This comment is in response to a recent Proposed Rule concerning 2011-2012 Biennial Specifications and Management Measures (50 CFR Part 660: Federal Register /Vol. 75, No. 212 /Wednesday, November 3, 2010 /Proposed Rules). Please refer to RIN No. 0648-BA01. The purpose of this comment is to provide a State perspective regarding the impacts to Oregon coastal communities of varying yelloweye rockfish (*Sebastes ruberrimus*) rebuilding Alternatives proposed by the Pacific Fishery Management Council (Council or PFMC). The Oregon Department of Fish and Wildlife (ODFW) favors the Council’s Final Preferred Alternative (FPA) of a 17 metric ton (mt) annual catch target (ACT) and a 20 mt annual catch limit (ACL). ODFW provides evidence that an ACL of 13 mt or 14 mt would devastate the economies of Oregon coastal communities. Therefore, ODFW recommends that the National Marine Fishery Service (NMFS) adopt the Council’s FPA.

Note that terminology has been changed per Amendment 23 of the Fishery Management Plan (PFMC 2010b). ACLs are functionally analogous to and replace Optimum Yields (OY) identified in previous management cycles. The ACT is an amount that can be set below the ACL if there is uncertainty in the ability of the management system to effectively keep total fishing mortality below the prescribed ACL (PFMC 2010a).
Background

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires that overfished stocks must be rebuilt as quickly as possible while taking into account the needs of fishing communities (Sec 303; 104-297(e)(A)(i)). Furthermore, the MSA states that “Conservation and management measure shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities” (Sec 301(a); 104-297(8)). Balancing these requirements of the MSA is complicated and difficult with varying interpretations of the law.

The federal government is currently responsible for rebuilding overfished groundfish stocks off the coasts of Oregon, California, and Washington. Rebuilding plans are adopted for each stock declared overfished and are amended as needed through the biennial harvest and management measures specification process. Yelloweye rockfish were declared overfished in 2002 and have been managed based on outcomes of the rebuilding plan while taking into account, but not necessarily meeting, the needs of fishing communities. Setting catch limits under these conditions is problematic because (a) this species is long lived and slow growing (Love et al., 2002) and (b) recent OYs are at levels so low that there is little leeway to allow the prosecution of all fisheries or to conduct research to improve knowledge about this species and stock status.

No fisheries currently target yelloweye rockfish. Yelloweye rockfish are an unavoidable bycatch in many ocean fisheries including directed groundfish fisheries and fisheries targeted at non-groundfish species such as Pacific halibut. Their release is mandatory for all but trawl fisheries, which are allowed to retain no more than 200 pounds (lbs) per month and some tribal fisheries. Mortality rates of released fish are estimated to be between 60-100% due to barotrauma or other catch-related injuries. Current impact allowances, which consider discard mortality rates, are extremely small. For example, the non-whiting trawl fleet was apportioned only 0.6 mt (1,322 lbs) of yelloweye rockfish during 2010, which, at an average weight of 3 lbs (for example) is only 440 fish allowed for all non-whiting trawl vessels along the U.S. west coast (N = 117 vessels in 2009; PFMC 2010a).

In 2006 a stock assessment for yelloweye rockfish indicated a more negative outlook for the stock than was previously thought. The Council recommended and NMFS approved a “ramp-down” strategy by which the impacts would be decreased annually to the level indicated in the rebuilding plan (PFMC 2006). The strategy was to end in 2010 with an indicated OY of 14 mt and it was understood that results from an assessment conducted in 2007 might alter the course. Beginning in 2011, results from a new stock assessment would be used to set impact levels. The “ramp-down” was intended to gradually reduce harvest levels until a yelloweye rockfish spawning potential ratio (SPR) harvest rate of $F_{71.9\%SPR}$ was achieved. Maintaining harvest rates at this level resulted in a projected rebuilding time of 2084. The 2010 OY was increased to 17 mt under the 2009-2010
harvest specifications and environmental impact study (PFMC 2009), based on results from the updated stock assessment conducted in 2007. However, the U.S. District Court for the Northern District of California vacated the yelloweye rockfish rebuilding plan in the 2009-2010 harvest specifications (i.e., PFMC 2009) in response to a lawsuit filed by the Natural Resources Defense Council (NRDC) (NRDC v. Locke, Civil Action No. C 01-0421 JL; see Federal Register, 2010). The court was in agreement with NRDC for three overfished species: yelloweye rockfish, darkblotched rockfish, and cowcod. The lawsuit claimed NMFS violated National Standard 2 of the MSA by failing to use the best scientific information available on the economic status of fishing communities affected by the rebuilding plans in the 2009-2010 harvest specifications (i.e., PFMC 2009), and that rebuilding times for overfished species were not “as short as possible”. The ruling in April of 2010 required the yelloweye rockfish OY to be reduced from 17 mt to 14 mt.

