THE GROUNDFISH MANAGEMENT TEAM REPORT ON PART 1 MANAGEMENT MEASURES FOR 2009-2010 FISHERIES

The Groundfish Management Team (GMT) discussed the range of management measures, relative to the 2009-2010 specifications and management measures analysis, that were forwarded for preliminary consideration at the November 2007 Council meeting and included in the April 2008 briefing book (April 2008 Agenda Item H.5.a Attachment 1). Based on guidance from the Region, the GMT discussion focused on how the preliminary range of management measures fit within: (a) the Purpose and Need for the 2009-2010 specifications and management measures supplemental environmental impact statement (SEIS); (b) the four categories of management measures considered in the 2007-2008 specifications and management measures EIS; (c) and, the current workload requirements of the Team and agencies associated with analyses and implementation of these measures. The GMT also considered the implications of taking no action on these potential management measures for 2009-2010. All of these considerations are discussed below. The GMT requests guidance from the Council on which items to prioritize as part of the 2009-2010 SEIS process.

To facilitate this process the GMT reviewed the *Purpose and Need of the Proposed Actions* from the 2007-2008 Groundfish Harvest Specifications and Management Measures and Amendment 16-4 EIS. Guidance from the Region indicates that doing a SEIS is the appropriate course of action, requiring adherence to the same purpose and need from the 2007-2008 action.

The purpose:

1. *Rebuild depleted groundfish stocks to a size and structure capable of supporting maximum sustained yield (MSY) according to the requirements of the Magnuson-Stevens Act (MSA). The MSA mandates rebuilding periods "be as short as possible, taking into account the status and biology of any overfished stocks of fish, the needs of fishing communities, recommendations by international organizations in which the Untied States participates, and the interaction of the overfished stock of fish within the marine ecosystem" (Section 304(e)).*

2. *Ensure Pacific Coast groundfish subject to Federal management are harvested at optimum yield (OY) during 2007 and 2008 in a manner consistent with the Groundfish Fishery Management Plan (FMP), National Standards Guidelines (NSG) (50 CFR 600 Subpart D), and other requirements of the MSA and other applicable law, using routine management tools available to the management measures process (FMP at 6.2., 50 CFR 660.323(b)).*

The need:

1. *The Council approach to rebuilding depleted groundfish species, as described in rebuilding plans, must be re-evaluated and potentially adjusted so they are consistent with a recent opinion rendered by the Ninth Circuit Court of Appeals in Natural Resources Defense Council, Inc. and Oceana, Inc. v. National Marine Fisheries Service, et al., 421 F.3d 872 (9th Cir. 2005), and with National Standard 1 of the MSA.*

2. *Commercial and recreational harvests in 2007 and 2008 must be constrained to levels that will ensure groundfish stocks are maintained at, or restored to, sizes and structures that will produce the highest net benefit to the nation, while balancing environmental and social values.*

To further assist in evaluating the potential analysis the GMT reviewed section 1.3.3 *Range of Management Measures Considered by the Council*, from the 2007-2008 Groundfish Harvest Specifications and Management Measures and Amendment 16-4 EIS. The GMT determined that potential management measures that fit within any of these four categories of management measures could be consistent with the 2007-2008 process. The four categories of management measures analyzed for 2007-2008 were:

1. *Commercial Trip limits*
2. *Commercial Gear requirements*
3. *Recreational gear, size and bag limits*
4. *Time/area closures*

Below is a discussion of each issue and how they relate to the criteria identified above.

COMMERCIAL

Limited Entry Non-Whiting Trawl Fishery

One Bottom Trawl Gear on Board north of 40°10´ N. Lat.

The GMT has discussed the concept of only allowing a single bottom trawl gear on board several times in recent years. The GMT believes consideration of this measure is consistent with the Purpose and Need. The intention of the one bottom trawl gear on board discussion has been to increase the certainty that large footrope gear is not being used shoreward of the Rockfish Conservation Area (RCA). Large footrope is better able to fish in rocky habitats and using this gear in shoreward areas tends to increase bycatch of overfished species found on the shelf. In recent discussions, the team identified several issues that would need to be addressed before putting this type of regulation in place. In particular, if trawlers are held to a single trawl gear during a period, this may inadvertently result in increased trawl effort on the shelf for those vessels that currently fish both seaward and shoreward but are restricted to the smaller limits. In addition, switching between one trawl gear and another may force vessels to incur a cost that they currently do not incur, thus having an adverse economic impact to trawl vessels.

