GROUNDFISH MANAGEMENT TEAM REPORT ON MANAGEMENT MEASURES FOR THE 2015-2016 BIENNIAL HARVEST SPECIFICATIONS

Introduction

At our October work session, the Groundfish Management Team (GMT) had a lengthy discussion about the list of management measures forwarded at the September Council meeting, Based on that discussion, this report provides some background information, the GMT's first cut at what factors would be relevant to the analysis, and an estimate of the anticipated workload for analyzing those management measures. The anticipated workload is ranked qualitatively from low to high, rather than a direct estimate of the time needed to complete the analysis. The workload rankings (low, medium, high) are not intended to be used as a prioritization metric. They are instead just our first-cut estimate of the workload required to conduct the analysis. Otherwise, the GMT does not have any recommendations on prioritization of the list of management measures at this time.

The GMT would like to note that due to National Marine Fisheries Service (NMFS) staff being furloughed by the Federal Government shutdown that began on October 1, the NMFS members of the GMT were unable to provide input on the list of management measures. Once NMFS regional and science center members of the GMT have an opportunity to review the list of management measures, some of the information shown below may be modified. If the Federal shutdown becomes lengthy, the absence of the NMFS members of the GMT will impact what the GMT is able to accomplish (i.e. the quantity and quality of the analysis of the management measures). Additionally, the GMT anticipated having input from National Oceanic and Atmospheric Administration (NOAA) General Counsel (GC) at the October meeting on the management measures analysis and other matters. As with regional and science center staff, GC staff was unavailable to provide their input.

Overarching Measures

Establish Off the Top Set-Asides

Background: Deductions from most groundfish annual catch limits (ACLs) are made to account for groundfish mortality in the Pacific Coast treaty Indian tribal fisheries, scientific research, non-groundfish target fisheries (hereinafter incidental open access fisheries), and, as necessary, exempted fishing permits (EFPs). Set-asides from the sablefish north of 36° N. latitude ACL are slightly different due to the sablefish allocation framework (see Section 2.2.2.1, Amendment 6). Set-asides from the sablefish north of 36° N. latitude ACL include: groundfish mortality in tribal fisheries, research, recreational fisheries, and EFPs. The Pacific Fishery Management Council (Council) and NMFS do not have direct management control over these activities, except for EFPs and recreational fisheries. While NMFS has direct control over the terms and conditions of the EFP permits and recreational fishery management, sufficient yield set-aside must be available to accommodate the anticipated groundfish impacts. Deductions from the ACL to

account for these activities are important accountability measures that increase the probability that catches will remain below the ACLs.

Relevant Factors for Analysis: Review the historical Groundfish Mortality Reports, including 2012 and determine whether updates to the 2014 set-asides are necessary. The GMT will provide tables for overfished and non-overfished species at the November Council meeting.

Workload: low

Two-year allocations

Background: Two-year trawl and non-trawl allocations are decided during the biennial process for those species without long-term allocations, or species where the long-term allocation is suspended. In 2013-2104, two-year allocations were established for: bocaccio, canary rockfish, cowcod, longnose skate, minor shelf rockfish north, minor shelf rockfish south, petrale sole, and yelloweye rockfish.

Species without trawl and non-trawl or limited entry and open access allocations include: black rockfish, cabezon (Oregon and California), California scorpionfish, longspine thornyhead south of 34° 27' N. latitude, minor nearshore rockfish north and south of 40° 10' N. latitude, shortbelly, and the Other Fish complex, including spiny dogfish. The nearshore species, including nearshore rockfish, are managed and allocated by the west coast states. For the remaining species, ACL attainment has historically been low due to the lack of market demand, limited access as a result of the rockfish conservation area (RCA) configurations, or the need to limit overfished species interactions. While there is no need for allocations between sectors, management measures (e.g., trip limits, bag limits, etc.) for these species are proposed to keep total catch within the ACL.

Relevant Factors for Analysis: The GMT will update allocation worksheets with the presumptive ACLs for overfished species and apply historical sector allocations, based on Groundfish Mortality reports and previous cycle allocations (from previous EIS). The GMT will review the historical Groundfish Mortality Reports to determine whether the existing 2-year allocations will work under the 15-16 ACLs. Additionally, the GMT will review the historical Groundfish Mortality Reports to determine whether the species with no 2-year allocations might need 2-year allocations in 15-16 to keep catch within the specifications.

