NATIONAL MARINE FISHERIES SERVICE REPORT ON THE 2018 TRAWL GEAR EXEMPTED FISHING PERMIT APPLICATION AND UPDATE ON THE 2017 TRAWL GEAR EXEMPTED FISHING PERMIT ACTIVITIES

The National Marine Fisheries Service (NMFS) is providing this report to (1) update the Pacific Fishery Management Council (Council) on the status of the 2017 trawl gear exempted fishing permit (EFP) and associated fishing activities, (2) assist the Council in its review and consideration of the trawl gear EFP application for 2018, and (3) provide responses to requests made of NMFS by the Council at its June 2017 Council meeting in Spokane, Washington on the declaration process and potential EFP fishing between 42° North latitude (N. lat.) and 40°10' N. lat.

2017 Trawl Gear EFP Update

The 2017 Trawl Gear EFP has continued showing high catch rates of groundfish while encountering very few salmon and no eulachon. As of September 6, 2017, the EFP has caught four salmon, no eulachon, and over two million pounds of groundfish on 43 trips. The non-EFP boats have caught 17 salmon, no eulachon, and more than six million pounds of groundfish on 81 trips. See Table 1.

Table 1. EFP and Non-whiting midwater (non-EFP) catches as of September 6, 2017 (Source: Pacific	
States Marine Fisheries Commission).	

Year	Vessels	Trips	Chinook	Coho	Green Sturgeon	Eulachon	Groundfish (lbs)
2017 EFP	9	43	4	0	0	0	2,123,796
2017 midwater non-whiting	14	81	17	0	0	0	6,990,764

2018 Trawl Gear EFP Proposal Review and Recommendations

The application for the 2018 trawl gear EFP proposes (1) a continuation of the 2017 trawl gear EFP, (2) addition of other elements of the Council's trawl gear rulemaking package (Table 2), (3) an exemption for non-whiting midwater trawl vessels from the prohibition on fishing prior to May 15th, and (4) an allowance for midwater fishing inside the rockfish conservation area (RCA) prior to May 15th. After reviewing the August 10th draft proposal provided to NMFS by the applicants, NMFS offers the following comments on the proposal.

Table 2. 2017 Trawl Gear EFP Elements and 2018 trawl gear EFP proposal elements that were first proposed in the trawl gear rulemaking package. The rulemaking package was recommended by the Council at their March 2016 meeting.

2017 Trawl Gear EFP Proposal	2018 Trawl Gear Proposal Elements
Elements	
Exemption to the requirement to use	Same
selective flatfish trawl gear (50 CFR	
660.130(c)(2))	
Exemption from the minimum mesh	Same
size of 4.5 inches for bottom trawl	
(§660.130(b)(2))	
Not included	Exemption from the minimum mesh size and 3 inches for
	midwater trawl (§660.130(b)(2))
Not included	Change the requirement for how mesh size is measured
	(§660.11(7))
Not included	Exemption to the chafing gear requirements for bottom trawl
	and midwater trawl (§660.130)
Not included	Exemption to the codend requirement (§660.130)
Not included	Exemption to the prohibition on bringing a new haul on board
	before a previous haul is stowed (§660.130)
Not included	Exemption to the prohibition of multiple gears onboard
	(would allow both midwater and bottom trawl gears to be
	carried onboard and fished on the same trip) (§660.130)

A. Elements of the 2017 Trawl Gear EFP

NMFS believes that the elements included in the 2017 trawl gear EFP, which include those listed above in Table 2, along with the Chinook salmon harvest guideline (HG) and sub-HG, prohibition on fishing within the Columbia River Salmon Conservation Zone, and 100 percent monitoring, through the use of either electronic monitoring or observers) should be included in the 2018 trawl gear EFP. NMFS believes that industry has done a very good job performing under the 2017 trawl gear EFP in regard to reducing salmon impacts, and the agency is interested in continuing to collect information on catch and bycatch in the Pacific Coast groundfish rockfish fishery. However, NMFS would like to stress the need for haul-level data from the 2017 trawl gear EFP to fully inform what, where, and when the take of prohibited species occurred.