In the current cycle, the Council recommended a yelloweye rockfish ACT of 17 mt for both 2011 and 2012 (the recommended ACL was 20 mt; PFMC 2010a). Harvest levels for overfished species, including yelloweye rockfish, were analyzed in an integrated approach and associated economic-impacts were provided in the Proposed Harvest and Specifications and Management Measures for the 2011-2012 Pacific Coast Groundfish Fishery, Draft Environmental Impact Statement (PFMC 2010a), hereafter referred to as 2011-2012 DEIS. These analyses compared three ACL alternatives for yelloweye rockfish: 13 mt, 17 mt, and 20 mt (PFMC 2010a; Federal Register 2011) and provided justification for the Council’s recommended ACL and ACT. However, the Council was informed just prior to the November 2010 PFMC meeting that the 2011-2012 DEIS was not well justified. Implementation of the Harvest Specifications and Management Measures for 2011 would be delayed. Furthermore, NMFS would provide the Final Environmental Impact Statement (FEIS) by March 2011 (Agenda Item H.2.a, Supplemental NMFS Power Point, November 2010).

It is ODFW’s assertion that there is no justification of an ACL (or ACT) lower than 17 mt for yelloweye rockfish. As stated previously, ODFW supports the Council’s FPA for yelloweye rockfish ACL (20 mt) and ACT (17 mt), as well as the Council’s FPA for trawl, non-trawl, and recreational allocations (PFMC 2010a). This alternative is favored because it is projected to rebuild the yelloweye rockfish stock 10 years earlier than the targeted rebuild date of the “ramp down” strategy (2084) while preventing severe impacts to Oregon coastal communities that are already economically depressed (see below). The remainder of this comment provides specific reasons that ODFW supports the FPA of 17 mt ACT for yelloweye rockfish and describes projected impacts to Oregon fisheries and coastal communities in the event a lower ACL or ACT is mandated in the FEIS.
Rebuilding Times and Use of Best scientific Information

In contrast to the opinion of NRDC (discussed previously), we believe that the best scientific data were used for both the economic analysis (PFMC 2010a) and the 2009 yelloweye rockfish stock assessment (Stewart et al. 2009). Although the 2011-2012 DEIS utilized 2000 census data, which was the most recent and best decennial data available when the 2011-2012 DEIS was prepared, that DEIS also utilized inter-decennial estimates (1-year, 3-year, and 5-year estimates) using the American Community Survey (ACS). Hence, the ACS data provided updated information for the 2011-2012 DEIS. For example, 2006-2008 ACS data were used to identify the percentage of the population living below the poverty line (PFMC 2010a). Finally, other data included in the economic analysis represented the best and most recent data available when the 2011-2012 DEIS was composed. For example, 2008 and 2009 PacFIN data were used to describe current fisheries (number of vessels, ex-vessel revenue, and total number of buyers).

The 2009 stock assessment (Stewart et al. 2009) was endorsed by the SSC as “the best available science for the status determination and management Council process” (Federal Register, 2010). The Council’s FPA, an ACT of 17 mt, which is effectively identical to Alternative 2 in the 2011-2012 DEIS, was projected to rebuild yelloweye rockfish by 2074 or 10 years before the current Ttarget (Federal Register, 2010). Although lower ACTs (or ACLs) are estimated to provide faster rebuilding times (e.g., a 13 mt ACL results in a median rebuilding time of 2065), the Washington Department of Fish and Wildlife (WDFW) (Agenda Item 1.4.c, WDFW Report, September 2010) clearly demonstrated that fastest times to rebuild are not necessarily those that best achieve long-term conservation objectives. This report synthesized Groundfish Management Team (GMT) reports, MSA, and scientific literature to develop logical and scientifically based conclusions. These findings, along with the associated GMT reports should formally be included as part of the decision making record and seriously considered when deciding the 2011-2012 harvest level for yelloweye rockfish.

