Selective Flatfish Trawl EFP*: Monitoring and Minimizing Salmon Bycatch When Targeting Rockfish in the Shorebased IFQ Fishery*

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Timing/Duration: **January 1, 2017 (or as soon as possible thereafter) – December 31, 2017**, with intent to automatically renew for one year if NMFS has not taken final action on the Council's trawl gear change package (additional discussion about timing/duration provided in Section 2.2, p. 8)

Foreword: **This EFP proposal is a work in progress, with a some details still TBD.** The applicants are working with the National Marine Fisheries Service to address outstanding issues and may submit an updated proposal or addendum by the supplemental briefing book deadline on November 8, 2016. Additional information may be provided at the November 2016 Pacific Council meeting. However, the major elements of the proposal, including the goals/objectives, rationale, and components of the proposed action, are not likely to change substantially. The specific details of an industry-based bycatch monitoring/avoidance program and any additional sampling/data collection programs are still under development.

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TABLE OF CONTENTS

1.0 BACKGROUND

1.1 PURPOSE AND NEED

The purpose of this exempted fishing permit (EFP) is to provide more flexibility in the configuration and use of bottom trawl gear for participants in the groundfish trawl catch share program, while also ensuring that conservation objectives continue to be met. The need for this EFP is to better use the individual accountability now in place for participants in the trawl rationalization program in order to more fully achieve the expected benefits of the program.

The intent of the EFP is to remove the SFFT requirements shoreward of the Rockfish Conservation Area (RCA) and mesh size restrictions on the bottom trawl fishery by January 1, 2017. The timing of this EFP is a key to determining the potential for taking advantage of abundant rockfish stocks to increase revenues in the fishery. It is critical that a feasibility determination occur sooner rather than later, as some participants and providers of infrastructure are trying to decide whether to hold out for improving economic conditions or exit the industry. Once such exits occur, communities and remaining participants suffer in the ensuing economic disruption, which may not be reversible. Moreover, market development is critical for this effort to be successful; this requires lead time for planning. In order to ensure success, the EFP needs to start as early in the year as possible, when there is the greatest opportunity for market development, as discussed in this proposal.

1.2 GOALS AND OBJECTIVES

This EFP will collect information to determine the nature and extent of bycatch of salmon and other species of concern while conducting a rockfish fishery targeting widow, yellowtail, chilipepper and other rockfish species without current requirements to use a Selective Flatfish Trawl (SFFT)[1] and mesh size restrictions. The goal of this EFP is to demonstrate that removal of outdated and unnecessary gear restrictions in the trawl IFQ program can help the groundfish industry better meet the economic objectives of the trawl catch share program while keeping bycatch of salmon and other species within allowable limits. Benefits to the fishery will likely accrue from increased efficiency, reduced costs, and increased revenues. Moreover, the flexibility afforded by this EFP is expected to foster innovation and allow for more optimal harvest operations in the bottom trawl fishery, which could reduce bycatch and provide additional conservation benefits. This EFP will also allow NMFS, through cooperation with the industry, to collect information that will better inform the updated/revised Biological Opinion for Chinook salmon (under development) as well as the implementation process for the Council's full trawl gear change package and address/mitigate any bycatch concerns, if necessary, prior to full implementation.

[1] Selective flatfish trawls have been mandated for the limited entry trawl fishery operating shoreward of the trawl RCA north of 40° 10' N. latitude since 2005. The selective flatfish trawl, configured with a cut-back headrope, a low rise, and a small (approximately 8 inches in diameter) footrope, is designed to reduce rockfish bycatch, while efficiently catching flatfish. The selective flatfish trawl works by allowing rockfish to escape by swimming upward when they encounter the trawl.

The success of this EFP will be measured by the industry's ability to re-develop a targeted rockfish fishery while staying within limits established to minimize salmon bycatch. Expected outcomes include a significant increase in widow, yellowtail, and chilipepper rockfish landings, particularly during the first and last few months of the year. Related to salmon bycatch, our specific goal is for the EFP to run for the entire year without the overall salmon cap being reached, demonstrating the effectiveness of salmon avoidance measures that could be important once the full trawl gear change package is implemented. With regards to a target fishery for rockfish, we aim to substantially increase combined widow, yellowtail and chilipepper rockfish landings from the current IFQ baseline of roughly 5 million pounds, thereby increasing revenues for harvesters and processors, and laying the groundwork to successfully redevelop an important sector of the groundfish fishery, which was integral to an economic production ecosystem that was disrupted when selective flatfish trawling restrictions and RCAs were imposed to protect overfished species. Upon full implementation of the trawl gear change package, if markets can be redeveloped and infrastructure preserved, it may be possible to take a significant step toward restoring and establishing the groundfish trawl fishery as it was envisioned with implementation of the catch share program.

2.0 PROPOSED ACTION

The action proposed in this EFP includes two of the eight final preferred alternatives (FPAs) adopted by the Pacific Fishery Management Council in March 2016 as part of the groundfish trawl gear change package (see March 2016 Agenda Item G.8, Attachment 1 *Gear Changes for the Pacific Coast Groundfish Fishery's Trawl Catch Share Program*), along with additional measures to monitor, address and minimize bycatch to the extent practicable. Specifically, this EFP proposes the following:

1. **Elimination of Selective Flatfish Trawl Requirement:** For vessels participating in the EFP, the SSFT requirement shoreward of the Rockfish Conservation Area (RCA) north of 40°10' N. latitude would be eliminated and replaced with a small footrope requirement (like the requirement south of 40°10' N. latitude). Requirements shoreward of the RCA south of 40°10' N. latitude and seaward of the RCA coastwide would remain unchanged (status quo). With removal of the SFFT requirement, fishermen could use modified bottom trawl gear shoreward of the RCA, but not midwater trawls. This is consistent with the Council's FPA (SFFT Alternative D3) in the March 2016 trawl gear change package.

2. **Elimination of Mesh Requirements:** Minimum mesh size requirements for bottom trawl and midwater trawl would be removed for vessels in the EFP. This is consistent with the Council's Final Preferred Alternative (Mesh Alternative A3) in the trawl gear change package.

3. **EFP Enrollment Provisions:** To determine the universe of EFP participants, it is anticipated that NMFS would distribute a notice to the industry prior to the end of 2016, with a specified EFP enrollment deadline. Vessels would be required to contact NMFS prior to the deadline and enroll in

the EFP for a minimum of one month[2]. Once enrolled, vessels can contact NMFS and declare in/out of the EFP on a monthly basis (at the beginning of each month). If a vessel declares out of the EFP for the month, it cannot declare back in until the beginning of the next month. Any vessels that choose to use midwater trawl gear to fish for whiting after May 15 must declare out of the EFP for the entirety of the months they participate in the whiting fishery.

As discussed below, we intend to work with Sea State Inc. to develop a program to monitor salmon bycatch and facilitate bycatch avoidance during this EFP (details under development). Depending on the provisions set forth in the monitoring program, vessels may have flexibility to fish both EFP trips and midwater trawl trips after May 15 (as well as EFP trips and other groundfish trips prior to May 15), provided that salmon bycatch can be tracked separately and as close to real-time as possible for EFP trips and midwater trawl trips.

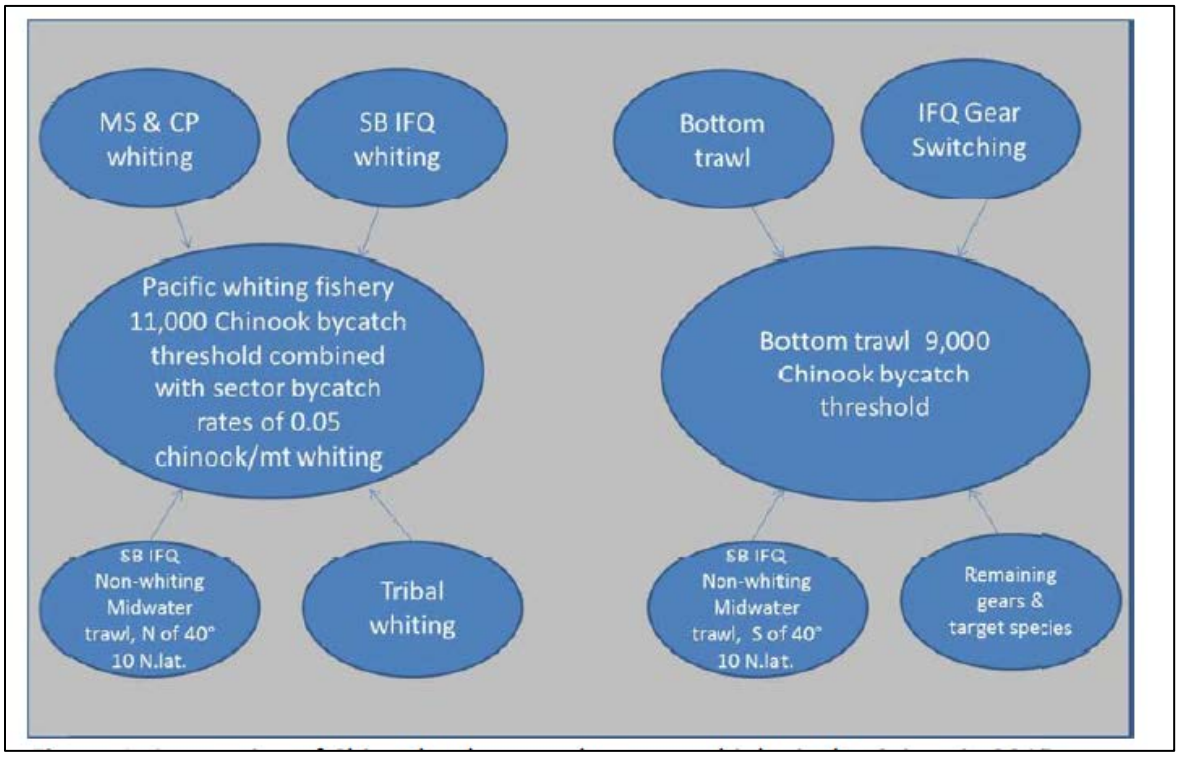
4. **Measures to Address Salmon Bycatch:** To minimize bycatch to the extent practicable, this EFP proposes a Chinook salmon bycatch cap of **4,500 fish** (50% of the 9,000-Chinook threshold for the bottom trawl fishery) as well as an **industry-based bycatch monitoring/avoidance program**. When 4,500 Chinook salmon are taken on EFP trips, NMFS would close the EFP for the remainder of the fishing year. If this occurs, EFP vessels could fish under the remainder of the 9,000 Chinook bycatch threshold for bottom trawl vessels under current SFFT and mesh restrictions.

   Figure 1 illustrates how salmon bycatch is accounted for in the various groundfish fisheries under the current (2006) Biological Opinion. To account for Chinook salmon bycatch under this EFP, the "bottom trawl" sector that fishes under the 9,000 Chinook threshold would be divided into "EFP bottom trawl" and "bottom trawl" (the "bottom trawl" sector would account for vessels that do not want to participate in the EFP and continue to fish with a SFFT and under current mesh restrictions). Vessels participating in the EFP would operate under the "EFP bottom trawl" category with a separate 4,500 Chinook hard cap for salmon bycatch (part of the total 9,000 Chinook threshold), and the EFP would be shut down for the remainder of the year once the 4,500-fish cap is reached. Vessels participating in other sectors of the bottom trawl fishery would continue to operate under the remainder of the 9,000 Chinook threshold. The EFP would also shut down if the 9,000 Chinook bycatch threshold is reached for the bottom trawl fishery, even if the vessels fishing under the EFP have not caught 4,500 fish.

   If the 4,500-Chinook cap is reached and the EFP closes, EFP vessels could still fish in other sectors of the groundfish fishery, including re-rigging their nets with a SFFT and fishing under current mesh requirements. EFP vessels that choose to switch to midwater trawl gear north of 40-10 could do so after May 15 and would operate under the 11,000 Chinook bycatch threshold (SB IFQ non-whiting midwater trawl North of 40-10).

[2] Enrollment requirements may be modified depending on the provisions of the monitoring/avoidance program developed with Sea State Inc. Ideally, vessels would have flexibility to fish both EFP trips other kinds of groundfish trips while enrolled, provided that salmon bycatch can be tracked separately and as close to real-time as possible for EFP trips and other trips.

Figure 1 Accounting System for Chinook Bycatch Under the Current (2006) Biological Opinion



The industry recognizes that because there has not been a target pelagic rockfish fishery for many years, measures will need to be put in place to ensure that bycatch, and Chinook salmon[3] bycatch in particular, is kept well under the 9,000 fish bottom trawl threshold (see NMFS' 2006 Supplemental Biological Opinion and Section 4 below for more information). To further ensure EFP participants will avoid salmon and minimize salmon bycatch to the extent practicable, we are working to develop an industry-based **salmon bycatch monitoring/avoidance program** with Sea State Inc..

EFP participants will be required to register for the salmon bycatch monitoring program with Sea State and provide their salmon bycatch on a trip-by-trip basis. As part of the monitoring/avoidance program, we are considering approaches for individual vessel accountability to further ensure that bycatch is minimized, including a bycatch threshold that would necessitate some period of time out of the fishery. The details of the program with Sea State are under development; further information will be provided for discussion at the November 2016 Pacific Council meeting.

[3] The Chinook ESUs that NMFS has concluded to be affected by the groundfish fisheries are Snake River fall Chinook, Upper Willamette River Chinook, Lower Columbia River Chinook, Puget Sound Chinook, Sacramento River winter-run Chinook, California coastal Chinook, and Central Valley spring-run Chinook (NMFS 2006). Earlier Biological Opinions concluded that trawl fisheries had negligible impacts on other salmon ESUs, including during periods prior to the SFFT requirement. (See NMFS Supplemental Biological Opinion on West Coast Groundfish FMP, 2006, pg. 4-5 describing trawl fishery impacts on non-Chinook salmon ESUs as "negligible")

The catch of salmonids other than Chinook will be tracked under this EFP, but based on low catch and negligible impacts described in prior BiOps, we do not propose a specific cap on other salmonids.

5. **Retention Requirement for Salmon Bycatch:** Participants in the EFP will be required to retain and land salmon bycatch on all EFP trips, consistent with current requirements for vessels participating in the shoreside Pacific whiting fishery. The Pacific whiting shorebased IFQ fishery generally retains unsorted catch, and most bycatch data on salmon are gathered on shore by catch monitors at the trip level. The intent of this provision is to provide for a complete census of salmon bycatch on trips in the EFP and maximize the amount of biological and genetic sampling of salmon bycatch.