B. Trawl Gear Package Elements

In addition to the elements in the 2017 trawl gear EFP, the applicants are proposing six additional elements from the trawl gear rulemaking package in their 2018 trawl gear EFP application. Four of these elements (exemption from the minimum mesh size for midwater trawl, changing how mesh is measured, exemption to the chafing gear requirements, and exemption to the codend requirements) are related to the minimum mesh size exemption provided in the 2017 trawl gear EFP for bottom trawl vessels, as they all have to do with how gear is configured. The other two elements from the trawl gear rulemaking package that are included in the applicant's proposal – an exemption to the prohibition against bottom trawl and midwater gears on board at the same time and an exemption to the prohibition on bringing a new haul on board before the previous haul is stowed – have potential impacts related to catch accounting.

Elements Related to Gear Configuration

NMFS believes that there is benefit in allowing an exemption to the minimum mesh size for midwater trawling. Currently, the midwater trawl mesh size is required to be a minimum of 3 inches (7.6 cm). Much like the bottom trawl vessels, providing an exemption for the minimum mesh size for midwater trawling could potentially reduce the amount of fish that are "gilled" in the net (caught by the gills in the net) and, as a result are unmarketable. While there is some risk that providing this exemption could result in the harvesting of smaller and juvenile fish, individual fishing quotas (IFQ) create an incentive to reduce the catch of small and juvenile fish that are unmarketable and this additional element will not change when or where fishing occurs.

In addition to the exemption regarding the minimum mesh size, the applicants are also seeking an exemption from the chafing gear and codend requirements. After minimum mesh sizes were implemented in the 1980s, NMFS implemented regulations regarding the use and placement of chafing gear and the codend. NMFS has concerns with providing further exemptions to protective measures which were originally implemented to protect smaller and juvenile fish and bottom habitats.

Chafing gear is a webbing, or other material that attaches to the codend and is meant to protect trawl nets from wear and damage from bottom contact and contact with the vessel during net retrieval. In 2012, the Council took action to address an issue with the definition of chafing gear for midwater vessels and better align it with the definition used by the North Pacific Fishery Management Council (NPFMC). At that time, the requirements were updated to allow for more of the net to be covered with chafing gear. During development of that action, the Council also considered development of an alternative to eliminate all chafing gear restrictions as they apply to midwater trawl gear. That alternative was not developed for further consideration because it would have allowed for up to 100 percent chafing gear coverage of the net, including the main body and the codend, which could be prevent small fish from escaping the net and could encourage fishing on or near the ocean bottom where there can be impacts to bottom habitats and organisms in those areas.¹

The codend is the terminal, closed end of a trawl net. Under current regulations, only singlewalled codends are permitted for use in any trawl. Double-walled codends are prohibited. The 2018 trawl gear EFP proposes an exemption to the codend requirements, which would allow the fleet to configure their chafing gear and codend as they like. This would also allow for doublewalled codends, and chafing gear could be used to create a double-walled codend.

The combination of all the changes to how the gear is configured could change how the fleets fish. It could allow trawl vessels access to areas they haven't been fishing which are closer to the seafloor, including in rocky or hard surface habitats, because of the added protection from the chafing gear. NMFS believes that these actions still need to be investigated as to how gear would be configured and where it would be fished if these requirements and restrictions are removed. Additionally, NMFS has concerns with the potential cumulative impacts of all the changes to how

¹ See the final environmental assessment for the midwater clean-up rule prepared by NMFS in April 2015: http://www.westcoast.fisheries.noaa.gov/publications/nepa/groundfish/misc_ea/midwatertrawlcleanupea.pdf

gear is configured and whether or not these changes could negatively impact small or juvenile fish, particularly eulachon.

Elements Related to Catch Accounting

The last two elements of the trawl gear rule package that are proposed in the 2018 trawl gear EFP relate to catch accounting and reporting (Table 2). The EFP proposal includes an exemption that would allow multiple trawl gears, including both midwater and bottom trawl gear, to be onboard the vessel at the same time and fished on the same trip.² Vessels would need to declare into each fishery each time they change gears (See the section on *Declarations* below.) The applicants are also proposing that catch would be separated by gear type and recorded on separate fish tickets (or a separate line of the same fish ticket) by gear type.

Currently, observers can and do identify and record the type of net being used on each haul. However, on vessels using electronic monitoring (EM), video reviewers do not attempt to identify the type of trawl gear being used. Additionally, the applicants are proposing to require that catch from different gears be sorted and stowed separately by gear type. Observers and EM are currently not capable of monitoring sorting and stowage of catch below decks and would not be able to verify that catch remained separate by gear. Additionally, as the Enforcement Committee (EC) stated in their supplemental report at the Council's September 2015 meeting, allowing sorting and stowing by different gears would require enforcement to rely solely on observer or video data to determine if catch is properly sorted and documented as required.³ Therefore, the Council should assume for now that our monitoring programs will not be able to verify compliance with the requirement to keep catch separate by gear.

When the Council initially discussed this requirement, to stow catch separately by gear and area, during final action in March 2016 on the trawl gear rulemaking package, members of the GAP and the public raised concerns with their ability to comply with this requirement due to limited space on vessels. For example, vessels with refrigerated seawater tanks have a limited number of tanks and may not be able to separate catch according to gear type. Some also raised concerns that complying with this requirement could affect weight distribution on their vessels, possibly causing unsafe conditions. At the same March meeting, the Groundfish Management Team (GMT) spoke to their concerns with maintaining proper accounting of removals by gear type and the need for haul-level data on discards, especially for boats with EM.

NMFS agrees with the EC's and GMT's concerns about our ability to get useful data from the proposed EFP, particularly if catch is not kept separate by gear. Additionally, ensuring that

² Current regulations for vessels fishing north of $40^{\circ}10^{\circ}$ N. lat. do not allow both groundfish trawl gear and nongroundfish trawl gear on board simultaneously. Nor do the regulations allow a vessel to have both bottom groundfish trawl gear and midwater groundfish trawl gear onboard simultaneously. However, a vessel may have more than one type of limited entry bottom trawl gear on board, either simultaneously or successively, during a cumulative limit period. A vessel may also have more than one type of midwater groundfish trawl gear on board, either simultaneously or successively, during a cumulative limit period. For vessels fishing south of $40^{\circ}10^{\circ}$ N. lat. the same prohibitions apply for groundfish trawl and non-groundfish trawl, and bottom trawl and midwater trawl. Additionally, vessels fishing in this area are prohibited from having small footrope trawl gear onboard with any other type of bottom trawl gear onboard simultaneously.

³ Supplemental Enforcement Committee Report, Agenda Item H.2.a, September 2015: http://www.pcouncil.org/wp-content/uploads/2015/09/H2a_SUP_EC_Rpt_SEPT2015BB.pdf

bycatch is separated and recorded by haul is necessary to help fully inform the potential impacts of trawl gear rule package. When dealing with prohibited species, particularly salmon which has some stocks listed under the Endangered Species Act (ESA) and others not, it is very important to know when, where, and how the salmon have been fished. Getting information only on the type of gear used during the trip would not provide the necessary information to NMFS.

Finally, the applicants propose allowing vessels to bring a new haul on board and dump it on the deck before all catch from the previous haul has been stowed. The proposal prohibits mixing of hauls on boats that have observers until observers have collected their samples. Under the current regulations, vessels are required to stow a previous haul before another haul can be dumped on to the deck. This includes allowing time for observers to take samples before the catch is fully stowed.

NMFS understands the efficiencies that could be gained by industry by allowing a new haul to be brought on board before stowing of the previous catch. The potential implementation issue NMFS may have is that for EM vessels catch handling instructions in individual monitoring plans may need to be updated to ensure that video reviewers can differentiate catch from different hauls. For example, discards from each haul would have to be kept separate and discarded separately so that video reviewers can accurately attribute discards to a haul. Additionally, if the applicants are allowed to retain salmon on EM boats, which they are proposing, the salmon would need to be kept separate by haul until the catch monitor on shore has had a chance to take the relevant samples and record them by haul. Updating catch handling instructions for what goes on above the deck on EM boats is not an insurmountable task but is something for which NMFS would like to make the Council aware. NMFS is also interested in hearing from the advisory bodies and industry about the ability of vessels to sort catch by haul and how they would be able to ensure that there is no mixing of catch below deck.

C. Elements outside the Trawl Gear Package

In addition to the elements pulled from the trawl gear rulemaking package, the applicants also propose two additional elements related to when and where non-whiting midwater trawl vessels can fish. The applicant's propose removing the May 15th start date of the non-whiting midwater fishery, which currently coincides with the primary season (May 15-December 31) for whiting fishing, to allow non-whiting midwater fishing from the start of the year (or start of the 2018 EFP). The applicants also propose providing an exemption to the regulations around fishing inside the RCA for non-whiting midwater fishing. This exemption would allow non-whiting midwater trawling inside the boundaries of the RCA coast-wide and year-round.

Currently, regulations at 660.130(c)(3) require vessels fishing north of $40^{\circ}10$ 'N. lat. to use midwater groundfish trawl gear when targeting Pacific whiting and allows vessels to use nonwhiting midwater trawl gear to target non-whiting species during the primary season for the Pacific whiting IFQ fishery only. South of $40^{\circ}10$ 'N. lat. midwater groundfish trawl gear is prohibited shoreward of the RCA boundaries and permitted seaward of the RCA boundaries. Finally, regulations at 660.130(e)(4)(i) permit the use of midwater groundfish trawl gear within the RCA north of $40^{\circ}10$ 'N. lat. during the primary season for the Pacific whiting fishery only. Midwater trawl gear is prohibited inside the RCA south of $40^{\circ}10$ 'N. lat. In early 2015 when NMFS was developing the analysis⁴ for the midwater clean-up rulemaking package, the use of midwater trawl gear outside the dates of the primary whiting season was considered but not developed into alternatives for analysis due to concerns with salmon bycatch. According to the 1999 biological opinion for Chinook salmon the start of the primary whiting season north of 42°N. lat. was originally delayed annually until at least May 15th as a constraint designed to minimize the bycatch of Chinook salmon.

In the same analysis from 2015, allowing Pacific whiting targeting within the coast-wide RCAs was also considered but was not developed into an alternative. At the time there had been little targeting of Pacific whiting south of 40°30'N. lat. by the shorebased fleet.⁵ Because the whiting fishery is primarily prosecuted of Washington and Oregon, it was determined that greater access to the RCA south of 40°10'N. lat. was not needed. In September of 2015, the GAP suggested adding an alternative to the trawl gear rulemaking package which would allow the use of midwater trawl gear inside the RCA south of 40°10'N. lat. In November of that same year, NMFS rejected this addition to the trawl gear rulemaking package because of the complexity associated with the analysis of this action due to the lack of data on midwater in this area.

NMFS has strong concerns with the potential impacts caused by interactions between midwater trawl gear targeting non-whiting species and prohibited species, particularly salmon, early in the year, which is when higher bycatch usually occurs, as well as inside the coast-wide RCA. Additionally, NMFS has concerns with the analytical burden associated with adding these elements, which are outside the trawl gear rulemaking package, to the trawl gear EFP. The original gear package was focused on how gear was configured. The additional analysis needed to also look at when and where that gear is used would increase the complexity of the overall analysis for the 2018 trawl gear EFP.

D. Endangered Species Act (ESA) Consultation Considerations

As the Council is aware, NMFS has reinitiated consultation on the impacts of the West Coast Groundfish fishery on Chinook salmon and eulachon. While these consultations are ongoing, Council actions, including EFPs, must be consistent with the action analyzed in the current biological opinion and cannot affect listed species or critical habitat in a manner or to an extent not previously considered. For example, by moving fishing effort to a location or a time of year when listed species may be more likely to be present.

Chinook Salmon

The 1999 biological opinion on the impacts to salmon caused by the Pacific coast groundfish fishery described the expected bycatch of the bottom trawl fishery as 6,000-9,000 salmon taken annually, and that 5,000 to 8,000 of these are likely to be taken in the Vancouver and Columbia catch areas. This estimate was based on an analysis of available information from 1985-1990 and assumed that there was no midwater non-whiting trawl fishery of any significance. At the time, NMFS determined that a take of up to 9,000 salmon would not jeopardize the existence of ESA-listed salmon. In 2006, NMFS considered whether or not it was necessary to reinitiate consultation, but determined re-initiation was not necessary at that time.

⁴ http://www.westcoast.fisheries.noaa.gov/publications/nepa/groundfish/misc_ea/midwatertrawlcleanupea.pdf

⁵ Processing for Pacific whiting is prohibited south of 42°N. lat.

The 1999 biological opinion analyzed an action that makes several assumptions regarding the times, areas, and gears fished. The proposed trawl gear EFP for 2018 would make substantial changes to those assumptions which would affect our understanding of the impacts of the fishery on different populations of salmon. For example, the proposed action in the 1999 consultation assumes that the only midwater trawling of any significance taking place is targeting Pacific whiting and that the fishery took place mainly between April and November, from Vancouver Island to Central California, and from 150-600 meters (m). The proposed action also assumed the bottom trawl vessels encounter Chinook salmon most frequently during the winter from 100-482 m. Finally, the proposed action included a prohibition on whiting fishing inside 100 fathoms (fm) in the Eureka catch area.⁶ The primary whiting season was permanently delayed so as not to start until May 15th, and bycatch was limited to a rate of 0.05 chinook/mt groundfish. These measures has previously been put in place to minimize the bycatch of Chinook salmon in particular.

While the EFP proposal does include the same HGs for bycatch of salmon that was in the 2017 trawl gear EFP, it is also important where and how the salmon are caught and when. The 2018 EFP proposes to provide an exemption for potentially the entire midwater trawl fleet to the May 15th start date for midwater trawling along with an exemption to fish inside the RCA coast-wide. This is a substantial change from the assumptions in the 1999 biological opinion that no midwater trawling takes place before May 15th each year. Additionally, the 2018 application proposes eliminating several gear restrictions. Eliminating all of these exemptions at the same time could alter how and where the fleet fishes depending on how they decide to configure their gear. This, too, could result in substantial changes from the assumptions as to where and how the fleet fishes that were discussed in the 1999 biological opinion.

Green Sturgeon and Eulachon

In addition to Chinook salmon, the EFP must continue to operate consistently with the biological opinions for green sturgeon and eulachon. Green sturgeon bycatch in the trawl fishery has been well below the extent of take anticipated in the incidental take statement (ITS) in recent years (20.9 in 2011, 12.1 in 2012, and 5.5 in 2013 out of 86/year ITS). However, the EFP could shift effort to inshore areas designated as critical habitat for green sturgeon (inshore of 60 fm), increasing the potential for bycatch. As green sturgeon bycatch rates typically range from 1-3 individuals per tow, NMFS and industry should have ample notice of any green sturgeon bycatch and be able to act to avoid further bycatch.

The 2012 biological opinion anticipated that the extent of take for eulachon would be 1,004 fish per year. Eulachon were expected to be caught in the bottom trawl and at-sea whiting fisheries. Like sturgeon, eulachon also have peak migration in January-April inshore of 100 fm where effort from the proposed EFP could potentially increase. Increased effort inshore combined with reduced mesh sizes and exemptions to chafing gear and codend regulations could increase bycatch of eulachon. NMFS is currently in re-initiation because the anticipated extent of take did not adequately account for cyclical changes in the abundance of eulachon.

⁶ The proposal for 2018 does not include an exemption to the Eureka Catch Area. However, that designation was originally made to prohibit whiting fishing inside 100 fms in that area only. It is NMFS' understanding that it would not automatically apply to non-whiting midwater fishing in this area.

Finally, much like the consultation for salmon, the proposed actions for the biological opinions for green sturgeon and eulachon make certain assumptions on when, where, and how these species may be encountered. The proposed elements of the 2018 trawl gear EFP could substantially deviate from those assumptions.

D. Cumulative Impacts Considerations

NMFS would also like to stress the need to consider each of the elements of the 2018 Trawl Gear EFP proposal individually, as well as their cumulative impacts, as the Council and applicants move forward through this process. Several of the proposed elements in the 2018 trawl gear EFP are related and changing multiple variables at the same time could increase the potential impacts and will definitely increase the complexity of the analysis needed to inform those impacts. For example, the exemptions related to how gear is configured – exemption from minimum mesh size for bottom trawl and midwater, exemption from chafing gear requirements, and exemption from codend requirements - could each potentially increase the mortality of small and juvenile fish, as well as impacts to bottom habitat by reducing the mesh size of the net or making it possible for vessels to fish closer to the bottom where interactions are more likely to occur.

