#### GROUNDFISH MANAGEMENT TEAM REPORT ON FINAL ACTION ON INSEASON ADJUSTMENTS FOR 2017 AND 2018

The Groundfish Management Team (GMT) considered the most recent information on the status of ongoing fisheries, research, and requests from industry, and provides the following updates for 2017 and the start of 2018.

## 2017 Groundfish Fisheries

# After reviewing the latest information, the **GMT is not recommending any inseason actions for the remainder of 2017**.

#### Informational Items

#### Sablefish Primary and Daily Trip Limit Fisheries

Table 1 shows the actual landings for the primary fishery, and the projected landings through the end of the year, for the daily trip limit (DTL) fisheries. These projections reflect the trip limit increases recommended by the Pacific Fishery Management Council (Council) in September and implemented by the National Marine Fisheries Service (NMFS) on October 19, 2017 (<u>82 FR 48656</u>).

Table 1: Estimated Primary and Projected DTL Landings and Attainment for 2017. LEN= limited entry fixed gear north of 36° N. lat.; OAN= open access north of 36° N. lat.; LES= limited entry fixed gear south of 36° N. lat.; OAS= open access south of 36° N. lat.

Sector	Landings (rd. wt. mt)	Landing Target (mt)	Attainment (%)
Primary	1,393	1,463	95.2
LEN	225-238	258	87.2-92.4
OAN	388.1-407.7	425	91.3-95.9
LES	255.2-319.4	728	35.1-43.9
OAS	49.4	312	15.8

#### At-Sea Fishery

Table 2 below shows the landings of Pacific whiting, four allocated rockfish species, and Chinook salmon through November 19, 2017.

Species	Cat	cher-Processor	(CP)	Mothership (MS)			
Species	Catch	Allocation	%	Catch	Allocation	%	
Whiting	136,940	136,940 137,252		65,902	96,884	68.0	
Canary RF	2.1	16.0	16.0 12.9 4.5		30.0	15.0	
Widow RF	409.2	458.2	89.3	65.8	243.3	27.1	
Darkblotched RF	32.0	41.4	77.2	7.5	36.6	20.5	
РОР	20.3	28.7	70.7	5.6	25.0	22.5	
Salmon count (taken)		3,043	-		711	-	

 Table 2: At-Sea Catch Through November 19, 2017.

The at-sea sectors have exceeded the set-aside value for sablefish and shortspine thornyhead, and are close to the yellowtail rockfish set-aside, as shown in Table 3. While there is no automatic action taken when a set-aside is exceeded or is projected to be exceeded, NMFS does have the authority in regulations at 50 CFR 660.150(c)(2)(i)(B)(2) and 660.160(c)(2)(i)(B)(2) to take action if there is a risk to the annual catch limit (ACL), unforeseen impact on another sector, or a conservation concern. With regards to sablefish north of  $36^{\circ}$  N. lat., there are 70 mt left in the primary sector, an estimated 37 mt (at a minimum) in the DTL sectors, and ~4 mt in the recreational sector. Further, over the last three years, the shorebased IFQ sector has left an average of 143 mt (316,066 quota lbs) unharvested. As of November 18th, the IFQ sector has 833,615 quota lbs remaining, or ~378 mt.

Table 3: A	At-Sea Catch of Sablefish,	Yellowtail Rockfish, and	l Shortspine Thornył	lead North of $34^\circ$
27' N. lat.	through November 19, 2	017.		

Species	MS Mortality (mt)	CP Mortality (mt)	Total Mortality (mt)	Set-Aside Value (mt)
Sablefish	85.2	67.5	152.7	50
Yellowtail RF	147.2	130.1	277.3	300
Shortspine Thornyhead	3.1	24.8	27.9	20

#### **Oregon Recreational Fishery**

In September, the Oregon Department of Fish and Wildlife (ODFW) closed the Oregon recreational bottomfish fishery due to projected attainment of several species or complex catch

limits. Targeted fishing for flatfish species, other than Pacific halibut, at all depths was allowed to remain open. At the September 2017 Council meeting, ODFW indicated that if allowed to exceed the Oregon recreational harvest guidelines (HG) for yelloweye rockfish by an additional 0.2 - 0.3 mt, there was the possibility of reopening some limited fishing opportunities. Beginning October 1, ODFW opened fishing using longleader gear outside of the 40 fathom regulatory line, with a ten fish bag limit, and no retention of black, blue, deacon, China, copper, quillback, and yelloweye rockfish as well as lingcod and cabezon. Lingcod is prohibited to address concerns over potential yelloweye rockfish bycatch. The yelloweye rockfish projected impacts in the scorecard have been updated based on data through the closure, and projections for the October through December longleader opportunity.

#### California Recreational Fishery

In response to higher than anticipated catches of yelloweye rockfish during the summer months, action was taken at the September 2017 Council meeting to constrain fishing depths north of Point Conception to the depths used in 2016. This inseason regulation change became effective in state waters on October 16, 2017. Since this action, the reported encounter rate with yelloweye rockfish has declined precipitously. CDFW expects yelloweye reported encounter rate to remain low for the remainder of 2017. For more information see <u>Agenda Item F.13.a</u>, <u>Supplemental CDFW Report 1, November 2017</u>.

#### **Overfished Species Scorecard**

Attachment 1 shows the overfished species scorecard with estimates through the end of the year. Updates includes 1.0 mt of yelloweye returned to the research set-aside from the International Pacific Halibut Commission (IPHC) survey, new bootstrap projections for the at-sea sectors with data through November 7, and recreational projections.

### 2018 Groundfish Fisheries Action Items

#### Big Skate Trip Limits for the Shorebased Individual Fishing Quota Program

The Groundfish Advisory Subpanel (GAP) has requested investigation into higher trip limits for big skate for the shorebased individual fishing quota (IFQ) program in 2018 (

Table **4**). Since the projected attainment is 88 percent with status quo trip limits, the GMT only modeled modest increases. As a reminder, status quo trip limits were determined based on data through 2015, while the 2018 alternative limits reflect new data.

Alternative 1 has an extra 5,000 lbs. bimonthly during periods 3 and 4, and results in a projected attainment of 94 percent. Alternative 2 has an extra 5,000 pounds bimonthly during periods 2-5, and results in 98 percent attainment.

The GMT notes that both Alternative 1 and Alternative 2 could be considered somewhat risky due to variable landings which can deviate by  $\pm$  25 mt from the average during peak catch periods (periods 3-5). If landings were higher than projected, the negative consequence would likely be inseason attainment of the quota by the end of period 5, resulting in closure during period 6 (Figure 1).

The GMT recommends that, if the Council considers any trip limit increases for 2018 for IFQ big skate, they consider Alternative 1, as it would provide extra opportunity with lesser risk of exceeding the quota inseason.

	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Sept-Oct	Nov-Dec	Projected	% of
ALI	Period 1	Period 2	12   Period 3   Period 4   Period 5   Period		Period 6	mt	Quota	
SQ	5,000	25,000	30,000	35,000	10,000	5,000	327	88%
ALT 1	5,000	25,000	35,000	40,000	10,000	5,000	347	94%
ALT 2	5,000	30,000	35,000	40,000	15,000	5,000	363	98%

Table 4: Big Skate Trip Limit Alternatives for the Shorebased IFQ fishery in 2018.



Figure 1: Projected big skate attainments by period for each alternative from Table 4.

Sablefish Daily Trip Limit Fisheries

Table 5 shows the 2018 "No Action" trip limits. No action represents the current trip limits in place from 2017 as shown in Tables 2 and 3 in Part 660, Subpart E and Subpart F of the Federal regulations.

Table 5: 2018 DTL Trip Limits by Sector.

Sector			Peri	od					
	Jan-Feb	Mar-Apr	May-June	July-Aug	Sept-Oct Nov-Dec				
LEN	1,125 lb/wk, no to exceed 3,375 lb/2 mo	1,100 lb/wk,	not to exceed	3,300 lb/2 mo	1,500 lbs/wk, not to exceed 4,500 lb/2 mo				
OAN	300 lbs/day, or 1 landing per week of up to 1,000 lbs, not to exceed 2,000 lbs/2 mo	300 lbs/day, or 1 landing per week of up to 900 lbs, not to exceed 1,800 lbs/2 mo	300 lbs/day, per week of u not to excee n	or 1 landing p to 1,000 lbs, d 2,000 lbs/2 10	300 lbs/day, per week of lbs, not to e lbs/	or 1 landing f up to 1,300 exceed 2,600 2 mo			
LES		2,000 lbs/week							
OAS	300 lbs/day, or	r 1 landing per	week of up to	o 1,600 lbs, not	to exceed 3,	200 lbs/2 mo			

Table 6 shows the new projected landings for each DTL sector for 2018 based on data through October 31, 2017.

Sector	Landings (mt)	Landing Target (mt)	Attainment (%)
LEN	256.2-336.9	269	95.2-125.2
OAN	349.7-437.2	444	78.8-98.5
LES	454.7-571.6	759	60-62.1
OAS	34.6	325	10.7

 Table 6: Projected landings and attainment by DTL sector.

Based on price and landings data through October 31, 2017, the GMT proposes the following trip limit alternatives in Table 7 for 2018. Table 8 shows the corresponding projected landings and attainment by sector for these alternatives.

Sector	Alternative	Trip Limit
LEN	1	1,100 lbs per week, not to exceed 3,300 lbs/2 mo
OAN	1	300 lbs/day, or 1 landing per week up to 1,000 lbs, not to exceed 2,000 lbs/2 mo

#### Table 7: Alternative Trip Limits for LEN and OAN for 2018.

#### Table 8: Projected Landings and Attainment by DTL Sector.

Sector	Alternative	Alternative Landings (mt) Landing Target (mt)		Attainment (%)
LEN	SQ	256.2-336.9	260	95.2-125.2
LEN	1	202.1-274.4	209	75.1-102
OAN	SQ	349.7-437.2	444	78.8-98.5
UAN	1	329.3-411.7	444	74.2-92.7

# Based on these projections, the GMT recommends Alternative 1 for LEN and Alternative 1 for OAN.

Limited Entry and Open Access Fixed Gear Trip Limits for Lingcod North of 40° 10' N. Lat.

The GMT notes that the primary objective of non-trawl analyses from past biennial harvest specification and management measures has been to maximize opportunity for target stocks, such as lingcod, while staying within the biological confines of overfished species limits, such as yelloweye rockfish. For instance, this was a main focus of the lingcod trip limit analyses used to establish the current trip limits (Appendix B7) from the <u>Final Environmental Impact Statement</u> (FEIS) for Proposed Harvest Specifications and Management Measures for the 2015-2016).

No lingcod increases were proposed during the 2017-2018 biennial harvest specifications and management measures, since there was insufficient yelloweye rockfish residual to do so at that time. However, there is now sufficient yelloweye rockfish residual for the Council to consider higher lingcod trip limit increases for 2018, based on the following updates to the nearshore model: (1) 2016 data was included in the calculation of new discard ratios by the West Coast Groundfish Observer Program (WCGOP) and (2) the discard mortality rates were revised to the newly-adopted rates described in <u>Agenda Item F.10.a, Supplemental GMT Report 1, June 2017</u>.

The GMT notes that the projected non-trawl yelloweye impacts associated with the higher lingcod trip limits will be below what was analyzed in the 2017-2018 harvest specifications and management measures predominantly due to "savings" associated with these nearshore model updates.

There has been consistent feedback from industry not to have OA trip limits exceed 900 lbs. per month during the "summer" (May-November), because that is the breaking point that could entice new effort, and result in possible flooding of their artisanal fillet and live fish markets. In addition, both LE and OA sectors have consistently requested increases in trip limits in "winter" (December-April), to both increase consistency of landings delivery to market and provide for, at minimum, the retention of incidental catches, which was the initial goal of the Council when first allowing winter retention in 2015-2016. Based on 2015 WCGOP data, current limits do not appear to be sufficient to allow full retention of incidental catch, as only approximately half of sampled regulatory discards (i.e., 1,400 lbs. in OA and 300 lbs. in LE) were due to minimum size limits; the rest are assumed to be due to reaching trip limits.

There has however been some mixed input regarding the preferred season structure. Some would prefer more consistent limits through the year, whereas others would prefer maintaining the current structure of higher limits in the summer than in the winter.

The GMT notes that the main rationale for the winter closure prior to 2015 was that lingcod spawn in winter. However, this closure was adopted to help the stock recover when they were overfished, and they are now healthy based on the 2009 assessment and 2017 assessment (62 and 55 percent depletion, respectively). Furthermore, lingcod north of 40° 10' N. lat. has had low attainments (~30 percent in 2016), and the ACLs for 2019-2020 will be increase by more than 50 percent. In addition, lingcod is one of the few stocks that has a minimum size limit (24 inches in California and 22 inches in Washington and Oregon) that results in most fish reaching maturity before being harvested (i.e., the length of 50 percent maturity is approximately 23.5 inches for females and 15-22 inches for males (Hamel, et al. 2009)). For these reasons, the Council may wish to consider higher lingcod limits in the winter months.