Workload: low

Harvest Guidelines

Background: Historically, the Council has established harvest guidelines (HG) for: A) the recreational sectors for yelloweye and canary rockfish; B) black rockfish between OR and CA; C) blackgill rockfish south of 40°10' N. latitude (in complex); D) blue rockfish south of 42° N. latitude (in complex); and E) sablefish south of 36° N. latitude between the limited entry (LE) and open access (OA) non-trawl fixed-gear sectors. Further, the Council requested, under the stock complex agenda item in September 2013, that a white paper that explores the efficacy of using HGs to keep mortality within the component specifications (see Agenda Item H.5.a.). The GMT will also be providing updated risk analysis tables, updated with the 2012 groundfish mortality estimates, at the November Council meeting to inform this discussion.

Species that the Council may be interested in keeping in the complex and managing with HGs: rougheye N.; shortraker N.; China N.of either 42° or 40°10'; copper N. of either 42°, or 40°10,' or coastwide.

Relevant Factors for Analysis: Council staff is working on a white paper on this subject. The GMT will use the contents of that white paper as the beginning point for our analysis.

Workload: medium

Commercial Management Measures

A. Trawl and Non-Trawl Management Measures

A.1 RCA Coordinates--update RCA coordinates to better approximate depth

Background: A proposal was submitted by industry from the San Diego area to modify a few non-trawl rockfish conservation area (RCA) shoreward waypoints. This request would affect two very small areas: one off Del Mar (six waypoints) and the other off San Diego (two waypoints).

Relevant Factors for Analysis: These waypoint adjustments are intended to better conform to the depth fathom lines. Since these are for "corrections," it is not known at this time how long it will take for NMFS to make these corrections, should NMFS determines that such corrections are necessary. The GMT has not had to time yet to determine if there are other waypoints that should be added to the list.

Workload: medium

A.2 Area Closure--Rougheye rockfish groundfish closure area (GCA)

Background: The Council is interested in management measures to reduce the catch of rougheye rockfish for all sectors. Rougheye rockfish may be a species of some concern given the current stock assessment[1] and recent catch levels provided by the West Coast Groundfish Observer Program (WCGOP). Groundfish closure areas (GCAs) may represent a viable management measure for reducing mortality of rougheye rockfish for one or more sectors if other measures prove ineffective.

Relevant Factors for Analysis: Geographical Information System (GIS) analyses of commercial data (WCGOP and North Pacific (NORPAC) Fisheries Database) may be useful to identify concentration areas that, if closed to fishing, may reduce catch of rougheye rockfish. These GCAs could be established in regulation (waypoints) and then implemented, if necessary. Preliminary analyses suggest GCAs may be effective for reducing catch; unfortunately, GIS plots were not available in time for the Briefing Book deadline. Plots provided in the Appendix of Agenda Item G.8.b, Supplemental GMT Report 5, September 2013, provide an example of potential "hot spots" or concentration areas for rougheye rockfish. A more detailed GIS analysis

[1] http://www.pcouncil.org/wp-content/uploads/G3a_ATT3_FULL_ROUGHEYE_BLCKSPOT_ASSMNT_2013_postSTAR_SEPT2013BB.pdf

using finer resolution is possible, for better defining the borders of these concentration areas for each sector. Once these GIS plots are developed, then the cost of implementation relative to the benefit will need to be closely analyzed and examined. Costs could include loss of target species, increased time on water, inequity among geographic areas, and others, relative to the benefit (i.e., reductions in catch of rougheye rockfish).

Workload: low for GIS plots, medium/high for analysis

A.3 Area Closure--Spiny dogfish GCA

Background: The Council may be interested in management measures to reduce the catch of spiny dogfish shark. Groundfish closure areas may represent a viable management measure for reducing mortality of spiny dogfish for one or more sectors if other measures prove ineffective.

Relevant Factors for Analysis: GIS analyses of commercial data (WCGOP and NORPAC) may be useful to identify concentration areas that, if closed to fishing, may reduce catch of spiny dogfish. These GCAs could be established in regulation (waypoints) and then implemented, if necessary. Preliminary analyses suggest GCAs may be effective for reducing catch; unfortunately, GIS plots were not available in time for the Briefing Book deadline. Plots provided in the Appendix of Agenda Item G.8.b, Supplemental GMT Report 5, September 2013, provide an example of potential "hot spots" or concentration areas for spiny dogfish. A more detailed GIS analysis using finer resolution is possible for better defining the borders of these concentration areas for each sector. Once these GIS plots are developed, then the cost of implementation relative to the benefit will need to be closely analyzed and examined. Costs could include loss of target species, increased time on water, inequity among geographic areas, and others relative to the benefit (i.e., reductions in catch of spiny dogfish).