The same can be said for the cumulative impacts which need to be investigated for other related elements, such as the exemption to the May 15th start date for midwater trawling and the exemption to the prohibition on midwater trawling in the RCA prior to May 15th. Both of these prohibitions have been in place for many years and were put in place purposely to protect salmon from high bycatch which usually occurs during the first part of the year. Providing an exemption to both of these prohibitions at the same time, and in addition to all the other exemptions, would be a substantial change to the fishery and could potentially increase the impacts on salmon. However, that would need to be further investigated by NMFS, which will also be complicated by the lack of information on impacts in these areas and during the time period before May 15th.

Finally, the potential impacts associated with removing all of these prohibitions, even if just for one year, need to be considered in the context of the EM program, the forthcoming RCA/Essential Fish Habitat (EFH) action, and the ongoing ESA consultations for salmon and eulachon to ensure that all statues are followed and removing these prohibitions, in conjunction with some of these other actions, won't cumulatively negatively impact the resources.

E. Data Quality Considerations

As mentioned above, NMFS has concerns with the utility of the data coming from the 2017 EFP if NMFS continues to only receive gear level data and not haul-level data and is further concerned by the potential issues associated with further complicating the data and catch accounting with the 2018 EFP proposal. Additionally, as mentioned in the section on Catch Accounting, at least one proposed exemption in the 2018 trawl gear EFP - multiple gears onboard and fished on the same trip - could only be provided to vessels that have observers, because EM vessels are not currently equipped to address this.

As noted by the GMT in their <u>March 2016 statement</u>, and as can be seen in this report, there are concerns that increased efficiencies to the fleet could also result in the loss of confidence in some of the data reporting. Two of the proposed exemptions – new haul on board before previous haul is stowed and fishing multiple gears on the same trip – are proposed to require vessels to separate

catch by gear. Mixing of catch below deck or on vessels that do not carry observers, who are able to take samples by haul, could hinder the utility of the data. Additionally, by adding several more exemptions to an already complicated 2017 trawl gear EFP, the data is further complicated and drawing conclusions from the data will be difficult. For example, it would be challenging to compare the full 2017 trawl gear EFP data with the full 2018 trawl gear EFP data if the EFPs are drastically different. Finally, the more variables and moving pieces, the more likely it can be for errors in reporting. NMFS is concerned with the ability to garner useful data from the 2018 trawl gear EFP, if vessels are unable to ensure sorting requirements are met and provide haul level data, particularly on harvest of protected and prohibited species.

F. Recommendations

NMFS appreciates the work that has gone into the trawl gear EFP proposal for 2018, and agrees that there is a benefit in collecting more information to help inform the potential impacts of all elements of the trawl gear rulemaking package. In addition, should there be interest from the Council in changing the season structure for non-whiting midwater trawling, data from an EFP could be very useful for informing that decision. Therefore, based on the concerns expressed in the sections above, NMFS offers the following recommendations to the Council.

Mitigation Measures included in the 2018 Proposal

Currently, the proposal includes a salmon HG of 3,547 salmon with 800 salmon allowed to be taken before May 15th. If the fleet were to harvest the 800 salmon before May 15th, the EFP would be closed and would reopen on May 15th. If the fleet, now including the non-whiting midwater vessels were to breach the 3,547 salmon HG after May 15th, the EFP would end but under the current regulations the midwater vessels would be able to continue to fish. **NMFS recommends the salmon HG of 3,547 Chinook salmon and pre-May 15th HG of 800 Chinook salmon be included with any recommendations for the 2018 trawl gear EFP.**

The applicants also propose allowing participants to retain and land all salmon on all EFP trips (observed and not observed) as is currently the requirement for Pacific whiting boats who fish under maximized retention. Under the current regulations, observers obtain the full suite of biological data on salmon by haul prior to discarding the salmon at sea. Salmon that are retained by whiting vessels or vessels using EM are sampled by catch monitors at the dock using the same protocol as observers. All of the samples are then sent to the Northwest Fisheries Science Center for processing. This process works well, minimizes the burden on captains and processors, and is consistent with the Salmon Fishery Management Plan (Salmon FMP)⁷. NMFS is interested in hearing any concerns with the current system, how it would be improved through maximized retention, and how vessels would go about sorting salmon by haul for EM vessels. As mentioned

⁷ "No person shall use nets to fish for salmon in the EEZ except that a hand-held net may be used to bring hooked salmon on board a vessel. Salmon caught incidentally in trawl nets while legally fishing under the groundfish FMP are a prohibited species as defined by the groundfish regulations (50 CFR Part 660, Subpart G). However, in cases where the Council determines it is beneficial to the management of the groundfish and salmon resources, salmon bycatch may be retained under the provisions of a Council-approved program that defines the handling and disposition of the salmon. The provisions must specify that salmon remain a prohibited species and, as a minimum, include requirements that allow accurate monitoring of the retained salmon, do not provide incentive for fishers to increase salmon bycatch, and assure fish do not reach commercial markets. In addition, during its annual regulatory process for groundfish, the Council must consider regulations that would minimize salmon bycatch in the monitored fisheries" (Section 6.6.2 of Salmon FMP).

above, NMFS has concerns with the quality of the data and the ability of the vessels to keep the harvest separate by gear below deck. Therefore, NMFS recommends the current exemption from the 2017 trawl gear EFP which allows only EM vessels to fully retain salmon be included in the 2018 trawl gear EFP. NMFS would also request that the Council recommend that the applicants include a plan to ensure all retained salmon is made available to local foodbanks and some type of mechanism to show this has occurred.

Add Mitigation Measures to the 2018 Proposal

The 2017 trawl gear EFP included the Columbia River Salmon Conservation Zone as an additional protection measure for salmon. Vessels were not allowed to fish under the EFP in this area. However, they are still allowed to fish using the selective flatfish trawl gear (SFFT). The 2018 proposal does not appear to include any of the salmon conservation zones. **NMFS recommends that the Council consider recommending the inclusion of the Columbia River Salmon Conservation Zone, and possibly the Klamath River Salmon Conservation Zone, to provide additional protection to salmon.** The conservation zones would also reduce the risk of bycatch of ESA-listed stocks originating from the Columbia River and California rivers. EFP vessels could be limited to using SFFT gear in these areas, consistent with existing gear requirements. This measure would also be expected to reduce bycatch of listed eulachon that are more frequently encountered in estuaries.

Limit Number of Participants

It is not clear to NMFS how many vessels would participate in the 2018 EFP – it is likely to be driven by many different factors such as market demand, processor delivery schedules, and participation in other fisheries. Although because the 2018 EFP proposes to allow both the bottom trawl and midwater trawl fleet to participate, it could be substantially more than have participated in the 2017 trawl gear EFP. If the number of participants is not limited to a sub-set of the fleet, NMFS is concerned about its ability to effectively project and manage effort in the EFP and, consequently, faces challenges in projecting impacts to protected species. Such uncertainty in the number of vessels and their planned effort will impede NMFS' ability to implement the 2018 EFP. Therefore, **NMFS recommends the Council limit the number of participants allowed to participate in the 2018 trawl gear EFP.**

Limit Number of Variables in Data

NMFS believes that the best way to reduce the complexity of the 2018 trawl gear EFP and address several of NMFS' concerns with ESA, MSA, and catch accounting would be to establish multiple EFPs. Each EFP would be designed to answer a more focused set of questions. As mentioned previously, there are several elements that could be grouped together based on relevant factors. Each grouping could be its own EFP, designed to gather specific data to inform a narrow set of elements. Vessels would be asked to identify which EFP they are interested in participating in for 2018, and they would be able to participate in one EFP intermittently throughout the year.

One example of a possible grouping could be 1) the exemption to the May 15th start day for nonwhiting midwater trawling and 2) the exemption to the prohibition on midwater trawling inside the RCA before May 15th. These two exemptions could make up an EFP to test the bycatch of this new fishing strategy, which changes the assumptions regarding the when and where fishing occurs. Another group could be vessels that are interested testing efficacy of carrying multiple gears. This EFP would test our monitoring program to ensure that it can handle multiple different trawl gears onboard and the associated complexities with sorting and stowing. The vessels in this EFP would also be required to only use observers, instead of including EM, since we know there are issues with our ability to monitor sorting on EM vessels using multiple gears.