Additionally, sampling concerns in Oregon (approximately 2.6 percent of landings) are associated with the use of multiple trawl gears during one trip. Implementation of a one trawl gear onboard regulation would prevent this issue. Fish are not kept in separate holds by gear type and therefore samples taken at the dock cannot be associated to a specific gear or area fished (shoreward or seaward of the RCA). Gear and area codes cannot be recorded on fish tickets and logbooks when more than one gear is used. When samples cannot be linked to the gear and area fished, they are unable to be used which results in a loss of important information used in stock assessments.

Trawl Declaration to Fish Shoreward or Seaward of the RCA

Requiring that vessels fish shoreward or seaward of the RCA may potentially meet the Purpose and Need, however the implementation of this tool may prove complex and have unintended consequences. Such a declaration may improve modeling capabilities, thus increasing the certainty associated with the trawl model bycatch estimates. While discussing this issue, however, the GMT identified several logistic concerns associated with this tool. If, for example, vessels declare a shoreward or seaward strategy and an inseason adjustment takes place, vessels would be restricted with the shoreward or seaward strategy. If such an inseason adjustment means the closure of a shoreward area, those vessels that have declared the intention to fish shoreward may have their harvest opportunities eliminated without the ability to fish seaward. Such unintended consequences may make the analysis and implementation of this tool difficult and unclear. Reducing flexibility in the non-whiting trawl fishery is inconsistent with the management philosophy we implement inseason (e.g., RCA adjustments to redistribute effort and associated impacts to OFS). **Therefore, the GMT recommends removing this item for analysis under management measures for 2009-2010.**

Redefinition of Selective Flatfish Trawl Gear

In January 2007, the Council received new information indicating the bycatch of canary rockfish in the bottom trawl fishery was higher than modeled during the 2007-2008 Groundfish Harvest Specifications. The 07-08 trawl bycatch model used canary bycatch rates seen under the selective flatfish trawl Exempted Fishing Permit (EFP) and observer data to predict regulated use of the gear. The Team investigated reasons for the difference between the regulated use of selective flatfish trawl gear and the EFP performance by reviewing the report *Effectiveness of Selective Flatfish Trawls in the 2005 U.S. West Coast Groundfish Trawl Fishery* (Hannah, Gove, and Parker 2007) (Agenda Item D.6.c ODFW/NWFSC Report, November 2007). The report recommended refinements to the current selective flatfish trawl regulations, however no further research on gear performance has been conducted to help quantify the canary savings relative to the modifications or possible impacts to target species catch. Preliminary discussions with the Enforcement Committee and the Groundfish Advisory Subpanel highlighted enforceability concerns, difficulty in implementation, standardization of modifications across the fleet, and negative effects on target species catch rates with regard to the proposed changes to the regulations. **Resolution of these issues prior to June without further research on the selective flatfish trawl will be challenging, therefore the GMT recommends removing this alternative for analysis for 2009-2010.**

Limited Entry Whiting Trawl Fishery

Whiting Sector Specific Bycatch Limits

The GMT believes that the concept of sector specific bycatch limits is consistent with the Purpose and Need. Sector specific bycatch limits may tend to decrease competition between sectors, potentially fostering the ability for each sector to manage bycatch successfully. This outcome would increase the likelihood of attaining the whiting OY. The GMT identified several issues that are related to this topic that would need to be addressed in the analysis. First, a bycatch allocation for each sector would need to be calculated. During preliminary discussions, GMT identified two possible methods 1) pro-rata distribution, 2) distribution based on the whiting bycatch model rates. Imposing inflexible, hard limits on each sector may inadvertently constrain one or more sectors even if the overall total bycatch across all three sectors is less than

the overall three sector limit. To alleviate this possibility, sector specific bycatch limits could be subject to adjustments or re-apportionment via a routine inseason adjustment, or sector specific bycatch could be subject to a roll-over from one sector to another if one sector completes harvesting operations and has not taken all of its bycatch. The GMT notes that sector allocations are currently being developed under Amendment 21 - Intersector Allocation and the 2009-2010 exploration of sector specific bycatch limits could build upon this analysis.

Scheduled Release of Bycatch in the Whiting Fishery

The GMT discussed the concept of scheduled releases of bycatch in the whiting fishery and believes that it would tend to operate similarly to sector-specific bycatch limits. Therefore, this item meets the Purpose and Need. This tool would operate similarly to sector specific caps because of the seasonal timing of fishing operations of the three whiting sectors and the fact that devoting specific bycatch amounts to specific times could have an allocative effect, like sector specific limits. Like sector-specific limits, a scheduled release could inadvertently constrain one or more whiting sectors. Therefore, rolling over unused bycatch from one season to another may provide some flexibility in using this tool. In addition, allowing seasonal release amounts to be adjusted via an inseason action could provide another source of flexibility. The current method of releasing the bycatch limit to the fishery at the start of the season tends to favor the sectors that operate in the early part of the season.

Closing Whiting Fishery upon Projected Attainment of a Bycatch Limit

The GMT believes that closing upon projected attainment of a bycatch limit meets the Purpose and Need. Closing upon projection of attainment may mean inadvertently exceeding the bycatch limit or coming in under the bycatch limit, due to imprecise projections. Closing before actually attaining the bycatch limit may result in leaving a portion of the whiting OY unharvested. However, closing upon actual attainment virtually guarantees that the bycatch limit will be exceeded, potentially jeopardizing the OY. Projecting attainment of a bycatch limit inseason is an increased workload for the Region relative to status quo management of the whiting fishery.

Whiting-maximized Retention for Catcher Vessels Delivering to Motherships

Provisions for requiring maximized retention for whiting catcher vessels delivering to motherships fall within the scope of the Purpose and Need. This action does not directly fall into one of the four categories of management measures considered in 07-08, however it does fall into a potential new category for Tracking and Monitoring issues, which are directly related to our ability to manage the fisheries within the constraints of overfished species rebuilding plans. Relative workload associated with this action would be low, because considerable analysis has been completed relative to the at-sea whiting fishery in recent actions. If action is not taken on this issue for 09-10, the GMT would have uncertainty in the accuracy of the bycatch estimates for this sector, which operates in a fishery that is managed within bycatch limits.

The Region indicated that the proposed language for Amendment 10, Shore-Based Pacific Whiting Monitoring Program, addresses this issue. If this issue is addressed in the final Amendment 10 rule, this item should be removed from the SEIS analysis.

Whiting Unmonitored Midwater Trawling in the RCA

Existing regulations allow midwater trawl vessels targeting whiting to fish in the trawl RCA without monitoring/observers during all operations (i.e., only subject to 25 percent coverage by observers) as long as they sort and discard to meet trip limits. Modifying regulations to require

vessels in this fishery to carry an observer during all operations within the RCA would meet the Purpose and Need. This action does not directly fall into one of the four categories of management measures considered in 07-08, however it does fall into a potential new category for Tracking and Monitoring issues, which are directly related to our ability to manage the fisheries within the constraints of overfished species rebuilding plans. Modifying regulations in order to insure that trawl vessels targeting whiting in the RCA are monitored 100 percent of the time would provide accountability for overfished stocks that may be encountered in this fishery. Targeting whiting outside the RCA (with large footrope gear on the slope for example) would still be allowed and subject to normal WCGOP observer rotations.

The Region indicated that the proposed language for Amendment 10, Shore-Based Pacific Whiting Monitoring Program, addresses this issue. If this issue is addressed in the final Amendment 10 rule, this item should be removed from the SEIS analysis.