Workload: low for GIS plots, medium/high for analysis

A.4 Area Closure--Other Species GCA?

At this time, the GMT offers no additional recommendations for GCA analyses. If the Council decides that GCA analyses are needed for additional species, then a similar approach as that shown for rougheye rockfish and spiny dogfish could be taken. Effort required for each additional analysis would be similar to that shown for rougheye rockfish and spiny dogfish.

B. Limited Entry and Open Access Fixed Gear

B.1 Non-Trawl RCA Adjustment

Background: Mr. Bill James submitted a public comment (Public Comment, Agenda Item G.7.c., Sept 2013) requesting the shoreward non-trawl RCA be moved from its current 30 fathoms out to 40 fathoms for a small area. This request asks the Council to consider implementing an existing management line at Año Nuevo (37° 07' N. latitude). Then for the area from this line at 37° 07' N. latitude south to 34° 27' N. latitude, move the non-trawl RCA line out to 40 fathoms. The intent is to allow holders of the California's deeper nearshore rockfish permit access to the same deeper area that recreational anglers can utilize. If the Año Nuevo line cannot be accommodated then Mr. James does not want the 40 fathom line change.

Current regulations:
42° to 46°16' : 30 fathoms
40° 10' to 42°: 20 fathom shoreward line
40° 10' to 34°27': 30 fathom shoreward line

Relevant Factors for Analysis: Overfished species impacts by the nearshore fixed gear fishery are currently modeled by the GMT using WCGOP bycatch rates, by depth and area. As noted above, current RCA regulations combine the area south of 40° 10' N. latitude. Likewise, the GMT bycatch model used to project overfished species impacts is currently stratified at 40° 10' N. latitude. Additional stratification (i.e., at 37° 07' N. latitude) of data in the nearshore model would require additional work for WCGOP; the additional time required to re-stratify the data within the nearshore bycatch model is uncertain.

The GMT points out that allowing such a modification in regulation without an accompanying change to the nearshore bycatch model is not unprecedented. Prior to 2009, the fixed gear RCA between 40° 10' N. latitude and 46° 16' N. latitude was 20 fathoms. Likewise, the nearshore bycatch projection model was stratified using the same latitudinal breaks prior to 2009. Nonetheless, the RCA north of 43° N. latitude was moved from 20 fathoms to 30 fathoms from 2009-2012 following an analysis by WCGOP that showed substantially lower bycatch rates of overfished species in the northern area (see "Response to Request for Summarization of Canary and Yelloweye Rockfish Bycatch in Commercial Nearshore Fishery Operations, Northwest Fisheries Science Center, April, 2008"). The bycatch model was never re-stratified (likely due to confidentiality concerns) and was thereafter inconsistent with this differential regulation north and south of 43° N latitude.

The Council may consider putting this task on list for June 2014, depending on WCGOP workload and priorities. In addition, any proposed changes that would add additional management lines for the nearshore fishery could translate into a sizable workload for California staff as it could possibly affect the state's restricted access for the deeper nearshore rockfish permit system.

Workload: low if no model re-stratification, high if model re-stratification.

B.2 Trip Limit--review commercially important, highly attained species and other requested species

Background: The GMT typically reviews the performance of commercially important trip limits relative to the sector allocations or harvest guidelines (e.g., sablefish). The goal this cycle is to take a closer look at trip limit performance to set the limits on January 1 with the aim of minimizing the necessary number of inseason adjustments (assuming trip limits were initially set "right"). This action should provide industry with some consistency while allowing harvest attainment closer to the harvest guidelines. The GMT reviewed inseason actions taken since 2007 for potential trip limits that may be considered candidates for review. The potential list of trip limits that may be reviewed includes:

1. Shortspine thornyhead south of 34° 27' N. latitude
2. Chilipepper, Minor Shelf, Shortbelly, Widow, and Bocaccio between 34° 27' and 40° 10' N. latitude

3. Black rockfish limits between 40° 10' N. latitude and 42° N. latitude
4. Shelf rockfish south of 34° 27' N. latitude
5. Bocaccio south of 34° 27' N. latitude
6. Shortspine thornyhead north of 34° 27' N. latitude
7. Lingcod north of 40° 10' N. latitude
8. Slope rockfish and darkblotched rockfish north of 40° 10' N. latitude

Relevant Factors for Analysis: This measure would require development of trip limit models (for most species) and estimates of impacts to overfished species for each species or complex identified. Overfished species impacts would be explored using WCGOP data products (nearshore/non-nearshore model or reports). Changes may not make a big difference to the fleet as a whole, but could be very important to certain individuals.

Workload: medium

B.3 Remove the periods 1, 2, and 6 closure for lingcod, could implement a daily or bi-monthly cumulative limit

Background: Lingcod retention is prohibited in Periods 1, 2, and 6 for both limited entry and open access fixed gears. The prohibition on retention has been in effect for these fisheries since the 1990s to improve the conservation of lingcod after being declared overfished. Note that Canada first declared a winter closure for lingcod in 1987 to protect spawning lingcod. Lingcod spawn beginning in the late fall in shallow waters. Although females do not spend much time in the spawning area, males are concentrated in these shallow waters guarding the eggs during winter and spring months. The closure for the fixed gear fishery was presumably designed to reduce catch of these males while concentrated during the nest-guarding season. The GMT points out that there is no lingcod closed season for individual fishing quota (IFQ fisheries; fixed gear and trawl) or Oregon recreational fisheries.

Public testimony was received from Mr. Jeff Miles at the September 2013 Council meeting requesting some level of retention during periods 1, 2, and 6. The request was made to land lingcod that are incidentally caught and discarded, with the suggestion that trip limits might be set low enough to prevent changes in fishermen behavior (i.e., prevent targeting).

Relevant Factors for Analysis: Since lingcod are harvested far below the ACL, the primary concern is increased interactions with overfished species. Trip-limit models may need to be developed to project catch of overfished species at various levels of retention during periods 1, 2, and 6. Overfished species impacts would likely be projected using WCGOP data products (e.g., nearshore and non-nearshore models) at the various levels of anticipated retention during the currently closed periods.

Effort = medium

B.4 Remove the Commercial Gear Restriction on Flatfish

Background: This measure was previously submitted for Council consideration but was never implemented. The following excerpt is from Agenda Item I.4.b, Supplemental GMT Report 2, April 2010.

Remove gear restriction for 'Other Flatfish' in the California commercial fishery

In 2003, the limited entry and open access fixed gear fisheries south of 40°10' N latitude were constrained by management measures to protect bocaccio. The current commercial gear restriction is "*no more than 12 #2 hooks, up to 2-1lb weights, not subject to the RCA"*. During the 2009-2010 management cycle, the recreational fishery removed their flatfish gear restriction because it was not effective in restricting the bycatch of overfished species. The commercial fishery is interested in pursuing a similar removal to have conforming regulations. CDFW does not anticipate that removing the gear restriction will increase impacts to overfished species because this fishery operates over sandy bottom habitats where overfished species are less likely to occur.

CDFW staff consulted Enforcement to determine there are no additional enforcement issues resulting from removal of this gear requirement. Staff will compare bycatch rates of rockfish in years with no gear restriction to years with a gear restriction to determine whether regulations have been effective in reducing take or interactions with overfished species. The GMT has concerns over the comparability of commercial fixed gear with recreational fisheries, where different suites of management measures are in place to control overall impacts as well as the potential to impact petrale sole (consider the non-trawl allocation).

Relevant Factors for Analysis: The GMT will need to explore overfished species impacts using WCGOP data products (nearshore/non-nearshore model or reports) and/or recreational data. Additionally, the GMT will review documents and meeting minutes to try to determine why this management measure was not implemented at that time. Information on the recreational fishery gear change that occurred in 2009-2010 may provide some data for this analysis, however there are concerns about the comparability of recreational and commercial data. This will need to be further explored.

Workload: medium

C. Trawl Sector (Shorebased IFQ, Catcher Processor, and Mothership)

C.1 Shorebased IFQ Trip limits

Relevant Factors for Analysis*:* Evaluate whether the current trip limits are expected to stay within the 2015-2016 harvest specifications utilizing 2011 and 2012 data. Species that will be of most interest for this analysis are the Other Fish complex and longnose skate. The Council may wish to identify additional species.

Workload: low

C.2 At-Sea Whiting Set-Asides

Relevant Factors for Analysis: Evaluate whether the current at-sea whiting set-asides (see regulations[2] Tables 1d and 2d) are expected to stay within the 2015-2016 specifications utilizing 2011 and 2012 data.

