97.9%
Dover sole	15,905	1,805	17,710	22,235	-4,525	79.7%
Arrowtooth	5,509	15	5,524	12,431	-6,907	44.4%
Petrале sole	683	156	839	871	-32	96.3%
English sole	382	76	458	18,654	-18,196	2.5%
Other flatfish	684	186	870	4,193	-3,323	20.7%
Slope Rockfish N	215		215	818	-603	26.3%
Slope Rockfish S		195	195	377	-182	51.8%
Canary	9.2	1.4	10.6	20.0	-9.4	52.9%
POP	90.0	0.2	90.2	107.0	-16.8	84.3%
Darkblotched	151.0	19.2	170.2	240.0	-69.9	70.9%
Widow	6.0	8.8	14.8	235.0	-220.2	6.3%
Bocaccio	1.7	5.5	7.1	60.0	-52.9	11.9%
Yelloweye	0.2	0.0	0.3	0.6	-0.4	41.7%
Cowcod	0.0	0.3	0.3	1.8	-1.5	16.7%

Table C-16. Final Preferred Alternative: 2012 non-whiting LE trawl cumulative trip limits and RCA boundaries.

2-month period	RCA lines (fm)		2-month cumulative-poundage limits							
	shallow	deep	sable-fish	long-spine	short-spine	Dover sole	petrale sole	arrow-tooth	other flatfish	slope rockfish
N. of 40°10' N lat.										
Large/small footrope limits										
1	75	200	14,000	20,000	16,800	150,000	6,400	150,000	110,000	6,000
2	75	200	14,000	20,000	16,800	150,000	6,400	150,000	110,000	6,000
3	75	150/200	14,000	20,000	16,800	150,000	6,400	150,000	110,000	6,000
4	75	150/200	14,000	20,000	16,800	150,000	6,400	150,000	110,000	6,000
5	75	200	14,000	20,000	16,800	150,000	6,400	150,000	110,000	6,000
6	75	200	14,000	20,000	16,800	150,000	6,400	150,000	110,000	6,000
Selective gear limits										
1	75	200	7,500	5,000	5,000	65,000	6,400	90,000	60,000	
2	75	200	7,500	5,000	5,000	65,000	6,400	90,000	60,000	
3	75	150/200	7,500	5,000	5,000	65,000	6,400	90,000	60,000	
4	75	150/200	7,500	5,000	5,000	65,000	6,400	90,000	60,000	
5	75	200	7,500	5,000	5,000	65,000	6,400	90,000	60,000	
6	75	200	7,500	5,000	5,000	65,000	6,400	90,000	60,000	
38° - 40°10' N lat.										
1	100	200	14,000	20,000	16,800	150,000	6,400	10,000	110,000	15,000
2	100	150	14,000	20,000	16,800	150,000	6,400	10,000	110,000	15,000
3	100	150	14,000	20,000	16,800	150,000	6,400	10,000	110,000	15,000
4	100	150	14,000	20,000	16,800	150,000	6,400	10,000	110,000	15,000
5	100	150	14,000	20,000	16,800	150,000	6,400	10,000	110,000	15,000
6	100	200	14,000	20,000	16,800	150,000	6,400	10,000	110,000	15,000
S. of 38° N lat.										
1	100	200	14,000	20,000	16,800	150,000	6,400	10,000	110,000	55,000
2	100	150	14,000	20,000	16,800	150,000	6,400	10,000	110,000	55,000
3	100	150	14,000	20,000	16,800	150,000	6,400	10,000	110,000	55,000
4	100	150	14,000	20,000	16,800	150,000	6,400	10,000	110,000	55,000
5	100	150	14,000	20,000	16,800	150,000	6,400	10,000	110,000	55,000
6	100	200	14,000	20,000	16,800	150,000	6,400	10,000	110,000	55,000

Table C-17. Final Preferred Alternative: Non-whiting LE trawl target and bycatch species' allocations and projected impacts for 2012.

	Projected Total Catch (mt)			Harvest Allocation (mt)	Proj. - Allocation (mt)	Proj. % of Alloc.
	North of 40°10'	South of 40°10'	Projected Total			
Sablefish	2,100	321	2,421	2,458	-37	98.5%
Longspine	1,091	250	1,341	1,914	-573	70.0%
Shortspine	1,235	140	1,374	1,414	-40	97.2%
Dover sole	15,905	1,805	17,710	22,235	-4,525	79.7%
Arrowtooth	5,509	15	5,524	9,462	-3,938	58.4%
Petrale sole	825	192	1,017	1,055	-38	96.4%
English sole	382	76	458	9,533	-9,075	4.8%
Other flatfish	684	186	870	4,193	-3,323	20.7%
Slope Rockfish N	215		215	817	-602	26.3%
Slope Rockfish S		195	195	377	-182	51.8%
Canary	9.2	1.5	10.8	20.0	-9.3	53.8%
POP	89.9	0.2	90.1	107.0	-16.9	84.2%
Darkblotched	151.0	19.2	170.3	238.0	-67.8	71.5%
Widow	6.0	8.8	14.8	235.0	-220.2	6.3%
Bocaccio	1.7	5.7	7.4	60.0	-52.6	12.3%
Yelloweye	0.2	0.0	0.3	0.6	-0.4	41.7%
Cowcod	0.0	0.3	0.3	1.8	-1.5	17.2%

Comparison of Alternatives 1, 2, and 3 (PPA)

Trawl model runs were conducted for three alternatives in the months before the June 2010 Council meeting in order to explore the range of possible ACLs for rebuilding species (including petrale sole, for 2011 and 2012), that was considered appropriate, given the projected fishery impacts, management measures, and revenue impacts that would result from these ACLs. Alternative 1 was the low ACL scenario, Alternative 2 was intermediate, and Alternative 3 was high. Sablefish ACLs and trip limits also varied among the three alternatives.

The three alternatives were modeled for 2011, which is the most realistic time frame within which to compare projected impacts, considering the current trip limits and available data and the largely unpredictable nature of changes which may occur over the next two years. Comparisons are drawn below among the 2011 runs. Comparisons are made between 2011 and 2012 model runs only within Alternative 3 and within the Final Preferred Alternative, for which runs for both years were conducted.

Since the June 2010 Council meeting, there were slight changes to some of the ACLs listed in these alternatives, but they are not of sufficient magnitude to reduce the exploratory and comparative value of the four trawl model runs presented here for the three alternatives explained below.

Alternative 3 is the Council Preliminary Preferred Alternative, which was updated at the Council meeting, and then was adjusted slightly and rerun after the Council meeting to become the Final Preferred Alternative, primarily by lowering sablefish and Dover sole trawl allocations in order to account for the at-sea whiting set asides.

Trip limits vary over the three alternatives, most noticeably for petrale sole and for sablefish. For sablefish, trip limits of accompanying DTS species (e.g. short-spine thornyheads) covary to some extent with the sablefish trip limits, to keep model projections of co-occurring species beneath the trawl allocations. The same can be said of petrale sole and co-occurring flatfish. Effort was made in the later model runs to keep trip limits as temporally uniform as possible for easier understanding of the regulations and compliance with them, as well as easier enforcement.

The RCA structure among Alternatives 1, 2, and 3 is essentially the same. The No Action Alternative, Alternatives 1 and 2 are equal, but in Alternative 3 (the PPA) and the Final Preferred Alternative, the shoreward RCA boundary in period 4 was brought in to 75 fathoms in order to further restrict access to summer petrale sole, along with lower trip limits (Table C-18). As in the trip limits, efforts were made toward a parsimonious RCA structure for the same reasons.

For a full comparison of trawl allocations for target and rebuilding species used in model runs used to explore the range of ACLs and allocations, as well as those in the No Action Alternative and the Final Preferred Alternative, see Table C-18.

Table C-18. LE non-whiting trawl-sector allocation ranges and alternatives; scenarios modeled for trip-limit management in 2011-2012.

Species/Species Group/Area	Range of Non-Whiting Trawl Allocations for 2011 & 2012				
	No Action	Preferred	Low (1)	Mid (2)	High (3)
Sablefish N of 36° N. lat.	2,955	2,538	2,187	2,325	2,588 *
Longspine thornyhead N. of 34 27' N. lat.	2,129	1,966	2,000	2,000	1,971 *
Shortspine thornyhead N. of 34 27' N. lat.	1,567	1,430	1,450	1,450	1,450
Dover sole	16,093	22,235	16,306	16,306	22,240
Arrowtooth flounder	9,755	12,431	14,166	14,166	12,441 *
Petrals sole	1,140	871	337	643	865 *
English sole	9,645	18,654	18,659	18,659	18,659
Other flatfish	4,685	4,193	4,886	4,886	4,213 *
Minor Slope Rockfish N. of 40°10' N lat.	877	818	877	877	872 *
Minor Slope Rockfish S. of 40°10' N lat.	394	377	394	394	377 *
Canary rockfish	21.3	20	8.0	19.3	20.5 *
Pacific ocean Perch	100.8	107	33.8	63.3	100.3 *
Darkblotched rockfish	230	240	175.8	241.5	240.3 *
Widow rockfish	21.6	235	60.8	148.1	235.5
Yelloweye rockfish	0.6	0.6	0.4	0.6	0.6 *
Bocaccio	16.1	60	4.7	11.3	29.6
Cowcod	1.5	1.8	0.9	1.9	1.4

*Note: adjustments were made to the high scenario when it became the Council PPA at the June meeting, which lowered some allocations from their previously run levels. The PPA is substituted for the initial version of Alternative 3 in the interest of brevity and paperwork reduction.

C.2.2 Limited Entry Trawl Whiting

C.2.2.1 Rationalized Fishery

For 2011-2012, the Council adopted new sector specific allocations as determined by Amendment 21 for trawl dominant species and a two year allocation for canary (Table C-19).

C.2.2.2 Bycatch Limit Management

In the event trawl rationalization does not occur on January 1, 2011, the preferred limited entry whiting trawl management measures adopted by the Council include the same management measures as under No Action including sector-specific bycatch limits, the ability for NMFS to restrict the depths whiting vessels fish if necessary to reduce bycatch on a sector-specific basis, full monitoring of all whiting catcher vessels fishing in the RCA during the primary season, a request that NMFS automatically close the non-tribal whiting fishery upon projection of attainment of a bycatch limit rather than waiting until the limit is attained, 100 percent observer coverage for vessels fishing in the RCA during the primary season and sorting their catch at sea (observer coverage to be paid by the vessel owner), and an exemption from the at-sea processing rules for vessels less than 75 ft. in length in the shoreside whiting sector to allow them to freeze and tail their whiting to allow for value-added product delivery. For 2011-2012, the Council adopted new sector specific bycatch limits (Table C-19), which were based on Amendment 21 allocations and a two year allocation for canary.

Table C-19. Final Preferred Alternative. Overfished species allocations by sector considering using Amendment 21 for darkblotched, POP, and widow and the Council's final preferred two year allocation of canary rockfish.

Catcher Processor

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)
Canary	102	107	4.8	5.0
DRK	298	296	9	9
POP	180	183	10	10
Widow	600	600	87	87

Mothership

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)
Canary	105	107	3.4	3.6
DRK	298	296	6	6
POP	180	183	7	7
Widow	600	600	61	61

Shoreside

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)
Canary	102	107	5.9	6.2
DRK	298	296	11	11
POP	180	183	13	13
Widow	600	600	107	107

New management measures include the following trips limits for the shoreside non-treaty whiting fisheries operating north of 40°10' N. latitude:

- Lingcod: 600 lb per calendar month
- Minor slope rockfish, including darkblotched rockfish: 1,000 lb per calendar month
- Pacific ocean perch: 600 lb per calendar month
- Pacific cod: 600 lb per calendar month
- Sablefish: 1,000 lb per calendar month

These limits would be in addition to the current midwater trawl limits specified in Federal regulations (i.e., trip limit table 3) for widow rockfish and yellowtail rockfish north of 40°10' N. latitude. Midwater trawl limits south of 40°10' N. latitude remain unaffected by this recommendation.

C.2.3 Non-Nearshore Fixed Gear

Table C-20 describes the Final Preferred Alternative for the sablefish ACL north of 36° N. latitude, compared to No Action, along with the sablefish allocations for limited entry and open

access. The associated final preferred apportionment of overfished species for the non-nearshore fixed gear sector (open access and limited entry combined) can be found in Table C-21. These final preferred apportionments are the basis by which sharing of overfished species occurs within the non-trawl sector. These are not harvest guidelines, but an amount available to the non-trawl sector for the start of the biennium. As part of routine inseason management, the Council could decrease or increase these apportionments based on updated projections.

Table C-20. Final Preferred Alternative: Sablefish ACL and allocations north of 36° N. latitude compared to No Action (2010).

Species	Fishery	2010 (mt)	2011 (mt)	2012 (mt)
Sablefish N. 36° N. Lat.	OY/ACL	6,471	5,515	5,347
	LE Fixed Gear Allocation	2,140	1,874	1,816
	----LE Fixed Gear Primary	1,819	1,593	1,544
	----LE Fixed Gear Daily Trip Limit	321	281	272
	Open Access	529	463	449

Table C-21. Final Preferred Alternative: Apportionment of the non-trawl allocation of overfished species to the non-nearshore fixed gear sector. No further apportionment exists between limited entry fixed gear and open access DTL.

Species	2011 Apportionment (mt)	2012 Apportionment (mt)
Canary rockfish	2.3	2.3
Yelloweye rockfish	1.3	1.3

Under the Final Preferred Alternative, the seaward non-trawl RCA is defined by management lines specified with waypoints at roughly 100 fm in waters off northern California (north of 40°10' N. latitude) through Oregon and Washington (Figure C-6). The non-trawl RCA south of 40°10' N. latitude under the Final Preferred Alternative is defined by management lines specified with waypoints at roughly 150 fm.

Seaward RCA Boundary	36° - 40° 10'	40°10'- Col/Eur 43°	Col/Eur 43° - Cascade Head 45.064°	Cascade Head 45.064° - Pt. Chehalis 46.888°	North of Pt. Chehalis 46.888°
Shoreward boundary to 100 fm					
100 fm					
125 fm					
150 fm					
>150 fm					

Figure C-6. Final Preferred Alternative. Non-trawl RCA seaward configuration. Grey shading indicates areas closed to fishing.

Under the No Action Alternative, the non-trawl RCA from 43° N. latitude to Cascade Head (45.064° N. latitude) was specified at 125 fm, except on days when the directed halibut fishery is open, when the fishery is then restricted to waters seaward of the 100 fm line. This regulation, which was new in the 2009-2010 cycle, was implemented to reduce yelloweye rockfish impacts by fixed gear fishermen targeting sablefish and other target groundfish. For 2011-2012, the modeled-overfished species impacts by the limited entry and open access fisheries showed that given the lower sablefish ACLs for 2011 and 2012 compared to that under the No Action Alternative (Table C-20), along with the Council's final preferred apportionment of overfished species for the non-nearshore fishery (Table C-21), the 100 fm line could be accommodated.

The Council chose the 100 fm non-trawl RCA boundary as the Final Preferred Alternative to provide greater access to fishing grounds while having no increase of impacts to overfished species relative to the No Action Alternative. Moving the seaward RCA from 43° N. latitude to Cascade Head from 125 to 100 fm opens more fishing areas, may decrease conflicts among fixed gear fishermen, may reduce running time to some fishing grounds (which subsequently decreases expense and improves safety), and may increase sablefish catch rates in some instances. Fixed gear fishermen stressed that much of their productive fishing grounds are between 100 and 125 fm, and that moving the line to 125 fm created negative impacts for the fishery (Agenda Item B.3.b, ODFW Report, June 2010). The GAP reported that sablefish catch in waters shallower than 125 fm during the fall typically yield larger and more valuable sablefish, along with increased catches of lingcod (Agenda Item, B.3.b, Supplemental GAP Report, June 2010). In addition, the GAP noted that fishing shallower would benefit smaller vessels (lack of space for increased gear that is required when fishing in deeper water) and enhance at-sea safety (Agenda Item, B.3.b, Supplemental GAP Report, June 2010). Finally, in some areas (particularly off Washington), the industry pointed out that RCA restrictions that push the fleet further off the coast results in more intense fishing pressure on increasingly less productive fishing grounds in smaller areas (decreased catch rates and increased gear conflicts over time) (Agenda Item B.7.b, Supplemental GAP Report, June 2010).

Under the Final Preferred Alternative, the Council will have the ability to routinely adjust non-trawl RCA configurations inseason for four northern subareas bounded by Cape Mendocino at 40°10' N. latitude, 43° N. latitude, Cascade Head, Pt. Chehalis at 46.888° N. latitude, and the U.S.-Canada border. These adjustments would be used to reduce overfished species impacts, if necessary.

C.2.3.1 Non-Nearshore Limited Entry Fixed Gear

The Council recommended that the No Action Alternative trip limits north and south of 40°10' N. latitude (Table 2-56 and Table 2-57, respectively) be carried forward for the 2011-2012 limited entry fixed gear fisheries, except for the sablefish limits described below.

Limited Entry North of 36° N. latitude

Under the Final Preferred Alternative, the Council recommended higher sablefish cumulative limits, compared to the No Action Alternative, for the limited entry fixed gear daily trip limit fishery as follows:

- Period 1 = 6,500 lbs/2 months
- Period 2 = 7,500 lbs/2 months
- Period 3 = 7,500 lbs/2 months

Period 4 = 7,500 lbs/2 months
 Period 5 = 7,500 lbs/2 months
 Period 6 = 6,000 lbs/2 months

No daily limit is recommended but a weekly limit of not less than 25 percent of the bimonthly limit was included as part of the Council’s Final Preferred Alternative. These limits are intended to allow the limited entry daily trip limit fishery attain their sablefish allocation.

The weekly landing limit of at least 25 percent of the bimonthly limit was recommended, even though the current model showed no significant relationship between weekly landing limits and actual bimonthly landings. It is possible that the weekly limit had some negative-effect to bimonthly landings, even though the effect was not detected. A more complex model will be applied to these data at a later date to better understand the relationship between weekly limits and actual bimonthly landings. In the mean time, dropping the daily limit and substantially increasing the bimonthly limit are major deviations from past management of this fishery. Hence, it is prudent to retain some weekly limit to ensure that landings do not increase unpredictably faster than anticipated.

Weekly landing limits have historically been set at approximately 25 percent of the bimonthly limit. A weekly limit set at 25 percent of the bimonthly limit would require at least four weeks of fishing for vessels to reach the bimonthly limit. Weekly limits should be no lower than 25 percent of the bimonthly limit, because it is likely that weather, breakdowns, and other unforeseen circumstances may prevent vessels from fishing.

The planned bimonthly landing limit is not constant. Hence, to simplify management, a constant weekly limit should be set at 1,900 lbs/week. This weekly limit represents 25 percent – 33 percent of the bimonthly landing limits set for 2011.

Impacts under the Final Preferred Alternative for limited entry fixed gear north of 36° N. latitude are displayed in Table C-22.

Table C-22. Final Preferred Alternative. Limited entry fixed gear impacts north of 36° N. latitude.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	1.9	1.8
Darkblotched rockfish	3.5	3.4
Pacific ocean perch	0.3	0.3
Widow rockfish	0.1	0.1
Yelloweye rockfish	0.8	0.7

Limited Entry South of 36° N. latitude

In order to attain the sablefish ACL south of 36° N. latitude, the Council recommended sablefish trip limits in the Conception Area that are higher than the No Action limits. For limited entry, the Council recommended no daily limit, 2,000 pounds per week with no bi-monthly limit. Analysis of this trip limit is provided in Appendix A.

A recent WCGOP report indicates that there are trace (i.e., less than 0.1 mt) overfished species interactions in the area south of 36° N. latitude. As such action, the Final Preferred Alternative for the non-nearshore fisheries south of 36° N. latitude is not anticipated to result in appreciable overfished species impacts.

C.2.3.2 Non-Nearshore Open Access Fixed Gear

Routine management measures such as alternative trip limits and non-trawl RCA adjustments are included in the Council’s Final Preferred Alternative for the non-nearshore open access fisheries. The same seaward non-trawl RCA adjustment alternatives described above would also apply to the non-nearshore open access sector (Figure C-6). Adjustments of the seaward non-trawl RCA boundary in the north largely affect sablefish targeting in the daily-trip-limit fishery, but also affect targeting opportunities on slope rockfish, spiny dogfish, shortspine thornyhead, and Pacific halibut. The Council recommended that the No Action Alternative trip limits north and south of 40 10 N. latitude (Table 2-58 and Table 2-59) be carried forward for the 2011-2012 open access fixed gear fisheries, except for the sablefish limits south of 36° N. latitude, described below.

Open Access Sablefish DTL north of 36° N. latitude

Impacts under the Final Preferred Alternative for open access fixed gear fisheries north of 36° N. latitude are displayed in Table C-23.

Table C-23. Final Preferred Alternative: Open access fixed gear north of 36° N. latitude projected impacts to overfished species.

Species	2011-2012 Impacts (mt)
Bocaccio	0.0
Canary rockfish	0.3
Darkblotched rockfish	0.8
Pacific ocean perch	0.1
Widow rockfish	0.0
Yelloweye rockfish	0.1

Open Access South of 36° N. latitude

The Council recommended higher sablefish DTL limits, compared to the No Action Alternative, for Conception area open access fisheries in order to achieve the Conception Area sablefish ACL. For open access, the Council recommended 400 pounds per day or one weekly landing of up to 1,500 pounds not to exceed 6,000 pounds in 2 months. Analysis of this trip limit is provided in Appendix A.

A recent WCGOP report indicates that there are limited (i.e., less than 0.1 mt) overfished species interactions in the area south of 36° N. latitude. As such action, the Final Preferred Alternative is not anticipated to result in any appreciable overfished species impacts.

C.2.4 Nearshore Fixed Gear

Under the Final Preferred Alternative, the nearshore fishery is modeled using finer area stratifications and average landings for Oregon and California. As discussed in Appendix A, overfished species impact projections were stratified into three areas: (1) north of 42° N lat; (2) between 42° and 40°10' N lat; and (3) south of 40°10' N lat. Instead of using a single previous year landings data, average landings based on 2007-2009 for Oregon and 2006-2008 for California were used to project target species catch and overfished species impacts (Table C-25). In previous years, overfished species impacts in the nearshore fishery were modeled for the area north of 40°10' N lat and south of 40°10' N lat. Overfished species impacts could not be attributed to an individual state and both states “co-managed” this area to ensure that the fishery stayed within the allowable overfished species impacts. The finer area stratification under the Final Preferred Alternative provides an opportunity for California and Oregon to independently manage their nearshore fisheries since overfished species impacts could be estimated for each state.

The Final Preferred Alternative maintains the No Action RCA restrictions for the nearshore fishery (30 fm north of 43° N; 20 fm between 43° N and 40° 10' N. latitude; 30 fm between 40° 10' N. latitude and 34° 27' N. latitude; 60 fm south 34° 27' N. latitude) (Figure C-7).

At the June 2010 Council meeting, the GAP statement and public testimony spoke to the hardship faced by the nearshore community under the restrictive yelloweye harvest amounts (Agenda Item B.7.b. Supplemental GAP Report and Agenda Item B.5.c. Public Comment). Although the Final Preferred Alternative is less restrictive than other analyzed alternatives, the nearshore fishery will continue to be constrained in Oregon and California due to the low yelloweye apportionment of the non-trawl allocation (Table C-24). Since the nearshore fishery is not modeled on full attainment of nearshore species ACLs, this fishery will continue to be held to reduced levels, resulting in lost economic opportunities. Under the Final Preferred Alternative, neither Oregon nor California will be able to maintain opportunities similar to 2009-2010. Modeled projected species impacts under this alternative are summarized by area in Table C-27.

Table C-24. Alternatives Comparison. Nearshore apportionment of the non-trawl allocation for canary and yelloweye rockfish for 2011/2012.

	No Action (mt)	Final Preferred (mt)	Alt 1 (mt)	Alt 2 (mt)	Alt 3 (mt)
Canary	3.6	4.0	1.4	3.1/3.3	3.5/ 3.7
Yelloweye	1.1	1.1	0.4	0.7	0.9

Table C-25. Previous years' nearshore landings by species and year for each modeled area.

Species	Year and MT landed			
	2006	2007	2008	2009
OREGON				
Black rockfish	92.9	101.1	98.3	130.5
Blue rockfish	4.7	4.2	2.7	2.8
Minor nearshore rockfishes	8.1	8.4	10.7	11.3
Cabazon	22.0	21.9	24.7	29.8
Kelp greenling	14.5	18.3	21.9	20.6
Lingcod	43.6	49.4	57.3	44.2
CALIFORNIA - 40°10' to 42° N lat				
Black rockfish	58.2	79.5	80.9	89.1
Blue rockfish	10.4	6.9	21.8	2.5
Other minor nearshore rockfishes	7.4	11.3	10.3	2.3
Cabazon	2.6	3.0	2.4	1.8
Kelp greenling	0.2	0.3	0.3	0.3
Lingcod	12.1	15.5	17.0	8.1
CALIFORNIA - South of 40°10'N lat				
Black rockfish	3.4	4.0	2.2	4.0
Blue rockfish	8.6	6.5	5.4	2.6
Shallow nearshore rockfishes	46.6	52.3	55.0	47.3
Deeper nearshore rockfishes	28.1	28.7	29.3	27.4
Cabazon	25.6	22.4	20.8	15.5
Kelp greenling	1.4	1.2	1.1	1.1
Lingcod	24.0	20.9	19.2	15.7

Table C-26. Final Preferred Alternative. Nearshore fishery projected total catch by area for 2011-2012.

Area	Projected Total Catch (mt) 2011/12
Grand Total	525
Black rockfish	203
Blue rockfish	20
Cabazon	95
Deeper nearshore RF	29
Kelp greenling	21
Lingcod	86
Other minor RF	20
Shallow nearshore RF	51
North of 42° N. lat.	218
Black rockfish	110
Blue rockfish	3
Cabazon	25
Kelp greenling	20
Lingcod	50
Other minor nearshore rockfish	10
42° - 40°10' N. lat.	132
Black rockfish	90
Blue rockfish	10
Cabazon	7
Kelp greenling	0
Lingcod	15
Other minor nearshore rockfish	10
South of 40°10' N. lat.	175
Black rockfish	3
Blue rockfish	7
Cabazon	63
Deeper nearshore rockfish	29
Kelp greenling	1
Lingcod	21
Shallow nearshore rockfish	51

Shoreward RCA Boundary	South of 34°27'	34°27' - 40°10'	40°10' - 42°	42° - Col/Eur 43°	Col/Eur 43° - 46°16'	North of 46°16'
Shoreward RCA Boundary						
20 fm						
30 fm						
60 fm						

Figure C-7 Final Preferred Alternative: Nearshore shoreward RCA configuration. Grey shading indicates areas closed to fishing in 2011-2012.

Table C-27. Final Preferred Alternative: Nearshore overfished species bycatch projections for 2011-2012.

Species	Area	Projected Total Impacts (mt) 2011/12
Bocaccio		0.3
	OR: North of 42	0.0
	CA: 42° - 40°10	0.0
	CA: South of 40°10	0.3
Canary		3.0
	OR: North of 42	0.8
	CA: 42° - 40°10	0.8
	CA: South of 40°10	1.4
Widow		0.3
	OR: North of 42	0.0
	CA: 42° - 40°10	0.2
	CA: South of 40°10	0.0
Yelloweye		1.1
	OR: North of 42	0.8
	CA: 42° - 40°10	0.2
	CA: South of 40°10	0.1

C.2.5 Washington Recreational

Under the Final Preferred Alternative, Washington would allow for a year-round groundfish season with lingcod seasons that are the same as the No Action Alternative. The aggregate bottomfish limit would be reduced from 15 to 12 and would include a cabezon sub limit of two fish per angler per day in addition to the sub limits for rockfish (10) and lingcod (two). Management measures in Marine Areas 3 and 4 would continue to restrict the groundfish fishery to waters shallower than 20 fathoms as is in place under the No Action Alternative but would be in place starting June 1 instead of May 21, through September 30. This is consistent with the original intent to have the depth restriction apply after the halibut season which used to begin on

May 1 but has shifted to mid May in recent years. In Marine Area 2, groundfish fishing would continue to be prohibited in waters seaward of 30 fathoms from May 15 through June 15. Status quo provisions that allow for Pacific cod and sablefish retention from May 1 through June and lingcod on days that the primary halibut season is open (7 days in 2010, and expected to be similar in 2011 and 2012) and the prohibition to fish for or retain lingcod south of 46°58' N. latitude on Fridays and Saturdays seaward of 30 fathoms which are in place under the No Action Alternative would continue to be in place under this alternative. Under the Final Preferred Alternative rockfish retention would be allowed from May 15 through June 15 as encounters of overfished rockfish do not typically occur when anglers target rockfish in this area.

Groundfish Seasons and Bag Limits

Under the Final Preferred Alternative, the Washington recreational fishery would be open year-round except for lingcod. The aggregate groundfish bag limit would be reduced from 15 to 12 fish per angler per day. The aggregate groundfish bag limit would continue to include sub limits for rockfish (10 per angler per day) and lingcod (two per angler per day) but a new sub limit of two cabezon per angler per day would be added for 2011 and 2012.

Lingcod Seasons and Size Limits

Under the Final Preferred Alternative, the following lingcod seasons and size limits would apply in 2011 and 2012:

- Marine Areas 1-3 (from the Oregon/Washington border at 46°16' N. latitude north to Cape Alava at 48°10' N. latitude): open from March 12 through October 15 in 2011 and March 17 through October 13 in 2012.
- Marine Area 4 (Cape Alava to the US/Canadian border): open from April 16 to October 15 in 2011 and April 16 to October 13 in 2012.
- The lingcod minimum size limit during the open lingcod season would be 22 inches in Marine Areas 1-3 and 24 inches in Marine Area 4.

Area Restrictions

The Washington recreational groundfish and Pacific halibut fisheries would be prohibited from fishing for, retention or possession of groundfish and halibut in the C-shaped yelloweye rockfish conservation area in the north coast and South Coast and Westport YRCAs in the south coast as they were in the 2009 and 2010 seasons.

Table C-28. Final Preferred Alternative. Washington groundfish fishery season.

Marine Area	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
3 & 4 (N. Coast)	Open all depths					Open <20 fm June 1-Sep 30 a/				Open all depths		
2 (S. Coast)	Open all depths		Open <30 fm Mar 15 - June 15 b/, c/, d			Open all depths except lingcod prohibited on Fri. and Sat. >30 fm e/			Open all depths			
1 (Col. R.)	Open all depths				Open all depths f/					Open all depths		
a/ Groundfish retention allowed >20 fm on days when Pacific halibut is open. b/ Retention of sablefish and Pacific cod allowed seaward of 30 fm from May 1- June 15. c/ Retention of rockfish allowed seaward of 30 fm. d/ Retention of lingcod allowed seaward of 30 fm on days that the primary halibut season is open. e/ Retention of lingcod prohibited >30 fm, south of 46°58' on Fri. and Sat. from July 1 – August 31. f/ Retention of groundfish, except sablefish and Pacific cod, prohibited with Pacific halibut on board.												

North Coast (Marine Areas 3 and 4)

Prohibit the retention of groundfish seaward of a line approximating 20 fathoms from June 1-September 30, except on days that halibut fishing is open.

South Coast (Marine Area 2)

Groundfish retention, except rockfish would be prohibited seaward of 30 fathoms from March 15 through June 15. Sablefish and Pacific cod retention would be allowed in this area from May 1 through June 15. On days that the primary halibut season is open, lingcod may be retained throughout Marine Area 2. Retention of lingcod would be prohibited south of 46 deg. 58' and seaward of 30 fathoms on Fridays and Saturdays from July 1 through August 31. Fishing for, retention and possession of groundfish would be prohibited at all times in the South Coast YRCA and Westport Offshore YRCA.

Columbia River (Marine Area 1)

Prohibit the retention of groundfish, except sablefish and Pacific cod, with halibut onboard from May 1 through September 30.

Table C-29. Final Preferred Alternative. Washington recreational harvest guidelines and projected impacts.

Species	Projected Impacts (mt)	Harvest Guidelines (mt) 2011/2012
Canary	0.7	2.0
Yelloweye	2.5	2.6 / 2.6
Black rockfish	186.7	N/A
Minor nearshore rockfish	6.1	N/A

C.2.6 Oregon Recreational

The season structures and depth restrictions adopted as the Final Preferred Alternative for the Oregon recreational groundfish fishery in 2011 and 2012 are found in Figure C-8 . Impacts under

the Final Preferred are in Table C-30. Details and rationale concerning the management measures associated with the Final Preferred Alternative are detailed below.

Season structure

Under the Final Preferred Alternative, the Oregon recreational groundfish fishery will be open offshore year-round, except from April 1 to September 30 when fishing is only allowed shoreward of 40 fm (Figure C-8). Closing the fishery outside of 40 fm from April 1 to September 30, months where yelloweye rockfish harvest is highest, mitigate the impacts to depleted yelloweye rockfish. The shorebased fishery will be open year-round as depleted yelloweye rockfish are not impacted.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bottomfish Season	Open all depths			Open < 40 fm						Open all depths		
Marine Bag Limit ¹	Ten (10)			1 Fish Cabezon Sub-Bag ²						Ten (10)		
Lingcod Bag Limit	Three (3)											
Flatfish Bag Limit ³	Twenty Five (25)											

- 1 Marine bag limit includes all species other than lingcod, salmon, steelhead, Pacific halibut, flatfish, surfperch, sturgeon, striped bass, pelagic tuna and mackerel species, and bait fish such as herring, anchovy, sardine, and smelt
- 2 From April 1 through September 30, the marine bag limit is Ten (10) fish per day, of which no more than one (1) may be cabezon.
- 3 Flounders, soles, sanddabs, turbot and halibuts except Pacific halibut

Figure C-8. Final Preferred Alternative. Oregon recreational groundfish season in 2011-12.

Table C-30. Final Preferred Alternative. Oregon recreational projected impacts for modeled species for 2011-2012.

Species	Projected Impacts (mt)	HG (mt)
Canary Rockfish	2.4	7.0
Yelloweye Rockfish	2.1	2.4
Black Rockfish	330.5	N/A
Blue Rockfish	20.4	N/A
Other Nearshore Rockfish a/	12.7	N/A
Greenling (Kelp and Rock)	4.6	N/A

a/ Other Nearshore Rockfish includes: brown, china, copper, grass, and quillback rockfish

Bag limits

A marine fish daily-bag-limit of ten fish in aggregate was adopted under the Final Preferred Alternative. The marine fish daily-bag-limit includes all species other than lingcod, salmon, steelhead, Pacific halibut, flatfish, surfperch, sturgeon, striped bass, pelagic tuna and mackerel species, and bait fish such as herring, anchovy, sardine and smelt. This daily-bag-limit provides the flexibility to make necessary adjustments through the yearly state process, reflecting the progression of the current year's fishery. The state process will likely reduce the marine fish daily-bag-limit from ten fish in aggregate to manage the harvest of "other nearshore" rockfish

complex within the recreational fishery state ocean boat landing cap which is adopted in the yearly state process. Reducing the marine fish daily-bag-limit will also affect black rockfish harvest rates and may prevent the fishery from harvesting its total allocation. The status of black rockfish was assessed in 2007 as healthy. The final preferred ACL for 2011-2012 is 1,000 mt for the area off Oregon and California with an Oregon harvest guideline of 580 mt, which is the same as in 2009-2010. Assuming the recreational share continues to be seventy-six percent as determined through the state process, the harvest guideline for black rockfish would be 440.8 mt. Reductions in the marine fish daily bag limit is not expected to reduce yelloweye rockfish impacts, as data showed little difference in trip hours under 10, 8, 6, or 5 fish bag limits.

A cabezon seasonal sub-bag limit of one fish, concurrent with the seasonal depth restrictions was adopted under the Final Preferred Alternative. This seasonal sub-bag limit will reduce cabezon impacts, while still allowing for at least some retention year round. The sub-bag limit occurring during the same months (April 1 through September 30) as the seasonal depth restrictions simplifies regulations.

A lingcod daily-bag-limit of three fish was adopted under the Final Preferred Alternative. This daily bag-limit provides the flexibility to make necessary adjustments through the yearly state process, reflecting the progression of the current year's fishery. The state process will likely reduce the lingcod bag limit to two fish for the opening of the 2011 season. In the event the Pacific halibut catch allocation is reduced significantly from 2010 levels or the marine bag limit is further reduced inseason, the lingcod daily bag limit could be increased to three fish so long as the harvest guidelines for depleted yelloweye rockfish and canary rockfish are not exceeded.

A flatfish daily-bag-limit of 25 fish in aggregate was approved under the Final Preferred Alternative and is consistent with the status quo management measures effective since 2007. The flatfish daily-bag limit consists of all soles and flounders except Pacific halibut. Adoption of the flatfish daily-bag-limit of 25 fish in aggregate promotes simplicity in regulations and provides the flexibility to create additional regulations specific to flatfish (i.e. allowed retention of flatfish in the Pacific halibut fishery, or allowed targeting of flatfish in the event of a closure due to rockfish harvest guideline attainment).

Shared Harvest Guidelines

Previously, the Final Preferred Alternative included shared recreational fishery harvest guidelines for yelloweye rockfish and canary rockfish between Oregon and Washington. The Final Preferred Alternative for 2011-2012 removed the shared harvest guidelines for canary and yelloweye rockfish, each state now has a specified harvest guideline for its recreational fisheries. The Oregon harvest guideline is 2.4 mt for yelloweye and 7.0 mt for canary for 2011-2012.

Minimum Length Limits

The Final Preferred Alternative includes minimum length limits:

- lingcod – 22 inches
- cabezon – 16 inches
- kelp greenling – 10 inches

This management measure is consistent with the status quo management measures effective in 2007-2008 and 2009-2010. These length limits are effective tools in reducing harvest of these species, primarily in the shore and estuary fishery.

Area Closures

Under the Final Preferred Alternative, targeting and retaining groundfish and Pacific halibut will be prohibited year-round in the Stonewall Bank Yelloweye Rockfish Conservation Area (YRCA), a high relief rocky habitat residing approximately 15 miles offshore from Newport, Oregon (Figure C-9). Targeting and retaining Pacific halibut and groundfish within the Stonewall Bank was prohibited to reduce yelloweye rockfish impacts attributed to those fisheries.

Two other alternative Stonewall Bank YRCA closure areas (Figure C-17) were not adopted under the Final Preferred Alternative because the extent of yelloweye rockfish incidental catch in the expanded area(s) has not been determined. Public comment expressed concern over enlargement of the YRCA as the present size is already very disruptive to the groundfish and halibut fishery out of Newport. Concern was expressed that if the YRCA area is increased, the potential may be lost for future opportunity to target healthy species such as yellowtail rockfish in the event that gear is developed to allow a targeted fishery, while avoiding yelloweye rockfish encounters.

Groundfish Retention in the All-Depth Pacific Halibut Fishery

Since 2009, only sablefish and Pacific cod may be retained in the Pacific halibut fishery at any depth in the area north of Humbug Mountain, Oregon. It is expected that groundfish retention in the all-depth Pacific halibut fishery will be similarly constrained in 2011 and 2012.

Inseason Management Tools

Oregon has a responsive port based monitoring program through their Ocean Recreational Boat Survey (ORBS) and regulatory processes in place to track harvest and take actions inseason if necessary. The following are suggested management measures that could be implemented inseason if the 2011 (or 2012) fishery does not proceed as expected.

Inseason management action may be implemented in 2011 or 2012 to reduce the impacts of the Oregon recreational groundfish fishery. Inseason management tools, designed to mitigate impacts, include bag limit adjustments (including non retention), length limit adjustments, gear restrictions, and season, days per week, depth, and area closures.

Season, depth, days open per week, and area closures are the primary inseason tools for limiting yelloweye rockfish and canary rockfish impacts, since retention of this species is prohibited. If catch rates indicate that the harvest targets for yelloweye rockfish will be reached prematurely, offshore depth closures may be implemented inseason at 30, 25, or 20 fm as these two species are less abundant nearshore and release survival rates are higher in shallow waters. Additionally, days per week may also be closed to reduced impacts. ODFW will monitor inseason progress toward recreational harvest targets for canary rockfish and yelloweye rockfish. Regulations will depend upon the timing of the determination for their need.

Adjustments to the marine fish daily-bag limit to no more than 10 fish may be implemented to achieve season duration goals in the event of accelerated or decelerated black rockfish or other nearshore rockfish harvest. The lingcod daily bag limits may be adjusted to no more than 3 fish in the event the marine bag limit changes or the halibut catch limit is reduced from 2010 levels. Season and/or area closures may also be considered if harvest targets are projected to be attained. Closing one or more days per week is an inseason tool that could be used to limit impacts for any

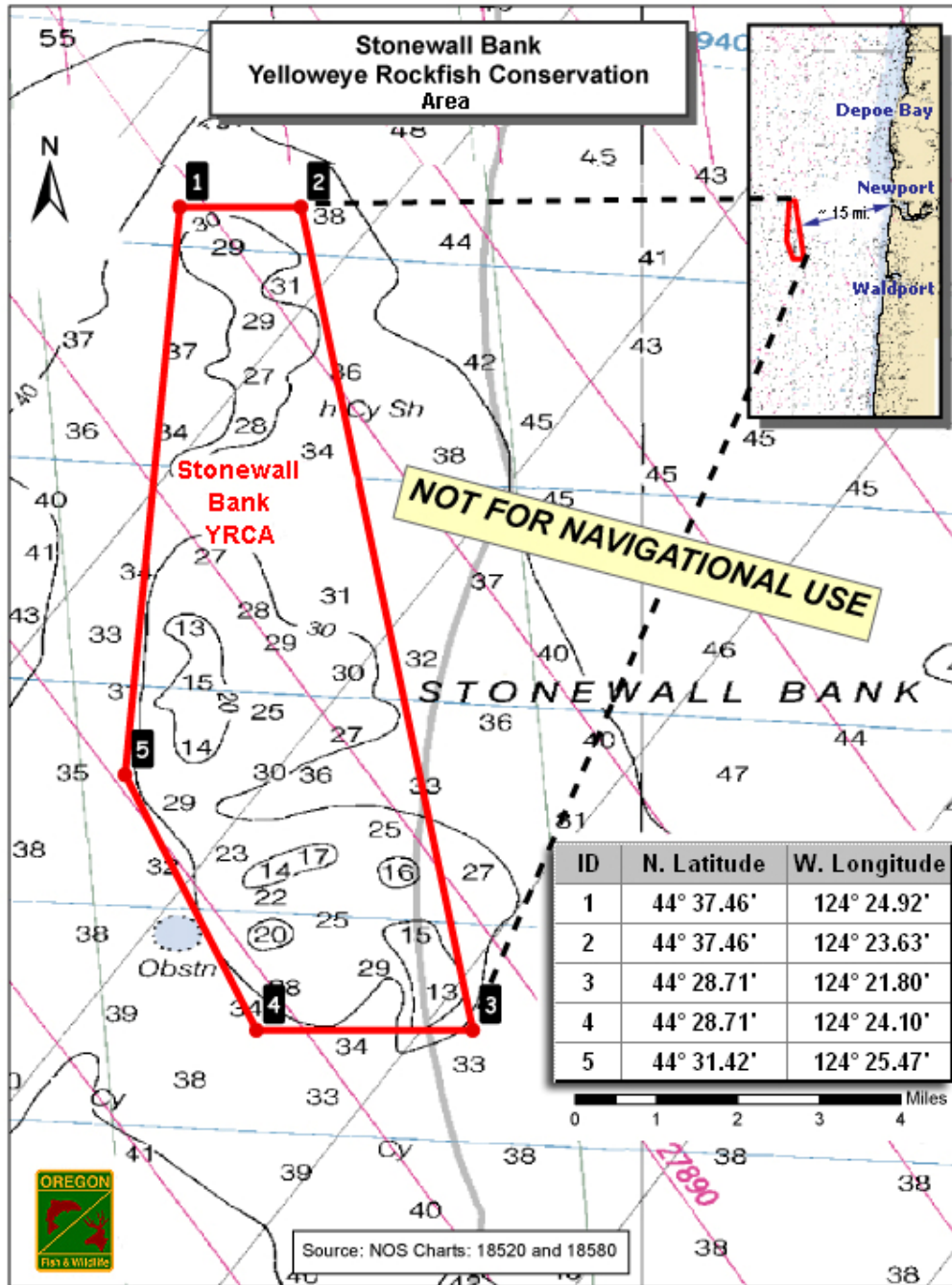
managed species. Closing certain days each week would help lengthen the duration of a fishery approaching a harvest guideline.

Non-retention and length restrictions are the likely inseason tools to use for cabezon and greenling as release survival is very high. They may also be used to reduce impacts on nearshore species, such as black rockfish and other nearshore rockfish species.

Gear restrictions and/or release technique requirements may be implemented to reduce the impact of depleted rockfish species if successful techniques are developed, researched, reviewed, and accepted. Research in this area is currently being conducted and will continue into 2011-2012, testing the effectiveness and selectivity of various gears and the survivability of rockfish released at depth.

Directed flatfish fisheries may be implemented inseason, as were implemented in 2004, in the event of a closure of the recreational groundfish fishery due to attainment federal or state harvest guidelines or targets. Specific gear restrictions may be implemented in the event that flatfish fisheries remain open during a groundfish closure. Directed flatfish fisheries would be legal year round and open shoreward of 40 fm during any period the groundfish fishery has any depth restrictions (i.e. 40, 30, 25, and 20 fathom lines). The flatfish fishery would not have any depth restrictions when the groundfish fishery has no depth restrictions. Fisheries will be monitored to ensure that impacts to yelloweye and canary rockfish are within the harvest targets/guidelines.

In the event that the duration of total season is reduced from 12 months; the nearshore waters are closed to groundfish fishing due to management of nearshore species; or the Pacific halibut catch limit is reduced from 2010 levels, the fishery may be expanded to waters seaward of the RCA that is in effect at the time, promoting directed yellowtail rockfish and offshore lingcod opportunity. Fisheries will be monitored to ensure that impacts to yelloweye rockfish and canary rockfish are not in excess of the harvest targets/guidelines.



ODFW, 05/22/06. Reprinted 12/12/06

Figure C-9. The Stonewall Bank Yelloweye Rockfish Conservation Area where recreational fishing for groundfish and Pacific halibut is prohibited. Under the No Action Alternative, the area would remain closed.

C.2.7 California Recreational

Season structure and depth restrictions adopted as the Final Preferred Alternative for the California recreational groundfish fishery in 2011 and 2012 are found in Figure C-10. The harvest guidelines and projected impacts under the Final Preferred Alternative can be found in Table C-31 and Table C-32. Table C-33 compares the season structures across the alternatives analyzed. Details and rationale concerning the management measures associated with the Final Preferred Alternative are detailed below.

Under the final preferred yelloweye rockfish ACL, the California recreational harvest guideline is 3.1 mt (Table C-31). This will allow the North-Central North of Point Arena to maintain the No Action Alternative season structure, which is a 3-month fishing season at 20 fms from the first Saturday in May to August 15. The season structure has been reduced since 2000 in the North-Central North of Point Arena Management Area and since 2005 in the Northern Management areas. Under the Final Preferred Alternative, the season opening date in the Northern and North-Central North of Point Arena would be the second Saturday in May, which is May 14 in 2011 and May 12 in 2012.

At its April 2010 meeting, the Council adopted a preliminary preferred yelloweye rockfish harvest guideline for California recreational fisheries of 2.6 mt under the 17 mt ACL. Under this scenario, the season length in the North-Central North of Point Arena would have been reduced by 2 weeks relative to No Action, which is a 17 percent reduction. The time period lost in the 2 week reduction has the highest effort and profit potential as this is the prime camping and fishing season. As such, the Council recommended the higher, 3.1 mt yelloweye harvest guideline, in order to provide for the status quo season length in the North-Central North of Point Arena. This is expected to result in increased opening weekend business, benefiting local communities.

The final preferred canary rockfish ACL and California recreational harvest guideline of 14.5 mt will provide a buffer between the projected impacts and the harvest guideline to prevent the harvest guideline from being exceeded due to variability in the estimated catch of canary rockfish due to effort shifts, good weather or recruitment. Though the canary rockfish projected impacts under the proposed action are far below the HG, the annual catches of canary rockfish in the recreational fishery can vary greatly between years. Maintaining at least a 5 mt buffer between the projected impacts and the HG will help prevent the need for inseason action to close the fishery before the scheduled date. Inseason closures are disruptive to the reservation plans of charter vessels, the business plans of tackle shops, and the vacation plans of anglers.

Modifying the depth restriction in the CCA from the status quo boundary of 20 fm to 30 fm and allowing retention of shelf rockfish within the open waters of the CCA is not expected to appreciably increase cowcod bycatch, since they are predominantly found in waters deeper than 60 fm (see Appendix B). At the June 2010 Council meeting 0.9 mt of cowcod out of the 4 mt ACL for 2011 was allocated to the non-trawl fishery including the recreational fishery. Since only de minimis take of cowcod has been observed in the non-trawl commercial fisheries, with less than a tenth of a mt estimated to have been taken in the last five years. A residual of nearly 0.7 mt is anticipated to be available to accommodate an unanticipated increase in impacts from the proposed action. In the event that the 0.9 mt non-trawl allocation is exceeded, there is a 1 mt portion of the ACL that was not allocated. This represents a one mt management uncertainty buffer between the three mt de-facto ACT for cowcod proscribed to sectors of the fishery and the four mt ACL. The catch of cowcod is tracked inseason with a one week lag in the California recreational fishery, using the number of sampled cowcod to date in the current season and the relationship between the cumulative sampled catch and estimated catch from past seasons. In the

event that catch does accrue inseason at a rate greater than projected by the RecFISH model that would cause the 0.9 mt non-trawl allocation to be exceeded, action can be taken inseason to close the fishery before the ACL is reached.

The recreational portion of the non-trawl allocation of bocaccio is 131 mt, which will accommodate any potential increase in bocaccio impacts in the recreational fishery as a result of allowing retention of shelf rockfish within the 30 fm depth restriction in the CCA. The projected bocaccio impacts of 56.4 mt in the California recreational fishery will result in a 74.6 mt residual between the projected impacts and the apportionment providing a buffer against management uncertainty.

The reduced catches of minor nearshore rockfish south and blue rockfish in the 2008 and 2009 seasons resulted in reduced projected impacts. In 2011-2012 there is a higher minor rockfish south ACL compared to No Action. These changes will allow a one-and-a-half month increase in the fishing season in the South-Central Management Area and a two-and-a-half month increase in the North-Central South of Point Arena Management Area, allowing fishing through December. The extended season length relative to the No Action Alternative will result in a negligible increase in overfished species impacts. The increase in fishing opportunity compared with the No Action Alternative will provide much needed economic opportunity in the respective areas during a critical time in November and December when the crabbing season complements the groundfish season to provide much needed holiday income.

In total, the proposed season and depth restrictions represent an additional seven months of fishing season statewide compared to the No Action Alternative, while maintaining the 3-month fishing season in the North-Central North of Point Arena Management Area. While this represents an increase in opportunity compared to No Action, it still represents limited fishing opportunity compared to a year-round fishing season and deeper depth restrictions which had been in place in California prior to 2001.

Summary of New Management Measures for California in 2011-2012

- Combine the Monterey South-Central and Morro Bay-South Central recreational management areas
- Add a management line at Cape Vizcaino (39° 44' N. latitude)
- Revise the naming convention for the California recreational management areas
- Eliminate the 10 fathom depth closure around the Farallon Islands and Noonday Rock
- Set California scorpionfish (sculpin) depth restriction in the Southern Management Area to 60 fm when scorpionfish is open
- Modify cabezon and kelp greenling gear restrictions to be consistent with rockfish regulations (one rod with no more than two hooks)
- Increase the cabezon bag limit to three fish statewide
- Align lingcod seasons in the California recreational fishery for all fishing modes, consistent with those for rockfish in each management area
- Decrease the lingcod size limit to 22 inches statewide; this includes a 14 inch fillet length requirement
- Increase the recreational depth restriction in the CCA from 20 fm to 30 fm according to RCA lines proposed for the CCA
- Modify the list of groundfish species allowed to be taken recreationally in the CCA to include shelf rockfish

Management Area	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months
Northern a/	CLOSED				May 15 - Oct <20 fm							5.5	
North-Central North of Pt. Arena a/	CLOSED				May 15 - Aug 15 <20 fm							3	
North-Central South of Pt. Arena	CLOSED				June–Dec < 30 fm							7	
South-Central Monterey	CLOSED				May – Dec < 40 fm							8	
South-Central Morro Bay	CLOSED				May – Dec < 40 fm							8	
Southern	CLOSED		Mar – Dec < 60 fm									10	

a/ The season opening date in the Northern and North-Central North of Point Arena would be the second Saturday in May, which is May 14 in 2011 and May 12 in 2012.

Figure C-10. Final Preferred Alternative: California recreational rockfish, cabezon and greenling season structure by management area for 2011-2012.

Table C-31. Final Preferred: California recreational harvest guidelines and projected impacts for 2011-2012.

Species	2011 HG or Apportionment (mt) a/	2011 HG or Apportionment (mt) a/	Projected Impacts (mt)
Bocaccio	131.0	131.0	55.4
Cowcod	0.9	0.9	0.17
Canary Rockfish	14.5 (HG)	14.5 (HG)	9.5
Yelloweye Rockfish	3.1 (HG)	3.1 (HG)	3.1
Widow Rockfish	NA	NA	8.7

a/ Values for canary and yelloweye rockfish reflect the HG for 2011-2012. The values for bocaccio and widow reflect the recreational portion of the non-trawl allocation. The value for cowcod represents the non-trawl allocation for cowcod, which is shared between fixed gear commercial and California recreational.

Table C-32. Final Preferred Alternative: Projected impacts to non-overfished species in the California recreational fishery for 2011-2012.

Species	Projected Impacts (mt)
Black Rockfish	170.9
Blue Rockfish	200.3
Cabezon	33.9
California Scorpionfish	77.0
California Sheephead	31.7
Greenlings	12.0
Lingcod	321.2
Minor Nearshore North	11.2
Minor Nearshore South	357.7

Table C-33. California recreational. Number of months open to fishing, fishing season and projected impacts for yelloweye rockfish and canary rockfish in the California Recreational Fishery under the No Action Alternative, Alternative 3, and the Final Preferred Alternative.

Months and Season of Fishing under each ACL Alternative			
Management Area	No Action Alternative	Alt 3: Preliminary Preferred Alternative	Final Preferred Alternative
Northern	4 May 15 - Sep 15	5.5 May 15 - Oct	5.5 May 14/12 - Oct
North-Central North of Pt. Arena	3 May 15 - Aug 15	3 May 15 - Aug 15	3 May 14/12 - Aug 15
North-Central South of Pt. Arena	4.5 Jun 13 - Oct	6 June - Nov	7 Jun - Dec
South-Central Monterey	6.5 May - Nov 15	8 May - Dec	8 May - Dec
South-Central Morro Bay	6.5 May - Nov 15	8 May - Dec	8 May - Dec
Southern	10 Mar - Dec	10 Mar - Dec	10 Mar -Dec
Total Months	34.5	40.5	41.5
Impacts			
Species	No Action Alternative	Alt 3: Preliminary Preferred Alternative ACLs	Adopted ACLs
Canary Rockfish Impacts	8.0	9.1	9.5
Yelloweye Rockfish Impacts	3.0	3.1	3.1

C.3 Alternative 1- Low Overfished Species ACLs and Preliminary Preferred Non-Overfished Species ACLs

Analytical scenario

This alternative is designed to provide contrast in the time to rebuild for overfished species and needs of the community, relative to the high and intermediate ACL alternatives (Table C-34).

Table C-34. Alternative 1: 2011, 2012 Overfished species harvest specifications along with the time to rebuild and T_{TARGET} currently specified in the FMP, prior to the proposed action.

Species	T_{TARGET} in FMP	Median time to rebuild given ACL a/	ACL Alternative 2011 b/	ACL Alternative 2012 b/
Bocaccio	2026	2019	53	56
Canary	2021	[2025]	49	51
Cowcod	2072	2064	2	2
Darkblotched	2028	2022	222	222
POP	2017	[2019]	80	80
Petrале	TBD	2014	459	624
Widow	2015	2010	200	200
Yelloweye	2084	2065	13	13

a/ Values taken from Table 2-14. Brackets indicate times to rebuild that are longer than the T_{TARGET} currently specified in the FMP prior to the proposed action.

b/ Values taken from the harvest specification alternatives in Table 2-8 (2011) and Table 2-9 (2012).

C.3.1 Limited Entry Non-Whiting Trawl Fishery

C.3.1.1 Cumulative Trip Limit Management

Alternative 1 had the lowest trawl allocations for overfished and constraining target species of the three initial alternatives. Other target species were held constant for this exercise. Table C-35 details the RCA and trip limits while Table C-36 details the projected impacts to target and overfished species.

Petrале sole

Petrале sole is currently overfished and under the proposed action, a rebuilding plan will be fully implemented in 2011. Until recently, this species has supported a sizeable target fishery, and as such, it is currently managed and modeled as a target species, and has management area-specific trip limits. Alternative 1 has the lowest petrале sole trawl non-whiting trawl allocation (342 mt) compared to Alternative 2 (643 mt) and Alternative 3 (865 mt). The Alternative 1 allocation resulted in an average bimonthly trip limit of 1,458 lbs/2 months, compared with the average petrале sole trip limits in 2010 of 7,900 lbs/2 months (No Action Alternative) and the Final Preferred Alternative trip limits of 4,800 lbs/2 months for 2011 and 6,400 lbs/2 months for 2012.

Sablefish

Sablefish was a constraining target species in the Dover thornyhead sablefish (DTS) fishery. Under Alternative 1, the trawl allocation was 2,187 mt, this is 74 percent of the No Action Alternative, which was 2,955 mt, and 86 percent of the Final Preferred Alternative, which was 2,538 mt. This is reflected in the trip limits for sablefish, which were an average of 11,500 lbs/2 months in Alternative 1, versus 21,389 lbs/2 months in the No Action Alternative, and 13,063 lbs/2 months in the Final Preferred Alternative for 2011.

Canary rockfish

Canary rockfish, and the other six rebuilding rockfish, are modeled as bycatch in 2011-2012. Under Alternative 1, canary rockfish had a trawl allocation of 8 mt, which is 38 percent of the No Action Alternative (21 mt), and 45 percent of the Final Preferred Alternative (20 mt) in 2011.

Pacific Ocean perch (slope)

Under Alternative 1, Pacific Ocean perch (POP) had a trawl allocation of 33.8 mt. This is 34 percent of the No Action Alternative (100.8 mt), and 32 percent of the Final Preferred Alternative (107 mt) in 2011.

Darkblotched rockfish (slope)

Under Alternative 1, darkblotched rockfish had a trawl allocation of 175.8 mt. This is 76 percent of the No Action Alternative (230 mt), and 73 percent of the Final Preferred Alternative (240 mt) in 2011.

Widow rockfish (shelf)

Widow rockfish had a trawl allocation of 60.8 mt under Alternative 1, this is 278 percent of the No Action Alternative allocation (21.6 mt) and 26 percent of the Final Preferred Alternative (235 mt) in 2011.

Bocaccio rockfish (shelf)

Bocaccio rockfish had a trawl allocation of 4.7 mt under Alternative 1; this is 29 percent of the No Action Alternative (16.1 mt) and 8 percent of the Final Preferred Alternative (60 mt) in 2011.

Yelloweye rockfish (shelf)

Under Alternative 1, yelloweye rockfish had an allocation of 0.4 mt, which is 67 percent of the No Action Alternative (0.6 mt) and 67 percent of the Final Preferred Alternative (0.6 mt) in 2011.

Cowcod (shelf)

Under Alternative 1, cowcod had an allocation of 0.9 mt, which is 60 percent of the No Action Alternative (1.5 mt) and 50 percent of the Final Preferred Alternative (1.8 mt) in 2011.

Table C-35. Alternative 1. Limited entry non-whiting trawl RCA and trip limits for 2011-2012.

2-month period	RCA lines (fm)		2-month cumulative-poundage limits							
	shallow	deep	sable-fish	long-spine	short-spine	Dover sole	petrale sole	arrow-tooth	other flatfish	slope rockfish
N. of 40°10' N lat.										
Large/small footrope limits										
1	75	250	14,000	20,000	18,000	110,000	2,000	150,000	110,000	6,000
2	75	250	14,000	20,000	18,000	110,000	1,500	150,000	110,000	6,000
3	75	250	12,000	20,000	18,000	110,000	1,000	150,000	110,000	6,000
4	100	250	12,000	20,000	18,000	110,000	1,000	150,000	110,000	6,000
5	75	250	12,000	20,000	18,000	110,000	1,000	150,000	110,000	6,000
6	75	250	14,000	20,000	18,000	110,000	2,000	150,000	110,000	6,000
Selective gear limits										
1	75	250	7,000	5,000	5,000	30,000	1,000	30,000	30,000	
2	75	250	7,000	5,000	5,000	25,000	1,500	25,000	25,000	
3	75	250	7,000	5,000	5,000	25,000	1,500	25,000	25,000	
4	100	250	7,000	5,000	5,000	25,000	2,000	25,000	25,000	
5	75	250	7,000	5,000	5,000	25,000	1,500	25,000	25,000	
6	75	250	7,000	5,000	5,000	30,000	1,000	30,000	30,000	
38° - 40°10' N lat.										
1	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	15,000
2	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	15,000
3	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	15,000
4	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	15,000
5	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	15,000
6	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	15,000
S. of 38° N lat.										
1	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	55,000
2	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	55,000
3	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	55,000
4	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	55,000
5	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	55,000
6	100	150	13,000	20,000	18,000	110,000	1,500	10,000	110,000	55,000

Table C-36. Alternative 1. Limited entry non-whiting trawl projected impacts for 2011-2012.

Major Target Species	Model Target	Model Projection	Proj. - Target	Proj. % of Target
Sablefish N of 36° N. lat.	2,187	2,161	-26	98.8%
Longspine N. of 34 27' N. lat.	2,000	1,326	-673	66.3%
Shortspine N. of 34 27' N. lat.	1,450	1,283	-167	88.5%
Dover sole	16,306	10,575	-5,731	64.9%
Arrowtooth flounder	14,166	3,447	-10,720	24.3%
Petrале sole	342	341	-1	99.7%
English sole	18,659	424	-18,236	2.3%
Other flatfish	4,886	797	-4,089	16.3%
Minor Slope Rockfish North	877	106	-771	12.1%
Minor Slope Rockfish South	394	234	-160	59.4%
Rebuilding Species				
Canary rockfish	8.0	7.3	-1	91.2%
Pacific ocean Perch	33.8	20.3	-14	60.0%
Darkblotched rockfish	175.8	68.4	-107	38.9%
Widow rockfish	60.8	8.4	-52	13.8%
Yelloweye rockfish	0.4	0.1	0	40.0%
Bocaccio	4.7	4.5	0	96.1%
Cowcod	0.9	0.2	-1	28.2%

C.3.2 Limited Entry Trawl Whiting

Pacific whiting harvest specifications are completed on an annual basis, thus the Council requested a range of potential whiting ACLs for more detailed analysis in order to understand the potential range of overfished species impacts and constraints (Table 2-8). Alternative 1 informs the bycatch impacts relative to a low whiting ACL (96,968 mt) and low overfished species ACLs (Table C-34). Under Alternative 1, the analysis assumes that Amendment 21: Intersector Allocation is implemented on January 1, 2011 and as such formal allocations of darkblotched, POP, and widow rockfish are made to the whiting sectors. That is, the bycatch model for projecting overfished species impacts relative to the whiting ACL is no longer used for setting darkblotched, POP, and widow rockfish. For canary rockfish, Alternative 1 was analyzed using the Council's preliminary preferred 2-year allocation of canary to the whiting sectors. Table C-37 contains the Pacific whiting and overfished species allocations under Alternative 1.

Table C-37. Alternative 1: Pacific whiting and overfished species allocations by sector using Amendment 21 for darkblotched, POP, and widow and the Council’s preliminary preferred two year allocation of canary rockfish.

Catcher Processor

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)	Range of Impacts (mt)
Whiting	96,968	96,968	20,739	20,739	
Canary	49	51	1.8	1.9	0.2
DRK	222	222	9	9	0.1
POP	80	80	10	10	0.1
Widow	200	200	22	22	1.0

Mothership

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)	Range of Impacts (mt)
Whiting	96,968	96,968	14,640	14,640	
Canary	49	51	1.3	1.3	0.6
DRK	222	222	6	6	0.2
POP	80	80	7	7	1.4
Widow	200	200	16	16	25

Shoreside

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)	Range of Impacts (mt)
Whiting	96,968	96,968	25,619	25,619	
Canary	49	51	2.4	2.4	2.3
DRK	222	222	11	11	0.9
POP	80	80	13	13	4.7
Widow	200	200	28	28	108.6

Table C-37 compares the results of the overfished species allocation decisions to the impacts seen in 2009, a year with a similar whiting OY (100,148 mt) to the Alternative 1 ACL (96,968 mt) as well as the bycatch model predictions. While the whiting fishery is very dynamic and conditions (e.g., whiting schooling/availability, bycatch interactions, etc.) vary from year to year may vary, the comparison of overfished species impacts is still informative. For the catcher-processor sector the range of allocations are greater than the impacts seen in 2009. As such, in a similar situation the catcher-processor sector would likely reach their whiting allocation within the overfished species allocations. For the mothership and shoreside sectors, the Amendment 21 widow rockfish allocation is less than the impacts seen in 2009. As such, these fleets may need to actively avoid widow rockfish if fishing under similar conditions.

C.3.3 Non-Nearshore Fixed Gear

Alternative 1 includes the Council’s preliminary preferred sablefish ACL (updated with the technical corrections made in June 2010 - Table C-38) along with the low overfished species ACL alternatives (Table C-39) and associated overfished species projected impacts for the non-nearshore fleet. This alternative demonstrates how the low overfished species ACL restrict access to the sablefish ACL and associated allocations.

Table C-38. Alternative 1. Sablefish ACL and allocations north of 36° N. latitude compared to No Action (2010).

Species	Fishery	2010 (mt)	2011 (mt)	2012 (mt)
Sablefish N. 36° N. Lat.	OY/ACL	6,471	5,515	5,347
	LE Fixed Gear Allocation	2,140	1,874	1,816
	----LE Fixed Gear Primary	1,819	1,593	1,544
	----LE Fixed Gear Daily Trip Limit	321	281	272
	Open Access	529	463	449

Table C-39. Alternative 1. Apportionment of the non-trawl allocation of overfished species to the non-nearshore fixed gear sector under the low overfished species ACLs.

Species	2011 Apportionment (mt)	2012 Apportionment (mt)	Comments
Canary rockfish	0.9	1.0	Combines impacts for OA DTL and LE FG
Yelloweye rockfish	1	1	Includes 0.2 mt for OA DTL and 0.8 mt for LE FG

Under Alternative 1, the apportionment of canary rockfish is so low that RCAs would have to be restricted to depths that are deeper than implemented since the inception of RCAs and sablefish allocations would have to be reduced by as much as 42 percent. The result of these measures may be significantly reduced annual catches, fewer areas to fish, and longer-distance runs to reach fishing grounds. Some impacts to fishermen and communities will likely be decreased revenue, decreased catch rates, increased time spent on the water, increased gear conflicts, increased safety concerns, etc. (see discussion under the Final Preferred Alternative). Yelloweye has no constraint on sablefish landings under this alternative because of the level of constraint imposed by the low canary rockfish apportionment. Details for each sector are described in detail below.

Limited Entry Fixed Gear north of 36° N. latitude

Under Alternative 1, yelloweye rockfish ceases to be the most constraining species and canary bycatch becomes the focus for management measures. Non-trawl RCA changes or a reduction in the allowable harvest of sablefish would be needed to reduce canary bycatch to the 0.9 mt in 2011 and 1.0 mt in 2012 (Table C-39).

With the No Action non-trawl RCA configuration (i.e., 125 fm line from the Columbia/Eureka Line to Cascade Head in place; and the final preferred sablefish ACL and allocations, the limited entry fixed gear sectors would be expected to take 2.0 mt of canary in 2011 and 1.8 mt in 2012 (Table C-40), far in excess of the impacts allowed for this fishery under Alternative 1 (Table C-39). Even with the seaward boundary set at 150 fm for all areas—the minimum canary bycatch scenario in the model—the expected canary impacts still reaches 1.4 mt (Table C-40), exceeding the allowable impact of 0.9 to 1.0 mt as shown in (Table C-39). This demonstrates that this low overfished species ACL Alternative 1 may not only require moving seaward RCAs deeper, and thus reducing fishing opportunities, but also require catch-reductions of target species (i.e., sablefish).

Table C-40. Alternative 1. Non-nearshore modeled-overfished species impacts for the limited entry fixed gear sablefish fishery north of 36° N. latitude for 2011 and 2012 for the No-Action RCA Configuration and for RCAs set at 150 fm for all areas. These model runs are included for comparison purposes only.

RCA Configuration	Model-Projected Canary Impacts (mt)	
	2011	2012
No Action	2.0	1.8
150 fm All Areas	1.4	1.4

The highest bycatch ratios of canary rockfish occurs in the area north of Point Chehalis (46.888° N. lat.) (Table C-41). Moving the RCA seaward to 150 fm in this area does not lower the expected encounter rate as it does in other areas; the canary bycatch ratios are 0.0029, 0.0026, and 0.0027 for RCAs set at 100 fm, 125 fm, and 150 fm north of Point Chehalis. This is a large area where the Juan de Fuca canyon and steep bathymetry in the north complicate the RCA boundaries and the WCGOP observer data, which is based on the average depth of a set. In addition, bycatch in the trawl fisheries and scientific surveys suggest that canary is relatively abundant off northern Washington. The 150 fm line is what the Council has used in the whiting fishery to minimize risk of canary bycatch, yet as seen in recent years, the catcher processor fleet had difficulty avoiding canary rockfish in the Juan de Fuca canyon area. A seaward boundary deeper than 150 fm would likely lower the canary bycatch rate to the degree seen in the other management areas, yet the data for these RCAs boundaries or depths is not built into the model.

Table C-41. The 2002-2008 canary rockfish bycatch ratios (total catch lbs /retained sablefish lbs) in the non-nearshore fixed gear sectors, by management area and depth.

Depth	40°10' – Col/Eur 43°	Col/Eur 43° - 45.064°	Cascade Head 45.064° - Point Chehalis 46.888°	North of Point Chehalis 46.888°
100 fm	0.0001	0.0002	0.0022	0.0029
125 fm	0.0000	0.0001	0.0001	0.0026
150 fm	0.0000	0.0001	0.0000	0.0027

To further reduce canary bycatch projected impacts to remain under apportionment goals shown in Table C-39, the Council would have two major options. Option 1a would seek to maintain full harvest of the fixed gear sablefish allocations and would require closing the area north of Point Chehalis completely to the non-nearshore sectors, or alternatively, pushing the RCA boundaries to 180 fm, 200 fm, or 250 fm (Figure C-11). The latter would involve some uncertainty because, as mentioned above, the appropriate bycatch rates to model the impact of these deeper RCA boundaries are not available.

Seaward RCA Boundary	36°- 40° 10'	40°10'- Col/Eur 43°	Col/Eur 43°- Cascade Head 45.064°	Cascade Head 45.064°- Pt. Chehalis 46.888°	North of Pt. Chehalis 46.888°
Shoreward boundary to 100 fm					
100 fm					
125 fm					
150 fm					
>150 fm					

Figure C-11. Alternative 1, Option 1a. Non-trawl RCA seaward configuration. The seaward area north of Point Chehalis would be closed completely. Grey shading indicates areas closed to fishing.

To model the complete closure, it was assumed that catch would distribute to the open areas in the same proportion it is estimated that catch occurs now such that all sablefish are harvested. The resulting bycatch impacts are shown in Table C-42 for limited entry fixed gear. In this case, canary bycatch is set to zero north of Point Chehalis due to the closure, and RCA lines between 40° 10' and 46.888' N. latitude (Point Chehalis) are set at 100 fm (Figure C-11). Note that the RCA north of 40° 10' was 100 fm prior to 2009-2010. The area north of Point Chehalis encompasses some of the most important sablefish fishing grounds on the coast and is the area where most of the catch has occurred. The non-nearshore fleets are estimated to have taken an average of 44 percent, and as much as 55 percent, of the overall annual fixed gear allocations for the northern sablefish stock in this area during the 2002-2008 period used to model bycatch. A complete closure would thus represent a substantial change to these fisheries. In addition, with such a large portion of the catch coming from this area, it may be unrealistic to assume that the non-nearshore fleets could harvest their full allocations with the area closed.

To model a RCA boundary deeper than 150 fm off Point Chehalis, it is assumed that a lower bycatch rate for canary could be achieved. Specifically, it is assumed that the deeper RCA would

lower the canary bycatch rate to the next highest bycatch rate at 150 fm, which is seen in the area between 43°–45.064° N. latitude (Table C-41). It is also assumed that the more restrictive RCA would shift more effort to the areas where the RCA is less restrictive. Specifically, the percentage of catch that occurs north of Point Chehalis would be equivalent to the lowest observed in the 2002-2008 timeframe, which is 24 percent. There is no quantitative basis for this redistribution of catch, yet it is employed as a precautionary assumption to account for more catch where canary rates could be higher. Again, without observations stratified at these depths, the bycatch projections north of Point Chehalis would be uncertain. In addition, it is uncertain how accessible sablefish would be to the fleets at these depths. Hence, modeling impacts of deeper RCAs is not presented herein.

Under Alternative 1, Option 1a, where the area north of Point Chehalis would be closed to non-nearshore fixed gears and the areas between 40° 10' to 46.888' N. latitude would be open to fixed gears seaward of 100 fm, the modeled overfished species impacts would be 0.6 mt for canary rockfish and 0.5 mt for yelloweye, which provides room under the total apportionment of canary rockfish (Table C-39) to provide a similar opportunity for the open access sectors (see the section “Open Access Sablefish Daily Trip Limit Fishery North of 36° N. latitude” below)

Table C-42. Alternative 1, Option 1a: Modeled-overfished species impacts for the limited entry fixed gear sector under the non-trawl RCA structure shown in Figure C-11, i.e., the area north of Point Chehalis is closed to the non-nearshore fixed gear sectors and the areas between 40° 10' and 46.888' are set at 100 fm.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	0.6	0.6
Darkblotched rockfish	4.0	3.7
Pacific ocean perch	0.2	0.2
Widow rockfish	0.1	0.1
Yelloweye rockfish	0.5	0.5

The second option under Alternative 1 (Option 1b) for lowering the expected canary bycatch requires a reduction to the available harvest of sablefish (i.e., under-harvest of the allocation shown in Table C-38) and more constraining RCA lines in some areas (Figure C-12). The Council has the option of differentially reducing the sablefish harvest between the limited entry and open access fleets north of 36° N. latitude. However, for the purposes of this analysis, both sectors were reduced equally. Under Alternative 1, Option 1b, it would be necessary to reduce the sablefish allocation by 42 percent for the limited entry sablefish sector north of 36° N. latitude for 2011 (Table C-43). In addition, even though fishing would be allowed in all areas north of 36° N. latitude, more restrictive RCA boundaries would be required (i.e., the RCA boundaries would be 125 fm north of 43° N. latitude; Figure C-12). These measures would reduce the model-projected canary bycatch to 0.8 mt in 2011 (Table C-44), which is 0.1 mt lower than the apportionment of canary rockfish for 2011. A 33 percent reduction of the sablefish allocation would be required in 2012, along with the more restrictive RCA boundaries shown in (Figure C-12), to reduce canary rockfish catch (Table C-44) below the apportionment cap. The lower reduction of the sablefish allocation in 2012 relative to 2011 is due to reduced-sablefish ACL and increased-canary apportionment in 2012. Note that the catch of all other overfished species by the limited entry fishery (Table C-42, Table C-44) are far below their respective apportionment

caps (Table C-39) because of the constraints imposed by canary rockfish. The management actions described herein provide space under the total canary rockfish apportionment cap (Table C-39) to allow similar fishing opportunities for the open access sector (see below).

Seaward RCA Boundary	36° - 40° 10'	40°10' - Col/Eur 43°	Col/Eur 43° - Cascade Head 45.064°	Cascade Head 45.064° - Pt. Chehalis 46.888°	North of Pt. Chehalis 46.888°
Shoreward boundary to 100 fm					
100 fm					
125 fm					
150 fm					
>150 fm					

Figure C-12. Alternative 1, Option 1b: Seaward RCA boundary configurations required to achieve canary rockfish bycatch reductions.

Table C-43. Alternative 1, Option 1b. The 2011-12 preliminary preferred alternative north of 36° N. latitude allocations (metric tons) and minimum allocation reductions necessary to achieve the canary rockfish allocation.

	LE FG Share
2011 Full Allocation	1,874
w/ 42% reduction	1,095
2012 Full Allocation	1,816
w/ 33% reduction	1,225

Table C-44. Alternative 1, Option 1b: Modeled –overfished species impact projections for the limited entry fixed gear sector for 2011 and 2012. Under Option 2, the sablefish allocation to the limited entry fixed gear fleet is reduced by 42 percent in 2011 and 33 percent in 2012.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	0.8	0.9
Darkblotched rockfish	2.3	2.6
Pacific ocean perch	0.2	0.2
Widow rockfish	0.0	0.0
Yelloweye rockfish	0.3	0.3

Open Access Sablefish Daily Trip Limit Fishery North of 36° N. latitude

As mentioned under the limited entry fixed gear north of 36° N. latitude section, yelloweye rockfish ceases to be the most constraining species and canary bycatch becomes the focus for management measures under Alternative 1. To further reduce canary bycatch projected impacts, the Council would have two major options. Option 1a would seek to maintain full harvest of the fixed gear sablefish allocations but would require closing the area north of Point Chehalis completely to the non-nearshore sectors (Figure C-13). Option 1b would involve a reduction to

the available harvest of sablefish (Table C-43) while imposing more constraining RCA lines in some areas (Figure C-12); this option would allow fishing north of Point Chehalis, however.

Under Alternative 1, Option 1a, where the area north of Point Chehalis would be closed to non-nearshore fixed gears and the areas between 40° 10' to 46.888° N. latitude would be open to fixed gears seaward of 100 fm (Figure C-13), the modeled overfished species impacts would be 0.1 mt for canary rockfish and 0.1 mt for yelloweye for both 2011 and 2012 (Table C-45). The management measures described in this section results in overfished species impacts that, in addition to those predicted for limited entry *sector* (Table C-42), are equal to or lower than the apportionments for both sectors combined (Table C-39). As shown for limited entry *sector*, the impact to the remaining overfished species is low because of the constraints imposed by the low apportionment of canary rockfish.

Seaward RCA Boundary	36°- 40° 10'	40°10'- Col/Eur 43°	Col/Eur 43°- Cascade Head 45.064°	Cascade Head 45.064°- Pt. Chehalis 46.888°	North of Pt. Chehalis 46.888°
Shoreward boundary to 100 fm					
100 fm					
125 fm					
150 fm					
>150 fm					

Figure C-13. Alternative 1, Option 1a. Non-trawl RCA seaward configuration. The seaward area north of Point Chehalis would be closed completely. Grey shading indicates areas closed to fishing.

Table C-45. Alternative 1, Option 1a: Modeled-overfished species impact projections for the open access DTL fishery under the non-trawl RCA structure represented in Figure C-13, i.e., the area north of Point Chehalis is closed to the non-nearshore fixed gear sectors.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	0.1	0.1
Darkblotched rockfish	0.8	0.8
Pacific ocean perch	0.0	0.0
Widow rockfish	0.0	0.0
Yelloweye rockfish	0.1	0.1

Under Alternative 1, option 1b, fishing would be allowed at all latitudes north of 36° N. latitude, but access to the sablefish allocations would be severely reduced (Table C-46). The Council has the option of differentially reducing the sablefish harvest between the limited entry and open access fleets north of 36° N. latitude. However, for the purposes of the analysis the GMT reduced both sectors equally. As shown above for limited entry, it would be necessary to reduce sablefish allocations by 42 percent and 33 percent in 2011 and 2012, respectively, while implementing RCAs at 125 fm north of 43° N. latitude (Figure C-12). The remaining RCAs would be similar to the No Action Alternative. The modeled impacts to canary rockfish would be 0.1 and 0.2 mt for 2011 and 2012 (Table C-47). The modeled impacts for yelloweye would be 0.1 mt for both years. The management measures described in this section results in overfished species impacts that, in addition to those predicted for limited entry (Table C-42), are equal to or lower than the

apportionments for both sectors combined (Table C-39). As shown for limited entry, the impact to the remaining overfished species is low because of the constraints imposed by the low apportionment of canary rockfish (Table C-47).

Table C-46. Alternative 1, Option 1b. Non-nearshore sablefish north of 36° N. latitude allocations (metric tons) and minimum reductions necessary to achieve the canary allocations.

	Open Access (mt)
2011 Full Allocation	463
w/ 42% reduction	270
2012 Full Allocation	449
w/ 33% reduction	303

Table C-47. Alternative 1, Option 1b. Modeled-overfished species projected impacts for the open access daily trip limit fishery north of 36° N. latitude. Under Option 2, the sablefish allocation to the open access fleet is reduced by 42 percent in 2011 and 33 percent in 2012.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	0.1	0.2
Darkblotched rockfish	0.5	0.6
Pacific ocean perch	0.0	0.2
Widow rockfish	0.0	0.0
Yelloweye rockfish	0.0	0.1

C.3.4 Nearshore Fixed Gear

Under Alternative 1, Oregon is severely constrained by yelloweye rockfish and California is constrained by yelloweye and canary rockfish. Under this harvest level, neither state can maintain opportunities similar to 2009-2010. As such, nearshore fishermen and communities will continue to be adversely impacted by the low available yelloweye. Since black rockfish and greenling are important target strategies in Oregon, lower reductions in landed catch were taken for these species relative to others to stay within overfished species impacts. In California, black rockfish is an important target strategy in the area between 42° and 40°10' N lat and cabezon is an important target strategy statewide; therefore higher landings were maintained for these species relative to others while staying within overfished species impacts.

To facilitate modeling of target species, the GMT assumed two catch sharing relationships for yelloweye rockfish - 50:50 (OR:CA) and 55:45 (OR:CA). The rationale for these two options is described in Appendix A, Description of Catch Projection Models. The nearshore target species harvest by area and option and the shoreward RCA configuration are presented in Table C-48 and Figure C-14.

Under Alternative 1, option 1, the nearshore fishery is modeled assuming a 50:50 (OR:CA) catch sharing of yelloweye rockfish. Reductions to landed catch under this alternative are taken from average landings of 2007-2009 for Oregon and 2006-2008 for California (Table C-25).

North of 42° N. latitude – this option includes a 20 fm depth restriction from 42° N. latitude to 43° N. latitude and reductions to landed catch as follows: 69 percent for black rockfish and greenling, 79 percent remaining species.

South of 42° N. latitude – this option includes a statewide 20 fm depth restriction and reduced landings for many species except cabezon.

Under Alternative 1, option 2, the nearshore fishery is modeled assuming a 55:45 (OR:CA) catch sharing of yelloweye rockfish. Reductions to landed catch under this alternative are taken from average landings of 2007-2009 for Oregon and 2006-2008 for California (Table C-25).

North of 42° N. latitude – the only available option includes a 20 fm depth restriction from 42° N. latitude to 43° N. latitude and reductions to landed catch as follows: 66 percent for black rockfish and greenling, 77 percent remaining species.

South of 42° N. latitude – the only available option includes a statewide 20 fm depth restriction and reduced landings for many species except cabezon.

Projected overfished species impacts under this alternative are summarized by area and option in Table C-49.

Table C-48. Alternative 1. Nearshore target species harvest by area and option for 2011-2012.

Area	Projected Total Catch (mt) 2011/12 (option 1)	Projected Total Catch (mt) 2011/12 (option 2)
Grand Total	226	232
Black rockfish	107	110
Blue rockfish	14	14
Cabazon	75	76
Deeper nearshore RF	0	0
Kelp greenling	7	8
Lingcod	11	12
Other minor RF	12	12
Shallow nearshore RF	0	0
North of 42° N. lat.	59	65
Black rockfish	34	37
Blue rockfish	1	1
Cabazon	5	6
Kelp greenling	6	7
Lingcod	11	12
Other minor nearshore rockfish	2	2
42° - 40°10' N. lat.	103	103
Black rockfish	73	73
Blue rockfish	13	13
Cabazon	7	7
Kelp greenling	0	0
Lingcod	0	0
Other minor nearshore rockfish	10	10
South of 40°10' N. lat.	64	64
Black rockfish	0	0
Blue rockfish	0	0
Cabazon	63	63
Deeper nearshore rockfish	0	0
Kelp greenling	1	1
Lingcod	0	0
Shallow nearshore rockfish	0	0

Shoreward RCA Boundary	South 34°27'	34°27' - 40°10'	40°10' - 42°	42° - Col/Eur 43°	Col/Eur 43° - 46°16'	North of 46°16'
Shore						
20 fm						
30 fm						
60 fm						

Figure C-14. Alternative 1: Nearshore shoreward RCA configuration under option 1 and 2. Grey shading indicates areas closed to fishing.

Table C-49. Alternative 1: Nearshore fixed gear overfished species bycatch projections under the option 1 and 2 RCA structures.

Species	Area	Projected Total Impacts (mt) 2011/12	
		Option 1	Option 2
Bocaccio		0.0	0.0
	OR: North of 42	0.0	0.0
	CA: 42° - 40°10	0.0	0.0
	CA: South of 40°10	0.0	0.0
Canary		0.9	0.9
	OR: North of 42	0.2	0.2
	CA: 42° - 40°10	0.6	0.6
	CA: South of 40°10	0.1	0.1
Widow		0.2	0.2
	OR: North of 42	0.0	0.0
	CA: 42° - 40°10	0.2	0.2
	CA: South of 40°10	0.0	0.0
Yelloweye		0.4	0.4
	OR: North of 42	0.2	0.3
	CA: 42° - 40°10	0.2	0.2
	CA: South of 40°10	0.0	0.0

C.3.5 Washington Recreational

The most restrictive option for the Washington recreational groundfish fishery would be in place under Alternative 1 (Figure C-15 and Table C-50). This option would continue to allow for a year-round groundfish season with lingcod seasons that are the same as the No Action Alternative. The aggregate bottomfish limit would be reduced from 15 to 12 and would include a cabezon sub limit of two per angler per day in addition to the sub limits for rockfish (10) and lingcod (2). To maintain yelloweye harvest levels that don't exceed the Washington harvest share under this alternative would require increasing the time that the 20 fathom depth restriction is in place in Marine Areas 3 and 4 from what is in place under the No Action Alternative. Management measures for Marine Areas 1 and 2 would be the same as the No Action Alternative.

Groundfish Seasons and Bag Limits

Under Alternative 1, the Washington recreational fishery would be open year-round except for lingcod. The aggregate groundfish bag limit would be reduced from 15 to 12 fish per angler per day. The aggregate groundfish bag limit would continue to include the sub limits for rockfish (10 per angler per day) and lingcod (two per angler per day) that are in place under the No Action Alternative but would include a new sub limit of two cabezon per angler per day for 2011 and 2012.

Lingcod Seasons and Size Limits

Under Alternative 1, the following lingcod seasons and size limits would apply in 2011 and 2012:

- Marine Areas 1-3 (from the Oregon/Washington border at 46°16' N. latitude north to Cape Alava at 48°10' N. latitude): open from March 12 through October 15 in 2011 and March 17 through October 13 in 2012.
- Marine Area 4 (Cape Alava to the US/Canadian border): open from April 16 to October 15 in 2011 and April 16 to October 13 in 2012.
- The lingcod minimum size limit during the open lingcod season would be 22 inches in Marine Areas 1-3 and 24 inches in Marine Area 4.

Area Restrictions

The Washington recreational groundfish and Pacific halibut fisheries would be prohibited from fishing for, retention or possession of groundfish and halibut in the C-shaped yelloweye rockfish conservation area in the north coast and South Coast and Westport YRCAs in the south coast as they were in the 2009 and 2010 seasons and in the No Action Alternative.

Marine Area	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
3 & 4 (N. Coast)	Open all depths				Open <20 fm May 15-Sep 30 a/				Open all depths			
2 (S. Coast)	Open all depths		Open <30 fm Mar 15 - June 15 b/ c/			Open all depths except lingcod prohibited on Fri. and Sat. >30 fm d/		Open all depths				
1 (Col. R.)	Open all depths				Open all depths e/				Open all depths			
a/ Groundfish retention allowed >20 fm on days when Pacific halibut is open. b/ Retention of sablefish and Pacific cod allowed seaward of 30 fm from May 1- June 15. c/ Retention of lingcod allowed seaward of 30 fm on days that the primary halibut season is open. d/ Retention of lingcod prohibited >30 fm, south of 46°58 on Fri. and Sat. from July 1 – August 31. e/ Retention of groundfish, except sablefish and Pacific cod, prohibited with Pacific halibut on board.												

Figure C-15. Alternative 1. The Washington recreational groundfish season for 2011-2012.

North Coast (Marine Areas 3 and 4)

Prohibit the retention of bottomfish seaward of a line approximating 20 fathoms from May 15-September 30, except on days that halibut fishing is open.

South Coast (Marine Area 2)

Groundfish retention would be prohibited seaward of a line approximating 30 fathoms from March 15-June 15. Sablefish and Pacific cod retention would be allowed in this area from May 1 through June 15. On days that the primary halibut season is open, lingcod may be retained throughout Marine Area 2. The retention of lingcod would be prohibited south of 46°58 N. latitude and seaward of 30 fathoms on Fridays and Saturdays from July 1 through August 31.

Columbia River (Marine Area 1)

Prohibit the retention of bottomfish, except sablefish and Pacific cod, with halibut onboard from May 1 through September 30.

Table C-50. Alternative 1. Washington recreational harvest share and projected impacts for 2011-2012.

Species	Projected Impacts (mt)	HG (mt)
Canary	0.5	1.8 / 2.0
Yelloweye	1.6	1.6 / 1.6
Black rockfish	175.6	N/A
Minor nearshore rockfish	4.9	N/A

C.3.6 Oregon Recreational

Depth management is the main tool used for controlling yelloweye rockfish catch in the Oregon recreational fishery. The options range from the least restrictive (Oregon Recreational Option 1, Figure C-16), a year round season with April through September open only shoreward of 20 fathoms to the most restrictive option (Oregon Recreational Option 5, Figure C-16), a year round season open only shoreward of 20 fathoms. All options are more restrictive than the 2009-10 Oregon recreational groundfish season under the No Action alternative. Modeled impacts under Alternative 1 can be found in Table C-51.

Option	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Open all depths			Open < 20 fm						Open all depths		
2	Open < 40 fm			Open < 20 fm						Open < 40 fm		
3	Open < 30 fm			Open < 20 fm						Open < 30 fm		
4	Open < 25 fm			Open < 20 fm						Open < 25 fm		
5	Open < 20 fm											

Figure C-16. Options for Oregon recreational groundfish season in 2011-12 under Alternative 1.

Table C-51. Alternative 1. Oregon recreational impacts by option for 2011-2012.

Species	Projected Impacts (mt)				
	Option 1	Option 2	Option 3	Option 4	Option 5
Canary Rockfish	1.7	1.4	1.4	1.4	1.3
Yelloweye Rockfish	1.45	1.15	1.14	1.11	1.04
Black Rockfish	330.5	333.2	333.2	333.2	333.2
Blue Rockfish	20.4	20.7	20.7	20.7	20.7
Other Nearshore Rockfish a/	12.7	12.8	12.8	12.8	12.8
Greenling (Kelp and Rock)	4.6	4.6	4.6	4.6	4.6

a/ Other Nearshore Rockfish includes: brown, china, copper, grass, and quillback rockfish

Under Alternative 1, the Oregon recreational groundfish fishery would be able to operate a year round fishery with depth restrictions (25, 30, or 40 fathoms). Under this alternative, groundfish retention in the all-depth Pacific halibut fishery would not be allowed under any of the options in Figure C-16.

2011-12 Bag and Size Limit Alternatives

Bag limits for marine fish, lingcod, and flatfish under the No Action alternative would remain in place under Alternative 1, except for cabezon. These daily-bag-limits provide the flexibility to make necessary adjustments through the yearly state process, reflecting the progression of the current year’s fishery. The state process will likely start off each season with reduced marine and lingcod daily bag limits and may increase or further reduced them inseason depending on the progression of the fishery relative to the impact on species with harvest targets/guidelines and state landing caps. A reduction in cabezon impacts would be necessary and can be accomplished with a seasonal sub-bag limit of one fish. The sub-bag limit coincides with the months that the groundfish fishery is restricted to inside of 20, 30, or 40 fathoms. Other than this option, all other bag and size limits are the same as specified in 2009-10 and described under the No Action Alternative, including no retention of yelloweye or canary rockfish at any time or depth.

The shore fishery would be managed as a year round season as yelloweye rockfish are not impacted. Also, fishing for, take, retention and possession of sanddabs and “other flatfishes”, excluding Pacific halibut would be legal year round and open shoreward of 40 fathoms during any period the groundfish fishery has any depth restrictions. The flatfish fishery would not have any depth restrictions when the groundfish fishery has no depth restrictions (i.e. 40, 30, 25 and 20 fm lines).

2011-12 Area Restriction Alternatives

Two options for extending the status quo Stonewall Bank YRCA for 2011-12 recreational fisheries under Alternative 3 are shown in Figure C-17 and are defined by the following coordinates:

Stonewall Bank Option 2 (largest area):

44°41.7594’ N lat. 124°30.018’ W long.
 44°41.7348’ N lat. 124°21.603’ W long.

44°25.2456' N lat.	124°16.944' W long.
44°25.2942' N lat.	124°30.1404' W long.
44°41.7594' N lat.	124°30.018' W long.

Stonewall Bank Option 3 (medium area):

44°38.544' N lat.	124°27.4122' W long.
44°38.544' N lat.	124°23.8554' W long.
44°27.132' N lat.	124°21.501' W long.
44°27.132' N lat.	124°26.8944' W long.
44°31.302' N lat.	124°28.3476' W long.

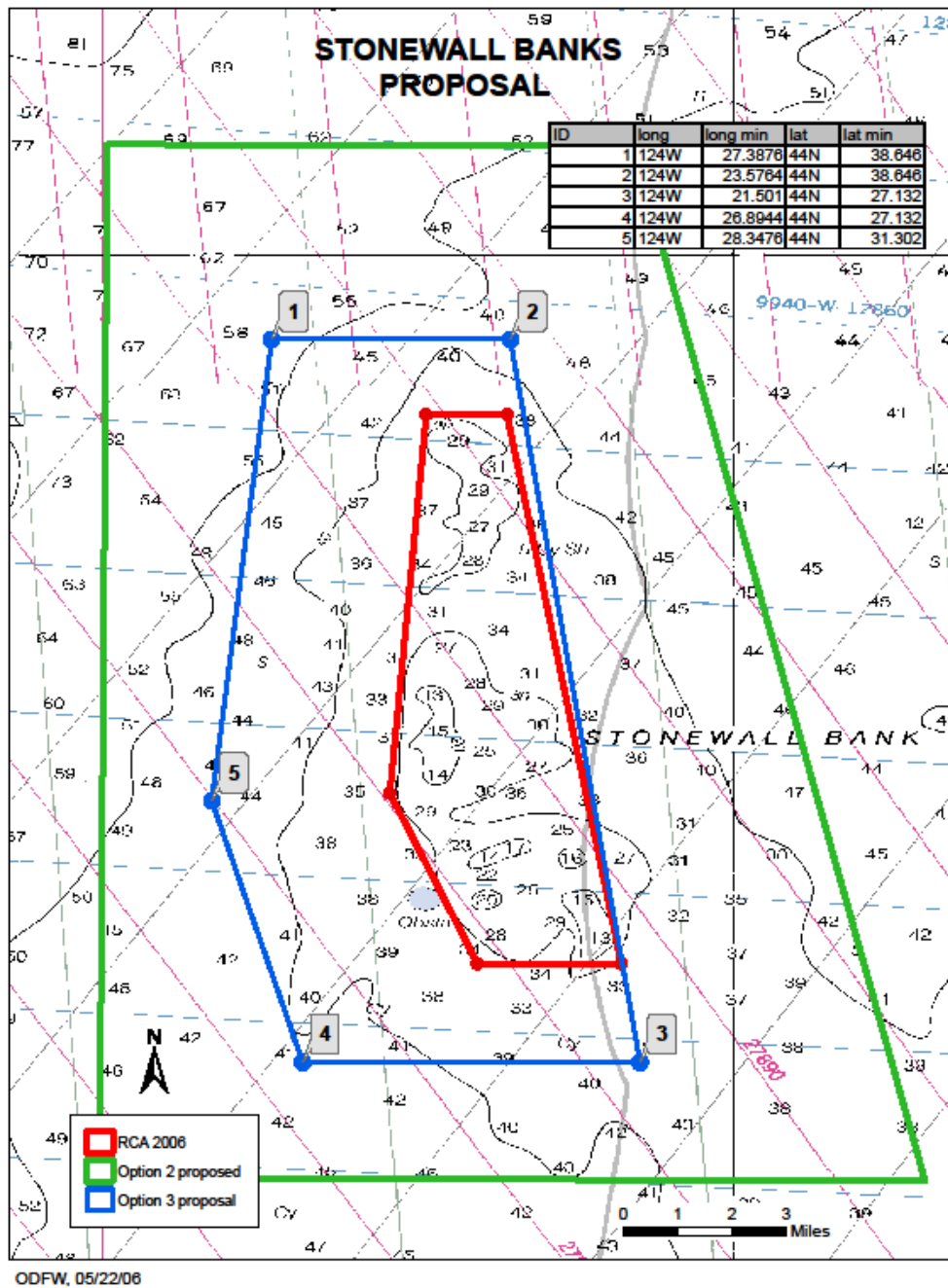


Figure C-17. The Stonewall Bank Yelloweye Rockfish Conservation Area where recreational fishing for groundfish and Pacific halibut is prohibited. Under Alternative 1, the expanded area (option 2 or 3) would be necessary to reduce yelloweye rockfish impacts.

C.3.7 California Recreational

Season and depth restriction diagrams (Figure C-18) as well as corresponding impacts on overfished species (Table C-52) and non-overfished species (Table C-53) under this alternative are provided below. The reduction in the yelloweye rockfish ACL to 14 mt would result in a 1.6

mt harvest guideline for the recreational fishery, which would not allow an increase in the four month fishing season in the Northern Management Area despite their reduced impacts on yelloweye rockfish since the 20 fm depth restriction was put in place in 2008. A reduction to the already highly constrained three month fishing season in the North-Central North of Point Arena Management Area would be needed to remain within the yelloweye rockfish harvest guideline; only a one and a half month season could be accommodated. In addition, the season length in the North-Central South of Point Arena Management Area would have to be decreased by a half month. Rather than the one month increase in season length in the South-Central Management Area proposed under Alternatives 2 and 3, the season would be reduced by 1 month to help maintain the 0.1 mt residual between the 1.6 mt harvest guideline and the 1.5 mt projected impacts for yelloweye rockfish and to remain below the bocaccio harvest guideline.

With the bocaccio harvest guideline of 27.6 mt, season lengths would have to be severely reduced by five months in the Southern Management Area resulting in only a five month fishing season during the least valuable months of the season. The resulting season would not encompass the critical months for rockfish fishing from March through April when Coastal Pelagic and Highly Migratory species are not available to the fishery. In addition, the season in the South-Central Management Area would be reduced by one month resulting in a six month fishing season to reduce bocaccio impacts to within the harvest guideline.

Under Alternative 1, the cowcod harvest guideline would be 0.1 mt under the status quo catch sharing (Option 1); cowcod is less constraining than the bocaccio ACL which requires severe season length reductions or shallower depth restrictions in the Southern Management Area to remain within its 27.6 mt harvest guideline. The bocaccio harvest guideline in 2011 and the cowcod harvest limit of 0.9 mt under the 2008 Total Mortality Report Catch (Option 2) sharing would provide a 0.85 mt residual catch any minimal increase in cowcod impacts due to the proposed increase in depth restriction in the CCA from 20 fm to 30 fm or 40 fm and retention of shelf and slope rockfish including bocaccio in the CCA. Potential increases in bocaccio impacts from these actions would be a concern given the 27.6 mt bocaccio ACL and the projected impacts of 26.6 mt in 2011, given the 1 mt residual between the projected impacts and the harvest guideline. Though there is concern as to whether the proposed changes to regulations in the CCA could be implemented, the alternative will accommodate all the other proposed changes to management measures. The reductions in season length in the Southern and South-Central Management Areas as well as forgone increases in fishing opportunity in the CCA would have extreme negative implications for fishing opportunity and the businesses in communities that rely on fishing for their economic well being.

Management Area	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months
Northern	CLOSED				May 15 - Sep 15 <20 fm								4
North-Central North of Pt. Arena	CLOSED				May 15 - June <20 fm								1.5
North-Central South of Pt. Arena	CLOSED				June-Sep < 30 fm								4
South-Central Monterey	CLOSED				May - Oct < 40 fm								6
South-Central Morro Bay	CLOSED				May - Oct < 40 fm								6
Southern	CLOSED				May -Sep < 60 fm								5

Figure C-18. Alternative 1. California Rockfish, cabezon and greenling season structure for 2011-2012.

Table C-52. Alternative 1. California recreational projected impacts to overfished species for 2011-2012.

Species	2011 HG (mt)	2012 HG (mt)	Projected Impacts (mt)	2011 Percent HG	2012 Percent HG
Yelloweye Rockfish	1.6	1.6	1.5	95%	95%
Bocaccio	32.6	27.6	26.6	82%	97%
Cowcod Option 1	0.1	0.1	0.03	31%	31%
Cowcod Option 2	0.9	0.9	0.03	3%	3%
Canary Rockfish	8.6	9.1	7.6	88%	83%
Widow Rockfish	NA	NA	7.0	NA	NA

Table C-53. Alternative 1. California recreational projected impacts to non-overfished species. Results in parenthesis reflect changes to management measures other than season and depth.

Species	Projected Impacts
Black Rockfish	148.4
Blue Rockfish	150.3
Cabazon	18.1 (19.9)
California Scorpionfish	16.6 (19.0)
California Sheephead	10.3
Greenlings	9.0
Lingcod	164.7 (196.7)
Minor Nearshore North	10.0
Minor Nearshore South	279.0

C.4 Alternative 2: Intermediate Overfished Species ACLs and Preliminary Preferred Non-overfished Species ACLs

Analytical scenario

This alternative is designed to provide contrast in the time to rebuild for overfished species and needs of the fishing community, between the Council’s preliminary preferred alternative and the low overfished species ACL alternative Table C-54.

Table C-54. Alternative 2: 2011, 2012 Overfished species harvest specifications along with the time to rebuild and T_{TARGET} currently specified in the FMP.

Species	T_{TARGET} in FMP	Median time to rebuild given ACL a/	ACL Alternative 2011 b/	ACL Alternative 2012 b/
Bocaccio	2026	2020	109	115
Canary	2021	[2026]	94	99
Cowcod	2072	2068	3	3
Darkblotched	2028	2025	298	296
POP	2017	[2019]	111	113
Petrale	TBD	2015	776	1,160
Widow	2015	2010	400	400
Yelloweye	2084	2074	17	17

a/ Values taken from Table 2-14.

. Brackets indicate times to rebuild that are longer than the T_{TARGET} currently specified in the FMP prior to the proposed action.

b/ Values taken from the harvest specification alternatives in Table 2-8 (2011) and Table 2-9 (2012).

C.4.1 Limited Entry Non-Whiting Trawl Fishery

C.4.1.1 Cumulative Trip Limit Management

Under Alternative 2, selective flatfish gear limits were lower than large and small footrope; the approach was to vary trip limits by season and gear types for petrale trip limits reduction, but average trip limits were representative and comparable to Alternative 1 and 3.

Petrale sole

Alternative 2 has the intermediate petrale sole ACL (643 mt) compared to Alternative 1 (342 mt) and Alternative 3 (865 mt). The non-whiting trawl allocation under the No Action Alternative was 1,140 mt and the Final Preferred Alternative was 871 mt in 2011. The Alternative 2 petrale model target resulted in an average bimonthly trip limit of 5,125 lbs/2 months, compared with 7,900 lbs/2 months for the No Action Alternative, 4,800 lbs/2 months for the Final Preferred Alternative in 2011.

Sablefish

Sablefish was a constraining target species in the DTS fishery. Under Alternative 2, the trawl allocation was 2,325 mt, the No Action Alternative was 2,955 mt, and the Final Preferred Alternative was 2,538 mt. This is reflected in the trip limits for sablefish, which were an average of 11,208 lbs/2 months in Alternative 2, versus 21,389 lbs/2 months in the No Action Alternative, and 13,063 lbs/2 months in the Final Preferred Alternative in 2011.

Canary rockfish (shelf)

Canary rockfish, and the other six rebuilding rockfish species, are modeled as bycatch for 2011-2012. Under Alternative 2, canary rockfish had a trawl allocation of 19.3 mt, which is 91 percent of the No Action Alternative (21.3 mt), and 97 percent of the Final Preferred Alternative (20 mt) in 2011.

Pacific Ocean perch (slope)

Under Alternative 2, Pacific Ocean perch (POP) had a trawl allocation of 63.3 mt. This is 63 percent of the No Action Alternative (100.8 mt), and 59 percent of the Final Preferred Alternative (107 mt) in 2011.

Darkblotched rockfish (slope)

Under Alternative 2, darkblotched rockfish had a trawl allocation of 241.5 mt. This is 105 percent of the No Action Alternative (230 mt), and 101 percent of the Final Preferred Alternative (240 mt) in 2011.

Widow rockfish (shelf)

Widow rockfish had a trawl allocation of 148.1 mt under Alternative 2, this is 685 percent of the No Action Alternative (21.6 mt) and 63 percent of the Final Preferred Alternative (235 mt) in 2011.

Bocaccio rockfish (shelf)

Bocaccio rockfish had a trawl allocation of 11.3mt under Alternative 2; this is 70 percent of the No Action Alternative (16.1 mt) and 19 percent of the Final Preferred Alternative (60 mt) in 2011.

Yelloweye rockfish (shelf)

Under Alternative 2, yelloweye rockfish had an allocation of 0.6 mt, which is 100 percent of the No Action Alternative (0.6 mt) and 100 percent of the Final Preferred Alternative (0.6 mt) in 2011.

Cowcod (shelf)

Under Alternative 2, cowcod had an allocation of 1.9mt, which is 127 percent of the No Action Alternative (1.5 mt) and 106 percent of the Final Preferred Alternative (1.8 mt) in 2011.

Table C-55. Alternative 2. Limited entry non-whiting trawl trip limit tables for 2011-2012.

2-month period	RCA lines (fm)		2-month cumulative-poundage limits							
	shallow	deep	sable-fish	long-spine	short-spine	Dover sole	petrale sole	arrow-tooth	other flatfish	slope rockfish
N. of 40°10' N lat.										
Large/small footrope limits										
1	75	250	14,000	20,000	18,000	110,000	6,000	150,000	110,000	6,000
2	75	200	14,000	20,000	18,000	110,000	6,000	150,000	110,000	6,000
3	75	200	13,000	20,000	18,000	110,000	5,000	150,000	110,000	6,000
4	100	200	13,000	20,000	18,000	110,000	5,000	150,000	110,000	6,000
5	75	200	13,000	20,000	18,000	110,000	5,000	150,000	110,000	6,000
6	75	250	14,000	20,000	18,000	110,000	6,000	150,000	110,000	6,000
Selective gear limits										
1	75	250	7,000	5,000	5,000	50,000	3,500	50,000	40,000	
2	75	200	7,000	5,000	5,000	50,000	3,500	50,000	40,000	
3	75	200	8,000	5,000	5,000	50,000	3,500	50,000	40,000	
4	100	200	8,000	5,000	5,000	50,000	3,500	50,000	40,000	
5	75	200	7,000	5,000	5,000	50,000	3,500	50,000	40,000	
6	75	250	7,000	5,000	5,000	50,000	3,500	50,000	40,000	
38° - 40°10' N lat.										
1	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	15,000
2	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	15,000
3	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	15,000
4	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	15,000
5	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	15,000
6	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	15,000
S. of 38° N lat.										
1	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	55,000
2	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	55,000
3	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	55,000
4	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	55,000
5	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	55,000
6	100	150	12,000	20,000	18,000	110,000	5,000	10,000	110,000	55,000

Table C-56. Alternative 2. Limited entry non-whiting trawl projected impacts for 2011-2012.

Major Target Species	Model Target	Model Projection	Proj. - Target	Proj. % of Target
Sablefish N of 36° N. lat.	2,325	2,324	-1	100.0%
Longspine N. of 34 27' N. lat.	2,000	1,337	-663	66.9%
Shortspine N. of 34 27' N. lat.	1,450	1,418	-32	97.8%
Dover sole	16,306	12,492	-3,814	76.6%
Arrowtooth flounder	14,166	4,607	-9,559	32.5%
Petrale sole	643	632	-11	98.3%
English sole	18,659	439	-18,220	2.4%
Other flatfish	4,886	840	-4,046	17.2%
Minor Slope Rockfish North	877	170	-707	19.4%
Minor Slope Rockfish South	394	234	-160	59.4%
Rebuilding Species				
Canary rockfish	19.3	9.7	-10	50.2%
Pacific ocean Perch	63.3	41.8	-21	66.0%
Darkblotched rockfish	241.5	108.8	-133	45.1%
Widow rockfish	148.1	8.7	-139	5.9%
Yelloweye rockfish	0.6	0.2	0	31.8%
Bocaccio	11.3	5.5	-6	48.3%
Cowcod	1.9	0.3	-2	14.1%

C.4.2 Limited Entry Trawl Whiting

Pacific whiting harvest specifications are completed on an annual basis, thus the Council requested a range of potential whiting ACLs for more detailed analysis in order to understand the potential range of overfished species impacts and constraints (Table 2-8). Alternative 2 informs the bycatch impacts relative to the intermediate whiting ACL (193,935 mt) and the intermediate overfished species ACLs. Under Alternative 2, the analysis assumes that Amendment 21: Intersector Allocation is implemented on January 1, 2011, and as such formal allocations of darkblotched, POP, and widow rockfish are made to the whiting sectors. That is, the bycatch model for projecting overfished species impacts relative to the whiting ACL is no longer used for setting darkblotched, POP, and widow rockfish sector bycatch limits. For canary rockfish, Alternative 2 was analyzed using the Council's preliminary preferred 2-year allocation of canary to the whiting sectors. Table C-57 contains the Pacific whiting and overfished species allocations under Alternative 2.

Table C-57. Alternative 2: Pacific whiting and overfished species allocations by sector using Amendment 21 for darkblotched, POP, and widow and the Council’s preliminary preferred two year allocation of canary rockfish.

Catcher Processor

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)	2007 Impacts (mt)
Whiting	193,935	193,935	47,939	47,939	
Canary	94	99	4.3	4.6	0.4
DRK	298	296	9	9	5.3
POP	111	113	10	10	2.9
Widow	400	400	55	55	72.8

Mothership

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)	2007 Impacts (mt)
Whiting	193,935	193,935	33,839	33,839	
Canary	94	99	3	3.2	1.6
DRK	298	296	6	6	6.7
POP	111	113	7	7	0.7
Widow	400	400	39	39	73.0

Shoreside

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)	2007 Impacts (mt)
Whiting	193,935	193,935	59,218	59,218	
Canary	94	99	5.3	5.7	2.0
DRK	298	296	11	11	1.0
POP	111	113	13	13	23.1
Widow	400	400	67	67	89.0

Table C-57 also compares the results of the overfished species allocation decisions to the impacts seen in 2007 (Chapter 2 Table 2-54), a year in which the whiting OY (208,091 mt) was similar to the Alternative 2 ACL (193,935 mt). While the whiting fishery is very dynamic and conditions (e.g., whiting schooling/availability, bycatch interactions, etc.) vary from year to year may vary, the comparison of overfished species impacts is still informative. For the catcher-processor sector, the allocations are higher than the impacts seen in 2007. As such, it is likely that the fleet will attain their whiting allocation within the overfished species allocations.

For the mothership sector, the Amendment 21 allocations are lower than the 2007 impacts for darkblotched and widow rockfish. For the shoreside sector, the POP and widow Amendment 21 allocation is less than the impacts seen in 2007. In 2007, the whiting fishery (all sectors) was

closed on August 17, 2007 when the widow rockfish bycatch limit was reached (72FR46176) and re-opened in October when available widow yield was added to the total catch limit by the Council and NMFS (72FR56664). However, there was concern that the canary total catch limit would be exceeded that fall without a mitigating management restriction on the fishery. Therefore, the Council and NMFS re-opened the fishery with a 150 fm depth restriction, which forced the fleets to fish in deeper waters than they normally fished to avoid canary. As such, both sectors will need to be aware of the slope overfished species constraints under this alternative in order to successfully harvest their whiting allocation.

C.4.3 Non-Nearshore Fixed Gear

Alternative 2 analyses the Council’s preliminary preferred sablefish ACL (updated with the technical corrections made in June - (Table C-58) along with the intermediate overfished species ACL alternatives and the associated preliminary preferred decision for apportionments of overfished species to the non-nearshore fleet (Table C-59). As shown previously, the sablefish ACL (and therefore the allocation for non-nearshore fixed gear fisheries) will be lower in 2011 and 2012 than observed in 2010 (Table C-58). Because the model used to estimate impacts of this fishery to overfished species assumes full attainment of the allocation, the reduced ACL for 2011 and 2012 will automatically reduce the modeled impacts of overfished species relative to 2010 (i.e., bycatch projections for the limited entry fixed gear fishery under Alternative 2 are lower compared to No Action).

Table C-58. Alternative 2: Preliminary preferred sablefish ACL and allocations north of 36° N. latitude compared to No Action (2010).

Species	Fishery	2010 (mt)	2011 (mt)	2012 (mt)
Sablefish N. 36° N. Lat.	OY/ACL	6,471	5,515	5,347
	LE Fixed Gear Allocation	2,140	1,874	1,816
	----LE Fixed Gear Primary	1,819	1,593	1,544
	----LE Fixed Gear Daily Trip Limit	321	281	272
	Open Access	529	463	449

Table C-59. Alternative 2: Non-nearshore apportionment of the non-trawl under the intermediate overfished species ACLs.

Species	2011 Apportionment (mt)	2012 Apportionment (mt)	Comments
Canary rockfish	3.3	3.5	
Yelloweye rockfish	1.6	1.6	Includes 0.3 mt for OA DTL and 1.3 mt for LE FG

Projected overfished species impacts are provided for two options under Alternative 2: option 1 provides impacts through implementation of the status quo seaward non-trawl RCA boundary configuration (Figure C-19) whereas option 2 shows impacts to overfished species with the seaward RCA boundary configuration that was used prior to the 2009-2010 (Figure C-20). Yelloweye is the stock for which the Council put the current non-trawl RCA boundaries into

place. Regardless of the RCA configuration (option 1 or option 2), the modeled impact to overfished species by both limited entry and open access combined (Table C-60, Table C-61, Table C-62, Table C-63) is less than Council’s preliminary preferred apportionment for these non-nearshore fisheries. This is due to the reduced-sablefish ACLs as described above. Overall, the modeled impacts for canary rockfish and yelloweye were 2.0 and 0.8 mt, respectively, for 2011. These predicted catch levels are much lower than the preliminary preferred apportionments of 3.3 and 1.6 mt for canary rockfish and yelloweye, respectively, for 2011. The modeled impacts for 2012 are also much lower than apportionments set for 2012.

Option 2 provides more fishing area to operate than option 1 by liberalizing the 125 fm seaward RCA to 100 fm between 43° and 45.064° N. latitude, while reducing impacts to canary and providing only marginal increased impacts to yelloweye relative to option 1 (0.1 mt or less increase projected yelloweye catch). This action would return the RCA structure to that observed prior to 2009. This action would provide more fishing grounds, reduce interactions and potential conflicts among non-nearshore fishermen and other sectors (e.g., bottom trawl), and decrease the expense and hazards of reaching the nearest fishing grounds.

Seaward RCA Boundary	36°- 40° 10'	40°10'- Col/Eur 43°	Col/Eur 43°- Cascade Head 45.064°	Cascade Head 45.064°- Pt. Chehalis 46.888°	North of Pt. Chehalis 46.888°
Shoreward boundary to 100 fm					
100 fm					
125 fm					
150 fm					
>150 fm					

Figure C-19. Alternative 2, Option 1. Non-trawl RCA seaward configuration. The shoreward configuration of the RCA is driven by the nearshore model. Grey shading indicates areas closed to fishing.

Seaward RCA Boundary	36°- 40° 10'	40°10'- Col/Eur 43°	Col/Eur 43°- Cascade Head 45.064°	Cascade Head 45.064°- Pt. Chehalis 46.888°	North of Pt. Chehalis 46.888°
Shoreward boundary to 100 fm					
100 fm					
125 fm					
150 fm					
>150 fm					

Figure C-20. Alternative 2, Option 2. Non-trawl RCA seaward configuration, which was the structure prior to 2009-2010, i.e., 100 fm north of 40°10' N. latitude. Grey shading indicates areas closed to fishing.

Limited Entry Fixed Gear North of 36° N. latitude

For limited entry fixed gear north of 36° N. latitude, the modeled impacts to overfished species under Alternative 2, option 1, which maintains status quo seaward RCA boundaries (Figure C-19) are shown in Table C-60. The impact for all overfished species is low relative to the Council’s preliminary preferred apportionment of overfished species to non-nearshore sector. Under this option, no further reductions in sablefish harvest are necessary relative to the levels shown in Table C-58. Impacts to the limited entry and open access fixed gear sectors combined are described above.

Table C-60. Alternative 2, Option 1: Non-nearshore modeled-overfished species projected impacts for the limited entry fixed gear sectors north of 36° N. latitude with the 2009-10 RCA configuration, i.e., from Columbia/Eureka to Cascade Head at 125 fm.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	1.7	1.6
Darkblotched rockfish	3.2	3.0
Pacific ocean perch	0.3	0.3
Widow rockfish	0.1	0.1
Yelloweye rockfish	0.7	0.6

For limited entry fixed gear north of 36° N. latitude, the modeled impacts to overfished species under Alternative 2, option 2, which liberalizes the seaward RCA boundary to the pre-2009 configuration (Figure C-20), are shown in Table C-61. The impact of this option for all overfished species is low relative to the Council’s preliminary preferred apportionment of overfished species to non-nearshore sector. Under this option, no further reductions in sablefish harvest are necessary relative to the levels shown in Table C-58. Impacts to the limited entry and open access fixed gear sectors combined are described above.

Table C-61. Alternative 2, Option 2. Non-nearshore modeled-overfished species projected impacts for the open access fixed gear sectors north of 36° N. latitude with the RCA configuration prior to 2009-2010, i.e., north of 40°10 N. latitude the non-trawl RCA is at 100 fm.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	1.7	1.6
Darkblotched rockfish	3.2	3.0
Pacific ocean perch	0.3	0.3
Widow rockfish	0.1	0.1
Yelloweye rockfish	0.7	0.6

Sablefish Open Access DTL Fishery north of 36° N. latitude

For the open access DTL fishery north of 36° N. latitude, the modeled impacts to overfished species under Alternative 2, option 1, which maintains status quo seaward RCA boundaries (Figure C-19), are shown in Table C-62. The impact of this option for all overfished species is low relative to the Council’s preliminary preferred apportionment of overfished species to non-nearshore sector. Under this option, no further reductions in sablefish harvest are necessary relative to the levels shown in Table C-58. Impacts to the limited entry and open access fixed gear sectors combined are described above.

Table C-62. Alternative 2, Option 1. Non-nearshore modeled-overfished species projected impacts for the open access fixed gear sectors north of 36° N. latitude with the 2009-10 RCA configuration, i.e., from Columbia/Eureka to Cascade Head at 125 fm.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	0.3	0.3
Darkblotched rockfish	0.8	0.8
Pacific ocean perch	0.0	0.0
Widow rockfish	0.0	0.0
Yelloweye rockfish	0.1	0.1

For the open access DTL fishery north of 36° N. latitude, the modeled impacts to overfished species under Alternative 2, option 2, which liberalizes the seaward RCA boundary to the pre-2009 configuration (Figure C-20), are shown in Table C-63. The impact of this option for all overfished species is low relative to the Council’s preliminary preferred apportionment of overfished species to non-nearshore sector. Under this option, no further reductions in sablefish harvest are necessary relative to the levels shown in Table C-58. Impacts to the limited entry and open access fixed gear sectors combined are described above.

Table C-63. Alternative 2, Option 2. Non-nearshore modeled-overfished species projected impacts for the open access fixed gear sectors north of 36° N. latitude with the RCA configuration prior to 2009-2010, i.e., north of 40°10 N. latitude the non-trawl RCA is at 100 fm.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	0.3	0.3
Darkblotched rockfish	0.7	0.7
Pacific ocean perch	0.0	0.0
Widow rockfish	0.0	0.0
Yelloweye rockfish	0.1	0.1

C.4.4 Nearshore Fixed Gear

Under Alternative 2, Oregon is severely constrained by yelloweye rockfish and California is constrained by yelloweye and canary rockfish. Under this harvest level, neither state can maintain opportunities similar to 2009-2010. As such, nearshore fishermen and communities will continue to be adversely impacted by the low available yelloweye. Since black rockfish and greenling are important target strategies in Oregon, lower reductions in landed catch were taken for these species relative to others to stay within overfished species impacts. In California, black rockfish is an important target strategy in the area between 42° and 40°10' N lat and cabezon is an important target strategy statewide; therefore higher landings were maintained for these species relative to others while staying within overfished species impacts

To facilitate modeling of target species, the GMT assumed two catch sharing relationships for yelloweye rockfish - 50:50 (OR:CA) and 55:45 (OR:CA). The rationale for these two options is described in Appendix A, Description of Catch Projection Models.

Under this alternative, two sub-options (a and b) are provided to show the tradeoffs between more restrictive depth restrictions and higher reductions in landed catch (Table C-64 and Table C-65). In Oregon, overfished species impacts are modeled assuming a 20 fm depth restriction (option a - Figure C-21) and a 30 fm depth restriction (option b - Figure C-22). In California, overfished species impacts are modeled assuming a 20 fm depth restriction statewide (option a) and a 20 fm depth restriction between 42° and 40°10' N lat only (option b). Although the 20 fm depth restriction provided little yelloweye savings in Oregon, it provided greater savings in California since a greater proportion of catch comes from the deeper depths (Table C-66 and Table C-67).

Under Alternative 2, option 1, the nearshore fishery is modeled assuming a 50:50 catch sharing of yelloweye rockfish between Oregon and California. Reductions to landed catch under this alternative are taken from average landings of 2007-2009 for Oregon and 2006-2008 for California (Table C-25).

North of 42° N. latitude – under option 1a, a 20 fm depth restriction would be maintained from 42° N. latitude to 43° N. latitude. Reductions to landed catch would be as follows: 51 percent for black rockfish and greenling, 62 percent remaining species. Under option 1b, the 20 fm depth restriction would be liberalized to 30 fm. In this case, yelloweye bycatch rates increase so landings would be further restricted to prevent exceeding the yelloweye share. The reductions to landed catch would be as follows: 58 percent for black rockfish and greenling, 69 percent other species.

South of 42° N. latitude – under option 1a, a 20 fm depth restriction would be implemented statewide. No reductions to landed catch would be necessary due to the savings afforded by the 20 fm depth restriction. Landings for black rockfish would be increased between 42° N. latitude and 40°10' N. latitude. Cabezon would be increased statewide to reflect the higher ACL available as a result of the new assessment. Under option 1b, a 20 fm depth restriction would remain in effect between 42° N. latitude and 40°10' N. latitude only. Reductions in landed catch (42 percent in 2011; 35 percent in 2012) would be necessary for some species except cabezon, which would remain at the maximum allowable amount under the higher ACL.

Under Alternative 2, option 2, the nearshore fishery is modeled assuming a 55:45 (OR:CA) catch sharing of yelloweye rockfish. Reductions to landed catch under this alternative are taken from average landings of 2007-2009 for Oregon and 2006-2008 for California (Table C-25).

North of 42° N. latitude – under option 2a, a 20 fm depth restriction would be maintained from 42° N. latitude to 43° N. latitude. Reductions to landed catch would be as follows: 47 percent for black rockfish and greenling, 59 percent remaining species. Under option 2b, a 30 fm depth restriction would be implemented. The bycatch rate for yelloweye would be expected to increase, which would lead to further reductions to landed catch as follows: 55 percent for black rockfish and greenling, 66 percent other species.

South of 42° N. latitude – under option 2a, a 20 fm depth restriction would be implemented statewide. No reductions to landed catch would be necessary due to the savings afforded by the 20 fm depth restriction. Landings for black rockfish would be increased between 42° N. latitude and 40°10'N. latitude. Cabezon would be increased statewide to reflect the higher ACL available as a result of the new assessment. Under option 2b, a 20 fm depth restriction would remain in effect between 42° N. latitude and 40°10' N. latitude only. Reductions in landed catch (42 percent in 2011; 35 percent in 2012) would be necessary for some species except cabezon, which would remain at the maximum allowable amount under the higher ACL.

Projected overfished species impacts under this alternative are summarized by area and option in Table C-66.

Table C-64. Alternative 2: Nearshore fishery projected total catch by area and option for 2011.

Area	Option 1a	Option 1b	Option 2a	Option 2b
Grand Total	413	328	420	336
Black rockfish	152	121	156	125
Blue rockfish	21	13	21	13
Cabezon	80	78	80	78
Deeper nearshore RF	29	17	29	17
Kelp greenling	11	9	12	10
Lingcod	55	52	57	53
Other minor RF	14	9	14	9
Shallow nearshore RF	51	30	51	30
North of 42° N. lat.	98	82	105	89
Black rockfish	54	46	58	50
Blue rockfish	1	1	1	1
Cabezon	10	8	10	9
Kelp greenling	10	8	11	9
Lingcod	19	16	21	17
Other minor nearshore rockfish	4	3	4	3
42° - 40°10' N. lat.	140	109	140	109
Black rockfish	95	73	95	73
Blue rockfish	13	8	13	8
Cabezon	7	7	7	7
Kelp greenling	0	0	0	0

Area	Option 1a	Option 1b	Option 2a	Option 2b
Lingcod	15	15	15	15
Other minor nearshore rockfish	10	6	10	6
South of 40°10' N. lat.	175	137	175	138
Black rockfish	3	2	3	2
Blue rockfish	7	4	7	4
Cabazon	63	63	63	63
Deeper nearshore rockfish	29	17	29	17
Kelp greenling	1	1	1	1
Lingcod	21	21	21	21
Shallow nearshore rockfish	51	30	51	30

Table C-65. Alternative 2: Nearshore fishery projected total catch by area and option for 2012.

Area	Option 1a	Option 1b	Option 2a	Option 2b
Grand Total	413	328	420	336
Black rockfish	152	121	156	125
Blue rockfish	21	13	21	13
Cabazon	80	78	80	79
Deeper nearshore RF	29	17	29	17
Kelp greenling	11	9	12	10
Lingcod	55	52	57	53
Other minor RF	14	9	14	9
Shallow nearshore RF	51	30	51	30
North of 42° N. lat.	98	82	105	89
Black rockfish	54	46	58	50
Blue rockfish	1	1	1	1
Cabazon	10	8	10	9
Kelp greenling	10	8	11	9
Lingcod	19	16	21	17
Other minor nearshore rockfish	4	3	4	3
42° - 40°10' N. lat.	140	109	140	109
Black rockfish	95	73	95	73
Blue rockfish	13	8	13	8
Cabazon	7	7	7	7
Kelp greenling	0	0	0	0
Lingcod	15	15	15	15
Other minor nearshore rockfish	10	6	10	6

Area	Option 1a	Option 1b	Option 2a	Option 2b
South of 40°10' N. lat.	175	137	175	138
Black rockfish	3	2	3	2
Blue rockfish	7	4	7	4
Cabezon	63	63	63	63
Deeper nearshore rockfish	29	17	29	17
Kelp greenling	1	1	1	1
Lingcod	21	21	21	21
Shallow nearshore rockfish	51	30	51	30

Shoreward RCA Boundary	South 34°27'	34°27' - 40° 10'	40°10' - 42°	42° - Col/Eur 43°	Col/Eur 43° - 46°16'	North of 46°16'
Shore						
20 fm						
30 fm						
60 fm						

Figure C-21. Alternative 2: Nearshore shoreward RCA configuration under option 1a and 2a, the higher landings more restrictive RCA option. Grey shading indicates areas closed to fishing.

Shoreward RCA Boundary	South 34°27'	34°27' - 40° 10'	40°10' - 42°	42° - Col/Eur 43°	Col/Eur 43° - 46°16'	North of 46°16'
Shore						
20 fm						
30 fm						
60 fm						

Figure C-22. Alternative 2: Nearshore shoreward RCA configuration under option 1b and 2b, the lower landings less restrictive RCA option. Grey shading indicates areas closed to fishing.

Table C-66. Alternative 2: Nearshore overfished species bycatch projections for the under the option 1 and 2 RCA structures for 2011.

Species	Area	Option 1a	Option 1b	Option 2a	Option 2b
Bocaccio		0.0	0.2	0.0	0.2
	OR: North of 42	0.0	0.0	0.0	0.0
	CA: 42° - 40°10	0.0	0.0	0.0	0.0
	CA: South of 40°10	0.0	0.2	0.0	0.2
Canary		2.0	2.0	2.0	2.0
	OR: North of 42	0.4	0.3	0.4	0.4
	CA: 42° - 40°10	0.9	0.7	0.9	0.7
	CA: South of 40°10	0.8	1.0	0.8	1.0
Widow		0.3	0.2	0.3	0.2
	OR: North of 42	0.0	0.0	0.0	0.0
	CA: 42° - 40°10	0.3	0.2	0.3	0.2
	CA: South of 40°10	0.0	0.0	0.0	0.0
Yelloweye		0.7	0.6	0.7	0.7
	OR: North of 42	0.4	0.4	0.4	0.4
	CA: 42° - 40°10	0.3	0.2	0.3	0.2
	CA: South of 40°10	0.0	0.1	0.0	0.1

Table C-67. Alternative 2. Nearshore overfished species bycatch projections under the option 1 and 2 RCA structures for 2012.

Species	Area	Option 1a	Option 1b	Option 2a	Option 2b
Bocaccio		0.0	0.3	0.0	0.3
	OR: North of 42	0.0	0.0	0.0	0.0
	CA: 42° - 40°10	0.0	0.0	0.0	0.0
	CA: South of 40°10	0.0	0.3	0.0	0.3
Canary		2.1	2.1	2.1	2.1
	OR: North of 42	0.4	0.3	0.4	0.4
	CA: 42° - 40°10	1.0	0.7	1.0	0.7
	CA: South of 40°10	0.8	1.0	0.8	1.0
Widow		0.3	0.2	0.3	0.2
	OR: North of 42	0.0	0.0	0.0	0.0
	CA: 42° - 40°10	0.3	0.2	0.3	0.2
	CA: South of 40°10	0.0	0.0	0.0	0.0
Yelloweye		0.7	0.6	0.7	0.7
	OR: North of 42	0.4	0.4	0.4	0.4
	CA: 42° - 40°10	0.3	0.2	0.3	0.2
	CA: South of 40°10	0.0	0.1	0.0	0.1

C.4.5 Washington Recreational

Washington groundfish fishery management measures under Alternative 2 are the same as the Final Preferred Alternative.

Groundfish Seasons and Bag Limits

Under Alternative 2, the Washington recreational fishery would be open year-round except for lingcod (Figure C-23). The aggregate groundfish bag limit would be reduced from 15 to 12 fish per angler per day. The aggregate groundfish bag limit would continue to include sub limits for rockfish (10 per angler per day) and lingcod (two per angler per day) but a new sub limit of two cabezon per angler per day would be added for 2011 and 2012.

Lingcod Seasons and Size Limits

Under Alternative 2, the following lingcod seasons and size limits would apply in 2011 and 2012:

- Marine Areas 1-3 (from the Oregon/Washington border at 46°16' N. latitude north to Cape Alava at 48°10' N. latitude): open from March 12 through October 15 in 2011 and March 17 through October 13 in 2012.
- Marine Area 4 (Cape Alava to the US/Canadian border): open from April 16 to October 15 in 2011 and April 16 to October 13 in 2012.
- The lingcod minimum size limit during the open lingcod season would be 22 inches in Marine Areas 1-3 and 24 inches in Marine Area 4.

Area Restrictions

The Washington recreational groundfish and Pacific halibut fisheries would be prohibited from fishing for, retention or possession of groundfish and halibut in the C-shaped yelloweye rockfish conservation area in the north coast and South Coast and Westport YRCAs in the south coast as they were in the 2009 and 2010 seasons.

Marine Area	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
3 & 4 (N. Coast)	Open all depths					Open <20 fm June 1-Sep 30 a/				Open all depths		
2 (S. Coast)	Open all depths		Open <30 fm Mar 15 - June 15 b/, c/, d			Open all depths except lingcod prohibited on Fri. and Sat. >30 fm e/			Open all depths			
1 (Col. R.)	Open all depths					Open all depths f/				Open all depths		
a/ Groundfish retention allowed >20 fm on days when Pacific halibut is open. b/ Retention of sablefish and Pacific cod allowed seaward of 30 fm from May 1- June 15. c/ Retention of rockfish allowed seaward of 30 fm. d/ Retention of lingcod allowed seaward of 30 fm on days that the primary halibut season is open. e/ Retention of lingcod prohibited >30 fm, south of 46°58' on Fri. and Sat. from July 1 – August 31. f/ Retention of groundfish, except sablefish and Pacific cod, prohibited with Pacific halibut on board.												

Figure C-23. Alternative 2. Washington recreational season structure for 2011-2012.

North Coast (Marine Areas 3 and 4)

Prohibit the retention of groundfish seaward of a line approximating 20 fathoms from June 1-September 30, except on days that halibut fishing is open.

South Coast (Marine Area 2)

Groundfish retention, except rockfish would be prohibited seaward of 30 fathoms from March 15 through June 15. Sablefish and Pacific cod retention would be allowed in this area from May 1 through June 15. On days that the primary halibut season is open, lingcod may be retained throughout Marine Area 2. Retention of lingcod would be prohibited south of 46 deg. 58' and seaward of 30 fathoms on Fridays and Saturdays from July 1 through August 31. Fishing for, retention and possession of groundfish would be prohibited at all times in the South Coast YRCA and Westport Offshore YRCA.

Columbia River (Marine Area 1)

Prohibit the retention of groundfish, except sablefish and Pacific cod, with halibut onboard from May 1 through September 30.

Table C-68. Alternative 2. Washington recreational harvest guideline and projected impacts under Alternative 2

Species	WA Recreational Harvest Guideline (mt)	Projected Impacts (mt)
Canary	4.4 / 4.7	0.7
Yelloweye	2.6 / 2.6	2.5
Black rockfish	N/A	186.7
Minor nearshore rockfish	N/A	6.1

C.4.6 Oregon Recreational

Depth management is the main tool used for controlling yelloweye rockfish catch in the Oregon recreational fishery. The options range from the most restrictive (Oregon Recreational Option 1, Figure C-24), a year round season with April through September open only shoreward of 25 fathoms to the least restrictive option (Oregon Recreational Option 3, Figure C-24), a year round season with April through September open only shoreward of 40 fathoms. Oregon Recreational Option 3 reflects the No Action 2009-10 Oregon recreational groundfish season. Table C-69 outlines the projected impacts for modeled species by option under this alternative.

Option	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Open all depths			Open < 25 fm						Open all depths		
2	Open all depths			Open < 30 fm						Open all depths		
3	Open all depths			Open < 40 fm						Open all depths		

Figure C-24. Alternative 2. Options for Oregon recreational groundfish season in 2011-12

Under Alternative 2, the Oregon recreational groundfish fishery would be able to operate a year round fishery with April through September being under some depth restrictions (25, 30, or 40 fathoms). Under this alternative, groundfish retention in the all-depth Pacific halibut fishery would not be allowed under any of the options in Figure C-24.

2011-12 Bag and Size Limit Alternatives

Under Alternative 2, the No Action alternative bag limits for marine fish, lingcod, and flatfish would remain in place, except for cabezon. These daily-bag-limits provide the flexibility to make necessary adjustments through the yearly state process, reflecting the progression of the current year's fishery. The state process will likely start off each season with reduced marine and lingcod daily bag limits and may increase or further reduce them in season depending on the progression of the fishery relative to the impact on species with harvest targets/guidelines and state landing caps. A reduction in cabezon impacts would be necessary and can be accomplished with a seasonal sub-bag limit of one fish. The sub-bag limit coincides with the months that the groundfish fishery is restricted to inside of 40 fathoms. Other than this alternative, all other bag and size limits are the same as specified in 2009-10 and described under the No Action Alternative, including no retention of yelloweye or canary rockfish at any time or depth.

The shore fishery would be managed for a year round season as yelloweye rockfish are not impacted. Also, fishing for, take, retention and possession of sanddabs and “other flatfishes”, excluding Pacific halibut would be legal year round and open shoreward of 40 fathoms during any period the groundfish fishery has any depth restrictions. The flatfish fishery would not have any depth restrictions when the groundfish fishery has no depth restrictions (i.e. 40, 30, 25 and 20 fm lines).

2011-12 Area Restriction Alternatives

No changes to the current boundary of the Stonewall Bank YRCA would necessary.

Table C-69. Alternative 2. Oregon recreational projected impacts for 2011-2012 under the Council’s preliminary preferred apportionment and intermediate overfished species ACLs.

Species	Projected Impacts (mt)		
	Option 1	Option 2	Option 3
Canary Rockfish	2.4	2.3	2.2
Yelloweye Rockfish	2.1	2.1	1.9
Black Rockfish	330.5	330.5	330.5
Blue Rockfish	20.4	20.4	20.4
Other Nearshore Rockfish a/	12.7	12.7	12.7
Greenling (Kelp and Rock)	4.6	4.6	4.6

a/ Other Nearshore Rockfish includes: brown, china, copper, grass, and quillback rockfish

C.4.7 California Recreational

Season and depth restriction diagrams (Figure C-25) as well as corresponding impacts on overfished species (Table C-70) and non-overfished species (Table C-71) under this alternative are provided below. This alternative would not allow an increase in the season length in the Northern Management Area despite their reduced impacts on yelloweye rockfish since the 20 fm depth restriction was put in place in 2008. This alternative would also result in a half month reduction in the already highly constrained three month season length in the North-Central North of Point Arena Management Area with the loss of the first two weeks of August. In the North-Central South of Point Arena Management Area, October would be closed to fishing while the season start date was moved from June 13th to June 1st, with the overall effect of reducing the season length by a half month relative to the No Action Alternative. In this management area, both yelloweye and blue rockfish constrain the season lengths. The season length in the Monterey and Morro Bay South-Central Management Areas could still be increased to include December, increasing the season length by one and a half months since yelloweye rockfish is not constraining in this area.

Though the canary rockfish impacts for the California recreational fishery in 2009 were far below the 22.9 mt harvest guideline, the annual catches of canary rockfish in the recreational fishery are variable and this residual buffer between projected impacts of 7.4 mt and the harvest guideline of 16.5 mt in 2011 should be maintained to prevent the need for inseason action to close the fishery before the proscribed date. The bocaccio harvest guideline of 61.9 mt in 2011 under the catch

sharing alternative selected by the Council and the cowcod harvest limit of 1.4 mt under the Total Mortality Report catch sharing (Option 2) would provide sufficient residual catch to allow the proposed 30 fm or 40 fm depth restriction in the CCA and retention of shelf and slope rockfish including bocaccio in the CCA.

In addition the proposed options under Alternative 2 will accommodate the proposed changes to management measures other than depth and season.

Management Area	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months
Northern	CLOSED				May 15 - Sep 15 <20 fm								5.5
North-Central North of Pt. Arena	CLOSED				May 15 - Jul <20 fm								2.5
North-Central South of Pt. Arena	CLOSED				June-Sep < 30 fm								4
South-Central Monterey	CLOSED				May - Dec < 40 fm								8
South-Central Morro Bay	CLOSED				May - Dec < 40 fm								8
Southern	CLOSED		Mar -Dec < 60 fm										10

Figure C-25. Alternative 2. California recreational rockfish, cabezon and greenling season structure for 2011-2012.

Table C-70. Alternative 2. California recreational projected impacts to overfished species for 2011-2012.

Species	2011 HG (mt)	2012 HG (mt)	Projected Impacts (mt)	2011 Percent HG	2012 Percent HG
Yelloweye Rockfish	2.6	2.6	2.4	94%	94%
Bocaccio	61.9	65.8	52.2	84%	79%
Cowcod Option 1	0.2	0.2	0.17	85%	85%
Cowcod Option 2	1.4	1.4	0.17	12%	12%
Canary Rockfish	16.5	17.7	7.4	45%	42%
Widow Rockfish	NA	NA	7.8	NA	NA

Table C-71. Alternative 2. California recreational projected impacts to non-overfished species for 2011-2012. Results in parenthesis reflect changes to management measures other than season and depth.

Species	Projected Impacts
Black Rockfish	145.0
Blue Rockfish	145.1
Cabazon	21.6 (23.8)
California Scorpionfish	61.4 (63.8)
California Sheephead	31.7
Greenlings	9.3
Lingcod	170.3 (209.7)
Minor Nearshore North	7.8
Minor Nearshore South	286.1

C.5 Alternative 3 – The Council’s April 2010 Preliminary Preferred Overfished Species ACL Alternatives and Non-Overfished Species ACLs

Analytical scenario

The biological strategy underlying this alternative is to follow the process outlined in the Groundfish Fishery Management Plan and recommended by the Science and Statistical Subcommittee, and continue with a constant spawning biomass per recruit (SPR) harvest rate for most overfished species applied to the latest stock assessment, except for widow rockfish and yelloweye (Table C-72). Since widow rockfish appears to be rebuilt in 2010 under all 2011-2012 harvest removals (i.e., from 200 to 3,000 mt), the widow ACL is set at 600 mt to accommodate fisheries while still achieving rebuilding. The yelloweye ACL represents a departure from the status quo harvest rate (71.9 percent) which is also the ramp-down goal harvest rate. The reason for this departure is because maintaining the status quo harvest rate would not result in rebuilding by the T_{target} of 2084. As such, the ACL option is 20 mt for both 2011 and 2012 which is projected to result in rebuilding by T_{target} .

The Council stated that the bocaccio ACL is not a preliminary preferred, but an ACL for more detailed analysis. For the purposes of analysis, the bocaccio ACL was included under Alternative 3 with the remaining preliminary preferred overfished species ACLs.

Table C-72. Alternative 3: 2011, 2012 Overfished species harvest specifications along with the time to rebuild and T_{TARGET} currently specified in the FMP.

Species	T_{TARGET} in FMP	Median time to rebuild given ACL a/	ACL Alternative 2011 b/	ACL Alternative 2012 b/
Bocaccio	2026	2022	263 mt	274 mt
Canary	2021	[2027]	102 mt	107 mt
Cowcod	2072	2071	4 mt	4 mt
Darkblotched	2028	2027	332 mt	329 mt
Petrale	TBD	2016	976 mt	1,160 mt
POP	2017	[2020]	180 mt	183 mt
Widow	2015	2010	600 mt	600 mt
Yelloweye	2084	2084	20 mt	20 mt

a/ Values taken from Table 2-14.

. Brackets indicate times to rebuild that are longer than the T_{TARGET} currently specified in the FMP prior to the proposed action.

b/ Values taken from the harvest specification alternatives in Table 2-8 (2011) and Table 2-9 (2012).

C.5.1 Limited Entry Non-Whiting Trawl Fishery

C.5.1.1 Cumulative Trip Limit Management

Under Alternative 3, effort was made to keep trip limits as even as possible among gear types and seasons for petrale sole, sablefish, and other species. Table C-73 details the trip limit structure and RCA under Alternative 3 and Table C-74 details the projected species impacts.

Petrale sole

Alternative 3 has the highest petrale sole trawl model target (865 mt) compared to Alternative 2 (643 mt) and Alternative 1 (342 mt). The trawl allocation under the No Action Alternative was 1,140 mt and the Final Preferred Alternative was 871 mt. The Alternative 3 petrale model target resulted in an average bimonthly trip limit of 4,900 lbs/2 months, compared with 7,900 lbs/2 months for the No Action Alternative, and 4,800 lbs/2 months for the Final Preferred Alternative in 2011.

Sablefish

Sablefish was a constraining target species in the DTS fishery. Under Alternative 3, the trawl allocation was 2,588 mt, the No Action Alternative was 2,955 mt, and the Final Preferred Alternative was 2,538 mt in 2011. This is reflected in the trip limits for sablefish, which were an average of 13,625 lbs/2 months in Alternative 3, versus 21,389 lbs/2 months in the No Action Alternative, and 13,063 lbs/2 months in the Final Preferred Alternative for 2011.

Canary rockfish (shelf)

Canary rockfish, and the other six species in rebuilding for 2011 and 2012, are modeled as bycatch. Under Alternative 3, canary rockfish had a trawl allocation of 20.5mt, which is 96 percent of the No Action Alternative (21.3mt), and 103 percent of the Final Preferred Alternative (20mt) in 2011.

Pacific Ocean perch (slope)

Under Alternative 3, Pacific Ocean perch (POP) had a trawl allocation of 100.3mt. This is 99.5 percent of the No Action Alternative (100.8mt), and 99.6 percent of the Final Preferred Alternative (107mt) in 2011.

Darkblotched rockfish (slope)

Under Alternative 3, darkblotched rockfish had a trawl allocation of 240.3mt. This is 104 percent of the No Action Alternative (230mt), and 100 percent of the Final Preferred Alternative (240mt) in 2011.

Widow rockfish (shelf)

Widow rockfish had a trawl allocation of 235.5mt under Alternative 3, this is 11 times the No Action Alternative (21.6mt) and 100 percent of the Final Preferred Alternative (235mt) in 2011.

Bocaccio rockfish (shelf)

Bocaccio rockfish had a trawl allocation of 29.6mt under Alternative 3; this is 184 percent of the No Action Alternative (16.1mt) and 49 percent of the Final Preferred Alternative (60mt) in 2011.

Yelloweye rockfish (shelf)

Under Alternative 3, yelloweye rockfish had an allocation of 0.6mt, which is 100 percent of the No Action Alternative (0.6mt) and 100 percent of the Final Preferred Alternative (0.6mt) in 2011.

Cowcod (shelf)

Under Alternative 3, cowcod had an allocation of 1.4mt, which is 93 percent of the No Action Alternative (1.5mt) and 78 percent of the Final Preferred Alternative (1.8mt) in 2011.

Table C-73. Alternative 3. Limited entry trawl trip limits and RCA structures for 2011-2012.

2-month period	RCA lines (fm)		2-month cumulative-poundage limits							
	shallow	deep	sable-fish	long-spine	short-spine	Dover sole	petrale sole	arrow-tooth	other flatfish	slope rockfish
N. of 40°10' N lat.										
Large/small footrope limits										
1	75	200	15,500	20,000	17,000	150,000	4,900	150,000	110,000	6,000
2	75	200	15,500	20,000	17,000	150,000	4,900	150,000	110,000	6,000
3	75	150/200	15,500	20,000	17,000	150,000	4,900	150,000	110,000	6,000
4	75	150/200	15,500	20,000	17,000	150,000	4,900	150,000	110,000	6,000
5	75	200	15,500	20,000	17,000	150,000	4,900	150,000	110,000	6,000
6	75	200	15,500	20,000	17,000	150,000	4,900	150,000	110,000	6,000
Selective gear limits										
1	75	200	8,000	5,000	5,000	65,000	4,900	90,000	60,000	
2	75	200	8,000	5,000	5,000	65,000	4,900	90,000	60,000	
3	75	150/200	8,000	5,000	5,000	65,000	4,900	90,000	60,000	
4	75	150/200	8,000	5,000	5,000	65,000	4,900	90,000	60,000	
5	75	200	8,000	5,000	5,000	65,000	4,900	90,000	60,000	
6	75	200	8,000	5,000	5,000	65,000	4,900	90,000	60,000	
38° - 40°10' N lat.										
1	100	200	15,500	20,000	17,000	150,000	4,900	10,000	110,000	15,000
2	100	150	15,500	20,000	17,000	150,000	4,900	10,000	110,000	15,000
3	100	150	15,500	20,000	17,000	150,000	4,900	10,000	110,000	15,000
4	100	150	15,500	20,000	17,000	150,000	4,900	10,000	110,000	15,000
5	100	150	15,500	20,000	17,000	150,000	4,900	10,000	110,000	15,000
6	100	200	15,500	20,000	17,000	150,000	4,900	10,000	110,000	15,000
S. of 38° N lat.										
1	100	200	15,500	20,000	17,000	150,000	4,900	10,000	110,000	55,000
2	100	150	15,500	20,000	17,000	150,000	4,900	10,000	110,000	55,000
3	100	150	15,500	20,000	17,000	150,000	4,900	10,000	110,000	55,000
4	100	150	15,500	20,000	17,000	150,000	4,900	10,000	110,000	55,000
5	100	150	15,500	20,000	17,000	150,000	4,900	10,000	110,000	55,000
6	100	200	15,500	20,000	17,000	150,000	4,900	10,000	110,000	55,000

Table C-74. Alternative 3. Limited entry non-whiting trawl projected impacts for 2011-2012.

	Projected Total Catch (mt)			Harvest Allocation (mt)	Proj. - Allocation (mt)	Proj. % of Alloc.
	North of 40°10'	South of 40°10'	Projected Total			
Sablefish	2,239	337	2,575	2,588	-13	99.5%
Longspine	1,091	250	1,341	1,971	-631	68.0%
Shortspine	1,246	141	1,387	1,450	-63	95.7%
Dover sole	15,905	1,805	17,710	22,240	-4,529	79.6%
Arrowtooth	5,509	15	5,524	12,441	-6,918	44.4%
Petrale sole	693	158	851	865	-14	98.4%
English sole	382	76	458	18,659	-18,201	2.5%
Other flatfish	684	186	870	4,213	-3,343	20.6%
Canary	9.2	1.4	10.6	20.5	-9.9	51.7%
POP	90.2	0.2	90.4	100.3	-9.9	90.1%
Darkblotched	151.4	19.2	170.6	240.3	-69.7	71.0%
Widow	6.0	8.8	14.9	235.5	-220.6	6.3%
Bocaccio	1.7	5.5	7.2	29.6	-22.4	24.2%
Yelloweye	0.2	0.0	0.2	0.6	-0.4	41.4%
Cowcod	0.0	0.3	0.3	1.4	-1.1	21.7%

Alternative 3 for 2011 versus 2012

The difference between Alternative 3 between 2011 and 2012 were relatively small and primarily limited to petrale sole, sablefish, and Dover sole. Sablefish allocations and trip limits were lower in 2012 than 2011, and petrale sole allocations and trip limits were higher in 2012 than 2011. Dover sole allocations were lower in 2012 than 2011, but the trip limits were able to remain the same because of a precautionary approach in the 2011 modeling described earlier. Differences between allocations for other species, including rebuilding species were negligible.

C.5.2 Limited Entry Trawl Whiting

Pacific whiting harvest specifications are completed on an annual basis, thus the Council requested a range of potential whiting ACLs for more detailed analysis in order to understand the potential range of overfished species impacts and constraints (Table 2-8). Alternative 3 informs the bycatch impacts relative to a high whiting ACL that is 1.5 times higher (290,903 mt) than the No Action whiting OY (193,935 mt). Under Alternative 3, the analysis assumes that Amendment 21: Intersector Allocation is implemented on January 1, 2011 and as such formal allocations of darkblotched, POP, and widow rockfish are made to the whiting sectors. That is, the bycatch model for projecting overfished species impacts relative to the whiting ACL is no longer used for setting darkblotched, POP, and widow rockfish. For canary rockfish, Alternative 3 was analyzed using the Council’s preliminary preferred 2-year allocation of canary to the whiting sectors. Table C-75 contains the Pacific whiting and overfished species allocations under Alternative 3.

Table C-75. Alternative 3: Pacific whiting and overfished species allocations by sector using Amendment 21 for darkblotched, POP, and widow and the Council’s preliminary preferred two-year allocation of canary rockfish.

Catcher Processor

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)
Whiting	290,903	290,903	75,138	75,138
Canary	102	107	4.8	5.0
DRK	332	329	9	9
POP	180	183	10	10
Widow	600	600	87	87

Mothership

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)
Whiting	290,903	290,903	53,039	53,039
Canary	105	107	3.4	3.6
DRK	332	329	6	6
POP	180	183	7	7
Widow	600	600	61	61

Shoreside

Species	2011 ACL (mt)	2012 ACL (mt)	2011 Allocation (mt)	2012 Allocation (mt)
Whiting	290,903	290,903	92,818	92,818
Canary	102	107	5.9	6.2
DRK	332	329	11	11
POP	180	183	13	13
Widow	600	600	107	107

There has not been a whiting OY as high as that contemplated under Alternative 3. As such, there are no recent bycatch impacts to inform how the allocations compare. It is assumed that all sectors would need to actively avoid overfished species in order to prosecute this high whiting allocation.

C.5.3 Non-Nearshore Fixed Gear

Alternative 3 includes the Council’s preliminary preferred sablefish ACL (updated with the technical corrections made in June - Table C-76) along with the preliminary preferred overfished species ACL alternatives (Table C-72) and the associated preliminary preferred decision for

apportionments of overfished species to the non-nearshore fleet (Table C-77). As shown previously, the sablefish ACL (and therefore the allocation for non-nearshore fixed gear fisheries) will be lower in 2011 and 2012 than observed in 2010 (Table C-76). Because the model used to estimate impacts of this fishery to overfished species assumes full attainment of the allocation, the reduced ACL for 2011 and 2012 will automatically reduce the modeled impacts of overfished species relative to 2010 (i.e., bycatch projections for the limited entry fixed gear fishery under Alternative 2 are lower compared to No Action).

Table C-76. Alternative 3: Preliminary preferred sablefish ACL and allocations north of 36° N. latitude compared to No Action (2010).

Species	Fishery	2010 (mt)	2011 (mt)	2012 (mt)
Sablefish N. 36° N. Lat.	OY/ACL	6,471	5,515	5,347
	LE Fixed Gear Allocation	2,140	1,874	1,816
	----LE Fixed Gear Primary	1,819	1,593	1,544
	----LE Fixed Gear Daily Trip Limit	321	281	272
	Open Access	529	463	449

Table C-77. Alternative 3. Non-nearshore apportionment of the non-trawl allocation under the preliminary preferred overfished species ACLs.

Species	2011 Apportionment (mt)	2012 Apportionment (mt)	Comments
Canary rockfish	3.6	3.8	
Yelloweye rockfish	2.1	2.1	Includes 0.4 mt for OA DTL and 1.7 mt for LE FG

Projected overfished species impacts are provided for two options under Alternative 3: option 1 provides impacts through implementation of the status quo seaward non-trawl RCA boundary configuration (Figure C-26) whereas option 2 shows impacts of this fishery to overfished species with the seaward RCA boundary configuration that was used prior to the 2009-2010 (Figure C-27). Yelloweye is the stock for which the Council put the current non-trawl RCA boundaries into place. Regardless of the RCA configuration (option 1 or option 2), the modeled impact to overfished species by both limited entry and open access combined (Table C-78, Table C-79, Table C-80, Table C-81) is less than Council's preliminary preferred apportionment for these non-nearshore fisheries. This is due to the reduced-sablefish ACLs as described above. Overall, the modeled impacts for canary rockfish and yelloweye were 2.4 and 0.8 mt, respectively, for 2011. These predicted catch levels are much lower than the preliminary preferred apportionments of 3.6 and 2.1 mt for canary rockfish and yelloweye, respectively, for 2011. The modeled impacts for 2012 are also much lower than apportionments set for 2012.

Alternative 3, option 2 provides more fishing area to operate than Alternative 3, option 1 by liberalizing the 125 fm seaward RCA to 100 fm between 43° and 45.064° N. latitude, while reducing impacts to canary and providing only marginal increased impacts to yelloweye relative to option 1 (0.1 mt or less increase projected yelloweye catch). This action would return the RCA structure to that observed prior to 2009. This action would provide more fishing grounds, reduce

interactions and potential conflicts among non-nearshore fishermen, and decrease the expense and hazards of reaching the nearest fishing.

Seaward RCA Boundary	36°- 40° 10'	40°10'- Col/Eur 43°	Col/Eur 43°- Cascade Head 45.064°	Cascade Head 45.064°- Pt. Chehalis 46.888°	North of Pt. Chehalis 46.888°
Shoreward boundary to 100 fm					
100 fm					
125 fm					
150 fm					
>150 fm					

Figure C-26. Alternative 3, Option 1. Non-trawl RCA seaward configuration. The shoreward configuration of the RCA is driven by the nearshore model. Grey shading indicates areas closed to fishing.

Seaward RCA Boundary	36°- 40° 10'	40°10'- Col/Eur 43°	Col/Eur 43°- Cascade Head 45.064°	Cascade Head 45.064°- Pt. Chehalis 46.888°	North of Pt. Chehalis 46.888°
Shoreward boundary to 100 fm					
100 fm					
125 fm					
150 fm					
>150 fm					

Figure C-27. Alternative 3, Option 2. Non-trawl RCA seaward configuration, which was the structure prior to 2009-2010, i.e., 100 fm north of 40°10' N. latitude. Grey shading indicates areas closed to fishing.

Limited Entry Fixed Gear North of 36° N. latitude

For limited entry fixed gear north of 36° N. latitude, the modeled impacts to overfished species under Alternative 3, option 1, which maintains status quo seaward RCA boundaries (Figure C-26) are shown in Table C-78. The impact for all overfished species is low relative to the Council's preliminary preferred apportionment of overfished species to non-nearshore sector. Under this option, no further reductions in sablefish harvest are necessary relative to the levels shown in Table C-76. Impacts to the limited entry and open access fixed gear sectors combined are described above.

Table C-78. Alternative 3, Option 1: Non-nearshore modeled-overfished species projected impacts for the open access fixed gear sectors north of 36° N. latitude with the 2009-10 RCA configuration, i.e., from Columbia/Eureka to Cascade Head at 125 fm.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	2.1	2.1
Darkblotched rockfish	3.8	4.3
Pacific ocean perch	0.3	0.3
Widow rockfish	0.0	0.1
Yelloweye rockfish	0.7	0.7

For limited entry fixed gear north of 36° N. latitude, the modeled impacts to overfished species under Alternative 3, option 2, which liberalizes the seaward RCA boundary to the pre-2009 configuration (Figure C-27), are shown in Table C-79. The impact of this option for all overfished species is low relative to the Council's preliminary preferred apportionment of overfished species to non-nearshore sector. Under this option, no further reductions in sablefish harvest are necessary relative to the levels shown in Table C-76. Impacts to the limited entry and open access fixed gear sectors combined are described above.

Table C-79. Alternative 3, Option 2. Non-nearshore modeled-overfished species projected impacts for the open access fixed gear sectors north of 36° N. latitude with the RCA configuration prior to 2009-2010, i.e., north of 40°10 N. latitude the non-trawl RCA is at 100 fm.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	1.9	1.8
Darkblotched rockfish	3.5	3.4
Pacific ocean perch	0.3	0.3
Widow rockfish	0.1	0.1
Yelloweye rockfish	0.8	0.7

Sablefish Open Access DTL Fishery north of 36° N. latitude

For the open access DTL fishery north of 36° N. latitude, the modeled impacts to overfished species under Alternative 3, option 1, which maintains status quo seaward RCA boundaries (Figure C-26), are shown in Table C-80. The impact of this option for all overfished species is low relative to the Council's preliminary preferred apportionment of overfished species to non-nearshore sector. Under this option, no further reductions in sablefish harvest are necessary relative to the levels shown in Table C-76. Impacts to the limited entry and open access fixed gear sectors combined are described above.