Misleading Interpretation of the No Action Alternative

Various alternatives for yelloweye rockfish annual catch limits (ACLs) are being considered for the 2011-2012 FEIS. Some of those alternatives are listed in Table 1. The three ACLs that were derived from the 2009 rebuilding analysis (Alternatives 1-3) were analyzed in the 2011-2012 DEIS, and in many cases, compared to the No Action Alternative. This comparison is misleading because (a) the 2010 season began under a yelloweye rockfish OY of 17 mt and (b) even though the OY was reduced to 14 mt following the decision of NRDC vs. Locke (Federal Register, 2010) fisheries remained essentially unchanged. This is due to the States of Oregon and Washington eliminating planned research projects in an effort to minimize disruption to commercial and recreational fisheries. Additionally, exempted fishing permits (EFP) approved for 2010 were eliminated or reduced in scope to further accommodate fisheries. Therefore, most fisheries performed at levels similar to those observed during 2009, when the ACL was 17 mt, largely because planned research and EFPs were eliminated.
Table 1. Alternatives considered for yelloweye rockfish rebuilding plans and for 2011-2012 integrated and economic analyses (PFMC 2010a). Alternative, median time to rebuild (year) and the ACL (or ACT) analyzed are shown. Associated recreational harvest guidelines for Oregon are also shown.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Median Time to Rebuild (year)</th>
<th>2011-2012 ACL (mt)</th>
<th>OR Rec. Harvest Guideline (HG)</th>
</tr>
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<tbody>
<tr>
<td>No Action Alt.</td>
<td>---</td>
<td>14</td>
<td>2.3</td>
</tr>
<tr>
<td>Final Preferred Alt.</td>
<td>---</td>
<td>20 (17 ACT)</td>
<td>2.4</td>
</tr>
<tr>
<td>Alt. 1 Low</td>
<td>2065</td>
<td>13</td>
<td>1.5</td>
</tr>
<tr>
<td>Alt. 2 Intermediate</td>
<td>2074</td>
<td>17</td>
<td>2.4</td>
</tr>
<tr>
<td>Alt. 3 High</td>
<td>2084</td>
<td>20</td>
<td>3.0</td>
</tr>
</tbody>
</table>

It is important to clarify that elimination of research projects and EFPs, resulting in a savings of 2.1 mt of yelloweye rockfish, prevented severe restrictions for commercial fisheries that would have been needed during 2010 (Agenda Item B.5.b, GMT Report, June 2010. Agenda Item B.7.a, Supplemental Attachment 3, June 2010). It is misleading to assume that the “No Action Alternative”, or a 14 mt ACL, will allow 2011 and 2012 fisheries to be prosecuted at levels observed in 2009. We cannot assume that research projects and EFPs will be continuously postponed or eliminated, as this information is needed to improve stock assessments and to better predict rebuilding parameters for overfished species. In addition, the Council does not have the authority to prevent research activities from occurring, should other entities wish to conduct projects that impact overfished species (e.g., NMFS or International Pacific Halibut Commission research).

The following sections describe potential impacts to Oregon recreational and commercial fisheries and associated communities for 2011 and 2012 under two alternatives for yelloweye rockfish ACLs (or ACTs; PFMC 2010a): 17 mt (Alternative 2 and the Final Preferred Alternative) or 13 mt (Alternative 1). Even though Alternative 1 examined impacts of a 13 mt ACL, those analyses serve as the proxy for a 14 mt ACL. Alternative 1 assumes full implementation of research projects and EFPs, whereas the “no action alternative” does not.

**Impacts to Oregon Recreational Groundfish Fisheries**

A 17 mt ACL (or ACT) would result in a 2.4 mt harvest guideline (HG) (2010=2.3 mt HG) for the 2011 and 2012 Oregon recreational groundfish fishery. A 13 mt ACL would reduce the HG to 1.5 mt (Table 1).

Depth restrictions are the preferred management strategy to reduce recreational angler catches of yelloweye rockfish. Depth restrictions allow anglers to fish for healthy stocks in depths shallower than where yelloweye rockfish are more commonly found (50-100
fathoms; Love et al. 2002). Angler catch rates of yelloweye rockfish decrease as depth restrictions increase; therefore, managers can use depth restrictions to keep groundfish seasons open throughout the year and stay within the yelloweye rockfish HG. In-season closures are not preferred management strategies because anglers can rapidly exceed the yelloweye rockfish HG, resulting in increasingly shorter seasons and fewer angler opportunities. Although greater depth restrictions may extend the season while limiting impacts to the yelloweye rockfish stock, these restrictions will result in reduced groundfish angler trips and associated negative socio-economic impacts to Oregon’s coastal communities. A 1.5 mt HG would require much greater depth restrictions than a 2.4 mt HG in order to keep the recreational groundfish fishery open throughout the year (Figure 1).

### Figure 1. Pre-season depth restriction options for the Oregon recreational groundfish fishery that would be necessary under a 13 mt ACL and a 17 mt ACL. (YE=yelloweye rockfish)

A reduction in the ACL from 17 mt to 13 mt is projected to decrease the percentage of groundfish angler trips for all ports except for Astoria and Pacific City; reduce coast wide groundfish angler trips by 8%; and reduce groundfish trips for Garibaldi and Winchester Bay by up to 35-45% (Figure 2). These projections were determined by applying the 13 mt ACL depth restriction options (Figure 1) to 2009 groundfish angler interview data to determine the percentage of angler trips in 2009 that would have occurred in prohibited waters. The 2009 scenario is consistent with an ACL or ACT of 17 mt.

The coast-wide projected percent decreases of groundfish anglers trips in Figure 2 (8%) is consistent with the 2011-2012 DEIS projection (6.2%) (PFMC 2010a). However, the 2011-2012 DEIS underestimates the percent decrease to Garibaldi (Tillamook County) by 20-35%.

<table>
<thead>
<tr>
<th>13 mt ACL depth restriction Options (1.5 mt HG)</th>
<th>YE projected impacts (mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option</strong></td>
<td><strong>Jan</strong></td>
</tr>
<tr>
<td>1</td>
<td>Open all depths</td>
</tr>
<tr>
<td>2</td>
<td>Open &lt; 20 fm</td>
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<tr>
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<td>2</td>
<td>Open all depths</td>
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<tr>
<td>3</td>
<td>Open all depths</td>
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</tbody>
</table>
Figure 2. Projected percent decreases in recreational groundfish angler trips for Oregon ports if the ACL for 2011 and 2012 is 13 mt instead of 17 mt. n=number of interviews with depth data, O=depth restriction option.

Differences in projected angler trip decreases among ports are due to differences in the amount of available fishing area by depth for each port (Figure 3). Ports with greater percentages of fishing area inside 20 fathoms, such as Newport and Depoe Bay, would be
less affected by 20 fathom closures than ports, such as Garibaldi, that have greater percentages of fishing areas deeper than 20 fathoms.

Figure 3. The percentage of recreational fishing area by depth for selected Oregon ports.

The projected percent decreases in angler trips under a 13 mt ACL compared to a 17 mt ACL (Figure 2) are based on the best and most recent available data. It is noted that anglers would have the option of fishing shallower water, if desired. To better understand how the greater depth restrictions of a 13 mt ACL would affect the number of groundfish angler trips, charter captains and sport anglers from various Oregon ports were asked if and how these restrictions would affect their groundfish fishing efforts.

To summarize angler input, everyone is opposed to the greater depth restrictions that would be necessary under a 13 mt ACL (13 mt ACL options 1-5, Figure 1). The anglers stated that they are already severely restricted to where they can fish due to marine reserves and depth restrictions that were implemented previously to reduce yelloweye rockfish catches. They believe additional depth restrictions will reduce the number of groundfish fishing trips throughout the coast, resulting in negative effect to the economies of coastal towns. The interviewed anglers stated also that the projected angler trip percentage reductions in Figure 2 seemed plausible. Additionally, the interviewed anglers believe that some ports (Newport, Charleston, and Depoe Bay) may be less affected by additional depth restrictions than other less resilient ports, such as Garibaldi and Winchester Bay. These ports could be devastated because they have fewer shallow
water (<20 fathoms) groundfish fishing areas than the other ports along the Oregon coast (Figure 3).

Charter input was collected from captains from Newport (Mike Sorensen), Garibaldi (Joe Ockenfels), Charleston (Bill Whitmer), and Winchester Bay (Casey Howard). All charter captains agree that groundfish fishing is vital to their businesses because the groundfish fishery is consistent and dependable, unlike the tuna and salmon fisheries, which are highly variable on an annual basis. The captains believe that adjusting the April-September depth restrictions from 40 fathoms (17 mt ACL) to 20 fathoms (13 mt ACL) will devastate the economy of Garibaldi, which has few shallow water groundfish opportunities. Mr. Sorensen and Ms. Howard note that a similar situation has already occurred in Winchester Bay. Winchester Bay was once a popular port for charter groundfish fishing before the 40 fathom depth restrictions were enacted (all groundfish fishing reefs near Winchester Bay are deeper than 50 fathoms). Ms. Howard stated that her charter operation is almost out of business because of lost groundfish opportunity and because she now has to rely on salmon trips; poor salmon seasons cause her considerable debt. Mr. Ockenfels is very fearful that greater depth restrictions will cause the Garibaldi charter fleet also to become solely dependent on the salmon and tuna fisheries.

Charter captains and recreational anglers also agree that Garibaldi would have significant reductions in sport groundfish angler trips if greater depth restrictions occur. John Holloway, a sport angler and ODFW Sport Advisory Committee (SAC) member who travels from his home in Portland to Garibaldi to fish for groundfish, and Mr. Ockenfels believe greater depth restrictions will cause Portland area groundfish anglers that would normally fish out of Garibaldi to move to other ports, such as Newport or Depoe Bay, that have better fishing opportunities in shallow water (<20 fathoms). Ms. Howard notes that the same situation has already occurred at Winchester Bay; recreational anglers are highly mobile, and moved to ports with more groundfish fishing opportunities. Mr. Ockenfels is highly concerned that the hotels, restaurants, and other businesses in Garibaldi will suffer from decreases in groundfish anglers trips. