

PROPOSED INTERIM 2009 AND 2010 HARVEST
SPECIFICATIONS AND MANAGEMENT
MEASURES FOR PETRALE SOLE AND CANARY
ROCKFISH OFF THE PACIFIC COAST

DRAFT ENVIRONMENTAL ASSESSMENT

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1 Chapter 1 Introduction

This document provides background information and analyses of revisions to 2009 management measures and 2010 harvest specifications and management measures for petrale sole (*Eopsetta jordani*) and canary rockfish (*Sebastes pinniger*) in fisheries covered by the Pacific Coast Groundfish Fishery Management Plan (FMP). The groundfish harvest specifications are set every two years. Harvest specifications for all groundfish species for the 2009 and 2010 biennium, including petrale sole and canary rockfish, were analyzed in a previous Environmental Impact Statement (PFMC and NMFS 2009) and were based on the best scientific information available at that time.

Petrale sole has been a relatively healthy stock off the West Coast, harvested primarily by the limited entry trawl fleet during winter months when the stock is aggregated on the slope. Petrale sole is not currently subject to overfishing, nor is it overfished. In recent stock assessments the status of the stock has fluctuated from 42 percent of its unfished biomass (1999 Assessment), 29 percent of its unfished biomass (2001 Assessment), and 32 percent of its unfished biomass (2004 Assessment). A new full assessment for petrale sole was prepared during 2009 to inform the process for establishing 2011-2012 Pacific Coast groundfish harvest specifications and management measures.

Canary rockfish are incidentally caught coastwide in all sectors of the West Coast groundfish fishery. Canary rockfish is an overfished shelf rockfish species that is currently subject to a rebuilding plan. A stock assessment update for canary rockfish was prepared during 2009 to inform the process for establishing 2011-2012 Pacific Coast groundfish harvest specifications and management measures.

In response to the new stock assessments NMFS has determined the need to reevaluate the 2009-2010 groundfish harvest specifications and management measures for petrale sole and canary rockfish. The Council reviewed a new stock assessment for petrale sole in June 2009, considered questions raised by the Stock Assessment and Review Panel (STAR Panel) and the Scientific and Statistical Committee (SSC), and asked the SSC to review the open issues and report back to the Council in September 2009. While there is uncertainty regarding the results of the final stock assessment, it is likely that, under any outcome, the stock will be overfished at the beginning of 2011 if the entire current petrale optimum yields (OYs) are taken in 2009 and 2010. The canary rockfish assessment was an update of the prior assessment, incorporating revised historic catch data. This assessment concluded that the stock is more depleted than the previous assessment had indicated. The Council approved the new stock assessment, and the assessment authors will develop a rebuilding analysis for consideration by the Council in November. The Council will use the results of the rebuilding analysis to consider likely revisions to the rebuilding plan for 2011 and to consider OY and harvest revisions in 2010.

This EA tiers from the Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2009-2010 Pacific Coast Groundfish Fishery EIS (January 2009 EIS) (PFMC and NMFS 2009) and provides new analysis and alternatives for managing petrale sole and canary rockfish in 2009 and 2010. Unless otherwise noted, all of the information used in this EA is from the January 2009 EIS (PFMC and NMFS 2009).

1.1 Purpose and Need for the Proposed Action

The proposed action includes: reducing total fishing mortality of petrale sole for the remainder of 2009; specifying 2010 optimum yield (OY) values for petrale sole and canary rockfish and establishing management measures to constrain total fishing mortality consistent with these specifications. These specifications and management measures are proposed in response to the stock status estimates in the 2009 assessments for these two species.

The need for the proposed action is to ensure that petrale sole and canary rockfish are maintained at, or restored to, sizes and structures that will produce the highest net benefit to the nation, while taking into account environmental and social values. New stock assessments for canary rockfish and petrale sole were conducted in 2009 that changed the understanding of stock status. The new stock assessments are more pessimistic than the stock assessments used to determine the 2009 and 2010 harvest specifications (OYs) and management measures. Action is needed to respond to the most recently available stock status information during the remainder of 2009 and in 2010, while NMFS and the Council complete the stock assessments, rebuilding analyses, EIS, and rulemaking for the 2011 and 2012 specifications and management measures.

The purpose of the proposed action is to prevent petrale sole from being in an overfished status in 2011, or to speed the rebuilding of petrale if it is found to be overfished. The purpose of the proposed action is also to facilitate rebuilding of canary rockfish and easing the negative impact on industry from the reduced canary rockfish harvest specifications that will likely result in 2011-2012 from the new stock assessment and rebuilding analysis.

2 Chapter 2 Alternatives Including the Proposed Action

There are two sets of alternatives analyzed in this EA. The first set of alternatives provides a range of harvest specifications and management measures that reduce total mortality of petrale sole in the limited entry trawl fishery in order to prevent this species' stock status from falling below the overfished threshold in 2011, or to speed rebuilding if it does fall below the threshold. The second set of alternatives is a range of harvest specifications and management measures that reduce total mortality of canary rockfish to facilitate rebuilding and to ease negative impacts on industry from lower 2011-2012 harvest specifications, and more restrictive management measures.

2.1 Harvest Specifications and Management Measures for Petrale Sole

2.1.1 Alternative P1/No Action:

Alternative P1 is the no action alternative, which would leave the current specifications and management measures in place for petrale sole in 2009 and 2010. Harvest specifications and projected impacts to the petrale sole stock for Alternative P1 are outlined below in Table 2-1.

Management measures that pertain specifically to controlling catch of petrale sole in the limited entry trawl fishery include modified trawl rockfish conservation area (RCA) boundary lines and bi-monthly cumulative limits and/or sub-limits for petrale sole. The modified trawl RCA lines keep areas of petrale aggregation on the slope open to the trawl fishery in winter months (January-March and November-December). Depending on the type of trawl gear used and the time of year, petrale sole trip limits are either species specific, for example "25,000 lb [of petrale sole] per 2 months", or are a sublimit of the other flatfish trip limit, for example "110,000 lb [of other flatfish, English sole, and starry flounder], per 2 months, no more than 25,000 lb per 2 months of which may be petrale sole". Management measures associated with the no action alternative are listed in the trip limit tables from the July 6, 2009 inseason action rule (74 FR 31874), and are shown in Appendix A for reference. Projected impacts to petrale sole under current management measures, as of July 1, 2009, are listed in Table 2-1.

If no action is taken to reduce catches of petrale sole in 2009-2010, it is likely that petrale sole will be overfished at the start of 2011.

Table 2-1. Alternative P1: No action alternative for petrale sole

	Coastwide ABC (mt)	Coastwide OY (mt)	Projected Impacts (mt) ^a		
			LE Non-Whiting Trawl Fishery	Other Groundfish Fisheries	Total
2009	2,811	2,433	2,393	0	2,393
2010	2,751	2,393	2,393	0	2,393

^a Projected impacts for 2009 are the projected impacts after inseason adjustments to fishery management measures on July 1, 2009 (74 FR 31874). Projected impacts for 2010 assume that the same management measures that are currently in place for the 2009 calendar year are repeated in 2010.

2.1.2 Alternative P2/Preferred Alternative

Alternative P2 is an action alternative to implement management measures that would reduce projected catch of petrale sole in 2009, and decrease the 2010 petrale sole OY and implement management measures to keep projected impacts below the new 2010 OY.

In June, 2009 the Council’s Groundfish Management Team (GMT) coordinated with 2009 petrale sole stock assessment authors to model how a range of reductions in petrale catch during 2009 and 2010 would affect the projected stock abundance levels at the beginning of 2011, using the base case model. As a means of avoiding an overfished status at the beginning of 2011, or to speed the rebuilding of petrale if it is found to be overfished, the Council considered measures that would: reduce the catch of petrale sole to a level of approximately 2,000 mt in 2009, or roughly 400 mt below the 2009 OY; and reduce the catch to approximately 1,200 mt in 2010, or approximately 1,200 mt below the current 2010 OY of 2,393. It is estimated that by making these reductions in catch during 2009 and 2010, the stock status in 2011 would be improved by 4 percent of $B_{unfished}$ and by 20 percent of the directly-estimated B_{MSY} . See Table 2-5 for a comparison of the effects of different catch scenarios on 2011 petrale sole stock abundance.

Therefore, the Council and NMFS developed Alternative P2 to: reduce projected catches by 400 mt during the remainder of 2009; reduce the 2010 petrale sole OY by 1,200 mt; and implement management measures to keep projected impacts below the new 2010 OY of 1,193 mt. Alternative P2 harvest specifications are outlined below in Table 2-2.

NMFS and the Council considered options for revisions to management measures that reduce projected impacts to petrale sole in 2009 and 2010 in order to reduce the likelihood of petrale sole being considered overfished at the start of 2011, or to speed the rebuilding if it is found to be overfished, based on the new 2009 petrale sole stock assessment. Management measure revisions include removal of the open areas for fishing petrale aggregations on the slope in winter months. This will be done by using the un-modified 200 fm RCA boundary line that does not include cut-outs that open known areas of petrale sole abundance North of 40°10’ N. lat. Revisions will also include reductions to cumulative limits and sub-limits for petrale sole coastwide, for all limited entry trawl gear types. Revisions to management measures are proposed for November-December (Period 6) of 2009 and for all of 2010. Figure 2-1 presents proposed management measures for Period 6 of 2009 to reduce projected mortality of petrale sole by approximately 400 mt. Figure 2-2 presents proposed management measures for 2010 to reduce projected mortality of petrale sole by approximately 1,200 mt. Projected impacts to petrale sole under these Alternative P2 management measures are listed in Table 2-2.

Table 2-2. Alternative P2: Reduced harvest specifications for petrale sole

	Coastwide ABC (mt)	Coastwide OY (mt)	Projected Impacts (mt) ^{/a}		
			LE Non-Whiting Trawl Fishery	Other Groundfish Fisheries	Total
2009	2,811	2,433	1,995	0	1,995
2010	2,751	1,193	1,178	0	1,178

/a Projected impacts are calculated based on the preliminary preferred Council alternative management measures for petrale sole. Projected impacts listed here include changes to projected impacts to petrale sole that resulted from management measures implemented in the July 6, 2009 inseason action final rule (74 FR 31874).

Figure 2-1. Alternative P2 management measures for Period 6 of 2009 to reduce projected mortality of petrale sole by 400 mt. BOLD text is what is different from Alternative P1.

NOV-DEC	
Rockfish Conservation Area (RCA):	
North of 48°10' N. lat.	shore - 200 fm line
48°10' N. lat. - 45°46' N. lat.	75 fm line - 200 fm line
45°46' N. lat. - 40°10' N. lat.	
South of 40°10' N. lat.	100 fm line - 150 fm line
Flatfish North of 40°10' N. Lat. (except Dover sole and Arrowtooth flounder)	
Other flatfish, English sole, starry flounder, & Petrale sole	
large & small footrope gear for Other flatfish, English sole, & starry flounder	110,000 lb/ 2 months
large & small footrope gear for Petrale sole	2,000 lb/ 2 months
selective flatfish trawl gear for Other flatfish, English sole, & starry flounder	90,000 lb/ 2 months, no more than 2,000 lb/ 2 months of which may be petrale sole.
selective flatfish trawl gear for Petrale sole	
multiple bottom trawl gear	90,000 lb/ 2 months, no more than 2,000 lb/ 2 months of which may be petrale sole.
Flatfish South of 40°10' N. Lat. (except Dover sole and Arrowtooth flounder)	
Other flatfish ^{3/} , English sole, & starry flounder	110,000 lb/ 2 months
Petrale sole	2,000 lb/ 2 months

Figure 2-2. Alternative P2 management measures for 2010 to reduce projected mortality of petrale sole by 1,200 mt. **BOLD** text is what is different from Alternative P1.

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area (RCA)						
North of 48°10' N. lat.	shore - 200 fm line		shore - 150 fm line		shore - 200 fm line	
48°10' N. lat. - 45°46' N. lat.	75 fm line - 200 fm line		75 fm line - 150 fm line	100 fm line - 150 fm line	75 fm line - 200 fm line	
45°46' N. lat. - 40°10' N. lat.			75 fm line - 200 fm line	100 fm line - 200 fm line		
South of 40°10' N. lat.	100 fm line - 200 fm line					
Flatfish North of 40°10' N. Lat. (except Dover sole and Arrowtooth flounder)						
Other flatfish, English sole, starry flounder, & Petrale sole						
large & small footrope gear for Other flatfish, English sole, & starry flounder	110,000 lb/ 2 months	110,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole.				110,000 lb/ 2 months
large & small footrope gear for Petrale sole	1,000 lb/ 2 months					1,000 lb/ 2 months
selective flatfish trawl gear for Other flatfish, English sole, & starry flounder	90,000 lb/ 2 months, no more than 1,000 lb/ 2 months of which may be petrale sole.	90,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole.				90,000 lb/ 2 months, no more than 1,000 lb/ 2 months of which may be petrale sole.
selective flatfish trawl gear for Petrale sole						
multiple bottom trawl gear	90,000 lb/ 2 months, no more than 1,000 lb/ 2 months of which may be petrale sole.	90,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole.				90,000 lb/ 2 months, no more than 1,000 lb/ 2 months of which may be petrale sole.
Flatfish South of 40°10' N. Lat. (except Dover sole and Arrowtooth flounder)						
Other flatfish, English sole, & starry flounder	110,000 lb/ 2 months	110,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole.				110,000 lb/ 2 months
Petrable sole	1,000 lb/ 2 months					1,000 lb/ 2 months

2.2 Harvest Specifications and Management Measures for Canary Rockfish

2.2.1 Alternative C1

Alternative C1 is the no action alternative, which would leave the current specifications and management measures in place for canary rockfish in 2009 and 2010.

The 2010 canary rockfish OY of 105 mt is based in the base case model in the 2007 stock assessment and the associated rebuilding plan. The rebuilding plan maintained the 2007-2008 SPR harvest rate of 88.7%, and specified a target rebuilding year of 2021, which is earlier than the year in the prior rebuilding plan. The 105 mt OY comes from a more conservative SPR rate of 92.2 percent. For additional information on the rationale for the 2010 canary rockfish OY of 105 mt and the associated revisions made to the canary rockfish rebuilding plan, see the January 2009 EIS (PFMC and NMFS 2009), particularly Sections 2.1.1.2, and 4.3.1.1.

Harvest specifications and projected impacts to canary rockfish under Alternative C1 are outlined below in Table 2-3.

Table 2-3. Projected impacts to canary rockfish under Alternative C1, or the no action alternative

	Coastwide ABC (mt)	Coastwide OY (mt)	Projected Impacts (mt) ^{/a}							
			LE Non-Whiting Trawl Fishery	Non-Tribal Whiting Trawl Fishery ^{/b}	LE Fixed Gear and Open Access Fisheries	Other (Tribal fisheries, Non-whiting EFPs, Research, etc.)	Recreational ^{/c}			Total
							WA	OR	CA	
2009	937	105	22.1	18.0	7.0	17.3	19.3	21.3	105.0	
2010	940	105	22.1	18.0	7.0	17.3	19.3	21.3	105.0	

/a Projected impacts for 2009 are the projected impacts after inseason adjustments to fishery management measures on July 1, 2009 (74 FR 31874). Projected impacts for 2010 assume that the same management measures that are currently in place for the 2009 calendar year are repeated in 2010.

/b Values for the non-tribal whiting trawl fishery reflect the total of sector-specific bycatch limits adopted in regulations, not projected impacts.

/c Values listed for recreational fisheries are the state-specific harvest guidelines (WA/OR=20.9 and CA=22.9), minus 1.6 mt that were not projected to be harvested, consistent with final council action at their June 2009 meeting.

Status quo management measures for commercial fisheries that catch canary rockfish were published in the trip limit tables from the July 6, 2009 inseason action rule (74 FR31874) and are provided in Appendix A for reference. Status quo management measures for recreational fisheries that catch canary rockfish are listed in Federal Regulations at 50 CFR 660.384 and are provided in Appendix B for reference. Projected impacts to canary rockfish under status quo management measures, as of July 1, 2009, are listed in Table 2-3.

Canary rockfish rebuilding parameters based on the 2007 stock assessment, catch sharing, and analysis of how the stock would be rebuilding as quickly as possible taking into account the appropriate factors, are described in the January 2009 EIS (PFMC and NMFS 2009). If catches in 2009 and 2010 are equivalent to the 2009 and 2010 OYs (105 mt), then, according to the 2009 stock assessment, the status of the stock at the beginning of 2011 will be at 25.2 percent depletion. The stock assessment update presented at the June 2009 Council meeting also predicted that using an SPR of 92.2%, which approximates the SPR for the harvest level in the 2009 and 2010 specifications, results in a 2011 coastwide canary rockfish OY of approximately 69 mt. A rebuilding analysis will be completed in September/October 2009, which will provide a range of potential OYs and rebuilding time periods for the Council to consider as it develops the 2011-2012 specifications. Based on the new, more pessimistic stock assessment, more restrictive management measures will most likely be needed in 2011 to rebuild canary rockfish as quickly as possible, taking into account the appropriate factors.