Workload: low

C.3 Rougheye Rockfish Excluder for Trawl Vessels Fishing Seaward of the RCA

Background: The Council tasked the GMT with evaluating the feasibility of using excluder devices to reduce the catch of rougheye rockfish in trawl fisheries (i.e., shorebased, catcher processor, and mothership trawl sectors). The recent rougheye rockfish stock assessment, along with recent catch reports from the WCGOP, was the underlying basis for this request to evaluate management measures that may be used to reduce or control fishing mortality of rougheye rockfish, if necessary. Even though rougheye rockfish are caught by both trawl and fixed gear, this management measure would only affect trawl fisheries.

Recent research is available that suggests excluder devices (i.e., grids or grates) may reduce the catch of rougheye rockfish relative to some of the other target species. This has been explored for pelagic trawls targeting Pacific whiting (Lomeli and Wakefield 2013[3]) and for bottom groundfish trawls seaward of the RCA (Wakefield and Lomeli 2013[4]). For pelagic trawls, the relative catch of many rockfish species (including rougheye) was reduced relative to whiting catch, especially at low to moderate whiting catch rates. This research showed that the current design may be less effective when whiting catch rates are high. The sample size was small for the bottom trawl research, and is therefore tentative until more research that is planned for 2014 can be accomplished. Nonetheless, the research with bottom trawls demonstrated that most of the larger rockfish species (including rougheye rockfish), along with roundfish (e.g., sablefish) and shortspine thornyhead catches may be reduced relative to catches of flatfish by using excluder devices. Hence, it is possible that excluder devices could be applied to this fishery to reduce the catch of slope rockfish and roundfish species while allowing access to flatfishes.

Relevant Factors for Analysis: This analysis would require exploring the feasibility of rockfish excluders to allow the escape of rockfish and other species of similar shape and behavior while allowing access to other slope targets (e.g., Dover sole, small thornyheads, and small sablefish for bottom trawl and Pacific whiting for pelagic trawl). A cost/benefit analysis may be difficult at this time. This research on the U.S. west coast is relatively new, and additional research is

[2] http://www.westcoast.fisheries.noaa.gov/publications/fishery_management/groundfish/2013_pink_pages_aug132013.pdf

[3] Lomeli, M.J.M and W. W. Wakefield. 2013. A pilot study testing the efficacy of a flexible sorting grid rockfish excluder in the U.S. Pacific hake fishery: outcome of a collaborative workshop. January. Pacific States Marine Fisheries Commission and Fishery Resource Analysis and Monitoring Division, Northwest Fisheries Science Center.

[4] Wakefield, W.W. and J.J.M Lomeli. 2013. Conservation engineering work in U.S. west coast groundfish fisheries. Poster Session. American Fisheries Society Annual Meeting, September 8-12, Little Rock, Arkansas.

planned which may help with predicted retention rates under various fishing conditions. The GMT noted that regulating gear modifications may be problematic because specific gear configurations may be required which might (a) restrict fishermen's ability to "tune" the gear to function properly and (b) be difficult to enforce. The Enforcement Committee (EC) would likely comment on various aspects of this management measure (e.g., enforceability, specific gear configuration, associated vessel monitoring system requirements, etc.). For example if such a gear requirement were in regulation, would fishermen be required to declare use of such gear prior to their trip, and not be allowed to carry any other trawl gear on board? The implementation phase of this management measure could therefore be complicated.

Although benefits may be shown (i.e., reduced catch of rougheye rockfish while allowing access to flatfishes), costs could also be high. For example, the expense of purchasing a new net with the excluder device is not inexpensive. The largest expense, however, may be the loss of numerous target species, such as sablefish and other rockfish species. Clogging rates (i.e., malfunctions) would also need to be considered in this analysis.

Effort = high

C.4 Shorebased IFQ - Initial Issuance

Background: In order to reduce the catch of some species, the issuance of IFQ may be required.

Relevant Factors for Analysis: For species where catch cannot be controlled or at least reasonably controlled using typical management measures (e.g., if reducing catch requires moving the seaward boundary of the RCA to 400 fathoms), IFQ may need to be issued. As an example, if the Council chooses to remove spiny dogfish from the Other Fish complex, issuance of IFQ may become necessary. The GMT may evaluate and highlight species for Council consideration, but has not had the opportunity to do so yet.

Workload: none for now, but could be medium/high

C.5 Shorebased IFQ Accumulation Limits

Background: The maximum number of quota shares (QS) and quota pounds (QP) an entity may control in the shorebased IFQ fishery is limited by accumulation limits (defined in regulation at 50 CFR 660.111). These limits vary according to the management unit for the stock or stock complex and are intended to restrict the consolidation of quota holdings by just a few entities. The QS limits restrict the amount an individual or entity may control through ownership or other means. The annual QP limits refer to the maximum amount that may be assigned to any one vessel during a given year to cover catch. The annual QP vessel limits are larger than control limits to allow several QS holders to work together on a single vessel. Additionally, there are daily vessel limits that regulate the unused QP in vessel accounts for Pacific halibut and overfished species.

Relevant Factors for Analysis: Initial performance of the accumulation limits was evaluated based on fishery performance in 2011 and 2012. The GMT anticipates needing outside expertise and experience, likely Jim Seger and Ed Waters, to assist with this analysis. If the Council

chooses to change the longspine thornyhead and shortspine thornyhead ACLs from north and south of 34° 27' N. latitude to coastwide, additional analysis will be required.

Workload: medium/high

Recreational

H. Washington, Oregon, and California

H.1 Canary Rockfish Bag Limit

Background: In order to minimize discards of canary rockfish, a sub-bag limit for canary rockfish has been contemplated but rejected in recent biennial cycles. State recreational fisheries managers are hearing more and more from the public that they "can't get away from canary." Additionally anglers are reporting encountering canary rockfish in shallow waters, where they used to be able to get away from them.

Relevant Factors for Analysis: This analysis will examine the impacts to canary rockfish by allowing retention of at least some amount of canary. This will turn some of the released alive and released dead canary rockfish into retained. The GMT will also need to determine the impacts to yelloweye rockfish, and possibly other species contained within the normal bag limit. As each state has different bag limits, season dates, and depth restrictions, this analysis will likely need to be done on a state-specific basis. There may be implications to the other nearshore species. The GMT anticipated examining recreational catch per unit effort data by depth and time to help inform this analysis. Additionally, possible changes in angler behavior will need to be considered.

Workload: medium/high

H.2. Bag Limits, Depth Restrictions, Season Dates, Time/Area Closures

Background: The examination of bag limits, depth restrictions, etc. to maximize non-overfished species while staying within overfished species HGs are regularly analyzed and included in the biennial environmental impact statements.

Relevant Factors for Analysis: This is part of the regular modeling done during each biennial cycle. Once the overfished and non-overfished ACLs, and associated HGs, are determined, the GMT can then model season structures, bag limits, depth restrictions, etc. The three states' recreational projection models were reviewed by the SSC and have been updated to reflect those reviews.

Workload: high

D. Washington

D.1 Modify or eliminate boundaries for lingcod closures

Background: In 2012, deep-water lingcod closures were implemented in Washington to reduce encounters with yelloweye rockfish in the South Coast (Marine Catch Area 2) and Columbia River (Marine Catch Area 1) management areas. Washington Department of Fish and Wildlife (WDFW) will look at the boundary lines originally developed to determine if more discrete areas might more effectively reduce encounters with yelloweye and canary rockfish and streamline regulations making them easier for anglers to understand.

Relevant Factors for Analysis: The analysis will consider impacts to yelloweye and canary rockfish by modifying the boundaries of areas currently closed to lingcod retention. Changes could potentially open areas, allowing targeting of non-overfished rockfish and lingcod. Changes in angler behavior will be considered. Modifications could include establishing a fathom line or actual coordinates.

Workload: medium

D.2 New Yelloweye Rockfish Conservation Area

Background: Washington will explore new yelloweye rockfish conservation areas (YRCA) in an effort to reduce yelloweye rockfish mortality and stay within the Washington recreational HG for yelloweye rockfish.

Relevant Factors for Analysis: This analysis will help determine areas of high yelloweye rockfish interactions in the Washington recreational data. WDFW set line survey data in the north coast, and input from recreational anglers and the Charter industry may provide additional information on areas of high yelloweye concentrations. While YRCAs have been effective at reducing encounters with yelloweye rockfish it is difficult to quantify the savings from implementing YRCAs.

Workload: medium

D.3 Modify Depth Restriction

Background: Washington is exploring modifications to the season length for depth restrictions in the North Coast Management Area (Marine Areas 3 and 4) and South Coast Management Areas (Marine Area 2). This measure could be considered in conjunction with other management measures such as new YRCAs, to increase recreational fishing opportunity for health stocks like lingcod while continuing to minimize encounters with overfished species such as yelloweye rockfish.

Relevant Factors for Analysis: Recreational catch data from the Washington Ocean Sampling Program would be analyzed relative to impacts to canary and yelloweye rockfish. Reducing the length of time the depth restriction is in place could potentially direct fishing effort away from nearshore species. Analysis is based on recreational fishing data which captures depth and as a result impacts to overfished species are easier to quantify with based management measures.

Workload: medium

E. Washington and Oregon

E.1 Retain Groundfish, Lingcod only, or Flatfish only During the Pacific Halibut Fisheries

Background: Retention of any groundfish, lingcod only, or flatfish only during the Pacific halibut fishery is covered in both the halibut and groundfish regulations. In recent years, anglers have requested changes to individual areas to allow retention of lingcod, flatfish, or all groundfish, area by area (lingcod in the Columbia River Subarea for 2014). Each time one of these suggestions comes up through the Halibut Catch Sharing Plan (CSP) process, questions arise about whether or not it was analyzed in the biennial groundfish EIS, how it impacts overfished species, and whether or not it can be changed through the CSP process. The intent is that by analyzing a suite of groundfish retention options through the biennial process, it will streamline the halibut CSP process and eliminate some of the confusion about groundfish vs. halibut regulations and what can be done when.

Relevant Factors for Analysis: The GMT will evaluate the impacts of allowing retention of any or all groundfish, just lingcod, or just flatfish, which are anticipated to be primarily yelloweye rockfish and canary rockfish. Part of this analysis will be to attempt to estimate how many people might go from a truly bycatch fishery to targeting, and the impacts to yelloweye rockfish.

Workload: medium/high

F. Oregon

F. 1 Modify Depth Restriction

Background: Currently recreational fishing in Oregon is prohibited seaward of 40 fathoms from April 1 through September 30 in federal regulations. This analysis would change the depth restrictions from 40 fathoms to 50 fathoms.

Relevant Factors for Analysis: The Council is in the process of approving new mortality rates for when descending devices are used to release recreationally caught rockfish. The mortality rates, when descending devices are used, are the same from 30 to 50 fathoms. Therefore, Oregon would like to have that management line available. As part of this analysis, the GMT will need to compare impacts to canary and yelloweye rockfish, and other species in the marine bag. This will need to be done using the surface depth dependent mortality rates as well as the rates (when approved) for the use of descending devices. There has not been a summer fishery out to 50 fathoms in a long time, so it may be difficult to determine target species and bycatch species encounter rates.

Workload: medium/high

F.2 Area Closure

Background: The Stonewall Bank YRCA was implemented in 2004 to reduce and keep yelloweye rockfish mortality within the HG. The Oregon Department of Fish and Wildlife (ODFW) proposes examining possible changes to the Stonewall Bank YRCA coordinates to better isolate areas of yelloweye rockfish encounters.

Relevant Factors for Analysis: Since the Stonewall Bank YRCA was implemented; there has been a fair bit of tagging and movement research on yelloweye rockfish in the area. Additionally, the Oregon State University Goldfinger Lab has done much more detailed mapping of the area. Based on this new data, the analysis will attempt to determine if changes to the YRCA configuration may be appropriate. As with any YRCA analysis, quantifying "savings" will be difficult.

Workload: medium/high

G. California

G.1 Time/Area Closures, Bag limits, Depth Restrictions, and Season Closures

Background: The California Department of Fish and Wildlife (CDFW) is considering changes to recreational regulations to keep catches within allowable harvest limits (ACLs, HGs, etc.). The changes may include, but are not limited to, time/area management measures, bag limits, depth restrictions, and season structures. Such actions will be focused on maximizing fishing opportunity i.e. longer fishing seasons or access to deeper depths while keeping projected mortality below respective harvest limits for overfished species and target stocks.

Relevant Factors for Analysis: The RecFISH catch projection model will be used to project mortality resulting from season proposed season and depth restrictions to evaluate whether they will prevent harvest limits from being exceeded. Bag limit analyses can be conducted to evaluate the proportional increase or decrease in catch anticipated given the recent frequency of fish retained or discarded. The proportional increase or decrease from the bag limit would then be applied to the projected impacts with the proposed season and depth restrictions to project mortality.

Workload: medium