   Shoreside processors will be encouraged to work with food banks to donate salmon bycatch suitable for human consumption, consistent with allowances under current regulations:

   §660.140 (g)(3)(C) Prohibited species suitable for human consumption at landing must be handled and stored to preserve the quality. Priority in disposition must be given to the donation to surplus food collection and distribution system operated and established to assist in bringing donated food to nonprofit charitable organizations and individuals for the purpose of reducing hunger and meeting nutritional needs.

6. **Monitoring/Reporting Requirements:** Current monitoring and reporting requirements for bottom trawl vessels in the IFQ fishery are proposed for EFP participants, including 100% at-sea observer coverage (or electronic monitoring (EM) if participating in one of the EM EFPs), as well as 100% dockside monitoring as required by Amendment 20 (50 C.F.R. 660.140(h)). This will continue to ensure that the harvest limits for targeted and incidental species are not exceeded and are accurately accounted.

   As previously mentioned, EFP vessels will also be required to report salmon bycatch to Sea State consistent with the provisions outlined in the agreement with Sea State (details TBD).

7. **Data Collection and Methodology:** This EFP includes several methods for data collection:

   - Data on catch and bycatch of all species will continue to be collected by at-sea observers and shoreside monitors consistent with current regulations for vessels participating in the bottom trawl fishery.

   - As previously noted, EFP participants will work with Sea State Inc. to monitor salmon bycatch as close to real-time as possible and avoid/minimize bycatch as the EFP progresses (details TBD).

   - If necessary, we intend to seek assistance from the Pacific States Marine Fisheries Commission to compile salmon bycatch data from EFP trips on a weekly basis, which we can use to communicate to the fleet and work with EFP participants to avoid and reduce bycatch to the extent practicable. The intent, however, is for the industry to rely on a near real-time bycatch monitoring program with data provided by Sea State.

- In addition to ensuring accurate accounting and providing an opportunity for shoreside processors to work with local foodbanks to reduce waste while providing nutritious food to the public, the requirement to retain/land all salmon bycatch on EFP trips should **increase samples available or genetic testing** to determine how many Chinook have been harvested from each of the ESA-listed ESUs. As discussed further in Section 6.1 of this document (p. 20), additional genetic information could help inform future approaches to avoid sensitive ESUs and ultimately enhance the long-term management of both groundfish and salmon.

  We are exploring the possibility of including genetic sampling of all salmon bycatch in the EFP, using the established lab and process utilized by the salmon industry (the Collaborative Research on Oregon Ocean Salmon (Project CROOS) and the West Coast Salmon Genetic Stock Identification Collaboration (WCSGSI)). The methodology, opportunities, and timing for additional genetic sampling will depend on the additional cost. Options are being explored, and the details are TBD. Ideally, genetic sampling could determine how many Chinook and coho salmon have been harvested from each specific ESU with a 24- to 48-hour turnaround time, which could be extremely helpful in a bycatch avoidance program. However, if the cost of near real-time genetic analysis is too prohibitive for the EFP, the requirement to land all of the salmon bycatch and sample all of the fish shoreside will at least increase the amount of samples available for genetic testing, particularly early in the year when data are lacking.

8. **Additional EFP Provisions:** The following additional provisions would apply to EFP participants:

   - All quota required for the EFP will come from the EFP participants own IFQ quota accounts.
   - Regulations pertaining to landings, discards, and trip limits for all target and non-target species remain unchanged under this EFP.
   - All other provisions of EFP are consistent with the regulations for the groundfish bottom trawl fishery.

2.1 NUMBER OF VESSELS

The EFP will be open to all bottom trawl vessels participating in the shorebased IFQ fishery. However, in order to identify and limit the specific universe of participants, vessels will be required to notify NMFS of their interest in participating prior to the start of the EFP (see EFP Enrollment Provisions under #3 in Section 2.0). It is anticipated that NMFS would distribute a notice to the industry prior to the end of 2016, with a specified EFP enrollment deadline. To further ensure that Chinook bycatch can be accurately attributed to the EFP and to minimize the administrative burden related to frequent shifting in and out of the EFP, enrollment will be allowed once per month (at the beginning of the month), and enrollment for at least one month will be required.

The initial enrollment process will define the actual number of participants in the EFP. Table 1 provides some perspective on the potential number of vessels that may participate in the EFP by summarizing the number of active vessels in the shorebased IFQ fishery and the number of vessels that fish in each month. From 2011-2014, the number of vessels with non-whiting groundfish catch averaged **89** annually; an average of **85** of these vessels caught more than 10,000 pounds of non-whiting groundfish during the year. During 2014, **78** vessels caught more than 10,000 pounds of non-whiting groundfish.

When considering the timing of the opportunity afforded by this EFP combined with other fishing opportunities (crabbing, shrimp fishing, whiting and other midwater fishing opportunities starting May 15), a more realistic expectation regarding the number of vessels that will participate in this EFP is provided in "C" under Table 1 (*No. Vessels Making Non-Whiting Trips by Month*). The bulk of fishing activity under this EFP is likely to come early and late in the year – before the primary whiting season starts (Jan-April), and when pelagic rockfish fishing improves again in the late fall (Oct-Dec). From January – April, an average **39** vessels made non-whiting groundfish trips each month between 2011-2014; from October – December, an average **46** vessels made non-whiting groundfish trips each month. Vessels participating in this EFP will want to maximize their opportunities to catch all available groundfish species, not just rockfish. Towards this end, a percentage of vessels will likely to continue to target flatfish for at least part of the year.

Table 1 Annual Count of Vessels Participating in Shorebased IFQ Fishery

A. No. Vessels by Trip Type (All, Whiting, Non-Whiting)

B. No. Vessels Catching > 10,000 lbs. on Non-Whiting Trips, > 100,000 lbs. on Whiting Trips

C. No. Vessels Making Non-Whiting Trips by Month

A.

Year	All	Non-whiting	Whiting
2011	108	94	26
2012	106	89	25
2013	103	86	24
2014	102	85	25

B.

Year	All	Non-whiting	Whiting
2011	106	92	26
2012	105	88	25
2013	98	81	24
2014	95	78	25

C.

Month	2011	2012	2013	2014
Jan	23	27	29	34
Feb	31	32	35	43
Mar	41	46	49	51
Apr	45	43	52	38
May	41	38	36	36
Jun	46	41	37	32
Jul	47	40	36	33
Aug	54	51	43	33
Sep	55	55	50	47
Oct	56	54	55	46
Nov	47	50	44	40
Dec	49	46	34	32

Source: West Coast Groundfish, Shorebased IFQ Program First Look at 2014 (Matson, 2015)

The Oregon Trawl Commission and West Coast Seafood Processors Association polled participants in the shoreside groundfish fishery to obtain an initial estimate of the potential number of EFP participants. While the responses were incomplete and only preliminary, a total of 34 potential participants expressed interest. Based on this information, a reasonable upper bound on participation in the EFP is likely to be **45-50** boats, though actual participation will likely be less than that.

2.2 DURATION OF EFP

This EFP is proposed for one year **or** until full implementation of all of the measures contained in the FPAs for the Council's Gear Changes for the Pacific Coast Groundfish Fishery's Trawl Catch Share Program. While many vessels will opt to use midwater gear to pursue rockfish once the primary whiting season starts on May 15, many smaller vessels are not equipped to fish with midwater gear. They may wish to continue to take advantage of the opportunity provided by the EFP until the regulations formally removing the SFFT, minimum mesh size restrictions and the other components of that package are implemented.

If the Council's trawl gear change package is not implemented by NMFS during 2017, then the intent is to automatically extend the EFP for the 2018 fishing year (with a 4,500-Chinook bycatch cap) to maintain the opportunity to target rockfish shoreward of the RCA until final NMFS action on the Council gear recommendations. At this time, we do not NMFS action on the trawl gear change package to be delayed into 2018.

Timing Considerations

The bulk of landings from EFP participants are likely to come early and late in the year – before the primary whiting season starts (between January and May), and when pelagic rockfish fishing improves again in the late fall (October –December).

It is critical that this opportunity be available early in the year for several reasons. First, increased ACLs for widow and canary rockfish will go in place on January 1, 2017, but without an EFP or implementation of the entire gear package, access to those increased ACLs will not be available until May 15, 2017. The fleet would lose nearly 40% of the fishing year. Further, it will be difficult to take advantage of abundant rockfish populations with a May start because shrimp and whiting seasons will also be underway at that point limiting available processing capacity and filling markets with rockfish taken as bycatch in those fisheries. Finally, consumer demand is higher around Lent and lower over the summer (grilling season).

Accessing consumer demand requires months of preparation. Processors and distributors, working with retailers, plan promotions three to four months in advance, so that:

- Processors can work with fishermen to ensure delivery of product;
- Processing employees can be trained and filet stations made available at the plant;
- Trucking and delivery logistics can be arranged;
- Retail seafood case space acquired;
- Retail ads designed and printed;
- Retail staff educated and trained to answer questions;
- Related marketing materials and products are available at the seafood counters or points of sale.

Thus, marketing rockfish when seafood demand is high -- during Lent -- will help ensure rockfish will remain in retail seafood sections at times when seafood demand is less, such as summertime, when consumer interests favor other proteins. Trying to begin a marketing initiative when seafood demand is low will be twice as difficult. If the timing of this effort is not well-coordinated, it may not be possible to determine feasibility re-establishing the winter rockfish markets. As a consequence, the whole seafood industry could miss a prime opportunity and infrastructure may be lost.

2.3 FISHING AREAS/SEASONS

Participants in this EFP will fish primarily north of the 40-10 line and shoreward of the RCA boundaries. As previously noted, given other fishing opportunities, The bulk of fishing activity under this EFP is likely to come early and late in the year – before the primary whiting season starts (Jan-April), and when pelagic rockfish fishing improves again in the late fall (Oct-Dec).

Most of the midwater rockfish effort will likely take place off of Oregon, from Charleston to the Columbia River and shoreward of the RCA. Yellowtail rockfish, one of the main species targeted in midwater fishing due to its pelagic nature, is distributed from southern California to the Gulf of Alaska, so it's probably some effort will take place in northern California and Washington as well. Fishermen will probably target yellowtail in the first few months of the year, prior to the traditional midwater fishing season that runs concurrent with the Pacific whiting season.

Once some of the fishermen participating in this EFP switch to traditional midwater gear in order to fish within the RCA boundaries, the remaining EFP participants will target a variety of rockfish and fishing effort will be distributed more evenly from central California to northern Washington.

Widow rockfish, also a pelagic rockfish with distribution similar to yellowtail, will likely be targeted later in the year, in the fall and winter.

3.0 TARGET SPECIES, NON-TARGET SPECIES, AND PROTECTED RESOURCES

3.1 TARGET SPECIES

There are a number of target species in the groundfish fishery, which differ based on fishing strategy, area, and time of year. This EFP is focused on redeveloping the directed rockfish fishery with a modified bottom trawl to catch primarily widow rockfish, yellowtail rockfish, and chilipepper rockfish. The annual catch limit for canary rockfish, which previously acted as a major choke to harvesting these and other species, is increasing significantly, providing greater opportunity to target widow, yellowtail, and chilipepper rockfish as well as other valuable shelf species. According to the most recent stock assessments:

- Widow rockfish is considered rebuilt (He et al. 2011).
- Spawning biomass of yellowtail rockfish has remained above 40 percent of unfished spawning biomass since 1995. Annual fishing mortalities have been less than F_{MSY} since 1997, due to more restrictive regulations put in place to rebuild other overfished rockfishes (Wallace and Lai 2005).
- Chilipepper rockfish was approximately 70 percent of its unfished spawning biomass, and the exploitation rate has rarely exceeded the current target. From the late 1990s through the present, exploitation rates have been declining significantly, as a result of management measures implemented to rebuild other depleted rockfish species (Field 2007).

- A full assessment of canary rockfish was conducted in 2015 (Thorson and Wetzel 2015), which indicated the stock was rebuilt with a depletion of 56% at the start of 2015.

Table 2 describes the groundfish trawl allocations for a number of target species 2017 relative to 2016, highlighting a dramatic increase in quota for almost every stock (target stocks for this EFP are shaded in grey). The 2017 allocations of chilipepper and widow rockfish are increasing 161% and 802%, respectively, from 2016 allocations. Table 3 summarizes average historical and recent catches of the EFP target stocks relative to the 2017 trawl allocations. The 2017 trawl allocations for the target rockfish species under this EFP represent a huge increase from recent and historical average catches in all cases. Widow rockfish catch could increase 25 times the 2011-2015 average under the 2017 allocation. This highlights the potential for a renewed directed rockfish fishery rivaling the historically high catches of the 1990s.

Table 2 2017 Trawl Allocations (Pounds) Compared to 2016 Allocations for Key Groundfish Stocks

	2016 Trawl Allocation	2017 Trawl Allocation	2017 QP % of 2016 QP	Increase in Poundage
Arrowtooth flounder	6,687,458	24,362,153	364%	17,674,695
Bocaccio rockfish	187,437	666,671	356%	479,234
Canary rockfish	98,062	2,235,685	2280%	2,137,623
Chilipepper rockfish	2,637,280	4,234,596	161%	1,597,316
Darkblotched rockfish	645,536	1,119,055	173%	473,519
Dover sole	101,370,312	101,369,713	100%	-599
English sole	14,631,287	20,411,510	140%	5,780,223
Lingcod N.	2,388,422	2,997,595	126%	609,173
Lingcod S.	929,491	1,232,151	133%	302,660
Pacific ocean perch	273,704	437,172	160%	163,468
Petrale sole	5,805,653	6,052,509	104%	246,856
Sablefish North	5,315,874	6,151,054	116%	835,180
Widow rockfish	3,131,931	25,116,346	802%	21,984,415
Yellowtail rockfish	9,648,906	9,360,952	97%	-287,954

Table 3 Average Historical and Recent Catch (Pounds) of Target Species Compared to 2017 Trawl Allocations

	Average 1995-1999	Average 2001-2010	Landings 2011-2015	2017 Trawl Allocation
Chilipepper Rockfish	2,861,986	299,828	575,406	4,234,596
Widow Rockfish	10,937,672	608,475	1,016,330	25,116,346
Yellowtail Rockfish	5,792,916	1,466,072	3,044,580	9,360,952
Total	19,592,574	2,374,375	4,636,316	38,711,894

3.2 NON-TARGET SPECIES AND PROTECTED RESOURCES

Non-Target Species

Non-target species in the groundfish bottom trawl fishery are described in Section 3.2.2 of the March 2016 Draft EIS for the Council's trawl gear change package. We do not anticipate that EFP fishing will lead to a significant increase in catch of non-target species relative to non-EFP bottom trawl activity, even though target species catch is expected to increase significantly. On the contrary, the intent of the EFP is to reduce the incidental catch of some non-target species by providing groundfish fishermen more flexibility to configure their nets to more efficiently catch target species and reduce the catch of unwanted, overfished, and/or prohibited species.

ESA-Listed Species

The non-target species of particular concern under this EFP is ESA-listed Chinook salmon. The Chinook ESUs that NMFS has concluded to be affected by the groundfish fisheries are Snake River fall Chinook, Upper Willamette River Chinook, Lower Columbia River Chinook, Puget Sound Chinook, Sacramento River winter-run Chinook, California coastal Chinook, and Central Valley spring-run Chinook (NMFS 2006). Chinook bycatch is addressed and minimized to the extent practicable in this EFP – see additional discussion in Section 4.0.

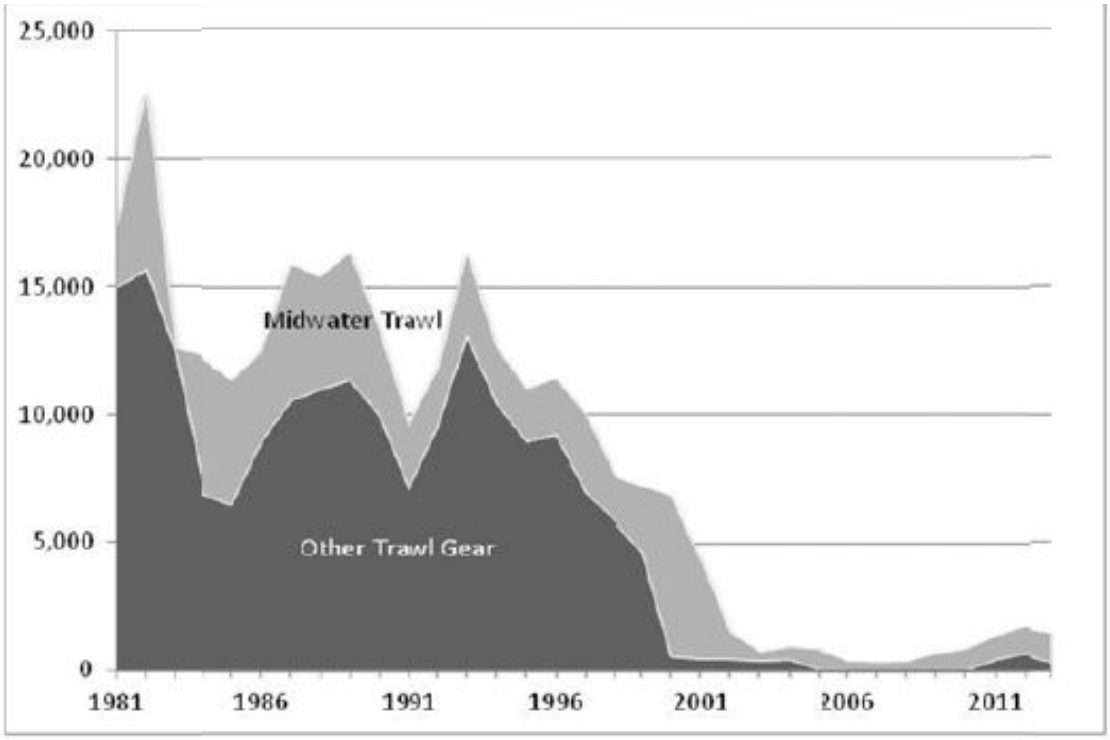
4.0 JUSTIFICATION/RATIONALE FOR THE EFP

This EFP directly addresses almost all of the EFP priorities identified by the Council in its Operating Procedures (see COP 19 regarding Consideration of Exempted Fishing Permits for Groundfish Fisheries) by emphasizing resource conservation and management with a focus on bycatch reduction, which is the Council's highest priority. It encourages innovative gear modifications and fishing strategies to reduce bycatch as well as the development of new market opportunities for the industry. By allowing this opportunity, the harvest of rockfish should increase considerably, which would enhance attainment of optimum yield in the groundfish fishery, consistent with National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

Elimination of SFFT and Mesh Requirements

Between 1980 and 2000, the shoreside trawl fishery landed more than 60 million pounds of rockfish annually, worth roughly $25-30 million in 2016 dollars. Rockfish landings declined precipitously in the early 2000s due to the declaration of a number of overfished rockfish species and corresponding measures, like the Rockfish Conservation Area (RCA) and SFFT, enacted to rebuild those populations. The following figure clearly illustrates the dramatic decline in widow and yellowtail landings in the early 2000s.

Figure 2 Landings of Widow and Yellowtail Rockfish by Trawl Gear Type, 1981-2013 (PFMC 2015)



Now, after more than 15 years of hard work by fishery managers and stakeholders, and sacrifice on the part of industry, several severely constraining overfished species have been declared rebuilt, and target rockfish populations are at abundant levels. The combined trawl quota for rockfish in 2017 exceeds 60 million pounds. Landing three quarters of that fish would double the value of the bottom trawl fishery bringing much needed revenue to struggling shoreside harvesters, processors and communities.

Coupled with the 2011 trawl catch-share program which allows us to know with near precision the total mortality associated with the fishery, and provides near real-time landings and discards information, there is a tremendous opportunity to have a significant rockfish fishery in 2017 for the first time in nearly two decades. In order to take advantage of that opportunity, we need to begin the careful removal of outdated regulations like the SFFT and minimum mesh size requirements.

Selective flatfish trawl gear (SFFT) was designed and implemented in regulation to reduce the bycatch of round fish such as rockfish and salmon, while increasing the catch of flatfish species. However, the two-seam design of the net makes it difficult to include some types of bycatch excluders. Eliminating the SFFT requirements would provide fishermen with more flexibility in designing their gear and would increase the opportunity for using bycatch reduction devices of different types. It is important to note that this does not eliminate the use of the selective flatfish trawl but rather expands the options available for fishermen to harvest in the most efficient manner possible.

Removal of the minimum mesh size requirements will enhance the opportunity provided by removing the SFFT requirement, and due to other incentives inherent in the IFQ program, will not result in a significant increase in catch of undersized and unmarketable fish or sensitive species. Specifically, removal of the minimum mesh size requirement will:

- Enhance the rockfish opportunity provided by removal of the SFFT because 4.5-inch mesh results in numerous gilled widow rockfish resulting in poor functioning of excluders and added deck time cleaning the net.
- Enhance the ability to design excluders – there may be places in the net where you don't want any fish to escape so that you can direct them to a sorting panel, or you want to manipulate the water flow with tighter web.
- Retain the strong economic incentives inherent in program to avoid undersized/unmarketable fish.

Chinook Salmon Bycatch Cap

Based on its 1999 ESA consultation/Biological Opinion, NMFS concluded that continued implementation of the Groundfish FMP would not jeopardize the existence of any of the listed (or proposed) salmonid ESUs at that time. The 2006 Supplemental Biological Opinion re-affirmed NMFS' 1999 no jeopardy conclusion and updated information relative to Chinook bycatch. The 2006 Supplemental Biological Opinion states that for species other than Chinook, it is apparent that bycatch in the groundfish fisheries is very low. Therefore, the effects of the Groundfish FMP on listed sockeye, chum, and coho ESUs, and steelhead DPSs were therefore determined to be negligible. The Chinook ESUs that NMFS concluded to

be affected by the groundfish fisheries are Snake River fall Chinook, Upper Willamette River Chinook, Lower Columbia River Chinook, Puget Sound Chinook, Sacramento River winter-run Chinook, California coastal Chinook, and Central Valley spring-run Chinook (NMFS 2006).

In the 2006 Supplemental Biological Opinion, ***NMFS concludes that bycatch of 9,000 salmon per year remains an appropriate benchmark that can be used to assess the need for further regulatory action in the fishery.*** NMFS further concludes that the *Incidental Take Statement in the 1999 Biological Opinion continues to adequately characterize the level of Chinook bycatch expected to occur as a result of implementing the Groundfish FMP*. The conclusions in the 1999 and 2006 Biological Opinions were based on fishery data from a time period where rockfish catch in the groundfish fishery was relatively high compared to recent catch (1990's – see Figure 2 on p. 13 and Table 4 on the following page). Fishing effort on the EFP target species (as well as other groundfish stocks) and catches by both bottom trawls and midwater trawls during the mid/late 1990s was much higher than current levels (shown in Table 2 and Table 3 on p. 11), and this effort was accounted for in the analyses to inform the Biological Opinion under which this fishery is currently operating.

Table 4 Catch (Pounds) of Target Species During Mid-Late 1990s

	1995	**1996**	**1997**	**1998**	**1999**
Widow Rockfish (Pounds)					
Midwater Trawl	3,424,023	2,714,861	3,745,846	1,221,401	3,794,858
Other Trawl	10,386,627	9,238,557	9,830,006	6,081,867	4,250,312
Total Widow	**13,810,650**	**11,953,417**	**13,575,852**	**7,303,269**	**8,045,170**
Yellowtail Rockfish (Pounds)					
Midwater Trawl	101,145	236,690	111,675	122,263	140,161
Other Trawl	8,898,345	9,035,900	3,143,863	3,769,379	3,405,157
Total	**8,999,490**	**9,272,590**	**3,255,538**	**3,891,643**	**3,545,318**
Chilipepper Rockfish (Pounds)					
Midwater Trawl	5,805	61,806	84,708	82	-
Other Trawl	3,462,688	3,172,373	3,330,810	2,410,243	1,781,416
Total	**3,468,493**	**3,234,179**	**3,415,518**	**2,410,324**	**1,781,416**

Source: PACFIN Database.

One of the primary objectives of this EFP is to better understand the nature and extent of salmon bycatch in a redeveloping fishery targeting pelagic rockfish species shoreward of the RCA. This EFP provides for a fishing opportunity that is necessary to improve attainment of optimum yield in the groundfish fishery and improve consistency of the Groundfish FMP with National Standard 1. However, it is equally as important to consider National Standard 9 (bycatch) and ESA requirements in order to balance the socioeconomic needs of the groundfish fishery with multiple conservation objectives. To achieve this balance, this EFP establishes a conservative salmon bycatch cap of 4,500 Chinook (per year) and includes industry-based initiatives for collecting information and working cooperatively to minimize

bycatch and operate the fishery within acceptable limits. Participants in the EFP will agree to actions to minimize bycatch (TBD) and will comply with all provisions specified in the EFP.

In June 2015, NMFS presented a detailed report on salmon bycatch in the groundfish fishery and briefed the Council on the process for reinitiating consultation and supplementing the 1999 Biological Opinion to further evaluate the take of listed Chinook salmon in the groundfish fishery. The proposed action in the updated Biological Opinion (not available at this time) is expected to consider upcoming Council actions which could affect salmon bycatch rates in the groundfish fishery (e.g., distribution of the fleets relative to area, depth, and time; changes in gear technology), including the re-development of a directed rockfish fishery through the elimination of the SFFT and other mesh/gear restrictions. Towards this end, this EFP will provide information necessary to better characterize salmon bycatch in this sector of the groundfish fishery and may better inform the ongoing salmon re-consultation. At the same time, the Chinook bycatch cap and provisions specified in the EFP will ensure that bycatch does not reach or exceed levels considered in the existing Biological Opinion.

Recent non-whiting bottom trawl and midwater trawl effort and chinook catch rates are summarized in Table 5. In 2014, midwater non-whiting fishing effort took 799 Chinook salmon. The use of midwater trawl gear for species other than whiting has been increasing since 2011 as rockfish species have continued to rebuild. Table 6 summarizes salmon bycatch (in terms of numbers of fish) by species and fishing sector in all of the West Coast groundfish fisheries from 2002-2014. During the 2002 to 2014 period, Chinook bycatch averaged 6,727 fish per year in the Pacific whiting fisheries, 3,067 fish per year in the bottom trawl fisheries, and 58 fish per year in the non-trawl fisheries. Since 2002, the groundfish fishery as a whole has exceeded 20,000 Chinook once in the 12 years between 2002 and 2013. The highest annual catch of Chinook occurred in 2003, when the groundfish fisheries took 23,013 Chinook. Since 2006, only a few hundred Chinook have been caught annually with bottom trawl. From 2009 to 2013, only six percent of the Chinook bycatch in the bottom trawl fishery has occurred south of 40°10’ N. lat. Chinook bycatch north of 40°10’ N. lat. has been fairly divided between the three geographic areas, with 36 percent caught north of Cape Falcon, 24 percent caught between Cape Falcon and Cape Blanco, and 34 percent caught from Cape Blanco to 40°10’ N. lat. (NMFS 2015).

Although this EFP allows the use of a modified bottom trawl through the elimination of the SFFT and mesh requirements, vessels will likely make modifications in order to fish their nets off the bottom to access pelagic rockfish species. Therefore, salmon bycatch levels may be more consistent with those observed for the non-whiting midwater trawl fishery; effort (trawl hours) is expected to be higher than recent observations in the midwater fishery. In turn, the proposed cap of 4,500 Chinook salmon will provide some opportunity to re-develop a directed pelagic rockfish fishery coupled with a conservative approach to ensure that EFP bycatch and overall bycatch will remain within acceptable limits. If Chinook salmon bycatch exceeds the 4,500 fish cap, then the EFP shuts down for the remainder of the year.

Table 5 Bottom and Midwater Non-Whiting Trawl Effort and Chinook Catch Rates, 2011-2014 (WGOP)

	Fishery	Year			
		2011	2012	2013	2014
Chinook	Bottom Trawl	179	298	315	966
	Midwater Non-whiting Trawl	c	69	78	799 a/
	Total		*367*	*393*	*1,765*
Trawl Hours	Bottom Trawl	39,901	37,896	41,819	34,023
	Midwater Non-whiting Trawl	c	931	1,525	2,315 b/
	Total		*38,827*	*43,344*	*36,338*
Chinook per hour	Bottom Trawl	0.004	0.008	0.008	0.028
	Midwater Non-whiting Trawl	c	0.074	0.051	0.345 d/
	Total		*0.009*	*0.009*	*0.049*

a/ 658 Chinook occurred in depths from 0-100 fm and 141 Chinook occurred in depths >100 fm.
b/ 1,786 hours occurred in depths from 0-100 fm and 529 hours occurred in depths >100 fm.
c/ Confidential
d/ Chinook per hour was 0.368 in depths between 0 and 100 fm and 0.267 in depths >100 fm.

Table 6 Salmon Bycatch (Numbers of Fish) by Species and Fishing Sector in West Coast Groundfish Fisheries, 2002-2014 (NMFS 2015)

Fishery	Species	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 a/
At-Sea whiting	Chinook	1,679	2,648	805	3,963	1,209	1,321	722	319	714	3,990	4,232	3,737	6,685
	Coho	146	3	1	86	28	227	21	12	0	5	17	6	108
	Chum	24	11	52	20	88	170	60	41	10	46	53	26	4
	Pink	0	17	0	48	0	34	0	2	0	12	22	37	0
	Sockeye	0	0	0	0	0	0	2	0	2	0	0	0	0
Shorebased whiting	Chinook	1,062	425	4,206	4,018	839	2,462	1,962	378	2,997	3,727	2,333	1,313	7,554
	Coho	14	0	8	37	18	141	10	37	16	137	15	33	175
	Chum	72	0	43	6	3	113	8	2	8	42	3	8	4
	Pink	0	0	0	49	0	47	7	26	0	6,113	2	2	0
	Sockeye	0	0	0	0	0	0	0	0	0	2	0	0	1
	Steelhead	0	0	0	0	0	0	0	0	0	0	0	0	2
Tribal whiting c/	Chinook	1,018	3,439	3,740	3,985	1,940	2,404	697	2,147	678	906	17	1,025	154
	Coho	23	193	207	344	3	107	21	57	5	27	0	91	0
	Chum	51	9	11	2	24	8	11	11	1	23	0	1	0
	Pink	0	3,766	0	384	0	513	9	129	0	1,190	0	5	0
	Sockeye	0	0	0	0	0	0	0	0	0	2	0	0	0
Bottom trawl d/	Chinook	14,915	16,460	2221	1,242	175	317	324	299	53	175	304	323	NA
	Coho	25	31	65	5	48	13	0	0	31	20	27	49	NA
	Chum	14	36	4	0	0	0	0	0	0	0	0	0	NA
	Pink	0	0	0	0	0	0	0	2	0	0	2	0	NA
	Sockeye	0	0	0	0	0	0	0	0	0	1	0	0	NA
Non-trawl gear	Chinook	0	41	33	32	20	0	0	22	33	40	66	404	NA
	Coho	0	5	38	6	0	15	42	71	42	64	16	581	NA
	Chum	0	0	0	0	0	0	0	0	0	0	0	0	NA
	Pink	0	0	0	0	0	0	0	0	0	0	0	0	NA
	Sockeye	0	0	0	0	0	0	0	0	0	0	0	0	NA

a/ Preliminary data
b/ Includes approximately 19 Chinook in 2011, 69 Chinook in 2012, and 78 Chinook in 2013 from midwater non-whiting targeting north of 40°10' north latitude.
c/ Tribal non-whiting values were not available
d/ Between 2011 and 2013 includes 1-2 Chinook from vessel targeting Pacific whiting with bottom trawl

The proposed salmon bycatch cap in this EFP (4,500 Chinook) is a conservative approach to address salmon bycatch because (1) it represents 50% of the threshold for the bottom trawl fishery, which has taken a few hundred Chinook annually since 2006 (see Table 6); and (2) it shuts down the EFP when it is reached. The bycatch cap is not a threshold or benchmark; it is a hard cap, so the range of potential impacts can be well-predicted. The short duration of this EFP (1-2 years) and the provisions established in the EFP ensure that any impacts from salmon bycatch would be short-term in nature and could be mitigated quickly. Unless salmon bycatch in other sectors of the bottom trawl fishery increases significantly, it is not expected that this EFP would cause the 9,000 Chinook threshold to be exceeded.

5.0 BROADER SIGNIFICANCE

The groundfish trawl catch share program was designed to:

Create and implement a capacity rationalization plan that increases net economic benefits, creates individual economic stability, provides for full utilization of the trawl sector allocation, considers environmental impacts, and achieves individual accountability of catch and bycatch. (TRAT FEIS, page 5, June 2010).

That broad goal is supported by the following objectives:

1. Provide a mechanism for total catch accounting.
2. Provide for a viable, profitable, and efficient groundfish fishery.
3. Promote practices that reduce bycatch and discard mortality and minimize ecological impacts.
4. Increase operational flexibility.
5. Minimize adverse effects from an IFQ program on fishing communities and other fisheries to the extent practical.
6. Promote measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry.
7. Provide quality product for the consumer.
8. Increase safety in the fishery.

While aspects of the overarching goal and a number of the specific objectives related to accountability, bycatch reduction and minimization of ecological impact have undoubtedly been achieved, we have yet to see any significant progress on the economic objectives, particularly for the bottom trawl fleet. Specifically, the program has so far failed to promote measurable economic and employment benefits for industry, and has not resulted in anything close to full utilization of the trawl sector allocation. In fact, overall landings were only about 20% of the allocation in 2015, and the average pounds landed under the catch share program have been lower than in the several years pre-catch shares. Coupled

with high costs of participation in the program stemming from the 3% LAPP fee and the requirement for 100% industry-funded at-sea and dockside monitoring, low attainment is creating economic hardship for many fishermen and processors. Demonstrating that removal of outdated regulations, like the SFFT, enacted under a completely different management regime, can occur without adverse outcomes for salmon or other species of concern will allow the Council and NMFS to begin to peel back the layers of duplicative regulation to ultimately foster an efficient, profitable groundfish fishery that achieves the goals of Amendment 20.

6.0 POTENTIAL IMPACTS

Overall, the impacts of the EFP are not expected to be significant and are anticipated to be well within the range of impacts analyzed as part of the Council's trawl gear change package. The additional limitations proposed in the EFP, such as the Chinook salmon bycatch cap and industry-based bycatch monitoring/avoidance program, are more conservative than the measures that are expected to be implemented by NMFS fleet-wide within a year.

6.1 BIOLOGICAL/CONSERVATION IMPACTS

With the exception of a potential impact on salmon, the biological/conservation impacts of the EFP are expected to be neutral or negligible. The impacts on salmon are addressed and minimized to the extent practicable through the establishment of a hard bycatch cap for Chinook salmon that would shut down the EFP at a level that is well below the bycatch threshold specified in the Salmon ESA consultation, as well as an industry-based bycatch monitoring/avoidance program administered through Sea State Inc. (details TBD). The potential impacts of the EFP on target, non-target species, and protected resources are discussed below.

Impacts on Target Species

Removing the selective flatfish trawl requirement provides fishermen with more flexibility in the types of small footrope trawl gear they use shoreward of the RCA coastwide. This should allow them to more effectively target some groundfish species. Fishermen could still use selective flatfish trawl gear shoreward of the RCA coastwide; however, regulations would not require it shoreward of the RCA north of 40°10' N. latitude. In other words, it would remain a fishing gear available for use by fishermen, but its use would not be required. This would give fishermen more flexibility in their fishing strategies shoreward of the RCA. They could target flatfish and reduce rockfish bycatch with selective flatfish trawl gear, or they could target other groundfish species with small footrope trawl gear that did not have a cut-back headrope.

Catches of target species under this EFP are expected to increase substantially above recent levels but will remain within the conservation limits set forth in the groundfish harvest specifications. All catch is expected to be monitored, reported, and counted against each stocks' ACLs, consistent with current provisions in the Groundfish FMP. Nothing proposed in this EFP should affect the monitoring and accounting of target species catch, and nothing proposed in this EFP would allow for catch beyond the limits provided in the harvest specifications. Target species would continue to be managed to sustainable levels with individual accountability and 100 percent monitoring. For these reasons, the impacts of the EFP on target species are expected to be neutral (i.e., within the range of impacts analyzed under the 2017-2018 harvest specifications).

Impacts on Non-Target Species

For many non-target species, the impacts of the EFP are expected to be negligible or low positive. Allowing two-seam or four-seam nets would provide fishermen with more flexibility in designing their gear and would increase the opportunity for using different types of bycatch reduction devices. Increasing the options for bycatch reduction devices would reduce the catch of certain unwanted species, possibly including some important ecosystem species. This could have a low positive impact by reducing the incidental catch of some non-target species, which also improves stock productivity by keeping more of those fish in the ecosystem. Non-target species, including overfished species and most non-target, non-groundfish species, would continue to be 100 percent monitored under the provisions in the trawl catch share program. In addition, the WCGOP Groundfish Mortality Report would provide annual information and catch trends.

Impacts on Protected Resources

The EFP could have a low negative impact on ESA listed Chinook salmon if more salmon are caught under the EFP relative to the status quo. Based on information in the 2006 Biological Opinion, increased rockfish effort early in the year and the removal of the selective flatfish trawl requirement may increase salmon bycatch, but the nature and extent to which bycatch may increase, and the resulting impacts on specific ESUs cannot be quantified at this time. The duration of the EFP (1-2 years) ensures any potential negative impacts would be short-term and not significant in terms of salmon conservation, recovery, and restoration.

The 2006 Biological Opinion reaffirms conclusions reached in the 1999 Biological Opinion regarding the impacts of the groundfish fishery on Chinook salmon, including the 9,000-fish threshold for the bottom trawl fishery, which was determined based on fishery data from a time period when catches of the EFP target species were much higher than in recent years. Therefore, some proportion of increased effort/catch of these species was accounted for in the analyses to support the existing Biological Opinion. More importantly, the EFP provides a mechanism to collect much-needed data about the nature and extent of salmon bycatch in the re-emerging pelagic fishery for rockfish, particularly early in the year. This information is critical to inform the updated Supplemental Biological Opinion for Chinook salmon (currently under development).

In addition, as discussed in Section 2.0, there may be an opportunity to collect additional genetic information to determine the catch of specific Chinook ESUs under the EFP (details TBD). This could help address important research questions related to salmon stock aggregation and migratory patterns. If additional/real-time genetic testing cannot be incorporated into the EFP, the requirement to land and sample all salmon shoreside on EFP trips will significantly increase the number of available samples which can be tested for genetic identification as resources are available. Additional genetic identification and monitoring has several advantages:

- It would provide information to estimate stock distribution and fish behavior outside of normal salmon seasons;
- The information would be added to the existing dataset used by scientists, managers and fishermen to inform future management decisions;
- The growing dataset would also be used to inform future seasonal, regional, decadal and global climate change on the distribution of salmon stocks.
- Better predicting when and where salmon stocks move can provide managers with important tools to allow more access to strong stocks while protecting weaker stocks.

The data collected through this EFP will inform and enhance the conservation and management of both groundfish and salmon. To the extent that the information collected through this EFP contributes to the understanding of Chinook salmon ESU distribution, migration, and interaction with other fisheries, the overall long-term benefits are likely to be positive.

Furthermore, to address and minimize any impacts on Chinook salmon to the extent practicable, this EFP proposes a hard bycatch cap for Chinook that would shut down the EFP at a level well below the bycatch threshold specified in the Salmon Biological Opinion, as well as an industry-based bycatch monitoring/avoidance program to be administered through Sea State Inc. Based on Chinook salmon bycatch in the bottom trawl fishery in the first several years of the IFQ program, it appears highly unlikely that combined EFP and non-EFP Chinook salmon bycatch will exceed the 9,000 fish threshold.

6.2 SOCIO-ECONOMIC IMPACTS

The economic and social impacts of this EFP are expected to be extremely positive for groundfish fishery participants, processors, and fishing communities.

Eliminating the selective flatfish trawl requirement will allow fishermen to optimize their gear to better take advantage of available quotas. Increased rockfish attainment in particular, made possible by removing the requirement to use a net designed to avoid rockfish, is likely to help address several of the key economic challenges experienced to date under Amendment 20 – high costs, reduced landings, and poor market conditions associated at least in part with low and inconsistent harvest volume. Measurable positive impacts will be most closely correlated with the extent of the increase in rockfish landings, but even a modest increase will improve ex-vessel revenue by several million dollars, enhance

processor revenue, and lead directly to additional job opportunities on the filet line and in other fishery support positions. The removal of the SFFT will also allow for the use of both two and four seam nets. That should facilitate use of a broader array of excluder devices which could help fishermen avoid constraining and other undesirable species thereby reducing expenditures to acquire quota.

Eliminating mesh restrictions would provide fishermen with maximum flexibility when choosing mesh size to optimize the life span and functionality of their nets. This could lead to decreased industry concerns about potential violations, and it would potentially save on financial costs related to fines and legal fees resulting from infractions. Fishermen could potentially increase the efficiency of their gear, perhaps using smaller mesh size around stress and wear points to lengthen the life of the net, in particular around excluders. Removing the mesh size restriction will also work synergistically with the removal of the SFFT. Widow rockfish commonly become “gilled” in 4.5 inch mesh. Allowing smaller mesh size will reduce sorting time sorting on deck, thereby reducing overall trip time, and resulting in a cost benefit to fishermen.

The economic benefits that are likely to result from this EFP cannot be emphasized enough. As rockfish stocks have rebuilt to sustainable levels, catches have been significantly restricted, and this has had a significant negative economic impact on participants in the shoreside IFQ fishery. It also has had a ripple effect throughout the shoreside infrastructure in many West Coast communities. Reduced catches under the groundfish IFQ program have made it impossible to maintain year-round employees in many non-whiting groundfish processing plants. As these employment opportunities are lost, skilled laborers and filleters are lost, and these jobs are very difficult and expensive to replace. Additionally, without a consistent and year-round supply of groundfish, access to important markets has been lost, like the fresh rockfish market that this EFP intends to redevelop. In most cases, West Coast groundfish have been replaced in the marketplace with price-competitive and quality-competitive species like tilapia, swai fish, and catfish. Regaining access to these markets is going to be an uphill battle; it will not be easy, nor will it happen overnight. It will take a tremendous effort, foresight, and planning by fishermen and processors, and it requires support from the Council/NMFS to ensure that access to healthy groundfish stocks can be provided as expeditiously as possible. Consistent with the purpose and need described in Section 1.1 of this proposal (p. 1), if implemented in a timely manner, this EFP will be a significant step towards regaining access to rockfish markets, which is critical to ensure the long-term economic success of the groundfish fishery.