Table 2-4. Yield amounts (mt) of canary rockfish available to groundfish sectors in 2010 (after deducting projected set-asides) for each canary rockfish OY alternative.

Groundfish Sector	Catch Share (%)	Yield Amounts (mt)		
		C1 = 105 mt	C2 = 85 mt	C3 = 44 mt
LE Non-Whiting Trawl	22.9	19.7	15.1	5.7
LE Whiting Trawl	20.9	18	13.8	5.2
LE Fixed Gear	2.6	2.2	1.7	0.6
Directed OA	2.9	2.5	1.9	0.7
WA Rec	5.7	4.9	3.8	1.4
OR Rec	18.6	16	12.3	4.7
CA Rec	26.6	22.9	17.6	6.7

Excerpted from Tables 2-8 and 2-9 of the 2009-2010 FEIS (PFMC and NMFS 2009)

2.2.2 Canary Rockfish Action Alternatives

The OY values associated with Alternatives C2 and C3 are a subset of the OY values analyzed in the January 2009 EIS (PFMC and NMFS 2009). Supplemental description of these alternatives in this EA is necessary to reflect the new information on stock status, and therefore the same OY alternatives are now presented in the context of the updated 2009 stock assessment.

2.2.3 Alternative C2:

Alternative C2 proposes to reduce the 2010 canary rockfish OY to 85 mt. Alternative C2 also considers a range of potential modifications to management measure that may be necessary to keep total mortality of canary rockfish below 85 mt.

Preliminary information prior to the rebuilding analysis indicates that constraining catches of canary rockfish to 85 mt in 2010 has the following effects on canary rockfish stock abundance at the start of 2011, according to the 2009 stock assessment model: the depletion level will be unchanged, at 25.2 percent depletion, with a 2011 OY of approximately 69 mt (Stewart, pers. comm.).

Both canary rockfish action alternatives (C2 and C3) assume that the catch sharing of canary rockfish that was described in the January 2009 EIS (PFMC and NMFS 2009) will be unchanged. Therefore, for each alternative, the coastwide OY is apportioned among sectors and states in the same manner as in the no action alternative (Table 2-4).

Potential management measures that reduce canary rockfish total mortality to 85 mt may include: expansion of the trawl RCA to close areas with high canary bycatch for parts of the year; expansion of the non-trawl RCA; reductions in trip limits for co-occurring shelf species in both the LE trawl fishery and in the LE fixed gear fishery and open access commercial fishery; reductions in trip limits for vessels using selective flatfish trawl gear; reductions in recreational fishery season length; closures of recreational fisheries in some areas of the coast for a portion of the year; reduction in recreational bag limits for rockfish or other co-occurring species; and a reduction in the bycatch limit for canary rockfish in the LE non-tribal whiting fishery.

The Council will consider the range of management measure alternatives presented in Alternatives C2 and C3 for reducing canary rockfish impacts at the November 2009 Council meeting, following review of the new canary rockfish rebuilding analysis. Projected OYs for 2011 and 2012 and estimates of spawning stock abundance in a new rebuilding analysis will allow the Council to recommend interim measures that would reduce canary rockfish impacts in 2010, resulting in less disruption to 2011 and 2012 fisheries. A description of the final preferred alternative for canary rockfish harvest specifications and management measures in 2010 will be provided as a supplement to the EA after the November 2009 Council meeting.

2.2.4 Alternative C3:

Alternative C3 proposes to reduce the 2010 canary rockfish OY to 44 mt. Alternative C3 also considers a range of potential management measure modifications that may be necessary to keep total mortality of canary rockfish below 44 mt.

Preliminary information prior to the rebuilding analysis indicates that constraining catches of canary rockfish to 44 mt in 2010 has the following effects on canary rockfish stock abundance at the start of 2011, according to the 2009 stock assessment model: the depletion level will improve from 25.2 percent to 25.3 percent and the 2011 OY will increase to approximately 70 mt.

Potential management measures to reduce canary rockfish total mortality to 44 mt would include the same types of changes as outlined above in Alternative C2. However, the duration of commercial area restrictions and trip limit reductions may increase and the reductions in trip limits would likely be more severe. The canary rockfish bycatch limit in the LE non-tribal whiting trawl fishery may be severely reduced. The non-whiting Exempted Fishing Permits (EFPs) may also be restricted or terminated in 2010 to reduce their projected catch of canary rockfish (approximately 2.7 mt). Recreational fisheries seasons may be shortened further, or closed entirely, for some portions of the coast.

The Council will consider the range of management measure alternatives presented in Alternatives C2 and C3 for reducing canary rockfish impacts at the November 2009 Council meeting, following review of the new canary rockfish rebuilding analysis. Projected OYs for 2011 and 2012 and estimates of spawning stock abundance in a new rebuilding analysis will allow the Council to recommend interim measures that would reduce canary rockfish impacts in 2010 and result in less disruption to 2011 and 2012 fisheries that will be operating under OYs set using a revised rebuilding plan. A description of the final preferred alternative for canary rockfish harvest specifications and management measures in 2010 will be provided as a supplemental to the EA after the November 2009 Council meeting.

2.3 Alternatives Considered but Rejected from Further Analysis

NMFS and the Council considered reducing the 2009 petrale sole OY. However, this is an ongoing fishery, and 10 out of 12 months of the 2009 fishery will have concluded before this action takes effect, so this option was removed from further consideration. Changing the trip limits, as proposed in alternative P2 would have the same effect on the harvest levels.

NMFS and the Council considered reducing impacts to petrale sole by varying amounts for 2009. Specifically, they considered what the overfished status of petrale sole would be if no changes were made to reduce catches in 2009. Comparing “Rejected 1” abundance levels with “Alternative 2” abundance levels in Table 2-5 shows that there is a slight increase in abundance when catches are reduced in 2009. However, if catches in 2009 were only reduced by approximately 200 mt, there was no appreciable improvement in stock status relative to the percent of $B_{unfished}$, and only a minor improvement relative to the directly-estimated B_{MSY} . Therefore, since neither of these scenarios had an appreciable difference from Alternative P2 in improving the petrale sole stock status for 2011, they did not meet the purpose and need, and therefore were rejected from further consideration.

Table 2-5. Base case model projections of 2011 petrale stock abundance under four 2009-2010 catch scenarios.

	2009/2010 Catch Scenarios (mt)			
	Alt. P1 (No Action) (2,433/2,393)	Rejected 1 (2,433/1,200)	Rejected 2 (2,200/1,200)	Alt. P2 (2,000/1,200)
2011 abundance				
% of $B_{unfished}$	9%	12%	12%	13%
% of directly-estimated B_{MSY}	48%	63%	66%	68%

The GMT, an advisory body to the Council, considered implications of setting cumulative trip limits for petrale sole to zero in winter months (or "CLOSED"), as this could potentially be an option for reducing projected impacts to petrale sole. A complete closure would induce regulatory discarding of co-occurring petrale sole, and the associated mortality of those discards. Therefore, we want to allow some retention, though reduce trip limits enough to discourage targeting of petrale sole. Keeping winter trip limits at 1,000-2,000 lb is designed to allow retention of some incidental take of petrale sole when vessels are targeting co-occurring flatfish and slope species. Since a complete closure of the winter petrale fishery would not result in appreciable difference in projected impacts, due to discard mortality of incidentally caught petrale sole, this alternative did not meet the purpose and need, and therefore was not recommended for Council consideration by the GMT.

NMFS and the Council considered analyzing interim canary rockfish OYs lower than 44 mt. The last time the canary rockfish stock status was more pessimistic was in the 2006 assessment. During the 2007-2008 harvest specifications and management measures process, considerable analysis was conducted. That analysis revealed that setting the canary rockfish OY below 44 mt would have required a variety of fisheries to be either severely constrained or closed (71 FR 57764), and made a modest difference in the rebuilding parameters. The updated 2009 stock assessment is similar in that it is more pessimistic than the 2009 assessment. To date, the final rebuilding analysis based on the 2009 stock assessment is not complete, so it is uncertain how the alternative interim harvest specifications and management measures would affect rebuilding parameters for canary rockfish. However, the situation is similar to what occurred in 2007. Therefore, interim alternative OYs lower than 44 mt were not considered for 2010. For more information on the economic impacts of setting the canary rockfish OY below 44 mt, see the 2007-2008 Harvest Specifications and Management Measures EIS (PFMC and NMFS 2006) and the preamble to the Proposed Rule (71 FR 57764).

3 Chapter 3 Affected Environment

A description of west coast marine ecosystems and the affected essential fish habitat are available in volume 1 of the Council's 2008 Stock Assessment and Fishery Evaluation (SAFE) document. Volume 1 of the 2008 SAFE document is available by request to the Council office or online at www.pcouncil.org/groundfish/gfsafe.html.

The affected environment for proposed action is the same as the affected environment considered in the January 2009 EIS (PFMC and NMFS 2009). The affected environment chapter (Chapter 3), of that EIS is incorporated by reference and not repeated in this EA. That analysis considered the ecosystem in terms of physical and biological oceanography, climate, biogeography, essential fish habitat (EFH), marine protected areas, and the role of depleted species' rebuilding in the marine ecosystem.

It should be noted that the scale of the proposed action in this EA is smaller than the action in the January 2009 EIS due to the change in focus from setting specifications and management measures for all species in the FMP to setting specifications and management measures as they pertain particularly to canary rockfish and petrale sole.

Petrale sole is one of the main target species for the non-whiting trawl fishery. Arguably, the two species most important to the trawl fishery are petrale sole and sablefish. Markets are readily available for these two species and nearly every trawl vessel along the west coast relies upon petrale sole and sablefish as a source of revenue. These two species have relatively high prices per pound. Petrale sole fetches approximately \$0.95 to \$0.99 per pound at the dock depending upon the year. This compares to a less desirable flatfish species that may fetch on the order of \$0.30 per pound.

Petrale sole is important both to harvesters and to processors. Anecdotal information indicates that the economic margin for petrale sole is greater in the consumer and wholesale market place than for other species. Since petrale sole is sought after in the market, petrale has both a higher profit margin than other species, and there is relatively more certainty regarding the ability to sell petrale into the market place. This fact is evidenced in other types of industry practices. Anecdotal information indicates that, while harvesters deliver a wide array of species, the purchase of many species by the processor is conditional on the fact that harvesters deliver petrale sole and sablefish with those other species. This can be explained by the concept that the processor knows he/she will generate a given amount of revenue from petrale. Since the expected amount of revenue from other species is less certain and comes at a lower profit margin, the processor often cannot afford to rely on species other than sablefish and petrale alone. Reliance on species other than petrale and sablefish is therefore relatively "risky" as the processor will likely realize lower margins on those other species and there is relative uncertainty regarding the ability to sell those species at all. In some ways, having petrale sole and sablefish available allows harvesters and processors to take on the risk of harvesting and processing these other, less desirable species.

All of the rebuilding strategies used to reduce mortality of depleted species on the west coast are used to help rebuild canary rockfish. Management of this stock has tended to constrain more west coast fisheries than any other groundfish stock since canary rockfish are distributed coastwide, are found in a variety of habitats, and are caught by a variety of different fishing gears. Canary rockfish are distributed from nearshore areas as juveniles out to about 150 fm as adults and are found at times suspended off the bottom or in atypical soft-bottom habitats for rockfish. Canary rockfish are not allowed to be retained in commercial and recreational hook and line or fixed gear fisheries and a small, incidental landing limit is allowed in the limited entry trawl fishery to account for unavoidable incidental bycatch. Mandating the use of the selective flatfish trawl shoreward of the RCA north of 40°10' N latitude has helped reduce bycatch in the trawl fishery. The midwater trawl fishery for whiting, which is not currently restricted in the trawl RCA, also catches canary rockfish. Implementation of a canary rockfish bycatch cap, where, if attained, the non-tribal fishery would close inseason even if whiting quotas have not been attained, has successfully reduced canary rockfish mortality. Canary is also taken in recreational fisheries. Table 4-4 below illustrates the various commercial and recreational fisheries that take canary as bycatch.

4 Chapter 4 Environmental Consequences

The impacts described in the January 2009 EIS (PFMC and NMFS 2009) remain the same except for the changes related to the alternatives presented in this EA which are described below.

4.1 Discussion of Direct and Indirect Impacts

4.1.1 Petrale sole Alternatives

Petracle sole is primarily caught in the limited entry trawl fishery. Therefore, analysis of alternatives for changes to harvest specifications and management measures for petrale sole are considered in the context of the coastwide limited entry non-whiting trawl fishery for Pacific Coast groundfish and the effects of changes to management measures in that sector of the fishery.

4.1.1.1 Alternative P1/No Action

4.1.1.1.1 Impacts to the petrale sole resource

If no action is taken to reduce fishery impacts to petrale sole in 2009 or 2010, then the fishing mortality on the stock through 2010 will be the same as described in the January 2009 EIS (PFMC and NMFS 2009). However, if no action is taken to reduce catches of petrale sole in 2009-2010, it is likely that petrale sole will be overfished at the start of 2011, according to the new 2009 stock assessment. Projected impacts to petrale sole under Alternative P1 are listed in Table 2-1.

Under Alternative P1, no action is taken to change fishery impacts to petrale sole in 2009 and 2010. Under this alternative, the results of the new petrale sole stock assessment will be used to develop the 2011 and 2012 harvest specifications only, and will not be used to take interim measures in 2009 and 2010.

4.1.1.1.2 Socioeconomic Impacts

If no action is taken to reduce fishery impacts to petrale sole in 2009 or 2010, then the short term socioeconomic impacts would be very similar to those described in the January 2009 EIS (PFMC and NMFS 2009). As the purpose of the proposed action is to prevent petrale sole from being in an overfished status in 2011, or to speed the rebuilding of petrale if it is found to be overfished, the long term impacts of maintaining the status quo will be reduced OYs and potentially more severe rebuilding plans if petrale sole is found to be overfished. As a result, management of the fishery will become more complex, revenues from the fishery will decline and costs will increase as a result of more restrictive management measures, and less income will be generated in the associated fishing communities.

The January 2009 EIS used the best available information available at that time. Since the publication of that document, routine updates of fishery information have been made to catch projection models. The catch projection models are used to project fishery impacts under current management measures, and to see how projected fishery impacts may change if routine management measures are adjusted inseason. The relatively minor changes to fishery information have an indirect effect on the socioeconomic environment, and results in slightly different economic impacts (particularly projected ex-vessel revenue) than those predicted in the January 2009 EIS. Updated projections of ex-vessel

revenue in limited entry non-whiting trawl fishery under Alternative P1 are shown in Table 4-2. The indirect effects of these changes in fishery information raised projected ex-vessel revenue in the non-whiting trawl fishery by 1.8 million dollars, or approximately 4 percent. Comparison of the action alternatives are made to the updated projected ex-vessel revenue in the non-whiting trawl fishery under the No Action alternative.

Fishery information that is routinely updated includes West Coast Groundfish Observer Program data and logbook and fish ticket information from the three west coast states.

4.1.1.1.3 Impacts to Other Groundfish Species

If no action is taken to reduce fishery impacts to petrale sole in 2009 or 2010, then the impacts to other groundfish species would be very similar to those described in the January 2009 EIS (PFMC and NMFS 2009). However, impacts to overfished groundfish species are slightly different than those listed in the January 2009 EIS.

The January 2009 EIS used the best available information available at that time. Since the publication of that document, routine updates of fishery information (listed in section 4.1.1.1.2 of this EA) have been made to catch projection models that result in slightly different projected impacts to some overfished and target groundfish species than what were predicted in the January 2009 EIS. These updated projected impacts are listed in Table 4-1.

Table 4-1: Projected Impacts to Rebuilding and Target Species in the Limited Entry Non-Whiting Trawl Fishery, Coastwide, Under Alternative P2

		Projected Impacts for Alt. P1 – No Action (mt)
		2009/2010
Rebuilding Species:	Canary Rockfish	22.3
	POP	106.8
	Darkblotched Rockfish	239.0
	Widow Rockfish	20.8
	Bocaccio	12.7
	Yelloweye Rockfish	0.6
	Cowcod	1.3
Target Species:	Sablefish	3,253.0
	Longspine Thornyheads	1,006.4
	Shortspine Thornyheads	1,308.5
	Dover Sole	13,752.4
	Arrowtooth Flounder	4,000.7
	Petrale Sole	2,393.4
	Other Flatfish	2,370.7
	Slope Rockfish	278.6

4.1.1.2 *Alternative P2/Preferred Alternative*

4.1.1.2.1 Impacts to the petrale sole resource

The petrale sole OY alternative and the 2009-2010 management measure alternative (Alternative P2) that the Council chose for analysis is based on the need to prevent the petrale sole stock status from falling below the overfishing threshold at the beginning of 2011. It is based on the immediate need to reduce catches, and how those reductions in projected catches in 2009-2010 affect the stock status in 2011, based on the new 2009 stock assessment.