Limited Entry (LE) Fixed Gear Fishery

Gear Switching From Longline to Pot Gears

Providing the opportunity for gear switching from longline to pot gears meets the Purpose and Need by potentially allowing for access to non-overfished stocks while reducing impacts to overfished species, especially yelloweye rockfish. West Coast Groundfish Observer Program data indicates that yelloweye catch in pot fisheries is lower than catch in longline fisheries. Initial scoping indicates there might be an economic impact of switching from longline to pot gears. If a LE permit with a longline endorsement is allowed to use either pot or longline gear, the value of the longline endorsed permit could be greater and the value of pot endorsed FG permits could be less. As such, there might be a higher workload associated with exploring the economic implications of this item. If the proposed gear switching is recommended by the Council, and analyzed for 2009-2010, an amendment to the Fishery Management Plan would be needed.

Logbooks

Logbooks are not currently mandatory in the limited entry fixed gear fishery and the states vary in their logbook requirements (OR has a mandatory requirement, WA has a voluntary program, CA has no requirement but did do a pilot study to investigate feasibility of a nearshore logbook). Logbooks are directly related to the Purpose and Need of the specifications and management measures process because of the information they provide on the timing and location of fishing effort. The workload associated with the SEIS analysis would not be high, yet design and implementation of a mandatory coastwide logbook program would require coordination between NMFS and the states. The risk of not implementing the program would be no improvement in our knowledge of the fixed gear fleet. Logbooks can improve stock assessments by providing information on CPUE and area of catch. In addition, like with the trawl fishery, the GMT could use logbook information to improve catch projections and estimates of total catch.

Incidental Open Access

Incidental Catch of Lingcod in the Salmon Troll

The GMT discussed the proposal to allow salmon trollers to retain 1 lingcod per 15 chinook landed plus one additional lingcod ("15:1 plus 1") within the RCA at its January 2008 meeting. Under a 50-chinook trip limit, this ratio would permit salmon trollers to retain a maximum of 4

lingcod per trip. The GMT examined whether the 15:1 plus 1 ratio represented a truly incidental bycatch rate by analyzing Washington Department of Fish and Wildlife data taken from onboard observations in the salmon troll fishery off Washington in 2003-2005. This data showed a chinook to lingcod ratio of 24.4 to 1 in 2003, ~15:1 in 2004, and 7.4:1 in 2005. While the 15:1 plus 1 ratio is equivalent to the 2005 ratio, the team has significant concerns about the limited coverage (four percent) and duration of the data. Even if 7.4:1 rate and the trend in the data were statistically significant, the team does not believe that additional impacts to yelloweye and canary could be ruled out. A maximum retention of 4 lingcod per trip does not provide much of an economic incentive to change fishing behavior. However, the team is concerned that there are ways for trollers to target lingcod on a trip at little additional cost. If true, then additional targeting of lingcod should be expected. And given lingcod distributions, the team presumes there would be impacts to canary and yelloweye.

There would be minimal workload associated with analyzing this proposal in the SEIS. However, the team does not have additional data and an analysis would not produce a more definitive answer on canary and yelloweye impacts. **The GMT recommends that the Council either drop this proposal or add a more conservative retention limit (i.e., less than 4 lingcod per trip) to the range analyzed in the SEIS.**

Recreational

Logbooks for Charter Boats

Consideration of a logbook program is mandated under the Magnuson-Stevens Act Reauthorization, though implementation is not required. This action is consistent with the Purpose and Need because logbooks could provide data needed to monitor catch inseason and assess stocks of recreational caught species, which may help in ensuring rebuilding plans are met. Logbooks could provide effort estimates for this fishing mode with greater accuracy than current estimation methods, although depending on the program infrastructure, the information may not be as timely as needed for inseason management. Logbooks may provide additional information that is not currently being collected through the state recreational sampling and survey programs (e.g., location data and CPUE). This data may help identify areas to be avoided to protect overfished species and may also provide valuable information for stock assessments. There may be other methods for collecting additional information from this harvest sector that are more accurate (e.g., observers). The workload associated with the SEIS analysis would not be high, yet design and implementation of a mandatory coastwide logbook program, that meets state and federal requirements, would require coordination between NMFS and the states.

Accounting for Recreational Catch in Numbers

The GMT discussed the concept of managing recreational groundfish catch in numbers instead of weight several times since hearing a presentation from Dr. Richard Methot. This management measure does not clearly meet the Purpose and Need, but there is a national movement toward this approach. Management by numbers may be more socially desirable (i.e., easier for the angler to relate and follow catch progress). Managing recreational fish by numbers seems reasonable from a social standpoint but becomes complicated when considering how to apply the idea to management. The GMT has several unresolved issues with how management in numbers would work.

- How would the change to managing by numbers of fish actually work in terms of allocation and multi-year OYs?

- How would goals be reviewed post season?
- Would the switch to managing by numbers require any changes to the FMP?
- Stumbling blocks: reconciliation at the end of the year and the cycle (e.g., use in the Total Mortality Report).

The GMT notes that Marine Recreational Information Program is currently scoping this issue and should provide guidance in the near term. **As such, the GMT recommends that this item is not analyzed in the 2009-2010 SEIS.**

Recreational Bag Limit for Bronzespotted Rockfish

This measure meets the Purpose and Need by constraining harvest, via bag limits, to levels that would ensure the stock health is maintained. A summary of conservation concerns for bronzespotted rockfish (*Sebastes gilli*) first appeared in the March 2007 briefing book (Agenda Item E.2.b, Attachment 3). This species occurs mainly in Southern California waters, in deep rocky habitats similar to those for cowcod (*S. levis*), a species that is currently under a rebuilding program. Similar to cowcod, bronzespotted rockfish are a slow-growing, long-lived species. Maximum estimated age was 89 years.

Commercial landings of bronzespotted rockfish, after rising to a peak of 94 tons in 1982, dropped rapidly and have been about one ton annually since 1990. RecFIN estimates of recreational landings also dropped severely at about the same time. When plotted relative to the minor shelf south complex within which this species is managed, this suggests that the decline in landings of bronzespotted preceded the decline in both minor shelf and overall landings of rockfish over recent decades as a result of increasingly restrictive management measures.

Data from the RecFIN database suggest that most of the recreational catch comes from rare trips that catch large numbers of bronzespotted rockfish. A recreational bag limit of zero or one fish could encourage vessels to move when they encounter this species; a rational behavior given the association with cowcod. Explicitly linking management measures for these two species would also be a reasonable management approach, and would not result in significant constraints to existing fisheries.

While a decline in the relative abundance of bronzespotted rockfish may be apparent, it is not clear that a prohibition on retention or 1 fish bag limit will reduce recreational impacts on this species. This is a deepwater species and barotraumas induced mortality on individuals encountered in the recreational fishery will most likely be 100 percent.

Mandating Descending Assistance Devices for Rockfish in Recreational Fisheries

This issue meets the Purpose and Need since mandating descending assistance devices could shorten the rebuilding period for overfished species, as research indicates it improves survival of released rockfish. However, research is ongoing and it would be difficult if not impossible to quantify survival rates at this time. Additionally, there are multiple devices available, the use of each likely resulting in differential survival rates. Furthermore, recent research indicates that reproduction success may be hindered in fish released suffering from barotrauma due to injury of internal organs. This effect would also be difficult to characterize at this time.

Requiring the use of descending devices may increase catch and release, if anglers believe that a rockfish released using a descending device will result in the survival of the fish. This may then

provide less incentive to avoid overfished species (i.e., to move another location after catch of an overfished spp.) which is inconsistent with recent and historical guidance to avoid overfished species. Additionally, this mandate would be difficult to enforce. The GMT recommends anglers avoid overfished rockfish and if they are incidentally encountered they should be released at depth. **The GMT recommends further research prior to evaluating whether to require the use of descending assistance devices.**

ADDITIONAL MANAGEMENT MEASURES

Adjustments to RCA Boundaries

The GMT discussed a request to adjust RCA latitude and longitude lines in California to better approximate depth contours. This specifically relates to the Purpose and Need and changes to RCA boundaries can be considered under the management specification process. Adjustments to RCA boundaries would be a low workload for the GMT because the California state representatives will conduct the analyses. Adjustments are necessary because substantial discrepancies exist between current and proposed current depth contours, resulting in lost fishing grounds, lost revenue, and differences in actual versus predicted bycatch.

Electronic Fish Tickets and Logbooks

Electronic fish tickets and logbooks are intended to improve current catch tracking and monitoring systems. This action does not directly fall into one of the four categories of management measures considered in 2007-2008, however it does fall into a potential new category for Tracking and Monitoring issues, which are directly related to our ability to manage the fisheries. Such systems could improve the speed, and possibly, accuracy of landings and logbook information (it would not improve information on discards). The SEIS analysis on the environmental and economic impact of electronic and fish tickets and logbooks could be straightforward. However, the design and implementation of such systems would be complex and would likely extend beyond 2010 because of the associated logistics and workload. Electronic fish tickets are currently being implemented for sectors of the whiting fishery under the proposed Amendment 10 and considered as part of the trawl rationalization process. **Therefore, the GMT recommends that this item is not analyzed in the 2009-2010 SEIS.**

Finer Scale Spatial Management

For fisheries whose catch of target species is constricted by bycatch of overfished species with consistent distributions; RCA, rockfish fishing areas or finer spatial scales of trip limits and other management measures may be effective in reducing bycatch. These finer scale management measures may be critical to meeting the yelloweye rockfish catch reduction, required by the OY ramp-down over the next three years, without having adverse economic effects on coastal communities. The workload associated with this management action has the potential to be very high. However, if such management measures are not pursued, the damping effect of the yelloweye ramp-down could be jeopardized, as could the economic stability of coastal communities dependent on stocks with yelloweye rockfish bycatch associations. Since finer scale spatial management could be instrumental in meeting rebuilding plan goals, this action is consistent with the Purpose and Need and the range of management measures to be considered by the Council. Additionally, this approach also falls under the management measure category of time and area closures that was analyzed in 2007-2008. The GMT notes that finer scale spatial management may provide enforcement concerns.

Scientific Sorting of Skate Species

The requirement to sort skates is related to the Purpose and Need in that it will provide more specific species information necessary for stock assessment evaluation. This information assists in the determination of acceptable biological catch and OY values.

Three species of skate are listed in the FMP (big skate, California skate, and longnose skate) but no requirement exists for species specific sorting. Additionally another five skate species could be encountered regularly on the shelf and slope. Preliminary information reveals that these skates could be visually identified to a species level. The workload associated with implementing this measure would be low, as preliminary groundwork on sampling procedures and species identification has already been outlined. Not implementing a requirement to sort skates may force precautionary management measures necessary to protect these species which have sensitive life histories (i.e., relatively slow growth, late maturation, and a low fecundity). Skate species compositions necessary for stock assessments would not be collected without this requirement.

Re-define at-sea processing

Considering modifications to regulations that define at-sea processing. Allowing some minimal processing at-sea by small vessels would be consistent with the Purpose and Need because it would allow for a value-added product. This action does not directly fall into one of the four categories of management measures considered in 07-08. Relative workload associated with this action would be moderate however; it could increase in complexity if the proposed action is not limited to the primary whiting fishery. At first glance, the GMT does not see the relationship between this item and increasing our ability to manage fisheries within rebuilding OYs. However, the GMT does note that re-defining at-sea processing could provide increased economic incentives. Current prohibitions to at-sea processing apply not only to whiting, but to sablefish as well. **The GMT requests guidance from the Council on whether the intent of this proposed action would be to change the requirements for whiting fishing alone, or for all at-sea processing.**

GMT Recommendations

The GMT recommends removing the following concepts from analysis in the 2009-2010 harvest specifications and management measures SEIS:

- Trawl declaration to fish shoreward or seaward of the RCA.
- Redefinition of selective flatfish gear regulations.
- Either remove the proposal to retain lingcod in the salmon troll fishery within the RCA or request that a more conservative retention limit be added to the range analyzed in the SEIS.
- Accounting for recreational catch in numbers.
- Mandatory release devices for rockfish encountered in recreational fisheries.
- Electronic fish tickets and logbooks.

PFMC
04/10/08