Due to the mixed input regarding the preferred seasonality of trip limit increases, the GMT provides three alternatives for consideration, as shown in Table 9. Alternative 1 is stable across the year, Alternative 2 maintains higher limits in the summer, and Alternative 3 has even higher summer limits.

All three alternatives keep yelloweye rockfish projected impacts within the nearshore shares for Oregon (1.4 mt) and California (0.6 mt), and below the non-nearshore HG (0.7 mt; Table 10). In addition, the projected lingcod impacts (< 50 mt) will not be problematic, since recent non-trawl removals (~500 mt in 2016) are only about a third of the 2018 non-trawl allocation of 1,558 mt. Adding an extra 50 mt of lingcod impacts will keep the total 2018 removals well within the upper range (3,696 mt) that was analyzed in the 2015-2016 Biennial Harvest Specifications and Management Measures FEIS.

In conclusion, all the alternatives are conservative in regards to both yelloweye rockfish and also lingcod, per industry requests for modest increases to better meet market demands.

The GMT recommends the Council consider LEFG and OA trip limit increases for lingcod north of  $40^{\circ}$  10' N. lat.

Sector	Alt.	JAN-FEB	MAR-APR	MAY-JUN	N JUL-AUG SEP-OCT		NOV	-DEC
	SQ	200 lb/2 months		1,200 lb/2 months			600 lb/ mo	200 lb/ mo
LE	Alt 1	1,000 lb/ 2 months		1,000 lb/2 months			500 lb/ mo	600 lb/ mo
	Alt 2	600 lb/2 months		1,400 lb/2 months			700 lb/ mo	400 lb/ mo
	Alt 3	600 lb/	2 month	1,800 lb/2 months			900 lb/ mo	400 lb/ mo
	SQ	100 lb	/month		600 lb/ month			100 lb/ mo
OA	Alt 1	500 lb	/month		500 lb/month			500 lb/ mo
	Alt 2	300 lb/month			700 lb/ month			
	Alt 3	300 lb	/ month		900 lb/ month			

Table 9: Alternative LEFG and OA trip limits for lingcod north of 40 10' N. lat.

Table 10: Projected lingcod and yelloweye rockfish impacts associated with the alternative LEFG and OA trip limits for lingcod north of 40° 10' N. lat. Ranges incorporate recent (2015-2016) interannual variability in lingcod removals: approximately +- 50 percent for the CA nearshore fishery, +-30 percent for the Oregon nearshore fishery, and +- 13% for the non-nearshore fishery.

	Lingcod						Yelloweye		
	SQ	Alt 1	Alt 2	Alt 3	SQ	Alt 1	Alt 2	Alt 3	"Share"
CA Nearshore	5 - 7	7 - 10	6 - 9	6 - 10	0.3	0.3 - 0.4	0.3 - 0.4	0.3 - 0.4	0.6
OR Nearshore	48 - 63	64 -84	59 -77	63 - 82	0.8 - 0.9	0.9 - 1.0	0.9 - 1.0	0.9-1.0	1.4
Non-Nearshore	17 - 21	17 - 21	19 - 22	20 - 24	0.7 - 0.8	0.7 - 0.8	0.7 - 0.8	0.7 - 0.8	0.7

Pacific Whiting Set-Asides

The GMT reviewed the incidental catches of Pacific whiting in the research and pink shrimp sectors (Agenda Item F.13, Attachment 1, November 2017) and recommends a 1,500 metric

ton set-aside for 2018. Based on the most recent five years, this amount should be sufficient to cover catches in both fisheries. The GMT notes that the whiting total allowable catch will not be available until March.

#### Big Skate Non-Trawl Trip Limits in Federal Trip Limit Tables

# The GMT recommends that the LE and OA trip limit tables in the Federal regulations, both north and south, be amended to show that big skate landings are unlimited for non-trawl gear.