A new full assessment for petrale sole was presented to the Council in June 2009. The draft assessment indicates the stock is depleted to 11.6% of its unfished biomass. The Groundfish FMP defines the overfished level at 25% of the unfished biomass when the proxy B_{MSY} is used. This means that the stock may be overfished under this standard. However, the stock assessment review panel recommended using the biomass that would support maximum sustainable yield (B_{MSY}), as determined from the assessment (the directly-estimated B_{MSY}), as a management target because B_{MSY} is believed to be well estimated (Cook et. al 2009). The Groundfish FMP allows use of the directly-estimated B_{MSY} (also referred to as a deterministic B_{MSY}) target and defines the overfished level as no less than 50% of the directly-estimated B_{MSY} . The draft 2009 assessment estimates the stock spawning biomass is at 61% of the directly-estimated B_{MSY} and therefore may not be overfished under a directly-estimated B_{MSY} target. The Council's Scientific and Statistical Committee (SSC) did not recommend the petrale sole assessment for management decision-making pending further review of the assessment this summer. The SSC will also further explore the use of a directly-estimated B_{MSY} target for the stock when they meet this summer. While the petrale sole assessment is not yet adopted for use in making management decisions, projections from the draft assessment indicate that stock spawning biomass will be driven to a lower level of depletion if the entire 2009 and 2010 OYs are taken in this management cycle. Spawning biomass is projected to decline to less than 50% of the directly-estimated B_{MSY} by 2011 if the entire 2009 and 2010 OYs are taken, which is an overfished state even under a directly-estimated B_{MSY} target.

The Council's choice of catch reductions of approximately 400 mt in 2009 and the lower coastwide OY for 2010 of 1,193 mt is based on the need to prevent the stock status from falling below the overfished threshold at the beginning of 2011, or to speed the rebuilding of petrale if it is found to be overfished. Using the base model from the 2009 assessment, model runs were made assuming different catches of petrale in 2009 and 2010. It was estimated by the GMT that catches could be reduced by approximately 1,200 mt in 2010 if the winter target fishery for petrale sole was severely restricted. Therefore, the remainder of the current 2010 OY, 1,193 mt, was treated as the preferred OY for 2010 in this action.

The Council also considered making no changes to 2009 management measures, and therefore not reducing petrale sole projected impacts in 2009. If no reduction were made for 2009, model runs indicated that an increase of between a 0-1 percent of $B_{unfished}$ and between a 3-5 percent of the directly-estimated B_{MSY} would be sacrificed (Table 2-5). The Council felt that the potential for a small increase in abundance, in an attempt to prevent the stock from falling below the overfished status in 2011, or to

speed the rebuilding of petrale if it is found to be overfished was a better alternative than taking no reduction in 2009 (See Section 2.3 for more detail).

4.1.1.2.2 Socioeconomic Impacts

This section describes the economic implications of reducing the allowable catch of petrale sole in the 2009 and 2010 biennium. Both qualitative and quantitative information is used to show the overall effect to the industry, and the distributional effect of that reduction to west coast communities. Below is a description of the importance of petrale sole to the west coast harvesting and processing industry as a whole and how petrale sole affects the industry relative to other species. Quantitative information is used to illustrate the effects of petrale sole reductions to west coast communities (Table 4-2).

4.1.1.2.2.1 *Effects of Petrale Sole Reductions to West Coast Trawl Harvesters*

As indicated above, petrale sole is important to nearly every trawler along the west coast. In this section we simulate the effects of reducing petrale sole opportunities on trawl harvesters. This is done by using the GMT trawl model to estimate the effects (in revenue terms) upon west coast trawl harvesters under status quo conditions and under the Council's preliminary 2009 and 2010 measures to reduce petrale sole impacts. We illustrate this information in a histogram showing the effect these impacts will have to west coast trawl vessels in percentage terms.

The Council's preliminary option for reducing petrale sole impacts in 2009 and 2010 restricts the fishery during period 1 and period 6 (the period 1 reduction is limited to 2010). Reducing the petrale sole fishing opportunities during this period maintains the summer petrale sole fishery. During the summer months, petrale sole fetches a higher price per pound than during the winter fishery. Furthermore, restricting petrale sole fishing opportunities in the winter months affects fewer trawlers than if the fishing opportunities were restricted during the summer. This is because several trawlers cannot fish in the deeper areas where petrale are found during the winter, so their catches of petrale are limited to periods when petrale are on the shelf. In other cases, trawlers that are able to prosecute winter activities engage in the Dungeness crab fishery rather than the winter trawl fishery. In any event, the number of trawl vessels relying on winter petrale sole opportunities is smaller than the number of trawl vessels relying on summer petrale opportunities. However, for those vessels that rely on winter opportunities, the effect of the winter restriction is fairly large. Figure 4-1 is based on the current GMT model that estimates that there are about 139 trawlers participating in the non-whiting trawl fishery, and describes the number of limited entry non-whiting trawl vessels that may have a reduction in ex-vessel revenue. As shown in the figure below, a large number of vessels may have a relatively small decrease in revenue. However, a few vessels may have a relatively large decrease in revenue. For example: around 20 vessels may see their revenues decline by 5 to 9 percent, 5 to 19 vessels may see their revenues decline by 10 to 14 percent (depending on the year), and some vessels may see their revenues decline by over 20 percent.

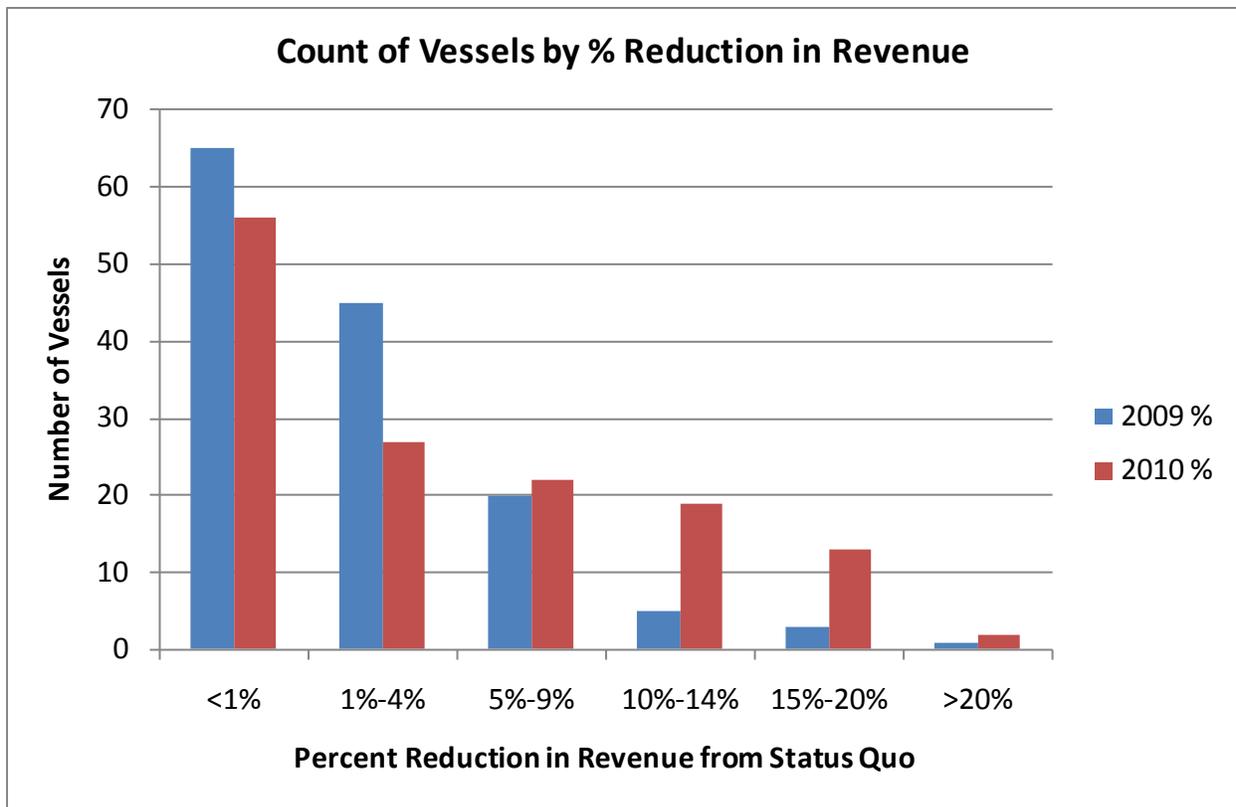


Figure 4-1: Count of Limited Entry Trawl Vessels by Percent Reduction in Ex-vessel Revenue Under Alternative P2

4.1.1.2.2.2 *Effects of Petrale Sole Reductions to West Coast Communities*

The effect of these petrale sole reductions on west coast communities is estimated by simulating the Council’s preliminary options for reducing petrale catches on individual vessels, and by tying those impacts to each vessels principal port. Principal port is defined as the port which a vessel makes the majority of its landings to in a given year. Based on this approach, Figure 4-2 and Table 4-2 were developed. From this information it is apparent that some communities may be affected to a greater degree than others. The ports of Astoria, Bellingham, Coos Bay, Eureka, Moss Landing, Newport, Princeton/Half Moon Bay, and San Francisco all see reductions that are greater than or equal to 6 percent.

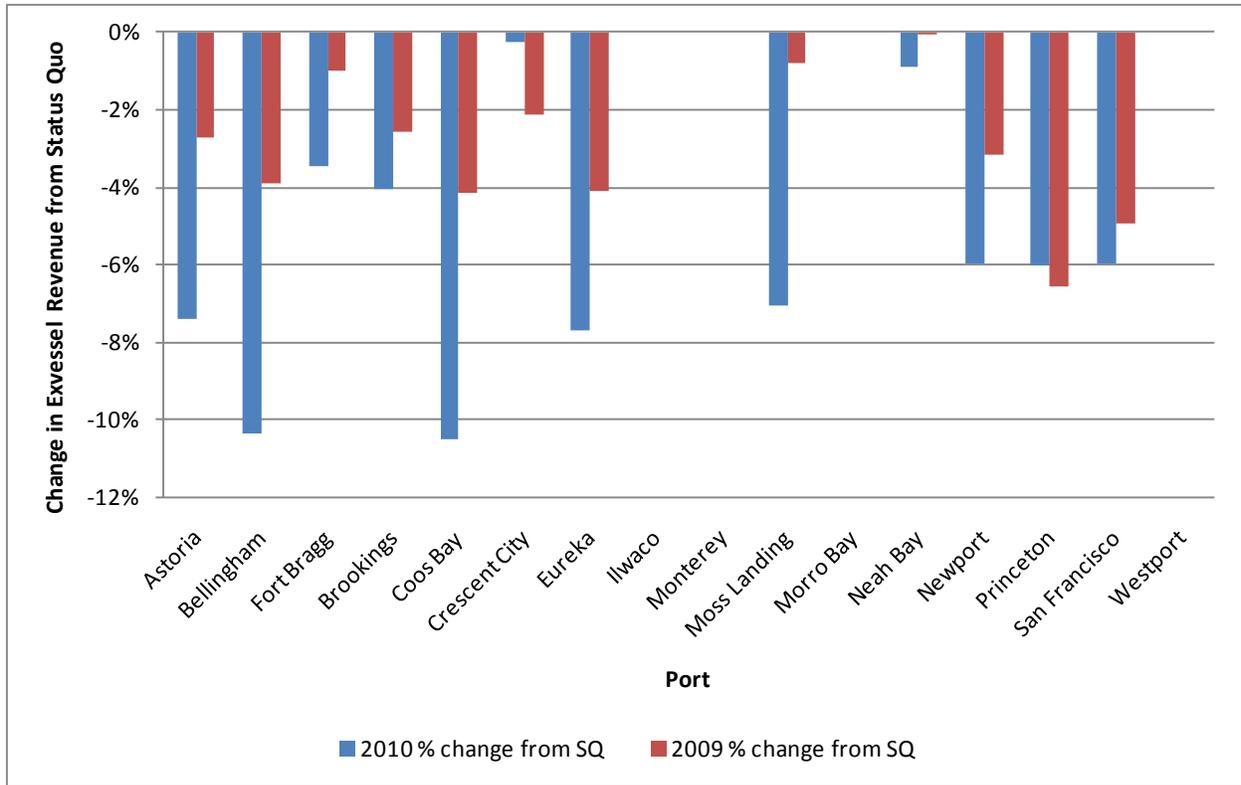


Figure 4-2: Change in Ex-vessel Revenue by Port

Table 4-2: Estimated Ex-vessel Revenue in the Limited Entry Non-Whiting Trawl Fishery by Port and Petrale Reductions for 2009 and 2010

	Alternative P1 – No Action ^{1/}	Alternative P2		2010 % change from SQ	2009 % change from SQ
	2009 Status Quo value	2009 Reduction	2010 Reduction		
Astoria	7,724,858	7,513,840	7,154,725	-7%	-3%
Bellingham	1,727,561	1,660,028	1,549,055	-10%	-4%
Fort Bragg	1,912,275	1,893,647	1,845,945	-3%	-1%
Brookings	1,783,032	1,737,319	1,710,638	-4%	-3%
Coos Bay	4,639,084	4,447,377	4,151,693	-11%	-4%
Crescent City	904,296	885,099	902,042	0%	-2%
Eureka	3,050,099	2,925,889	2,815,065	-8%	-4%
Ilwaco	-	-	-		
Monterey	C	C	C		
Moss Landing	513,353	509,292	477,255	-7%	-1%
Morro Bay	C	C	C		
Neah Bay	339,740	339,656	336,717	-1%	0%
Newport	3,313,028	3,208,242	3,115,855	-6%	-3%
Princeton	307,017	286,856	288,507	-6%	-7%
San Francisco	680,435	646,717	639,748	-6%	-5%
Westport	C	C	C		
Total	28,190,988	27,249,505	26,109,063	-7%	-3%

Note: "C" indicates data is withheld due to confidentiality. The results included in the "Total" row includes these data.

1/ The projected ex-vessel revenue under Alternative P1 – No Action shows slightly different impacts than those described in Table 7-52 in the January 2009 EIS (PFMC and NMFS 2009). These are due to the indirect effects of the updates in fishery information and catch projection models. See discussion in section 4.1.1.2.2.

4.1.1.2.3 Impacts to Other Groundfish Species

In addition to the routine addition of new fishery information, described in sections 4.1.1.1.2 and 4.1.1.1.3, alternative P2 further changes projected impacts to overfished species because of the associated reduction in fishing effort as a result of more restrictive management measures for petrale sole. Because the level of proposed catch reductions in 2009 and 2010 are different, associated impacts for each year are also different. The projected impacts to overfished species from the fishery under Alternative P2 for 2009 and for 2010 are listed below in Table 4-3.

Table 4-3: Projected Impacts to Rebuilding and Target Species in the Limited Entry Non-Whiting Trawl Fishery, Coastwide, Under Alternative P2

		Projected Impacts of Alternative P2 (mt)	
		2009	2010
Rebuilding Species	Canary Rockfish	22.2	22.1
	POP	95.0	77.3
	Darkblotched Rockfish	202.8	146.5

	Widow Rockfish	19.4	17.3
	Bocaccio	12.7	12.7
	Yelloweye Rockfish	0.6	0.6
	Cowcod	1.4	1.4
Target Species	Sablefish	3,246.1	3,237.2
	Longspine Thornyheads	1,006.5	1,005.6
	Shortspine Thornyheads	1,301.2	1,287.9
	Dover Sole	13,716.7	13,688.0
	Arrowtooth Flounder	3,976.0	3,818.5
	Petrale Sole	1,995.0	1,178.3
	Other Flatfish	2,353.6	2,312.9
	Slope Rockfish	273.7	263.5

4.1.2 Canary rockfish Alternatives

The Council expressed concerns that the new 2009 stock assessment update, that was adopted for use in management at their June 2009 meeting, is more pessimistic than the 2007 stock assessment. The 2007 stock assessment was the basis of the rebuilding analysis and rebuilding plan and establishment of the 2009-2010 harvest specifications. In June 2009 the Council preliminarily recommended that actions in 2010, to restrict fisheries that catch canary rockfish incidentally, should be considered. Stock status information in the 2009 canary rockfish stock assessment update will be used to generate a rebuilding analysis in August and September 2009. The results of the rebuilding analysis will be considered by the Council at their November 2009 meeting. The results of the rebuilding analysis will provide the Council more information on the effects of Alternatives C1, C2, and C3 on rebuilding parameters, including time to rebuild. Because the results of the rebuilding analysis are not known at this time, much of the analysis in this section is qualitative in nature, or uses only the existing rebuilding parameters run through the new 2009 stock assessment as a baseline for estimating impacts of each alternative.

During the 2009-2010 harvest specifications and management measure process, various OY alternatives were considered for canary rockfish, including 85 mt and 44 mt (PFMC and NMFS 2009). Unless otherwise noted, all of the information used in this EA is from the January 2009 EIS (PFMC and NMFS 2009).

4.1.2.1 Alternative C1/No Action

4.1.2.1.1 Impacts to canary rockfish

The 2010 canary rockfish OY of 105 mt is based in the base case model in the 2007 stock assessment and the associated rebuilding analysis. If catches in 2009 and 2010 are equivalent to the 2009 and 2010 OYs (105 mt), then, according to the 2009 stock assessment, the status of the stock at the beginning of 2011 will be at 25.2 percent depletion.

If no action is taken to respond to the new 2009 stock assessment update, and to reduce harvest specifications and management measures for canary rockfish in 2010, then the fishing mortality on the stock in 2010 will be similar to that described in the January 2009 EIS (PFMC and NMFS 2009) under the Council's final preferred alternative. However, in 2011 and beyond, once the 2009 stock assessment update is incorporated for use in management, retrospective impacts to canary rockfish from the 2010

fishery would be higher, because the new stock assessment estimates a smaller biomass. In addition to the impacts described in the January 2009 EIS, the routine addition of new fishery information slightly changed the projected impacts to canary rockfish under the no action alternative. These projected impacts are listed in Table 2-3. Even with the incorporation of new fishery information, routine management measures are available to keep projected impacts within the 2009-2010 rebuilding OY of 105 mt.

Under Alternative C1, no action is taken to change the 2010 canary rockfish OY. Under this alternative, the results of the canary rockfish stock assessment update will be used to develop the 2011 and 2012 harvest specifications only, and will not be used to take interim measures in 2010.

4.1.2.1.2 Socioeconomic Impacts

Socioeconomic impacts of the 2010 management measures that keep projected impacts of canary rockfish below the 2010 OY of 105 mt are described in Section 7.2.8 the January 2009 EIS (PFMC and NMFS 2009). In that EIS, the impacts of a canary rockfish OY of 105 mt are considered as part of rebuilding alternative 5b and as the Council Preferred Alternative.

The quantitative analysis of socioeconomic impacts for the Pacific coast groundfish fishery is done on the management measures that keep projected impacts below harvest specifications. In this EA, the discussion of socioeconomic impacts for the canary rockfish alternatives is solely qualitative. This is because this draft EA does not propose a specific suite of management measures associated with the canary rockfish action alternative OYs in C2 and C3. Therefore, the socioeconomic impacts of the action alternatives cannot be accurately quantified at this time, as the specific management measures have not been identified.

While we describe the types of management measures that could be used, and in which sectors of the groundfish fishery they could be implemented (Section 2.2.2) the Council will provide guidance on which management measures to implement, depending on the available harvest (or OY), at the November 2009 Council meeting. The Council will use the socioeconomic analysis presented in the January 2009 EIS to generate a preferred suite of management measures for each OY alternative. Once the management measures that would be associated with each of the alternatives has been outlined, the quantitative socioeconomic analysis will be presented as a supplement to this EA.

The action alternatives are evaluated qualitatively in this draft EA; therefore, the No Action alternative must also be characterized in a qualitative manner, to allow direct comparison between the No Action alternative and the action alternatives (C2 and C3). In order to be able to directly compare the two action alternatives to the No Action alternative, no changes to fishery information that indirectly affect the socioeconomic environment are incorporated in the socioeconomic analysis at this time.

We refer the readers to the economic analysis in Section 7.2.8 of the January 2009 EIS (PFMC and NMFS 2009). The January 2009 EIS analyzed how the estimates of ex-vessel revenue change under alternative 2009-2010 harvest specifications and management measures. The EIS also analyzed impacts on the recreational fishery. In that EIS, alternative 5a looks at the socioeconomic impacts of a rebuilding alternative that includes a canary rockfish OY of 85 mt and the associated management measures. This

alternative in the EIS can provide us with an initial starting place for a qualitative comparison between the No Action alternative in this EA and alternatives C2 and C3. This will be the source for the qualitative discussion of the economic effects of the action alternatives.

4.1.2.1.3 Impacts to Other Groundfish Species

If no action is taken to reduce fishery impacts to canary in 2010, then the impacts to other resources would be very similar to those described in the January 2009 EIS (PFMC and NMFS 2009). However, impacts to overfished groundfish species are slightly different than those listed in the January 2009 EIS.

The January 2009 EIS used the best available information available at that time. Since the publication of that document, several updates have been made to bycatch projection models that result in slightly different biological impacts to overfished species than what were predicted in the January 2009 EIS. For more information on these updates, see section 4.1.1.1.3 of this EA. As a result of these updates, projected impacts to overfished species are slightly different under the No Action alternative than those described in the January 2009 EIS. These updated projected impacts for canary rockfish are listed in Table 2-3. Updated projected impacts for all other overfished species are listed below in Table 4-4.

Table 4-4: Projected mortality impacts (mt) of overfished groundfish species updated with most recent research estimates and fishery projections through June and Council Final Action from June 2009 Inseason Under Agenda Item E.9.

Fishery	Bocaccio b/	Canary	Cowcod	Dkbl	POP	Widow	Yelloweye
Limited Entry Trawl- Non-whiting	12.6	22.1	1.3	202.8	95.0	19.4	0.6
Limited Entry Trawl- Whiting							
At-sea whiting motherships a/		4.3		6.0	0.5	60.0	0.0
At-sea whiting cat-proc a/		6.1		8.5	0.5	85.0	0.0
Shoreside whiting a/		7.6		10.5	0.1	105.0	0.0
Tribal whiting		1.4		0.0	0.7	3.7	0.0
Tribal							
Midwater Trawl		3.6		0.0	0.0	40.0	0.0
Bottom Trawl		0.8		0.0	3.7	0.0	0.0
Troll		0.5		0.0	0.0		0.0
Fixed gear		0.3		0.0	0.0	0.0	2.3
Fixed Gear Sablefish	0.2	2.8	0.0	4.2	0.5	0.1	0.9
Fixed Gear Nearshore	0.3	3.3	0.0	0.0	0.0	0.3	1.2
Fixed Gear Other	5.0	0.0	0.0	9.0	0.0	0.7	0.0
Open Access: Incidental Groundfish	2.0	0.9	0.0	0.0	0.0	4.0	0.3
Recreational Groundfish e/							
WA		19.3					5.2
OR						1.0	
CA	67.3	21.3	0.1			6.2	2.8
EFPs	13.7	2.7	0.3	1.3	0.0	5.5	0.3
Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs.							
	2.0	8.0	0.2	2.0	2.0	5.7	1.9
TOTAL	103.1	105.0	1.9	244.3	103.0	336.6	15.5
2009 OY f/	288	105	4.0	285	189	522	17
Difference	184.9	0.0	2.1	40.7	86.0	185.4	1.5

Percent of OY	35.8%	100.0%	47.5%	85.7%	54.5%	64.5%	91.2%
Key		= either not applicable; trace amount (<0.01 mt); or not reported in available data sources.					
<p>a/ Non-tribal whiting values for canary, darkblotched, and widow reflect bycatch limits for the non-tribal whiting sectors. The widow bycatch limit is the difference between the OY and the projected impacts in all non-whiting fisheries. All other species' impacts are projected from the GMT's whiting impact projection model. The Council may elect to change these bycatch limits when setting final whiting management measures in March of 2009 or 2010 or under any inseason action at any of their future meetings.</p> <p>b/ South of 40°10' N. lat.</p> <p>c/ Mortality estimates are not hard numbers; based on the GMT's best professional judgment.</p> <p>d/ Bycatch amounts by species unavailable, but bocaccio occurred in 0.1% of all port samples and other rockfish in another 0.1% of all port samples (and squid fisheries usually land their whole catch).</p> <p>e/ Values in scorecard represent projected impacts for all species except canary and yelloweye rockfish, which are the prescribed harvest guidelines. For canary rockfish, the projected impacts from the WA/OR and CA recreational fisheries are the harvest guidelines minus 1.6 mt that were not projected to be harvested.</p> <p>f/ 2009 and 2010 OYs are the same except for darkblotched (291 mt in 2010), POP (200 mt in 2010), and widow (509 mt in 2010).</p>							

4.1.2.2 *Alternative C2*

4.1.2.2.1 *Impacts to Canary Rockfish*

The Alternative C2 OY (2010 canary rockfish OY of 85 mt) is the same canary rockfish OY that was analyzed as a part of rebuilding alternative 5a in the January 2009 EIS (PFMC and NMFS 2009). The analysis in the January 2009 EIS was based on the 2007 canary rockfish stock assessment and rebuilding analysis, and the OY alternative of 85 mt was based on an SPR harvest rate of F96.2%. For additional information on the rationale for the canary rockfish OY of 85 mt based on the 2007 assessment, see the January 2009 EIS (PFMC and NMFS 2009), particularly Section 2.1.1.2.

In order to get a sense of the magnitude of the effects on the canary rockfish stock from a reduction in the 2010 OY from 105 to 85 mt, this reduction in the 2010 catch was run through the 2009 canary rockfish assessment model to see how the projection of potential 2011 OYs and depletion level might change if Alternative C2 is adopted. The stock assessment update presented at the June Council meeting predicted that using an SPR of 92.2% in 2011, which approximates the SPR for the harvest level in the 2009 and 2010 specifications, results in a 2011 coastwide canary rockfish OY of approximately 69 mt and a depletion level of 25.2% when 105 mt and 85 mt of canary rockfish are taken in 2009 and 2010, respectively (Stewart Pers. Comm.). It should be noted that the OY and depletion values generated by the base case stock assessment model do not account for uncertainty in the stock assessment like the rebuilding analysis will. Therefore, these point estimates are uncertain, with an unknown confidence interval, and are presented to facilitate comparison of alternatives in a qualitative manner.

4.1.2.2.2 *Socioeconomic Impacts*

As stated in section 4.1.2.1.2, the socioeconomic impacts of Alternative C2 will depend on the final suite of associated management measures that the Council will recommend in November 2009. Therefore the following discussion is qualitative in nature, and refers to the analysis in Section 7.2.8 of the January 2009 EIS (PFMC and NMFS 2009). In that EIS, alternative 5a looks at the socioeconomic impacts of a rebuilding alternative that includes a canary rockfish OY of 85 mt and the associated management measures, which may differ from what the Council selects in November. However, this alternative in the

EIS can provide us with an initial starting place for a qualitative comparison between alternatives C1 and C2 in this draft EA.

Table 4-5 shows how the change in the canary rockfish OY from 105 mt to 85 mt in 2010 could impact the overall level of ex-vessel revenue in the Pacific Coast groundfish fishery, coastwide. The reduction in revenue of approximately 8.54 percent would likely impact all of the sectors described in section 2.2.2. However, the suite of management measures that the Council recommends may change the distribution of the economic effects from status quo. Once the Council has adopted their preferred suite of management measures for each action alternative, the quantitative socioeconomic analysis will be completed. This analysis will describe the impact of the action alternatives on the ex-vessel revenue of each affected fishery sector.

Table 4-5 Percent Change in Total Ex-vessel Revenue of the Coastwide Groundfish Fishery Alternative Canary Rockfish OYs

	No Action	Action Alternatives		
Alternative in this EA:	Alternative C1 - 105 mt	Alternative C2 – 85 mt	Alternative C3 – 44 mt	
Alternative in the January 2009 EIS ^{1/} :	Final Council-Preferred Alternative	Rebuilding Alternative 5a	Rebuilding Alternative 2	Rebuilding Alternative 3
Total ex-vessel revenue (\$ million) ^{2/}	105.42	96.42	94.32	81.32
Change in ex-vessel revenue from “No Action” (%)	0	-08.54%	-10.53%	-22.86%

1/ The EIS had two alternatives that included a canary rockfish OY of 44 mt: Rebuilding Alternatives 2 and 3. The differences between rebuilding alternatives 2 and 3 occur in the other overfished species OYs that were considered, and in the associated management measures. The ex-vessel revenue under each of these EIS alternatives is incorporated for informational purposes.

2/ The dollar amounts of ex-vessel revenue listed in this table are incorporated from Tables 7-50a and b in the January 2009 EIS (PFMC and NMFS 2009). The actual dollar amounts associated with the alternatives in this EA may be different than those from the EIS due to the indirect effects of incorporating routine fishery information to catch projection models since publication of the EIS. A quantitative analysis and description of changes to dollar amounts associated with these alternatives will occur in a supplemental to this EA, once the preliminary management measures are determined.

4.1.2.2.3 Impacts to Other Groundfish Species

Canary rockfish are a shelf species that co-occur with many healthy target species and are encountered in almost every sector of the groundfish fishery, coastwide. If the coastwide OY is reduced to 85 mt in

2010, it would reduce access to healthy stocks to a level lower than those considered in this EA under the No Action Alternative (C1).

As canary rockfish are distributed most heavily in the north (north being north of 38 degrees north latitude), we assume that measures taken to reduce canary impacts will be principally targeted toward portions of each fishery that operates in this northern area. In general we expect that achieving reductions in canary rockfish catch will be achieved by restricting the following fisheries: LE non-whiting trawl; LE whiting trawl; Northern California, Oregon, and Washington recreational groundfish; and nearshore commercial groundfish.

While the actual impacts of the action alternatives for canary rockfish (Alternatives C2 and C3) cannot be quantified without further Council specificity on how to keep projected impacts below those OYs, we can discuss the effect of the types of management measures that will be necessary to arrive at these numbers and the subsequent effect these management measures will have on other affected species.

As management measures affecting shelf opportunities become more restrictive, fishing effort may shift offshore, where fishing opportunities are unchanged via this action, due to lower canary rockfish abundance offshore. Effort shifts from the shelf to the slope could increase impacts of fisheries on all slope species, including overfished slope species such as darkblotched and Pacific Ocean perch (POP). Effort shifts will increase as the canary rockfish OY decreases, due to the restrictive management measures that will be associated with keeping projected impacts within lower OYs.

4.1.2.3 Alternative C3

4.1.2.3.1 Impacts to Canary Rockfish

The Alternative C3 OY (2010 canary rockfish OY of 44 mt) is the same canary rockfish OY that was analyzed as a part of rebuilding alternatives 2 and 3 in the January 2009 EIS (PFMC and NMFS 2009). The 44 mt OY was the No Action alternative OY for canary rockfish and had an associated SPR harvest rate of F93.6% in the rebuilding analysis that was based on the 2007 stock assessment. For additional information on the rationale for the canary rockfish OY of 44 mt, based on the 2007 assessment, see the January 2009 EIS (PFMC and NMFS 2009), particularly Section 2.1.1.2.

In order to get a sense of the magnitude of the effects on the canary rockfish stock from a reduction in the 2010 OY from 105 to 44 mt, this reduction in the 2010 catch was run through the 2009 canary rockfish assessment model to see how the projection of potential 2011 OYs and stock depletion might change if Alternative C3 is adopted. The stock assessment update presented at the June Council meeting predicted that using an SPR of 92.2% in 2011, which approximates the SPR for the harvest level in the 2009 and 2010 specifications, results in a 2011 coastwide canary rockfish OY of approximately 70 mt and a depletion level of 25.3% when 105 mt and 44 mt of canary rockfish are taken in 2009 and 2010, respectively (Stewart Pers. Comm.). It should be noted that the OY and depletion values generated by the base case stock assessment model do not account for uncertainty in the stock assessment like the rebuilding analysis will. Therefore, these point estimates are uncertain, with an unknown confidence interval, and are presented to facilitate comparison of alternatives in a qualitative manner.

4.1.2.3.2 Socioeconomic Impacts

As stated in section 4.1.2.1.2, the socioeconomic impacts of Alternative C3 will depend on the final suite of associated management measures that the Council will recommend in November 2009. Therefore the following discussion is qualitative in nature, and refers to the analysis in Section 7.2.8 of the January 2009 EIS (PFMC and NMFS 2009). In that EIS, rebuilding alternatives 2 and 3 look at the socioeconomic impacts of rebuilding alternatives that includes a canary rockfish OY of 44 mt and associated management measures. These alternatives in the EIS can provide us with an initial starting place for a qualitative comparison between alternatives C1 and C3 in this draft EA.