NMFS believes that the benefits in establishing multiple EFPs that include a smaller group of participants and are more narrowly focused on the types of information gathered would provide better quality data and would reduce the procedural impediments and possible implementation delays NMFS may face if all of the 2018 proposed EFP elements are forwarded by the Council as a single fishing operation. Additionally, having multiple EFPs would allow NMFS to delay one EFP without delaying every proposed 2018 EFP element. It would also allow NMFS to close one EFP if necessary, leaving other proposed 2018 EFP elements operating. For example, NMFS has concerns with salmon bycatch associated with fishing earlier in the year inside the RCA and south of 40°10' N. lat. with midwater trawl gear. Therefore, NMFS recommends the Council delay those particular elements until the new pre-season report on salmon is available in February/March 2018, as that salmon status information is crucial for NMFS to make an informed decision relative to those elements of the proposed 2018 EFP. NMFS believes that developing the renewal of the 2017 trawl gear EFP and a separate EFP for the catch accounting elements would be possible by January 1, 2018. Additionally, NMFS believes that a coast-wide, year-round midwater non-whiting EFP could be developed after completion of the ongoing ESA salmon consultation and review of the 2018 pre-season report. NMFS recommends that the Council recommend NMFS implement multiple EFPs that are more focused on a specific grouping of the elements contained within the 2018 trawl gear EFP proposal.

G. Declarations

In June, the Council asked NMFS to investigate the need for a change to the Paperwork Reduction Act (PRA) collection for vessel monitoring systems for the 2018 trawl gear EFP proposal. According to the current regulations at §660.13(d), vessels are required to make a declaration report before leaving port on a fishing trip. After a vessel has made a declaration report to NMFS and has been confirmed for a specific gear category, it cannot fish with any gear other than the gear type that has been declared for the vessel. If the vessel operator intends to use the vessel to fish in a different fishing category, a new declaration report must be submitted to revise the old declaration report. Declaration reports are used by NMFS Office of Law Enforcement (OLE) to identify the fisher's intended use for the vessel and if the vessel will participate in a particular fisheries, declaration reports are needed to adequately assess the vessel's activity in relation to the area restrictions.

If the Council recommends and NMFS implements an exemption to the multiple gears on board prohibition, vessels may still need to declare which gear they are using and when (i.e. midwater vs. bottom trawl) to assist NMFS OLE in their enforcement of closed areas. However, instead of making that declaration at port after an offload, as is currently required under regulation, NMFS could provide the vessel an exemption and allow the vessel to make their declaration from sea. Because vessels are already required to make declarations when they change fisheries or fishing gear, this does not create a new burden. Therefore, no additional PRA would be required for the 2018 Trawl Gear EFP declarations. **NMFS is interested in hearing from industry participants**

and advisory bodies on the ability of vessels to change their declarations from sea and any potential issues this may cause for tracking and enforcement of area restrictions.

H. Fishing between 42°N. lat. and 40°10'N. lat.

In June, the Council asked NMFS to review the options for decision-making processes for the operation of the EFP south of 42° N. lat. In the 2017 trawl gear EFP, the applicants had proposed extending fishing south of 42° N. lat. to $40^{\circ}10^{\circ}$ N. lat. Initially, NMFS recommended splitting the 2017 trawl gear EFP into two geographic areas: (1) north of 42° N. lat. and (2) south of 42° N lat. The split was done to provide additional time for NMFS to consider new information regarding the status of Klamath River Fall-run (KRFC) Chinook salmon south of $^{\circ}$ N. lat. In early March of this year, NMFS approved the EFP for north of 42° N. lat. and delayed the decision on south of 42° N. lat. pending completion of the 2017 KRFC abundance forecasts. At that time, NMFS had received the Council's Preseason Report I for the salmon fisheries which indicated that the KRFC stock is approaching an overfished condition. As a result of this new information, the Council at its March and April meetings reaffirmed its desire to limit midwater trawl effort south of 42° N. lat. In light of the new information, the EFP applicants indicated to the agency that they did not want to pursue an EFP south of 42° N. lat. in 2017 and that part of the EFP was disapproved by NMFS.

NMFS is very concerned with potential impacts on listed and unlisted salmon species associated with extending any trawl gear EFP south of 42° N. lat. Therefore, **NMFS recommends delaying implementation of any part of the 2018 trawl gear EFP that would occur south of 42°N. lat. until the new pre-season report on salmon is available in February/March 2018.** This would include a potential EFP south for 2018 that would include the elements of the 2017 trawl gear EFP but would occur between 42° N. lat. and 40°10' N. lat.