Table C-80. Alternative 3, Option 1. Non-nearshore modeled-overfished species projected impacts for the open access fixed gear sectors north of 36° N. latitude with the 2009-10 RCA configuration, i.e., from Columbia/Eureka to Cascade Head at 125 fm.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	0.3	0.3
Darkblotched rockfish	0.8	0.8
Pacific ocean perch	0.0	0.0
Widow rockfish	0.0	0.0
Yelloweye rockfish	0.1	0.1

For the open access DTL fishery north of 36° N. latitude, the modeled impacts to overfished species under Alternative 3, option 2, which liberalizes the seaward RCA boundary to the pre-2009 configuration (Figure C-27), are shown in Table C-81. The impact of this option for all overfished species is low relative to the Council's preliminary preferred apportionment of overfished species to non-nearshore sector. Under this option, no further reductions in sablefish harvest are necessary relative to the levels shown in Table C-76. Impacts to the limited entry and open access fixed gear sectors combined are described above.

Table C-81. Alternative 3, Option 2. Non-nearshore modeled-overfished species projected impacts for the open access fixed gear sectors north of 36° N. latitude with the RCA configuration prior to 2009-2010, i.e., north of 40°10 N. latitude the non-trawl RCA is at 100 fm.

Species	2011 Impacts (mt)	2012 Impacts (mt)
Bocaccio	0.0	0.0
Canary rockfish	0.3	0.3
Darkblotched rockfish	0.7	0.7
Pacific ocean perch	0.0	0.0
Widow rockfish	0.0	0.0
Yelloweye rockfish	0.1	0.1

C.5.4 Nearshore Fixed Gear

Under Alternative 3, Oregon is severely constrained by yelloweye rockfish and California is constrained by yelloweye and canary rockfish. Under this harvest level, neither state can maintain opportunities similar to 2009-2010. As such, nearshore fishermen and communities will continue to be adversely impacted by the low available yelloweye. Since black rockfish and greenling are important target strategies in Oregon, lower reductions in landed catch were taken for these species relative to others to stay within overfished species. In California, black rockfish is an important target strategy in the area between 42° and 40°10' N lat and cabezon is an important target strategy statewide; therefore higher landings were maintained for these species relative to others while staying within overfished species impacts.

To facilitate modeling of target species, the GMT assumed two catch sharing relationships for yelloweye rockfish - 50:50 (OR:CA) and 55:45 (OR:CA). The rationale for these two options is described in Appendix A, Description of Catch Projection Models.

Under this alternative, two sub-options (a and b) are provided to show the tradeoffs between more restrictive depth restrictions and higher reductions in landed catch and thus total mortality (Table C-81 and Table C-82). In Oregon, overfished species impacts are modeled assuming a 20 fm depth restriction (option a - Figure C-28) and a 30 fm depth restriction (option b - Figure C-29). In California, overfished species impacts are modeled assuming a 20 fm depth restriction statewide (option a - Figure C-28) and a 20 fm depth restriction between 42° and 40°10' N lat only (option b - Figure C-29). Although the 20 fm depth restriction provided little yelloweye savings in Oregon, it provided greater savings in California since a greater proportion of catch comes from the deeper depths.

Under Alternative 3, option 1, the nearshore fishery is modeled assuming a 50:50 (OR:CA) catch sharing of yelloweye rockfish. Reductions to landed catch under this alternative are taken from average landings of 2007-2009 for Oregon and 2006-2008 for California (Table C-25).

North of 42° N. latitude – under option 1a, a 20 fm depth restriction would be maintained from 42° N. latitude to 43° N. latitude and a 30 fm line would remain north of 43° N. latitude. Reductions to landed catch north of 42° N. latitude would be as follows: 38 percent for black rockfish and greenling, 49 percent remaining species. Under option 1b, a 30 fm depth restriction would be implemented. More severe reductions to landed catch would be required because yelloweye bycatch rates would increase. Reductions would therefore be 47 percent for black rockfish and greenling, 58 percent other species.

South of 42° N. latitude – under option 1a, a 20 fm depth restriction would be implemented statewide. No reductions to landed catch would be necessary due to the savings afforded by the 20 fm depth restriction. Landings for black rockfish would be increased between 42° N. latitude and 40°10' N. latitude. Landings for cabezon would be increased to reflect the higher ACL available as a result of the new assessment. Under option 1b, a 20 fm depth restriction would remain in effect between 42° N. latitude and 40°10' N. latitude only. A 25 percent reduction in landed catch would be necessary for some species except cabezon, which would remain at the maximum allowable amount under the higher ACL.

Under Alternative 3, option 2, the nearshore fishery is modeled assuming a 55:45 (OR:CA) catch sharing of yelloweye rockfish. Reductions to landed catch under this alternative are taken from average landings of 2007-2009 for Oregon and 2006-2008 for California (Table C-25).

North of 42° N. latitude – under option 2a, a 20 fm depth restriction would be maintained from 42° N. latitude to 43° N. latitude. Reductions to landed catch would be as follows: 33 percent for black rockfish and greenling, 44 percent remaining species. Under option 2b, a 30 fm depth restriction would be implemented. Reductions to landed catch would be as follows: 43 percent for black rockfish and greenling, 54 percent other species.

South of 42° N lat – under option 2a, a 20 fm depth restriction would be implemented statewide. No reductions to landed catch would be necessary due to the savings afforded by the 20 fm depth restriction. Landings for black rockfish would be increased between 42° N. latitude and 40°10'N. latitude. Landings for cabezon would be increased to reflect the higher ACL available as a result of the new assessment. Under option 2b, a 20 fm depth restriction would remain in effect between 42° N. latitude and 40°10' N. latitude only. A 25 percent reduction in landed catch would be necessary for some species except cabezon, which would remain at the maximum allowable amount under the higher ACL.

Projected overfished species impacts under this alternative are summarized by area and option in Table C-84 and Table C-85.

Table C-82. Alternative 3: Nearshore fishery projected total catch by area and option for 2011.

Area	Option 1a	Option 1b	Option 2a	Option 2b
Grand Total	419	371	431	380
Black rockfish	144	133	150	138
Blue rockfish	22	16	22	16
Cabazon	83	81	84	82
Deeper nearshore RF	29	22	29	22
Kelp greenling	13	12	14	12
Lingcod	62	57	64	59
Other minor RF	15	12	16	13
Shallow nearshore RF	51	38	51	38
North of 42° N. lat.	126	106	137	115
Black rockfish	68	58	74	63
Blue rockfish	2	1	2	1
Cabazon	13	11	14	12
Kelp greenling	12	11	13	11
Lingcod	26	21	28	23
Other minor nearshore rockfish	5	4	6	5
42° - 40°10' N. lat.	118	113	118	113
Black rockfish	73	73	73	73
Blue rockfish	13	10	13	10
Cabazon	7	7	7	7
Kelp greenling	0	0	0	0
Lingcod	15	15	15	15
Other minor nearshore rockfish	10	8	10	8
South of 40°10' N. lat.	175	152	176	152
Black rockfish	3	2	3	2
Blue rockfish	7	5	7	5
Cabazon	63	63	63	63
Deeper nearshore rockfish	29	22	29	22
Kelp greenling	1	1	1	1
Lingcod	21	21	21	21
Shallow nearshore rockfish	51	38	51	38

Table C-83. Alternative 3: Nearshore fishery projected total catch by area and option for 2012.

Area	Option 1a	Option 1b	Option 2a	Option 2b
Grand Total	476	371	476	380
Black rockfish	201	130	207	135
Blue rockfish	22	16	15	16
Cabazon	83	81	84	82
Deeper nearshore RF	29	23	29	23
Kelp greenling	13	12	14	12
Lingcod	62	57	64	59
Other minor RF	15	11	11	12
Shallow nearshore RF	51	41	51	41
North of 42° N. lat.	126	106	137	115
Black rockfish	68	58	74	63
Blue rockfish	2	1	2	1
Cabazon	13	11	14	12
Kelp greenling	12	11	13	11
Lingcod	26	21	28	23
Other minor nearshore rockfish	5	4	6	5
42° - 40°10' N. lat.	175	108	164	108
Black rockfish	130	70	130	70
Blue rockfish	13	9	7	9
Cabazon	7	7	7	7
Kelp greenling	0	0	0	0
Lingcod	15	15	15	15
Other minor nearshore rockfish	10	7	5	7
South of 40°10' N. lat.	175	157	176	157
Black rockfish	3	2	3	2
Blue rockfish	7	6	7	6
Cabazon	63	63	63	63
Deeper nearshore rockfish	29	23	29	23
Kelp greenling	1	1	1	1
Lingcod	21	21	21	21
Shallow nearshore rockfish	51	41	51	41

Shoreward RCA Boundary	South 34°27'	34°27' - 40° 10'	40°10' - 42°	42° - Col/Eur 43°	Col/Eur 43° - 46°16'	North of 46°16'
Shore						
20 fm						
30 fm						
60 fm to seaward RCA						

Figure C-28. Alternative 3: Nearshore shoreward RCA configuration under option 1a and 2a, the higher landings more restrictive RCA option. Grey shading indicates areas closed to fishing.

Shoreward RCA Boundary	South 34°27'	34°27' - 40° 10'	40°10' - 42°	42° - Col/Eur 43°	Col/Eur 43° - 46°16'	North of 46°16'
Shore						
20 fm						
30 fm						
60 fm to seaward RCA						

Figure C-29. Alternative 3: Nearshore shoreward RCA configuration under option 1b and 2b, the lower landings less restrictive RCA option. Grey shading indicates areas closed to fishing.

Table C-84. Alternative 3. Nearshore overfished species bycatch projections under option 1 and 2 RCA structures for 2012.

Species	Area	Option 1a	Option 1b	Option 2a	Option 2b
Bocaccio		0.0	0.3	0.0	0.3
	OR: North of 42	0.0	0.0	0.0	0.0
	CA: 42° - 40°10	0.0	0.0	0.0	0.0
	CA: South of 40°10	0.0	0.3	0.0	0.3
Canary		2.0	2.3	2.0	2.4
	OR: North of 42	0.5	0.4	0.5	0.5
	CA: 42° - 40°10	0.7	0.7	0.7	0.7
	CA: South of 40°10	0.8	1.1	0.8	1.1
Widow		0.2	0.2	0.2	0.2
	OR: North of 42	0.0	0.0	0.0	0.0
	CA: 42° - 40°10	0.2	0.2	0.2	0.2
	CA: South of 40°10	0.0	0.0	0.0	0.0
Yelloweye		0.7	0.8	0.8	0.8
	OR: North of 42	0.5	0.5	0.5	0.5
	CA: 42° - 40°10	0.2	0.2	0.2	0.2
	CA: South of 40°10	0.0	0.1	0.0	0.1

Table C-85. Alternative 3. Nearshore overfished species bycatch projections under option 1 and 2 RCA structures for 2012.

Species	Area	Option 1a	Option 1b	Option 2a	Option 2b
Bocaccio		0.0	0.3	0.0	0.3
	OR: North of 42	0.0	0.0	0.0	0.0
	CA: 42° - 40°10	0.0	0.0	0.0	0.0
	CA: South of 40°10	0.0	0.3	0.0	0.3
Canary		2.3	2.3	2.3	2.3
	OR: North of 42	0.5	0.4	0.5	0.5
	CA: 42° - 40°10	1.1	0.7	1.0	0.7
	CA: South of 40°10	0.8	1.2	0.8	1.2
Widow		0.3	0.2	0.3	0.2
	OR: North of 42	0.0	0.0	0.0	0.0
	CA: 42° - 40°10	0.3	0.2	0.3	0.2
	CA: South of 40°10	0.0	0.0	0.0	0.0
Yelloweye		0.8	0.8	0.9	0.8
	OR: North of 42	0.5	0.5	0.5	0.5
	CA: 42° - 40°10	0.3	0.2	0.3	0.2
	CA: South of 40°10	0.0	0.1	0.0	0.1

C.5.5 Washington Recreational

Washington groundfish fishery management measures under Alternative 3 are the same as under Alternative 2 and the Final Preferred Alternative.

Groundfish Seasons and Bag Limits

Under Alternative 3, the Washington recreational fishery would be open year-round except for lingcod. The aggregate groundfish bag limit would be reduced from 15 to 12 fish per angler per day. The aggregate groundfish bag limit would continue to include sub limits for rockfish (10 per angler per day) and lingcod (2 per angler per day) but a new sub limit of 2 cabezon per angler per day would be added for 2011-2012.

Lingcod Seasons and Size Limits

Under Alternative 3, the following lingcod seasons and size limits would apply in 2011 and 2012:

- Marine Areas 1-3 (from the Oregon/Washington border at 46°16' N. latitude north to Cape Alava at 48°10' N. latitude): open from March 12 through October 15 in 2011 and March 17 through October 13 in 2012.
- Marine Area 4 (Cape Alava to the US/Canadian border): open from April 16 to October 15 in 2011 and April 16 to October 13 in 2012.
- The lingcod minimum size limit during the open lingcod season would be 22 inches in Marine Areas 1-3 and 24 inches in Marine Area 4.

Area Restrictions

The Washington recreational groundfish and Pacific halibut fisheries would be prohibited from fishing for, retention or possession of groundfish and halibut in the C-shaped yelloweye rockfish conservation area in the north coast and South Coast and Westport YRCAs in the south coast as they were in the 2009 and 2010 seasons.

Table C-86. Alternative 3. Washington recreational groundfish season for 2011-2012.

Marine Area	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
3 & 4 (N. Coast)	Open all depths					Open <20 fm June 1-Sep 30 a/				Open all depths		
2 (S. Coast)	Open all depths		Open <30 fm Mar 15 - June 15 b/, c/, d			Open all depths except lingcod prohibited on Fri. and Sat. >30 fm e/			Open all depths			
1 (Col. R.)	Open all depths				Open all depths f/					Open all depths		
a/ Groundfish retention allowed >20 fm on days when Pacific halibut is open. b/ Retention of sablefish and Pacific cod allowed seaward of 30 fm from May 1- June 15. c/ Retention of rockfish allowed seaward of 30 fm. d/ Retention of lingcod allowed seaward of 30 fm on days that the primary halibut season is open. e/ Retention of lingcod prohibited >30 fm, south of 46°58 on Fri. and Sat. from July 1 – August 31. f/ Retention of groundfish, except sablefish and Pacific cod, prohibited with Pacific halibut on board.												

North Coast (Marine Areas 3 and 4)

Prohibit the retention of bottomfish seaward of a line approximating 20 fathoms from June 1- September 30, except on days that halibut fishing is open.

South Coast (Marine Area 2)

Groundfish retention, except rockfish would be prohibited seaward of 30 fathoms from March 15 through June 15. Sablefish and Pacific cod retention would be allowed in this area from May 1 through June 15. On days that the primary halibut season is open, lingcod may be retained throughout Marine Area 2. Retention of lingcod would be prohibited south of 46 deg. 58’ and seaward of 30 fathoms on Fridays and Saturdays from July 1 through August 31. Fishing for, retention and possession of groundfish would be prohibited at all times in the South Coast YRCA and Westport Offshore YRCA.

Columbia River (Marine Area 1)

Prohibit the retention of groundfish, except sablefish and Pacific cod, with halibut onboard from May 1 through September 30.

Table C-87. Alternative 3. Washington recreational harvest guideline and projected impacts.

Alternative 3- Council Preliminary Preferred Overfished Species ACLs	WA Recreational Harvest Guideline (mt)	Projected Impacts (mt)
Canary	4.9 / 5.2	0.7
Yelloweye	3.3 / 3.3	2.5
Black rockfish	N/A	186.7
Minor nearshore rockfish	N/A	6.1

C.5.6 Oregon Recreational

Depth management is the main tool used for controlling yelloweye rockfish catch in the Oregon recreational fishery. The options range from the most restrictive (Oregon Recreational Option 1, Figure C-30), a year round season with April through September open only shoreward of 40 fathoms to the least restrictive option (Oregon Recreational Option 4, Figure C-30), a year round season with May through August open only shoreward of 40 fathoms. Oregon Recreational Option 1 reflects the No Action alternative and the 2009-10 Oregon recreational groundfish season. Oregon Recreational Options 2-4 reflects the possibility that the Pacific halibut catch limit may be reduced from the 2010 limit. These alternatives are based on the 2010 halibut catch limit (15 percent lower than the 2009 catch limit) and may allow for the retention of groundfish during the all-depth halibut days on the central Oregon coast. Table C-88 details the projected impacts for modeled species under this alternative.

Option	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Open all depths			Open < 40 fm						Open all depths		
2	Open all depths			Open < 40 fm						Open all depths		
3	Open all depths			Open < 40 fm						Open all depths		
4	Open all depths			Open < 40 fm						Open all depths		

Figure C-30. Oregon recreational groundfish fishery season options under Alternative 3. Option 1 reflects the season structure under the No Action and Final Preferred Alternatives, which is also available under Alternative 3.

Table C-88. Alternative 3. Oregon recreational modeled projected impacts for 2011-2012.

Species	Projected Impacts (mt)			
	Option 1	Option 2	Option 3	Option 4
Canary Rockfish	2.4	2.5	2.5	2.7
Yelloweye Rockfish	2.1	2.3	2.3	2.5
Black Rockfish	330.5	328.8	328.4	326.7
Blue Rockfish	20.4	20.3	20.1	20
Other Nearshore Rockfish a/	12.7	12.6	12.6	12.5
Greenling (Kelp and Rock)	4.7	4.6	4.6	4.5

a/ Other Nearshore Rockfish includes: brown, china, copper, grass, and quillback rockfish

Under Alternative 3, the Oregon recreational groundfish fishery would be able to operate a year round fishery with liberalized seasonal depth restrictions (Options 2-4) relative to the No Action alternative (Option 1). Options 2 and 3 would also be possible if groundfish retention during the all-depth Pacific halibut fishery was allowed.

2011-12 Bag and Size Limit Alternatives

Status quo bag limits for marine fish, lingcod, and flatfish would remain in place under Alternative 1, except for cabezon. These daily-bag-limits provide the flexibility to make necessary adjustments through the yearly state process, reflecting the progression of the current year's fishery. The state process will likely start off each season with reduced marine and lingcod daily bag limits and may increase or further reduce inseason depending on the progression of the fishery relative to the impact on species with harvest targets/guidelines and state landing caps. A reduction in cabezon impacts would be necessary and can be accomplished with a seasonal sub-bag limit of one fish. The sub-bag limit coincides with the months that the groundfish fishery is restricted to inside of 40 fathoms. Other than this alternative, all other bag and size limits are the same as specified in 2009-10 and described under the No Action Alternative, including no retention of yelloweye or canary rockfish at any time or depth.

The shorebased fishery would be managed for a year round season as yelloweye rockfish are not impacted. Also, fishing for, take, retention and possession of sanddabs and "other flatfishes", excluding Pacific halibut would be legal year round and open shoreward of 40 fathoms during any period the groundfish fishery has any depth restrictions. The flatfish fishery would not have any depth restrictions when the groundfish fishery has no depth restrictions (i.e., 40, 30, 25 and 20 fm lines).

2011-12 Area Restriction Alternatives

No changes to the status quo boundary of the Stonewall Bank YRCA would be necessary.

C.5.7 California Recreational

Season and depth restriction diagrams (Figure C-31) as well as corresponding impacts on overfished species (Table C-89) and non-overfished species (Table C-90) under this alternative

are provided below. The 20 mt yelloweye rockfish ACL under the preliminary preferred alternative and the corresponding 3.4 mt harvest guideline allow the limited season in the North-Central North of Point Arena Management Area to be sustained as well as allowing a one and a half month increase to the season in the Northern Management Area. This alternative also provides one and a half months of additional fishing opportunities in the North-Central South of Point Arena Management Area and the Monterey and Morro Bay South-Central Management Areas while providing a 0.3 mt buffer between the projected impacts of 3.1 mt and the harvest guideline of 3.4 mt. The reduced catches of Minor Nearshore Rockfish South and blue rockfish in the 2008 and 2009 seasons resulted in reduced projected impacts for these species in 2011 and 2012, which will accommodate the one and a half month increases in the fishing season in these three management areas. The preliminary preferred alternative would allow for an additional 5.5 months of fishing season statewide over the No Action Alternative, though the resulting seasons still represent very limited fishing opportunity compared to a full year fishing season.

Under the remaining ACL alternatives, the season would have to be reduced in the North-Central North of Point Arena and in other management areas to prevent yelloweye rockfish impacts from exceeding the lower harvest guideline. Yelloweye rockfish impacts are extremely constraining to the fishery North of Point Arena and reductions in the ACLs from the preliminary preferred alternative of 20 mt would result in additional season length reductions in the North-Central North of Point Arena Management Area. This management area is already severely constrained, with only a three month fishing season at 20 fms. Lower ACL options will also require a reduction in the season length in the Northern or North-Central South of Point Arena Management Areas to remain within the yelloweye rockfish harvest guideline resulting in lost revenue to coastal communities in these areas as well.

Modifying the depth restriction in the CCA from 20 to 30 fms is not projected to result in increased catch of cowcod and can be accommodated under the 0.3 mt status quo catch sharing, but the 2008 Total Mortality Rate catch sharing would provide a excessive buffer between the projected impact of 0.17 mt and the 1.9 mt Harvest Guideline under the preliminary preferred alternative in the event of an increase. The 168.3 mt bocaccio ACL would accommodate any potential increase in bocaccio impacts in the recreational fishery from allowing retention of shelf and slope rockfish and a 30 fm depth restriction in the CCA.

The canary rockfish harvest guideline of 22.9 mt under the preliminary preferred alternative will provide a buffer between the projected impacts and variability in the estimated catch of canary rockfish.

In addition, the proposed options under the PPA will accommodate the proposed changes to management measures other than depth and season.

Management Area	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months
Northern	CLOSED				May 15 - Oct <20 fm							5.5	
North-Central North of Pt. Arena	CLOSED				May 15 - Aug 15 <20 fm							3	
North-Central South of Pt. Arena	CLOSED				June–Nov < 30 fm							6	
South-Central Monterey	CLOSED				May – Dec < 40 fm							8	
South-Central Morro Bay	CLOSED				May – Dec < 40 fm							8	
Southern	CLOSED		Mar –Dec < 60 fm									10	

Figure C-31. Alternative 3. California recreational rockfish, cabezon and greenling season structure for 2011-2012.

Table C-89. Alternative 3. California recreational projected impacts to overfished species for 2011-2012.

Species	2011 HG (mt)	2012 HG (mt)	Projected Impacts (mt)	2011 Percent HG	2012 Percent HG
Yelloweye Rockfish	3.4	3.4	3.1	92%	92%
Bocaccio	161.8	168.9	55.0	34%	33%
Cowcod Option 1	0.3	0.3	0.2	64%	64%
Cowcod Option 2	1.9	1.9	0.2	11%	11%
Canary Rockfish	22.9	24.2	9.1	40%	38%
Widow Rockfish	NA	NA	8.7	NA	NA

Table C-90. Alternative 3. California recreational projected impacts to non-overfished species for 2011-2012. Results in parenthesis reflect impacts from additional changes to management measures other than season and depth.

Species	Projected Impacts
Black Rockfish	168.9
Blue Rockfish	176.7
Cabazon	26.4 (28.9)
California Scorpionfish	61.4 (63.8)
California Sheephead	31.7
Greenlings	11.9
Lingcod	215.1 (263.2)
Minor Nearshore North	5.6
Minor Nearshore South	347.1