Table 4-5 shows how the change in the canary rockfish OY from 105 mt to 44 mt in 2010 could impact the overall level of ex-vessel revenue in the Pacific Coast groundfish fishery, coastwide. The reduction in revenue described in Table 4-5 range from 11 percent to 23 percent pending on the rebuilding alternative. This alternative would likely impact all of the sectors described in section 2.2.2, but to a larger degree than under alternative C2. The suite of management measures that the Council recommends may change the distribution of the economic effects from what occurs under status quo. Once the Council has adopted their preferred suite of management measures for each action alternative, the quantitative socioeconomic analysis will be completed. This analysis will describe the impact of the action alternatives on the ex-vessel revenue of each affected fishery sector.

4.1.2.3.3 Impacts to Other Groundfish Species

Canary rockfish are a shelf species that co-occur with many healthy target species and are encountered in almost every sector of the groundfish fishery, coastwide. If the coastwide OY is reduced to 44 mt in 2010, it would reduce access to healthy stocks to a level lower than those considered in this EA under both the No Action Alternative (C1) and Alternative C2. See section 4.1.2.2.3 for more information.

5 Chapter 5 Cumulative Effects

Generally speaking, the proposed action alternatives would restrict fishing activities that take petrale sole and canary rockfish, and therefore may reduce fishing effort in some areas of the coast.

Alternative P2 would reduce fishing opportunities for petrale sole. With the reduction in fishing opportunities, a corresponding reduction in fishing effort is expected. This is because it is unlikely that effort previously targeting on petrale sole will be displaced from the area seaward of the trawl rockfish conservation area (RCA) to the area shoreward of the trawl RCA because target opportunities in the area shoreward of the RCA are very limited in winter months. Reduced trawl fishing effort could have positive impacts on habitat, and would reduce the likelihood of impacts to ESA-listed species or marine mammals that could be encountered in the limited entry trawl fishery off Washington, Oregon, and California.

Alternatives C2 and C3 would likely reduce fishing opportunities in several sectors of the groundfish fishery. Depending on how the management measures are designed, there may be a reduction in overall fishing effort in these sectors, or there may be effort shifts to areas of the coast or to depths where canary rockfish are less abundant. A decrease in fishing effort may reduce negative impacts to EFH from both commercial and recreational groundfish fishing activities off West Coast states. Shifts in fishing effort to different areas in order to reduce incidental catch of canary rockfish could have a differing effect on the ecosystem from the no action alternative; however, those differences are not quantifiable.

If the Council chooses an action alternative for both petrale sole and for canary rockfish, these actions are not completely independent of each other. This is because petrale sole is caught primarily in the limited entry non-whiting trawl fishery, and this sector of the fishery also has impacts on canary rockfish. If Alternative P2 is adopted, projected impacts to canary rockfish in the limited entry non-whiting trawl fishery are reduced by 0.1 mt from the No Action Alternatives (P1 and C1). Qualitatively, if the canary rockfish OY is reduced in 2010 from 105 mt, effort could shift to the area seaward of the trawl RCA. Petrale sole are primarily caught seaward of the RCA. If, in combination with one of the canary rockfish action alternatives, Alternative P2 is adopted, then there will be less petrale sole available for harvest for those vessels displaced by restrictive management measures in the area seaward of the trawl RCA.

It should be noted that the scale of the proposed action in this EA is smaller than the January 2009 EIS (PFMC and NMFS 2009) due to the change in focus from setting specifications and management measures for all species in the FMP to setting specifications and management measures as they pertain particularly to canary rockfish and petrale sole. This, combined with the fact that the action alternatives all reduce available harvest from the No Action alternative, means that the cumulative effects of this action are within or below those estimated in the January 2009 EIS (PFMC and NMFS 2009)

6 Chapter 6 List of Preparers

Name	Affiliation	Participation
Ms. Gretchen Arentzen	NMFS, Northwest Region	Principal author
Mr. Merrick Burden	PFMC Staff	Contributing author, Chapter 4
Ms. Eileen Cooney	NOAA General Counsel	Principal reviewer
Mr. Kevin Duffy	NMFS, Northwest Region	Principal reviewer
Ms. Shelby L. Mendez	NOAA NEPA Coordinator	Principal reviewer
Dr. Ian Stewart	NMFS Northwest Fisheries Science Center	Principal author of the canary rockfish stock assessment and rebuilding analysis

7 Chapter 7 Acronyms and Glossary

Acronym	Definition
ABC	Acceptable biological catch. The ABC is a scientific calculation of the sustainable harvest level of a fishery and is used to set the upper limit of the annual total allowable catch. It is calculated by applying the directly-estimated (or proxy) harvest rate that produces maximum sustainable yield to the estimated exploitable stock biomass (the portion of the fish population that can be harvested).
B_{MSY}	The biomass that allows maximum sustainable yield to be taken.
$B_{unfished}$	Estimated unfished biomass
EA	Environmental Assessment
EFH	Essential Fish Habitat
EFP	Exempted Fishing Permit
EIS	Environmental Impact Statement
FMP	Fishery Management Plan
FR	<i>Federal Register</i>
GMT	Groundfish Management Team
IPHC	International Pacific Halibut Commission
lb	Pounds
LE	Limited entry fishery
PFMC	Pacific Fishery Management Council
mt	metric tons
NMFS	National Marine Fisheries Service
NOAA	National Oceanic & Atmospheric Administration; The parent agency of National Marine Fisheries Service
OA	Open access fishery

OY	Optimum Yield
POP	Pacific Ocean perch
RCA	Rockfish Conservation Area
SAFE	Stock Assessment and Fishery Evaluation
SPR	Spawning biomass per recruit
STAR Panel	Stock Assessment Review Panel. A panel set up to review stock assessments for particular fisheries. In the past there have been STAR panels for sablefish, rockfish, squid, and other species
Status quo	Same as the "No Action" alternative
SSC	Scientific and Statistical Committee

8 Chapter 8 Literature Cited

PFMC (Pacific Fishery Management Council) and NMFS (National Marine Fisheries Service). 2009. Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2009-2010 Pacific Coast Groundfish Fishery Final Environmental Impact Statement Including Regulatory Impact Review and Initial Regulatory Flexibility Analysis. Pacific Fishery Management Council, Portland, OR. January 2009.

Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2007-2008 Pacific Coast Groundfish Fishery, and Amendment 16-4: Rebuilding Plans For Seven Depleted Pacific Coast Groundfish Species; Final Environmental Impact Statement Including Regulatory Impact Review and Initial Regulatory Flexibility Analysis. Pacific Fishery Management Council, Portland, OR. October 2006.

Cook, R., X. He, J. Maguire, T. Tsou. 2009. Stock Assessment Review (STAR) Panel Report on Petrale Sole, as presented at the Pacific Fishery Management Council June 2009 meeting. Agenda Item E.6.a, Attachment 2. June 2009.

Stewart, Dr. Ian. Northwest Fisheries Science Center. Personal Communication. July 20, 2009.

9 Appendix A - No Action Trip Limit Tables

Trip limit tables (Tables 3 (North), 3 (South), 4 (North), 4 (South), 5 (North), and 5 (South), as updated in the July 6, 2009 inseason action rule (74 FR31874), are provided here for reference.

Table 3 (North) to Part 660, Subpart G -- 2009-2010 Trip Limits for Limited Entry Trawl Gear North of 40°10' N. Lat.
Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

061509

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area (RCA)^{6/}:						
1	shore - modified ^{7/} 200 fm line ^{6/}		shore - 150 fm line ^{6/}		shore - 200 fm line ^{6/}	shore - modified ^{7/} 200 fm line ^{6/}
2	48°10' N. lat. - 45°46' N. lat. 75 fm line ^{6/} - modified ^{7/} 200 fm line ^{6/}		75 fm line ^{6/} - 200 fm line ^{6/}	75 fm line ^{6/} - 150 fm line ^{6/} - 100 fm line ^{6/} - 150 fm line ^{6/}	75 fm line ^{6/} - 200 fm line ^{6/}	75 fm line ^{6/} - modified ^{7/} 200 fm line ^{6/}
3	45°46' N. lat. - 40°10' N. lat.		75 fm line ^{6/} - 200 fm line ^{6/}	75 fm line ^{6/} - 100 fm line ^{6/} - 200 fm line ^{6/}	75 fm line ^{6/} - 200 fm line ^{6/}	75 fm line ^{6/} - modified ^{7/} 200 fm line ^{6/}
<p>Selective flatfish trawl gear is required shoreward of the RCA; all trawl gear (large footrope, selective flatfish trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope and small footrope trawl gears (except for selective flatfish trawl gear) are prohibited shoreward of the RCA. Midwater trawl gear is permitted only for vessels participating in the primary whiting season.</p> <p>See § 660.370 and § 660.381 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.390-660.394 and §§ 660.396-660.399 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).</p> <p>State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.</p>						
4	Minor slope rockfish^{2/} & Darkblotched rockfish		1,500 lb/ 2 months			
5	Pacific ocean perch		1,500 lb/ 2 months			
6	DTS complex					
7	Sablefish					
8	large & small footrope gear	18,000 lb/ 2 months	22,000 lb/ 2 months	24,000 lb/ 2 months	20,000 lb/ 2 months	
9	selective flatfish trawl gear	5,000 lb/ 2 months	7,500 lb/ 2 months	11,000 lb/ 2 months		
10	multiple bottom trawl gear ^{8/}	5,000 lb/ 2 months	7,500 lb/ 2 months	11,000 lb/ 2 months		
11	Longspine thornyhead					
12	large & small footrope gear	22,000 lb/ 2 months				
13	selective flatfish trawl gear	3,000 lb/ 2 months	5,000 lb/ 2 months		3,000 lb/ 2 months	
14	multiple bottom trawl gear ^{8/}	3,000 lb/ 2 months	5,000 lb/ 2 months		3,000 lb/ 2 months	
15	Shortspine thornyhead					
16	large & small footrope gear	17,000 lb/ 2 months				
17	selective flatfish trawl gear	3,000 lb/ 2 months				
18	multiple bottom trawl gear ^{8/}	3,000 lb/ 2 months				
19	Dover sole					
20	large & small footrope gear	110,000 lb/ 2 months				
21	selective flatfish trawl gear	40,000 lb/ 2 months	45,000 lb/ 2 months		40,000 lb/ 2 months	
22	multiple bottom trawl gear ^{8/}	40,000 lb/ 2 months	45,000 lb/ 2 months		40,000 lb/ 2 months	

TABLE 3 (North)

Table 3 (North). Continued

23	Whiting					
24	midwater trawl	Before the primary whiting season: CLOSED. -- During the primary season: mid-water trawl permitted in the RCA. See §660.373 for season and trip limit details. -- After the primary whiting season: CLOSED.				
25	large & small footrope gear	Before the primary whiting season: 20,000 lb/trip. -- During the primary season: 10,000 lb/trip. -- After the primary whiting season: 10,000 lb/trip.				
26	Flatfish (except Dover sole)					
27	Arrowtooth flounder					
28	large & small footrope gear	150,000 lb/ 2 months				
29	selective flatfish trawl gear	90,000 lb/ 2 months				
30	multiple bottom trawl gear ^{8/}	90,000 lb/ 2 months				
31	Other flatfish ^{3/} , English sole, starry flounder, & Petrale sole					
32	large & small footrope gear for Other flatfish ^{3/} , English sole, & starry flounder	110,000 lb/ 2 months	110,000 lb/ 2 months, no more than 25,000 lb/ 2 months of which may be petrale sole.	110,000 lb/ 2 months, no more than 30,000 lb/ 2 months of which may be petrale sole.	110,000 lb/ 2 months, no more than 5,000 lb/ 2 months of which may be petrale sole.	110,000 lb/ 2 months
33	large & small footrope gear for Petrale sole	25,000 lb/ 2 months				40,000 lb/ 2 months
34	selective flatfish trawl gear for Other flatfish ^{3/} , English sole, & starry flounder	90,000 lb/ 2 months, no more than 16,000 lb/ 2 months of which may be petrale sole.	90,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole.		90,000 lb/ 2 months, no more than 5,000 lb/ 2 months of which may be petrale sole.	90,000 lb/ 2 months, no more than 16,000 lb/ 2 months of which may be petrale sole.
35	selective flatfish trawl gear for Petrale sole					
36	multiple bottom trawl gear ^{8/}	90,000 lb/ 2 months, no more than 16,000 lb/ 2 months of which may be petrale sole.	90,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole.		90,000 lb/ 2 months, no more than 5,000 lb/ 2 months of which may be petrale sole.	90,000 lb/ 2 months, no more than 16,000 lb/ 2 months of which may be petrale sole.
37	Minor shelf rockfish ^{1/}, Shortbelly, Widow & Yelloweye rockfish					
38	midwater trawl for Widow rockfish	Before the primary whiting season: CLOSED. -- During primary whiting season: In trips of at least 10,000 lb of whiting, combined widow and yellowtail limit of 500 lb/ trip, cumulative widow limit of 1,500 lb/ month. Mid-water trawl permitted in the RCA. See §660.373 for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED.				
39	large & small footrope gear	300 lb/ 2 months				
40	selective flatfish trawl gear	300 lb/ month	1,000 lb/ month, no more than 200 lb/ month of which may be yelloweye rockfish		300 lb/ month	
41	multiple bottom trawl gear ^{8/}	300 lb/ month	300 lb/ 2 months, no more than 200 lb/ month of which may be yelloweye rockfish		300 lb/ month	

TABLE 3 (North) cont

Table 3 (North). Continued

42	Canary rockfish			
43	large & small footrope gear	CLOSED		
44	selective flatfish trawl gear	100 lb/ month	300 lb/ month	100 lb/ month
45	multiple bottom trawl gear ^{8/}	CLOSED		
46	Yellowtail			
	midwater trawl	Before the primary whiting season: CLOSED. -- During primary whiting season: In trips of at least 10,000 lb of whiting: combined widow and yellowtail limit of 500 lb/ trip, cumulative yellowtail limit of 2,000 lb/ month. Mid-water trawl permitted in the RCA. See §660.373 for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED.		
47				
48	large & small footrope gear	300 lb/ 2 months		
49	selective flatfish trawl gear	2,000 lb/ 2 months		
50	multiple bottom trawl gear ^{8/}	300 lb/ 2 months		
	Minor nearshore rockfish & Black rockfish			
51				
52	large & small footrope gear	CLOSED		
53	selective flatfish trawl gear	300 lb/ month		
54	multiple bottom trawl gear ^{8/}	CLOSED		
55	Lingcod^{4/}			
56	large & small footrope gear		4,000 lb/ 2 months	
57	selective flatfish trawl gear	1,200 lb/ 2 months	1,200 lb/2 months	
58	multiple bottom trawl gear ^{8/}			
59	Pacific cod	30,000 lb/ 2 months	70,000 lb/ 2 months	30,000 lb/ 2 months
60	Spiny dogfish	200,000 lb/ 2 months	150,000 lb/ 2 months	100,000 lb/ 2 months
61	Other Fish^{5/}	Not limited		

TABLE 3 (North) cont'

1/ Bocaccio, chilipepper and cowcod are included in the trip limits for minor shelf rockfish.
 2/ Splitnose rockfish is included in the trip limits for minor slope rockfish.
 3/ "Other flatfish" are defined at § 660.302 and include butter sole, curffin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.
 4/ The minimum size limit for lingcod is 22 inches (56 cm) total length North of 42° N. lat.
 5/ "Other fish" are defined at § 660.302 and include sharks, skates (including longnose skate), ratfish, morids, grenadiers, and kelp greenling. Cabezon is included in the trip limits for "other fish."
 6/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.391-660.394. This RCA is not defined by depth contours, and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to the RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.
 7/ The "modified" fathom lines are modified to exclude certain petrale sole areas from the RCA.
 8/ If a vessel has both selective flatfish gear and large or small footrope gear on board during a cumulative limit period (either simultaneously or successively), the most restrictive cumulative limit for any gear on board during the cumulative limit period applies for the entire cumulative limit period.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

Table 3 (South) to Part 660, Subpart G -- 2009-2010 Trip Limits for Limited Entry Trawl Gear South of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

061509

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area (RCA)^{6/}:						
¹ South of 40°10' N. lat.	100 fm line ^{6/} - 150 fm line ^{6/ 7/}					
All trawl gear (large footrope, selective flatfish trawl, midwater trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope trawl gear and midwater trawl gear are prohibited shoreward of the RCA.						
See § 660.370 and § 660.381 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.390-660.394 and §§ 660.396-660.399 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).						
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.						
Minor slope rockfish^{2/} & Darkblotched rockfish						
²	-----					
³	40°10' - 38° N. lat.	15,000 lb/ 2 months		10,000 lb/ 2 months		15,000 lb/ 2 months
⁴	South of 38° N. lat.	55,000 lb/ 2 months				
Splitnose						
⁵	-----					
⁶	40°10' - 38° N. lat.	15,000 lb/ 2 months		10,000 lb/ 2 months		15,000 lb/ 2 months
⁷	South of 38° N. lat.	55,000 lb/ 2 months				
DTS complex						
⁸	-----					
⁹	Sablefish	20,000 lb/ 2 months				
¹⁰	Longspine thornyhead	22,000 lb/ 2 months				
¹¹	Shortspine thornyhead	17,000 lb/ 2 months				
¹²	Dover sole	110,000 lb/ 2 months				
Flatfish (except Dover sole)						
¹³	-----					
¹⁴	Other flatfish ^{3/} , English sole, & starry flounder	110,000 lb/ 2 months	110,000 lb/ 2 months, no more than 30,000 lb/ 2 months of which may be petrale sole.		110,000 lb/ 2 months, no more than 5,000 lb/ 2 months of which may be petrale sole.	110,000 lb/ 2 months
¹⁵	Petrale sole	50,000 lb/ 2 months				50,000 lb/ 2 months
¹⁶	Arrowtooth flounder	10,000 lb/ 2 months				
Whiting						
¹⁷	-----					
¹⁸	midwater trawl	Before the primary whiting season: CLOSED. -- During the primary season: mid-water trawl permitted in the RCA. See §660.373 for season and trip limit details. -- After the primary whiting season: CLOSED.				
¹⁹	large & small footrope gear	Before the primary whiting season: 20,000 lb/trip. -- During the primary season: 10,000 lb/trip. -- After the primary whiting season: 10,000 lb/trip.				

TABLE 3 (South)

Table 3 (South). Continued

20	Minor shelf rockfish^{1/}, Chilipepper, Shortbelly, Widow, & Yelloweye rockfish			
21	large footrope or midwater trawl for Minor shelf rockfish & Shortbelly	300 lb/ month		
22	large footrope or midwater trawl for Chilipepper	5,000 lb/ 2 months	12,000 lb/ 2 months	
23	large footrope or midwater trawl for Widow & Yelloweye	CLOSED		
24	small footrope trawl for Minor Shelf, Shortbelly, Widow & Yelloweye	300 lb/ month		
25	small footrope trawl for Chilipepper	5,000 lb/ 2 months	12,000 lb/ 2 months	
26	Bocaccio			
27	large footrope or midwater trawl	300 lb/ 2 months		
28	small footrope trawl	CLOSED		
29	Canary rockfish			
30	large footrope or midwater trawl	CLOSED		
31	small footrope trawl	100 lb/ month	300 lb/ month	100 lb/ month
32	Cowcod	CLOSED		
33	Bronzespotted rockfish	CLOSED		
34	Minor nearshore rockfish & Black rockfish			
35	large footrope or midwater trawl	CLOSED		
36	small footrope trawl	300 lb/ month		
37	Lingcod^{4/}			
38	large footrope or midwater trawl	1,200 lb/ 2 months	4,000 lb/ 2 months	
39	small footrope trawl		1,200 lb/ 2 months	
40	Pacific cod	30,000 lb/ 2 months	70,000 lb/ 2 months	30,000 lb/ 2 months
41	Spiny dogfish	200,000 lb/ 2 months	150,000 lb/ 2 months	100,000 lb/ 2 months
42	Other Fish^{5/} & Cabezon	Not limited		

TABLE 3 (South) cont'

1/ Yellowtail is included in the trip limits for minor shelf rockfish. Bronzespotted rockfish have a species specific trip limit.

2/ POP is included in the trip limits for minor slope rockfish

3/ "Other flatfish" are defined at § 660.302 and include butter sole, curffin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.

4/ The minimum size limit for lingcod is 24 inches (61 cm) total length South of 42° N. lat.

5/ Other fish are defined at § 660.302 and include sharks, skates (including longnose skate), ratfish, morids, grenadiers, and kelp greenling.

6/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.391-660.394. This RCA is not defined by depth contours, and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to the RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.

7/ South of 34°27' N. lat., the RCA is 100 fm line - 150 fm line along the mainland coast; shoreline - 150 fm line around islands.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

Table 4 (North) to Part 660, Subpart G -- 2009-2010 Trip Limits for Limited Entry Fixed Gear North of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

061509

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC						
Rockfish Conservation Area (RCA)^{6/}:													
1	North of 46°16' N. lat.	shoreline - 100 fm line ^{6/}											
2	46°16' N. lat. - 45°03.83' N. lat.	30 fm line ^{6/} - 100 fm line ^{6/}											
3	45°03.83' N. lat. - 43°00' N. lat.	30 fm line ^{6/} - 125 fm line ^{6/ 7/}											
4	43°00' N. lat. - 42°00' N. lat.	20 fm line ^{6/} - 100 fm line ^{6/}											
5	42°00' N. lat. - 40°10' N. lat.	20 fm depth contour - 100 fm line ^{6/}											
See § 660.370 and § 660.382 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions.													
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.													
6	Minor slope rockfish^{2/} & Darkblotched rockfish	4,000 lb/ 2 months											
7	Pacific ocean perch	1,800 lb/ 2 months											
8	Sablefish	300 lb/ day, or 1 landing per week of up to 1,000 lb, not to exceed 5,000 lb/ 2 months	500 lb/ day, or 1 landing per week of up to 1,500 lb, not to exceed 5,500 lb/ 2 months	500 lb/ day, or 1 landing per week of up to 1,500 lb, not to exceed 6,000 lb/ 2 months	500 lb/ day, or 1 landing per week of up to 1,500 lb, not to exceed 5,500 lb/ 2 months								
9	Longspine thornyhead	10,000 lb/ 2 months											
10	Shortspine thornyhead	2,000 lb/ 2 months											
11	Dover sole	South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.											
12	Arrowtooth flounder							5,000 lb/ month					
13	Petrale sole												
14	English sole												
15	Starry flounder												
16	Other flatfish^{1/}												
17	Whiting	10,000 lb/ trip											
18	Minor shelf rockfish^{2/}, Shortbelly, Widow, & Yellowtail rockfish	200 lb/ month											
19	Canary rockfish	CLOSED											
20	Yelloweye rockfish	CLOSED											
21	Minor nearshore rockfish & Black rockfish												
22	North of 42° N. lat.	5,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish ^{3/}											
23	42° - 40°10' N. lat.	6,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish ^{3/}	7,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black rockfish ^{3/}										
24	Lingcod^{4/}	CLOSED	800 lb/ 2 months			400 lb/ month	CLOSED						
25	Pacific cod	1,000 lb/ 2 months											
26	Spiny dogfish	200,000 lb/ 2 months	150,000 lb/ 2 months	100,000 lb/ 2 months									
27	Other fish^{5/}	Not limited											

TABLE 4 (North)

1/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.

2/ Bocaccio, chilipepper and cowcod are included in the trip limits for minor shelf rockfish and splitnose rockfish is included in the trip limits for minor slope rockfish.

3/ For black rockfish north of Cape Alava (48°09.50' N. lat.), and between Destruction Is. (47°40' N. lat.) and Leadbetter Pnt. (46°38.17' N. lat.), there is an additional limit of 100 lb or 30 percent by weight of all fish on board, whichever is greater, per vessel, per fishing trip.

4/ The minimum size limit for lingcod is 22 inches (56 cm) total length North of 42° N. lat. and 24 inches (61 cm) total length South of 42° N. lat.

5/ "Other fish" are defined at § 660.302 and include sharks, skates (including longnose skates), ratfish, morids, grenadiers, and kelp greenling. Cabezon is included in the trip limits for "other fish."

6/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.391-660.394. This RCA is not defined by depth contours (with the exception of the 20-fm depth contour boundary south of 42° N. lat.), and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.

7/ The 125 fm line restriction is in place all year, except on days when the directed halibut fishery is open. On those days the 100 fm line restriction is in effect.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

Table 4 (South) to Part 660, Subpart G -- 2009-2010 Trip Limits for Limited Entry Fixed Gear South of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

061509

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC						
Rockfish Conservation Area (RCA)^{5/}:													
1	40°10' - 34°27' N. lat.	30 fm line ^{5/} - 150 fm line ^{5/}											
2	South of 34°27' N. lat.	60 fm line ^{5/} - 150 fm line ^{5/} (also applies around islands)											
<p>See § 660.370 and § 660.382 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.390-660.394 and §§ 660.396-660.399 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).</p>													
<p>State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.</p>													
3	Minor slope rockfish^{2/} & Darkblotched rockfish	40,000 lb/ 2 months											
4	Splitnose	40,000 lb/ 2 months											
5	Sablefish												
6	40°10' - 36° N. lat.	300 lb/ day, or 1 landing per week of up to 1,000 lb, not to exceed 5,000 lb/ 2 months	500 lb/ day, or 1 landing per week of up to 1,500 lb, not to exceed 5,500 lb/ 2 months	500 lb/ day, or 1 landing per week of up to 1,500 lb, not to exceed 6,000 lb/ 2 months	500 lb/ day, or 1 landing per week of up to 1,500 lb, not to exceed 5,500 lb/ 2 months								
7	South of 36° N. lat.	400 lb/ day, or 1 landing per week of up to 1,500 lb											
8	Longspine thornyhead	10,000 lb / 2 months											
9	Shortspine thornyhead												
10	40°10' - 34°27' N. lat.	2,000 lb/ 2 months											
11	South of 34°27' N. lat.	3,000 lb/ 2 months											
12	Dover sole	South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.											
13	Arrowtooth flounder							5,000 lb/ month					
14	Petrale sole												
15	English sole												
16	Starry flounder												
17	Other flatfish^{1/}												
18	Whiting	10,000 lb/ trip											
19	Minor shelf rockfish^{2/}, Shortbelly, Widow rockfish, and Bocaccio (including Chilipepper between 40°10' - 34°27' N. lat.)												
20	40°10' - 34°27' N. lat.	Minor shelf rockfish, shortbelly, widow rockfish, bocaccio & chilipepper: 2,500 lb/ 2 months, of which no more than 500 lb/ 2 months may be any species other than chilipepper.											
21	South of 34°27' N. lat.	3,000 lb/ 2 months	CLOSED	3,000 lb/ 2 months									
22	Chilipepper rockfish												
23	40°10' - 34°27' N. lat.	Chilipepper included under minor shelf rockfish, shortbelly, widow and bocaccio limits -- See above											
24	South of 34°27' N. lat.	2,000 lb/ 2 months, this opportunity only available seaward of the nontrawl RCA											
25	Canary rockfish	CLOSED											
26	Yelloweye rockfish	CLOSED											
27	Cowcod	CLOSED											
28	Bronzespotted rockfish	CLOSED											
29	Bocaccio												
30	40°10' - 34°27' N. lat.	Bocaccio included under Minor shelf rockfish, shortbelly, widow & chilipepper limits -- See above											
31	South of 34°27' N. lat.	300 lb/ 2 months	CLOSED	300 lb/ 2 months									

TABLE 4 (South)

Table 4 (South). Continued

32 Minor nearshore rockfish & Black rockfish						
33	Shallow nearshore	600 lb/ 2 months	CLOSED	800 lb/ 2 months	900 lb/ 2 months	800 lb/ 2 months 600 lb/ 2 months
34	Deeper nearshore					
35	40°10' - 34°27' N. lat.	700 lb/ 2 months	CLOSED	700 lb/ 2 months		600 lb/ 2 months 700 lb/ 2 months
36	South of 34°27' N. lat.	500 lb/ 2 months		600 lb/ 2 months		
37	California scorpionfish	600 lb/ 2 months	CLOSED	600 lb/ 2 months	1,200 lb/ 2 months	
38	Lingcod ^{3/}	CLOSED		800 lb/ 2 months		400 lb/ month CLOSED
39	Pacific cod	1,000 lb/ 2 months				
40	Spiny dogfish	200,000 lb/ 2 months	150,000 lb/ 2 months	100,000 lb/ 2 months		
41	Other fish ^{4/} & Cabezon	Not limited				

TABLE 4 (South)

1/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.
 2/ POP is included in the trip limits for minor slope rockfish. Yellowtail is included in the trip limits for minor shelf rockfish. Bronzespotted rockfish have a species specific trip limit.
 3/ The minimum size limit for lingcod is 24 inches (61 cm) total length South of 42° N. lat.
 4/ "Other fish" are defined at § 660.302 and include sharks, skates (including longnose skates), ratfish, morids, grenadiers, and kelp greenling.
 5/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.391-660.394. This RCA is not defined by depth contours (with the exception of the 20-fm depth contour boundary south of 42° N. lat.), and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

Table 5 (North) to Part 660, Subpart G -- 2009-2010 Trip Limits for Open Access Gears North of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

061509

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area (RCA)^{6/}:							
1	North of 46°16' N. lat.	shoreline - 100 fm line ^{6/}					
2	46°16' N. lat. - 45°03.83' N. lat.	30 fm line ^{6/} - 100 fm line ^{6/}					
3	45°03.83' N. lat. - 43°00' N. lat.	30 fm line ^{6/} - 125 fm line ^{6/ 7/}					
4	43°00' N. lat. - 42°00' N. lat.	20 fm line ^{6/} - 100 fm line ^{6/}					
5	42°00' N. lat. - 40°10' N. lat.	20 fm depth contour - 100 fm line ^{6/}					
<p>See § 660.370 and § 660.383 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.390-660.394 and §§ 660.396-660.399 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).</p>							
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.							
6	Minor slope rockfish ^{1/} & Darkblotched rockfish	Per trip, no more than 25% of weight of the sablefish landed					
7	Pacific ocean perch	100 lb/ month					
8	Sablefish	300 lb/ day, or 1 landing per week of up to 800 lb, not to exceed 2,400 lb/ 2 months			300 lb/ day, or 1 landing per week of up to 950 lb, not to exceed 2,750 lb/ 2 months		
9	Thornyheads	CLOSED					
10	Dover sole	3,000 lb/month, no more than 300 lb of which may be species other than Pacific sanddabs. South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.					
11	Arrowtooth flounder						
12	Petrale sole						
13	English sole						
14	Starry flounder						
15	Other flatfish ^{2/}						
16	Whiting	300 lb/ month					
17	Minor shelf rockfish ^{1/} , Shortbelly, Widow, & Yellowtail rockfish	200 lb/ month					
18	Canary rockfish	CLOSED					
19	Yelloweye rockfish	CLOSED					
20	Minor nearshore rockfish & Black rockfish						
21	North of 42° N. lat.	5,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish ^{3/}					
22	42° - 40°10' N. lat.	6,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish ^{3/}			7,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black rockfish ^{3/}		
23	Lingcod ^{4/}	CLOSED		400 lb/ month			CLOSED
24	Pacific cod	1,000 lb/ 2 months					
25	Spiny dogfish	200,000 lb/ 2 months		150,000 lb/ 2 months	100,000 lb/ 2 months		
26	Other Fish ^{5/}	Not limited					

TABLE 5 (North)

Table 5 (North). Continued

27	PINK SHRIMP NON-GROUNDFISH TRAWL (not subject to RCAs)		TABLE 5 (North) cont'
28	North	<p>Effective April 1 - October 31: Groundfish: 500 lb/day, multiplied by the number of days of the trip, not to exceed 1,500 lb/trip. The following sublimits also apply and are counted toward the overall 500 lb/day and 1,500 lb/trip groundfish limits: lingcod 300 lb/month (minimum 24 inch size limit); sablefish 2,000 lb/month; canary, thornyheads and yelloweye rockfish are PROHIBITED. All other groundfish species taken are managed under the overall 500 lb/day and 1,500 lb/trip groundfish limits. Landings of these species count toward the per day and per trip groundfish limits and do not have species-specific limits. The amount of groundfish landed may not exceed the amount of pink shrimp landed.</p>	
29	SALMON TROLL		
30	North	<p>Salmon trollers may retain and land up to 1 lb of yellowtail rockfish for every 2 lbs of salmon landed, with a cumulative limit of 200 lb/month, both within and outside of the RCA. This limit is within the 200 lb per month combined limit for minor shelf rockfish, widow rockfish and yellowtail rockfish, and not in addition to that limit. Salmon trollers may retain and land up to 1 lingcod per 15 Chinook, plus 1 lingcod up to a trip limit of 10 lingcod, both within and outside of the RCA. This limit is within the 400 lb per month limit for lingcod, and not in addition to that limit. All groundfish species are subject to the open access limits, seasons, size limits and RCA restrictions listed in the table above.</p>	

- 1/ Bocaccio, chilipepper and cowcod rockfishes are included in the trip limits for minor shelf rockfish. Splitnose rockfish is included in the trip limits for minor slope rockfish.
- 2/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.
- 3/ For black rockfish north of Cape Alava (48°09.50' N. lat.), and between Destruction Is. (47°40' N. lat.) and Leadbetter Pnt. (46°38.17' N. lat.), there is an additional limit of 100 lbs or 30 percent by weight of all fish on board, whichever is greater, per vessel, per fishing trip.
- 4/ The minimum size limit for lingcod is 22 inches (56 cm) total length North of 42° N. lat. and 24 inches (61 cm) total length South of 42° N. lat.
- 5/ "Other fish" are defined at § 660.302 and include sharks, skates (including longnose skates), rattfish, morids, grenadiers, and kelp greenling. Cabezon is included in the trip limits for "other fish."
- 6/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.391-660.394. This RCA is not defined by depth contours (with the exception of the 20-fm depth contour boundary south of 42° N. lat.), and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.
- 7/ The 125 fm line restriction is in place all year, except on days when the directed halibut fishery is open. On those days the 100 fm line restriction is in effect.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

Table 5 (South) to Part 660, Subpart G -- 2009-2010 Trip Limits for Open Access Gears South of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

061509

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area (RCA)^{5/}:							
1	40°10' - 34°27' N. lat.	30 fm line ^{5/} - 150 fm line ^{5/}					
2	South of 34°27' N. lat.	60 fm line ^{5/} - 150 fm line ^{5/} (also applies around islands)					
See § 660.370 and § 660.383 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions.							
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.							
3	Minor slope rockfish^{1/} & Darkblotched rockfish						
4	40°10' - 38° N. lat.	Per trip, no more than 25% of weight of the sablefish landed					
5	South of 38° N. lat.	10,000 lb/ 2 months					
6	Splitnose	200 lb/ month					
7	Sablefish						
8	40°10' - 36° N. lat.	300 lb/ day, or 1 landing per week of up to 800 lb, not to exceed 2,400 lb/ 2 months	300 lb/ day, or 1 landing per week of up to 950 lb, not to exceed 2,750 lb/ 2 months				
9	South of 36° N. lat.	400 lb/ day, or 1 landing per week of up to 1,500 lb, not to exceed 8,000 lb/ 2 months					
10	Thornyheads						
11	40°10' - 34°27' N. lat.	CLOSED					
12	South of 34°27' N. lat.	50 lb/ day, no more than 1,000 lb/ 2 months					
13	Dover sole	3,000 lb/month, no more than 300 lb of which may be species other than Pacific sanddabs. South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.					
14	Arowtooth flounder						
15	Petrals sole						
16	English sole						
17	Starry flounder						
18	Other flatfish^{2/}						
19	Whiting	300 lb/ month					
20	Minor shelf rockfish^{1/}, Shortbelly, Widow & Chilipepper rockfish						
21	40°10' - 34°27' N. lat.	300 lb/ 2 months	CLOSED	200 lb/ 2 months	300 lb/ 2 months		
22	South of 34°27' N. lat.	750 lb/ 2 months		750 lb/ 2 months			
23	Canary rockfish	CLOSED					
24	Yelloweye rockfish	CLOSED					
25	Cowcod	CLOSED					
26	Bronzespotted rockfish	CLOSED					
27	Bocaccio						
28	40°10' - 34°27' N. lat.	200 lb/ 2 months	CLOSED	100 lb/ 2 months	200 lb/ 2 months		
29	South of 34°27' N. lat.	100 lb/ 2 months		100 lb/ 2 months			

TABLE 5 (South)

Table 5 (South). Continued

30	Minor nearshore rockfish & Black rockfish						
31	Shallow nearshore	600 lb/ 2 months	CLOSED	800 lb/ 2 months	900 lb/ 2 months	800 lb/ 2 months	600 lb/ 2 months
32	Deeper nearshore						
33	40°10' - 34°27' N. lat.	700 lb/ 2 months	CLOSED	700 lb/ 2 months		600 lb/ 2 months	700 lb/ 2 months
34	South of 34°27' N. lat.	500 lb/ 2 months		600 lb/ 2 months			
35	California scorpionfish	600 lb/ 2 months	CLOSED	600 lb/ 2 months	1,200 lb/ 2 months		
36	Lingcod^{3/}	CLOSED		400 lb/ month			CLOSED
37	Pacific cod	1,000 lb/ 2 months					
38	Spiny dogfish	200,000 lb/ 2 months		150,000 lb/ 2 months	100,000 lb/ 2 months		
39	Other Fish^{4/} & Cabezon	Not limited					
40	RIDGEBACK PRAWN AND, SOUTH OF 38°57.50' N. LAT., CA HALIBUT AND SEA CUCUMBER NON-GROUNDFISH TRAWL						
41	NON-GROUNDFISH TRAWL Rockfish Conservation Area (RCA) for CA Halibut, Sea Cucumber & Ridgeback Prawn:						
42	40°10' - 38° N. lat.	100 fm - modified 200 fm ^{6/}		100 fm - 150 fm			100 fm - modified 200 fm ^{6/}
43	38° - 34°27' N. lat.	100 fm - 150 fm					
44	South of 34°27' N. lat.	100 fm - 150 fm along the mainland coast; shoreline - 150 fm around islands					
45		Groundfish: 300 lb/trip. Trip limits in this table also apply and are counted toward the 300 lb groundfish per trip limit. The amount of groundfish landed may not exceed the amount of the target species landed, except that the amount of spiny dogfish landed may exceed the amount of target species landed. Spiny dogfish are limited by the 300 lb/trip overall groundfish limit. The daily trip limits for sablefish coastwide and thornyheads south of Pt. Conception and the overall groundfish "per trip" limit may not be multiplied by the number of days of the trip. Vessels participating in the California halibut fishery south of 38°57.50' N. lat. are allowed to (1) land up to 100 lb/day of groundfish without the ratio requirement, provided that at least one California halibut is landed and (2) land up to 3,000 lb/month of flatfish, no more than 300 lb of which may be species other than Pacific sanddabs, sand sole, starry flounder, rock sole, curlfin sole, or California scorpionfish (California scorpionfish is also subject to the trip limits and closures in line 31).					
46	PINK SHRIMP NON-GROUNDFISH TRAWL GEAR (not subject to RCAs)						
47	South	Effective April 1 - October 31: Groundfish: 500 lb/day, multiplied by the number of days of the trip, not to exceed 1,500 lb/trip. The following sublimits also apply and are counted toward the overall 500 lb/day and 1,500 lb/trip groundfish limits: lingcod 300 lb/ month (minimum 24 inch size limit); sablefish 2,000 lb/ month; canary, thornyheads and yelloweye rockfish are PROHIBITED. All other groundfish species taken are managed under the overall 500 lb/day and 1,500 lb/trip groundfish limits. Landings of these species count toward the per day and per trip groundfish limits and do not have species-specific limits. The amount of groundfish landed may not exceed the amount of pink shrimp landed.					

TABLE 5 (South) cont

1/ Yellowtail rockfish is included in the trip limits for minor shelf rockfish. POP is included in the trip limits for minor slope rockfish. Bronzespotted rockfish have a species specific trip limit.

2/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.

3/ The size limit for lingcod is 24 inches (61 cm) total length South of 42° N. lat.

4/ "Other fish" are defined at § 660.302 and include sharks, skates (including longnose skates), rattfish, morids, grenadiers, and kelp greenling.

5/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.391-660.394. This RCA is not defined by depth contours (with the exception of the 20-fm depth contour boundary south of 42° N. lat.), and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.

6/ The "modified 200 fm" line is modified to exclude certain petrale sole areas from the RCA.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

10 Appendix B - No Action Recreational Management Measures

Management measures for recreational fisheries under the No Action alternative are listed in Federal Regulations at 50 CFR 660.384 and are provided here.

50 CFR § 660.384 Recreational fishery management measures.

(a) General. Federal recreational groundfish regulations are not intended to supersede any more restrictive state recreational groundfish regulations relating to federally-managed groundfish. The bag limits include fish taken in both state and Federal waters.

(b) Gear restrictions. The only types of fishing gear authorized for recreational fishing are hook-and-line and spear. Spears may be propelled by hand or by mechanical means. More fishery-specific gear restrictions may be required by state as noted in paragraph (c) of this section (e.g. California's recreational "other flatfish" fishery).

(c) State-specific recreational fishery management measures. Federal recreational groundfish regulations are not intended to supersede any more restrictive State recreational groundfish regulations relating to federally-managed groundfish. Off the coast of Washington, Oregon, and California, boat limits apply, whereby each fisher aboard a vessel may continue to use angling gear until the combined daily limits of groundfish for all licensed and juvenile anglers aboard has been attained (additional state restrictions on boat limits may apply).

(1) Washington. For each person engaged in recreational fishing off the coast of Washington, the groundfish bag limit is 15 groundfish per day, including rockfish and lingcod, and is open year-round (except for lingcod). In the Pacific halibut fisheries, retention of groundfish is governed in part by annual management measures for Pacific halibut fisheries, which are published in the Federal Register. South of Leadbetter Point, WA to the Washington/Oregon border, when Pacific halibut are onboard the vessel, no groundfish may be taken and retained, possessed or landed, except sablefish and Pacific cod. The following sub-limits and closed areas apply:

(i) Recreational Groundfish Conservation Areas off Washington.

(A) North Coast Recreational Yelloweye Rockfish Conservation Area. Recreational fishing for groundfish and halibut is prohibited within the North Coast Recreational Yelloweye Rockfish Conservation Area (YRCA). It is unlawful for recreational fishing vessels to take and retain, possess, or land groundfish taken with recreational gear within the North Coast Recreational YRCA. A vessel fishing in the North Coast Recreational YRCA may not be in possession of any groundfish. Recreational vessels may transit through the North Coast Recreational YRCA with or without groundfish on board. The North Coast Recreational YRCA is defined by latitude and longitude coordinates specified at §660.390.

(B) South Coast Recreational Yelloweye Rockfish Conservation Area. Recreational fishing for groundfish and halibut is prohibited within the South Coast Recreational YRCA. It is unlawful for recreational fishing

vessels to take and retain, possess, or land groundfish taken with recreational gear within the South Coast Recreational YRCA. A vessel fishing in the South Coast Recreational YRCA may not be in possession of any groundfish. Recreational vessels may transit through the South Coast Recreational YRCA with or without groundfish on board. The South Coast Recreational YRCA is defined by latitude and longitude coordinates specified at §660.390.

(C) Westport Offshore Recreational Yelloweye Rockfish Conservation Area. Recreational fishing for groundfish and halibut is prohibited within the Westport Offshore Recreational YRCA. It is unlawful for recreational fishing vessels to take and retain, possess, or land groundfish taken with recreational gear within the Westport Offshore Recreational YRCA. A vessel fishing in the Westport Offshore Recreational YRCA may not be in possession of any groundfish. Recreational vessels may transit through the Westport Offshore Recreational YRCA with or without groundfish on board. The Westport Offshore Recreational YRCA is defined by latitude and longitude coordinates specified at §660.390.

(D) Recreational Rockfish Conservation Area. Fishing for groundfish with recreational gear is prohibited within the recreational RCA. It is unlawful to take and retain, possess, or land groundfish taken with recreational gear within the recreational RCA. A vessel fishing in the recreational RCA may not be in possession of any groundfish. [For example, if a vessel participates in the recreational salmon fishery within the RCA, the vessel cannot be in possession of groundfish while in the RCA. The vessel may, however, on the same trip fish for and retain groundfish shoreward of the RCA on the return trip to port.]

(1) Between the U.S. border with Canada and the Queets River, recreational fishing for groundfish is prohibited seaward of a boundary line approximating the 20-fm (37-m) depth contour from May 21 through September 30, except on days when the Pacific halibut fishery is open in this area. Days open to Pacific halibut recreational fishing off Washington are announced on the NMFS hotline at (206) 526-6667 or (800) 662-9825. Coordinates for the boundary line approximating the 20-fm (37-m) depth contour are listed in §660.391.

(2) Between the Queets River and Leadbetter Point, recreational fishing for groundfish is prohibited seaward of a boundary line approximating the 30-fm (55-m) depth contour from March 15 through June 15, except that recreational fishing for sablefish and Pacific cod is permitted within the recreational RCA from May 1 through June 15. Retention of lingcod seaward of the boundary line approximating the 30-fm (55-m) depth contour south of 46°58' N. lat. is prohibited on Fridays and Saturdays from July 1 through August 31. For additional regulations regarding the Washington recreational lingcod fishery, see paragraph (c)(1)(iii) of this section. Coordinates for the boundary line approximating the 30-fm (55-m) depth contour are listed in §660.391.

(ii) Rockfish. In areas of the EEZ seaward of Washington that are open to recreational groundfish fishing, there is a 10 rockfish per day bag limit. Taking and retaining canary rockfish and yelloweye rockfish is prohibited.

(iii) Lingcod. In areas of the EEZ seaward of Washington that are open to recreational groundfish fishing and when the recreational season for lingcod is open, there is a bag limit of 2 lingcod per day, which may

be no smaller than 22 in (56 cm) total length. The recreational fishing season for lingcod is open as follows:

(A) Between the U.S./Canada border to 48°10' N. lat. (Cape Alava) (Washington Marine Area 4), recreational fishing for lingcod is open, for 2009, from April 16 through October 15, and for 2010, from April 16 through October 15.

(B) Between 48°10' N. lat. (Cape Alava) and 46°16' N. lat. (Washington/Oregon border) (Washington Marine Areas 1–3), recreational fishing for lingcod is open for 2009, from March 14 through October 17, and for 2010, from March 13 through October 16.

(2) Oregon —(i) Recreational Groundfish Conservation Areas off Oregon. (A) Stonewall Bank Yelloweye Rockfish Conservation Area. Recreational fishing for groundfish and halibut is prohibited within the Stonewall Bank YRCA. It is unlawful for recreational fishing vessels to take and retain, possess, or land groundfish taken with recreational gear within the Stonewall Bank YRCA. A vessel fishing in the Stonewall Bank YRCA may not be in possession of any groundfish. Recreational vessels may transit through the Stonewall Bank YRCA with or without groundfish on board. The Stonewall Bank YRCA is defined by latitude and longitude coordinates specified at §660.390.

(B) Recreational Rockfish Conservation Area. Fishing for groundfish with recreational gear is prohibited within the recreational RCA, a type of closed area or GCA. It is unlawful to take and retain, possess, or land groundfish taken with recreational gear within the recreational RCA. A vessel fishing in the recreational RCA may not be in possession of any groundfish. [For example, if a vessel participates in the recreational salmon fishery within the RCA, the vessel cannot be in possession of groundfish while in the RCA. The vessel may, however, on the same trip fish for and retain groundfish shoreward of the RCA on the return trip to port.] Off Oregon, from April 1 through September 30, recreational fishing for groundfish is prohibited seaward of a recreational RCA boundary line approximating the 40 fm (73 m) depth contour. Coordinates for the boundary line approximating the 40 fm (73 m) depth contour are listed at §660.391.

(C) Essential Fish Habitat Conservation Areas. The Essential Fish Habitat Conservation Areas (EFHCAs) are closed areas, defined by specific latitude and longitude coordinates at §§660.396 through 660.399, where specified types of fishing are prohibited. Prohibitions applying to specific EFHCAs are found at §660.306.

(ii) Seasons. Recreational fishing for groundfish is open from January 1 through December 31, subject to the closed areas described in paragraph (c)(2) of this section.

(iii) Bag limits, size limits. The bag limits for each person engaged in recreational fishing in the EEZ seaward of Oregon are three lingcod per day, which may be no smaller than 22 in (56 cm) total length; and 10 marine fish per day, which excludes Pacific halibut, salmonids, tuna, perch species, sturgeon, sanddabs, flatfish, lingcod, striped bass, hybrid bass, offshore pelagic species and baitfish (herring, smelt, anchovies and sardines), but which includes rockfish, greenling, cabezon and other groundfish species. The bag limit for all flatfish is 25 fish per day, which excludes Pacific halibut, but which includes all soles,

flounders and Pacific sanddabs. In the Pacific halibut fisheries, retention of groundfish is governed in part by annual management measures for Pacific halibut fisheries, which are published in the Federal Register. Between the Oregon border with Washington and Cape Falcon, when Pacific halibut are onboard the vessel, groundfish may not be taken and retained, possessed or landed, except sablefish and Pacific cod. Between Cape Falcon and Humbug Mountain, during days open to the Oregon Central Coast “all-depth” sport halibut fishery, when Pacific halibut are onboard the vessel, no groundfish may be taken and retained, possessed or landed, except sablefish and Pacific cod. “All-depth” season days are established in the annual management measures for Pacific halibut fisheries, which are published in the Federal Register and are announced on the NMFS halibut hotline, 1–800–662–9825. The minimum size limit for cabezon retained in the recreational fishery is 16-in (41-cm), and for greenling is 10-in (26-cm). Taking and retaining canary rockfish and yelloweye rockfish is prohibited at all times and in all areas.

(3) California. Seaward of California, California law provides that, in times and areas when the recreational fishery is open, there is a 20 fish bag limit for all species of finfish, within which no more than 10 fish of any one species may be taken or possessed by any one person.[Note: There are some exceptions to this rule. The following groundfish species are not subject to a bag limit: petrale sole, Pacific sanddab and starry flounder.]For groundfish species not specifically mentioned in this paragraph, fishers are subject to the overall 20–fish bag limit for all species of finfish and the depth restrictions at paragraph (c)(3)(i) of this section. Recreational spearfishing for all federally-managed groundfish, except lingcod during January, February, March, and December, is exempt from closed areas and seasons, consistent with Title 14 of the California Code of Regulations. This exemption applies only to recreational vessels and divers provided no other fishing gear, except spearfishing gear, is on board the vessel. California state law may provide regulations similar to Federal regulations for the following state-managed species: ocean whitefish, California sheephead, and all greenlings of the genus Hexagrammos. Kelp greenling is the only federally-managed greenling .Retention of cowcod, yelloweye rockfish, and canary rockfish is prohibited in the recreational fishery seaward of California all year in all areas. For each person engaged in recreational fishing in the EEZ seaward of California, the following closed areas, seasons, bag limits, and size limits apply:

(i) Recreational Groundfish Conservation Areas off California. A Groundfish Conservation Area (GCA), a type of closed area, is a geographic area defined by coordinates expressed in degrees latitude and longitude. The following GCAs apply to participants in California's recreational fishery.

(A) Recreational Rockfish Conservation Areas. The recreational RCAs are areas that are closed to recreational fishing for groundfish. Fishing for groundfish with recreational gear is prohibited within the recreational RCA, except that recreational fishing for “other flatfish” is permitted within the recreational RCA as specified in paragraph (c)(3)(iv) of this section. It is unlawful to take and retain, possess, or land groundfish taken with recreational gear within the recreational RCA, unless otherwise authorized in this section. A vessel fishing in the recreational RCA may not be in possession of any species prohibited by the restrictions that apply within the recreational RCA. [For example, if a vessel participates in the recreational salmon fishery within the RCA, the vessel cannot be in possession of rockfish while in the RCA. The vessel may, however, on the same trip fish for and retain rockfish shoreward of the RCA on the return trip to port.]

(1) Between 42° N. lat. (California/Oregon border) and 40°10.00' N. lat. (North Region), recreational fishing for all groundfish (except “other flatfish” as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of the 20-fm (37-m) depth contour along the mainland coast and along islands and offshore seamounts from May 15 through September 15; and is closed entirely from January 1 through May 14 and from September 16 through December 31 (i.e., prohibited seaward of the shoreline).

(2) Between 40°10' N. lat. and 38°57.50' N. lat. (North-Central North of Point Arena Region), recreational fishing for all groundfish (except “other flatfish” as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of the 20-fm (37-m) depth contour along the mainland coast and along islands and offshore seamounts from May 15 through August 15; and is closed entirely from January 1 through May 14 and from August 16 through December 31 (i.e. , prohibited seaward of the shoreline).

(3) Between 38°57.50' N. lat. and 37°11' N. lat. (North-Central South of Point Arena Region), recreational fishing for all groundfish (except “other flatfish” as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of the boundary line approximating the 30-fm (55-m) depth contour along the mainland coast and along islands and offshore seamounts from June 13 through October 31; and is closed entirely from January 1 through June 12 and from November 1 through December 31 (i.e. , prohibited seaward of the shoreline). Closures around the Farallon Islands (see paragraph (c)(3)(i)(C) of this section) and Cordell Banks (see paragraph (c)(3)(i)(D) of this section) also apply in this area. Coordinates for the boundary line approximating the 30-fm (55-m) depth contour are listed in §660.391.

(4) Between 37°11' N. lat. and 36° N. lat. (Monterey South-Central Region), recreational fishing for all groundfish (except “other flatfish” as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of a boundary line approximating the 40-fm (73-m) depth contour along the mainland coast and along islands and offshore seamounts from May 1 through November 15; and is closed entirely from January 1 through April 30 and from November 16 through December 31 (i.e. , prohibited seaward of the shoreline). Coordinates for the boundary line approximating the 40-fm (73-m) depth contour are specified in §660.391.

(5) Between 36° N. lat. and 34°27' N. lat. (Morro Bay South-Central Region), recreational fishing for all groundfish (except “other flatfish” as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of a boundary line approximating the 40-fm (73-m) depth contour along the mainland coast and along islands and offshore seamounts from May 1 through November 15; and is closed entirely from January 1 through April 30 and from November 16 through December 31 (i.e., prohibited seaward of the shoreline). Coordinates for the boundary line approximating the 40-fm (73-m) depth contour are specified in §660.391.

(6) South of 34°27' N. latitude (South Region), recreational fishing for all groundfish (except California scorpionfish as specified below in this paragraph and in paragraph (v) of this section and “other flatfish” as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of a boundary line approximating the 60-fm (110-m) depth contour from March 1 through December 31 along the mainland coast and along islands and offshore seamounts, except in the CCAs where fishing is prohibited seaward of the 20-fm (37-m) depth contour when the fishing season is open (see paragraph (c)(3)(i)(B) of this

section). Recreational fishing for all groundfish (except California scorpionfish and “other flatfish”) is closed entirely from January 1 through February 28 (i.e., prohibited seaward of the shoreline). Recreational fishing for California scorpionfish south of 34°27' N. lat. is prohibited seaward of a boundary line approximating the 40-fm (73-m) depth contour from January 1 through February 28, and seaward of the 60-fm (110-m) depth contour from March 1 through December 31, except in the CCAs where fishing is prohibited seaward of the 20-fm (37-m) depth contour when the fishing season is open. Coordinates for the boundary line approximating the 40-fm (73-m) and 60-fm (110-m) depth contours are specified in §§660.391 and 660.392.

(B) Cowcod Conservation Areas. The latitude and longitude coordinates of the Cowcod Conservation Areas (CCAs) boundaries are specified at §660.390. In general, recreational fishing for all groundfish is prohibited within the CCAs, except that fishing for “other flatfish” is permitted within the CCAs as specified in paragraph (c)(3)(iv) of this section. However, recreational fishing for the following species is permitted shoreward of the 20 fm (37 m) depth contour when the season for those species is open south of 34°27' N. lat.: Minor nearshore rockfish, cabezon, kelp greenling, lingcod, California scorpionfish, and “other flatfish” (subject to gear requirements at paragraph (c)(3)(iv) of this section during January–February). [NOTE: California state regulations also permit recreational fishing for California sheephead, ocean whitefish, and all greenlings of the genus *Hexagrammos* shoreward of the 20 fm (37 m) depth contour in the CCAs when the season for the RCG complex is open south of 34°27' N. lat.] It is unlawful to take and retain, possess, or land groundfish within the CCAs, except for species authorized in this section.

(C) Farallon Islands. Under California state law, recreational fishing for groundfish is prohibited between the shoreline and the 10–fm (18–m) depth contour around the Farallon Islands, except that recreational fishing for “other flatfish” is permitted around the Farallon Islands as specified in paragraph (c)(3)(iv) of this section. (Note: California state regulations also prohibit the retention of other greenlings of the genus *Hexagrammos*, California sheephead and ocean whitefish.) For a definition of the Farallon Islands, see §660.390.

(D) Cordell Banks. Recreational fishing for groundfish is prohibited in waters less than 100 fm (183 m) around Cordell Banks as defined by specific latitude and longitude coordinates at §660.390, except that recreational fishing for “other flatfish” is permitted around Cordell Banks as specified in paragraph (c)(3)(iv) of this section. [Note: California state regulations also prohibit fishing for all greenlings of the genus *Hexagrammos*, California sheephead and ocean whitefish.]

(E) Point St. George Yelloweye Rockfish Conservation Area (YRCA). Recreational fishing for groundfish is prohibited within the Point St. George YRCA, as defined by latitude and longitude coordinates at §660.390, on dates when the closure is in effect. The closure is not in effect at this time, and recreational fishing for groundfish is open within the Point St. George YRCA from January 1 through December 31. This closure may be imposed through inseason adjustment.

(F) South Reef YRCA. Recreational fishing for groundfish is prohibited within the South Reef YRCA, as defined by latitude and longitude coordinates at §660.390, on dates when the closure is in effect. The

closure is not in effect at this time, and recreational fishing for groundfish is open within the South Reef YRCA from January 1 through December 31. This closure may be imposed through inseason adjustment.

(G) Reading Rock YRCA. Recreational fishing for groundfish is prohibited within the Reading Rock YRCA, as defined by latitude and longitude coordinates at §660.390, on dates when the closure is in effect. The closure is not in effect at this time, and recreational fishing for groundfish is open within the Reading Rock YRCA from January 1 through December 31. This closure may be imposed through inseason adjustment.

(H) Point Delgada (North) YRCA. Recreational fishing for groundfish is prohibited within the Point Delgada (North) YRCA, as defined by latitude and longitude coordinates at §660.390, on dates when the closure is in effect. The closure is not in effect at this time, and recreational fishing for groundfish is open within the Point Delgada (North) YRCA from January 1 through December 31. This closure may be imposed through inseason adjustment.

(I) Point Delgada (South) YRCA. Recreational fishing for groundfish is prohibited within the Point Delgada (South) YRCA, as defined by latitude and longitude coordinates at §660.390, on dates when the closure is in effect. The closure is not in effect at this time, and recreational fishing for groundfish is open within the Point Delgada (South) YRCA from January 1 through December 31. This closure may be imposed through inseason adjustment.

(J) Essential Fish Habitat Conservation Areas. The Essential Fish Habitat Conservation Areas (EFHCAs) are closed areas, defined by specific latitude and longitude coordinates at §§660.396 through 660.399, where specified types of fishing are prohibited. Prohibitions applying to specific EFHCAs are found at §660.306.

(ii) RCG Complex. The California rockfish, cabezon, greenling complex (RCG Complex), as defined in state regulations (Section 1.91, Title 14, California Code of Regulations), includes all rockfish, kelp greenling, rock greenling, and cabezon. This category does not include California scorpionfish, also known as "sculpin."

(A) Seasons. When recreational fishing for the RCG Complex is open, it is permitted only outside of the recreational RCAs described in paragraph (c)(3)(i) of this section.

(1) Between 42° N. lat. (California/Oregon border) and 40°10' N. lat. (North Region), recreational fishing for the RCG complex is open from May 15 through September 15 (i.e. it's closed from January 1 through May 14 and from September 16 through December 31).

(2) Between 40°10' N. lat. and 38°57.50' N. lat. (North Central North of Point Arena Region), recreational fishing for the RCG Complex is open from May 15 through August 15 (i.e. it's closed from January 1 through May 14 and May 16 through December 31).

(3) Between 38°57.50' N. lat. and 37°11' N. lat. (North Central South of Point Arena Region), recreational fishing for the RCG Complex is open from June 13 through October 31 (i.e. it's closed from January 1 through June 12 and November 1 through December 31).

(4) Between 37°11' N. lat. and 36° N. lat. (Monterey South-Central Region), recreational fishing for the RCG Complex is open from May 1 through November 15 (i.e. it's closed from January 1 through April 30 and from November 16 through December 31).

(5) Between 36' N. lat. and 34°27' N. lat. (Morro Bay South-Central Region), recreational fishing for the RCG Complex is open from May 1 through November 15 (i.e. it's closed from January 1 through April 30 and from November 16 through December 31).

(6) South of 34°27' N. latitude (South Region), recreational fishing for the RCG Complex is open from March 1 through December 31 (i.e. it's closed from January 1 through February 28).

(B) Bag limits, hook limits. In times and areas when the recreational season for the RCG Complex is open, there is a limit of 2 hooks and 1 line when fishing for rockfish. The bag limit is 10 RCG Complex fish per day coastwide. Retention of canary rockfish, yelloweye rockfish, bronzespotted and cowcod is prohibited. Within the 10 RCG Complex fish per day limit, no more than 2 may be bocaccio, no more than 2 may be greenling (kelp and/or other greenlings) and no more than 2 may be cabezon. Multi-day limits are authorized by a valid permit issued by California and must not exceed the daily limit multiplied by the number of days in the fishing trip.

(C) Size limits. The following size limits apply: bocaccio may be no smaller than 10 in (25 cm) total length; cabezon may be no smaller than 15 in (38 cm) total length; and kelp and other greenling may be no smaller than 12 in (30 cm) total length.

(D) Dressing/Fileting. Cabezon, kelp greenling, and rock greenling taken in the recreational fishery may not be fileted at sea. Rockfish skin may not be removed when fileting or otherwise dressing rockfish taken in the recreational fishery. The following rockfish filet size limits apply: bocaccio filets may be no smaller than 5 in (12.8 cm) and brown-skinned rockfish filets may be no smaller than 6.5 in (16.6 cm). "Brown-skinned" rockfish include the following species: brown, calico, copper, gopher, kelp, olive, speckled, squarespot, and yellowtail.

(iii) Lingcod —(A) Seasons. When recreational fishing for lingcod is open, it is permitted only outside of the recreational RCAs described in paragraph (c)(3)(i) of this section.

(1) Between 42° N. lat. (California/Oregon border) and 40°10.00' N. lat. (North Region), recreational fishing for lingcod is open from May 15 through September 15 (i.e. it's closed from January 1 through May 14 and from September 16 through December 31).

(2) Between 40°10' N. lat. and 38°57.50' N. lat. (North Central North of Point Arena Region), recreational fishing for lingcod is open from May 15 through August 15 (i.e. it's closed from January 1 through May 14 and May 16 through December 31).

(3) Between 38°57.50' N. lat. and 37°11' N. lat. (North Central South of Point Arena Region), recreational fishing for lingcod is open from June 13 through October 31 (i.e. it's closed from January 1 through June 12 and November 1 through December 31).

(4) Between 37°11' N. lat. and 36° N. lat. (Monterey South-Central Region), recreational fishing for lingcod is open from May 1 through November 15 (i.e. it's closed from January 1 through April 30 and from November 16 through December 31).

(5) Between 36' N. lat. and 34°27' N. lat. (Morro Bay South-Central Region), recreational fishing for lingcod is open from May 1 through November 15 (i.e. it's closed from January 1 through April 30 and from November 16 through December 31).

(6) South of 34°27' N. latitude (South Region), recreational fishing for lingcod is open from April 1 through November 30 (i.e. it's closed from January 1 through March 31 and from December 1 through 31).

(B) Bag limits, hook limits. In times and areas when the recreational season for lingcod is open, there is a limit of 2 hooks and 1 line when fishing for lingcod. The bag limit is 2 lingcod per day. Multi-day limits are authorized by a valid permit issued by California and must not exceed the daily limit multiplied by the number of days in the fishing trip.

(C) Size limits. Lingcod may be no smaller than 24 in (61 cm) total length.

(D) Dressing/Filleting. Lingcod filets may be no smaller than 16 in (41 cm) in length.

(iv) "Other flatfish". Coastwide off California, recreational fishing for "other flatfish" is permitted both shoreward of and within the closed areas described in paragraph (c)(3)(i) of this section. "Other flatfish" are defined at §660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole. Recreational fishing for "other flatfish" is permitted within the closed areas. "Other flatfish," except Pacific sanddab, are subject to the overall 20-fish bag limit for all species of finfish, of which there may be no more than 10 fish of any one species. There is no season restriction or size limit for "other flatfish;" however, it is prohibited to filet "other flatfish" at sea.

(v) California scorpionfish. California scorpionfish predominately occur south of 40°10' N. lat.

(A) Seasons. When recreational fishing for California scorpionfish is open, it is permitted only outside of the recreational RCAs described in paragraph (c)(3)(i) of this section.

(1) Between 40°10' N. lat. and 37°11' N. lat. (North Central Region), recreational fishing for California scorpionfish is open from June 1 through November 30 (i.e., it's closed from January 1 through May 31 and from December 1 through December 31).

(2) Between 37°11' N. lat. and 36° N. lat. (Monterey South Central Region), recreational fishing for California scorpionfish is open from May 1 through November 30 (i.e., it's closed from January 1 through April 30 and from December 1 through December 31).

(3) Between 36° N. lat. and 34°27' N. lat. (Morro Bay South Central Region), recreational fishing for California scorpionfish is open from May 1 through November 30 (i.e., it's closed from January 1 through April 30 and from December 1 through December 31).

(4) South of 34°27' N. lat. (South Region), recreational fishing for California scorpionfish is open from January 1 through December 31.

(B) Bag limits, hook limits. South of 40°10.00' N. lat., in times and areas where the recreational season for California scorpionfish is open, the bag limit is 5 California scorpionfish per day. California scorpionfish do not count against the 10 RCG Complex fish per day limit. Multi-day limits are authorized by a valid permit issued by California and must not exceed the daily limit multiplied by the number of days in the fishing trip.

(C) Size limits. California scorpionfish may be no smaller than 10 in (25 cm) total length.

(D) Dressing/Fileting. California scorpionfish filets may be no smaller than 5 in (12.8 cm) and must bear an intact 1 in (2.6 cm) square patch of skin.