#### Platt/Emley Exempted Fishing Permit (EFP) Modification

The Platt/Emley EFP applicants have requested to be able to sell canary rockfish caught as part of their EFP activities. When the application was rolled over from 2015-2016, the permit retained the prohibition on selling canary rockfish. However, canary rockfish was declared rebuilt in 2017 and landings have been allowed. The GMT agrees with the NMFS recommendation that was provided under Agenda Item F.8 to change this provision in the EFP terms and conditions to allow for canary rockfish to be sold in 2018.

#### Informational Items

#### Oregon recreational fishery

The GMT has been informed that through state processes, Oregon will be making adjustments to the 2018 recreational bottomfish fishery. The adjustments will include reduced bag limits to try to account for the increased effort seen over the last three years, and minimize the risk of another pre-season closure. The regulations will be finalized by the Oregon Fish and Wildlife Commission on December 8, 2017.

#### California recreational fishery

At this time, CDFW believes that returning to 2017 depth limits for 2018, will not be of concern because 2017 was an anomalous year with unseasonably good weather during the summer and limited opportunity to target salmon. Additionally, CDFW has the ability to take action inseason outside of Council to address any issues that may arise. CDFW will continue to closely monitor catches through the department's inseason tracking to ensure yelloweye rockfish stays within the projected impacts.

#### Overfished Species Scorecard

The overfished species scorecard (Attachment 2) includes both the 2018 allocations and updated projected impacts.

In early November, IPHC staff communicated with the GMT that they are currently not planning on doing the expanded stations in 2018 in Area 2A. Therefore, yelloweye rockfish catch for the IPHC survey has been reduced to the standard 1.1 mt, but IPHC staff caution that survey plans will not be finalized until their annual meeting is complete in late January 2018.

At-sea estimates are based on data through November 8, 2017 and use the 2017 whiting allocations as a proxy since the 2018 total allowable catch (TAC) will not be adopted until early 2018.

	Bocaco	cio b∕	Cowco	od b/	Dkl	ol	POF		Yellov	weye
<u>Date</u> : 7 Nov 2017	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts
Off the Top Deductions	15.4	14.6	2.0	2.0	27.3	9.2	17.4	14.4	5.4	4.2
Additional Buffer					0.0		0.0			
EFPc/	10.0	10.0	0.015	0.015	0.1	0.1	0.0	0.0	0.030	0.020
Research d/	4.6	4.6	2.0	2.0	2.5	2.5	5.2	5.2	2.7	1.8
ncidental OA e/	0.8	0.0	0.0	0.0	24.5	6.4	3.0	0.0	0.4	0.1
Tribal f/					0.2	0.2	9.2	9.2	2.3	2.3
Bottom Trawl					0.2	0.2	2.0	2.0		0.0
Troll					0.0					0.0
Fixed gear					0.0				2.3	2.3
nid-water					0.0					0.0
whiting						0.3	7.2	7.2		
Frawl Allocations	302.4	92.7	1.4	0.2	535.6	177.1	220.0	69.6	1.1	0.1
SB Trawl	302.4	92.7	1.4	0.2	507.6	136.9	198.3	43.0	1.1	0.1
At-Sea Trawl					78.0	40.2	53.7	26.6	0.0	0.0
a) At-sea whiting MS					36.6	9.0	25.0	6.5		
b) At-sea whiting CP					41.4	31.2	28.7	20.1		
Non-Trawl Allocation	472.2	202.1	2.6	0.0	28.2	5.8	11.6	0.3	13.1	13.1
Non-Nearshore	144.3	16.6		0.0		5.6		0.3	0.8	0.7
LE FG		6.2				5.2		0.3		0.6
OA FG		10.4				0.5		0.0		0.0
Directed OA: Nearshore	1.8	0.6		0.0		0.2			2.1	1.6
Recreational Groundfish										
WA									3.3	3.1
OR									3.0	3.7
CA	326.1	184.9		2.2					3.9	4.0
TOTAL	790.0	309.4	6.0	2.2	591.1	192.1	249.0	84.3	19.6	17.4
2017 Harvest Specification	790	790	6.0	6.0	641	641	281	281	20	20
Difference	0.0	480.6	0.0	3.8	49.9	448.9	32.0	196.7	0.4	2.6
Percent of ACL	100.0%	39.2%	100.3%	36.9%	92.2%	30.0%	88.6%	30.0%	100.0%	86.9%
			= not applicable							
Kev			= trace, less than	0.1 mt						
- ,			= Fixed Values	ctions						
			- on the top dedu	010113						

a/ Formal allocations are represented in the black shaded cells and are specified in regulation in Tables 1b and 1e. The other values in the allocation columns are 1) off the top deductions, 2) set asides from the trawl allocation (at-sea petrale only) 3) ad-hoc allocations recommended in the 2013-14 EIS process, 4) HG for the recreational fisheries for canary and YE.

b/ South of 40°10' N. lat.

c/ EFPs are amounts set aside to accommodate anticipated applications. Values in this table represent the estimates from the 13-14 biennial cycle, which are currently specified in regulation.

d/ Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs.

e/ The GMT's best estimate of impacts as analyzed in the 2017-2018Environmental Impact Statement (Appendix B), which are currently specified in regulation.

f/ Tribal values in the allocation column represent the the values in regulation. Projected impacts are the tribes best estimate of catch.

Attachment 2. Allocations <sup>®</sup> and projected mortality impacts (mt) of overfished groundfish species for 2018.										
	Bocaccio b/		Cowcod b/		Dkbl		POP		Yelloweye	
<u>Date</u> : 11/6/2017	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts
Off the Top Deductions	15.4	15.4	2.0	2.0	77.3	27.3	49.4	14.7	6.0	5.8
Additional Buffer					50.0		25.0			
EFPc/	10.0	10.0	0.015	0.015	0.1	0.1	0.0	0.0	0.030	0.020
Research d/	4.6	4.6	2.0	2.0	2.5	2.5	5.2	5.2	3.3	3.1
Incidental OA e/	0.8	0.8	0.03	0.03	24.5	24.5	10.0	0.3	0.4	0.4
Tribal f/					0.2	0.2	9.2	9.2	2.3	2.3
Bottom Trawl					0.2	0.2	2.0	2.0		0.0
Troll					0.0					0.0
Fixed gear					0.0				2.3	2.3
mid-water					0.0					0.0
whiting						0.3	7.2	7.2		
Trawl Allocations	283.3	92.7	1.4	0.2	546.9	150.8	220.0	61.5	1.1	0.1
-SB Trawl	283.3	92.7	1.4	0.2	518.4	136.9	198.3	43.0	1.1	0.1
-At-Sea Trawl					28.5	13.9	21.7	18.5	0.0	0.0
a) At-sea whiting MS					11.8	5.3	9.0	5.4		
b) At-sea whiting CP					16.7	8.6	12.7	13.1		
Non-Trawl Allocation	442.3	202.1	2.6	0.0	28.8	7.5	11.6	0.5	12.9	12.4
Non-Nearshore	135.1	16.6		0.0		7.3		0.5	0.7	0.8
LE FG		6.2								
OA FG		10.4								
Directed OA: Nearshore	1.7	0.6		0.0		0.2		0.0	2.0	1.6
Recreational Groundfish										
WA									3.3	3.1
OR									3.0	3.0
CA	305.5	184.9		2.2					3.9	3.9
TOTAL	741.0	310.2	6.0	2.2	653.0	185.6	281.0	76.7	20.0	18.3
2018 Harvest Specification	741	741	10.0	10.0	653	653	281	281	20	20
Difference	0.0	430.8	4.0	7.8	0.0	467.4	0.0	204.3	0.0	1.7
Percent of ACL	100.0%	41.9%	60.2%	22.2%	100.0%	28.4%	100.0%	27.3%	100.0%	91.6%
Key			= not applicable							
			= trace, less than 0.1 mt							
			= off the top deductions							

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a/ Formal allocations are represented in the black shaded cells and are specified in regulation in Tables 2b and 2e. The other values in the allocation columns are 1) off the top deductions, 2) set asides from the traw allocation (at-sea petrale only) 3) ad-hoc allocations recommended in the 2013-14 EIS process, 4) HG for the recreational fisheries for canary and YE.

b/ South of 40°10' N. lat.

c/ EFPs are amounts set aside to accommodate anticipated applications. Values in this table represent the estimates from the 17-18 biennial cycle, which are currently specified in regulation.

d/ Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs.

e/ The GMT's best estimate of impacts as analyzed in the 2017-2018Environmental Impact Statement (Appendix B), which are currently specified in regulation.

f/ Tribal values in the allocation column represent the the values in regulation. Projected impacts are the tribes best estimate of catch.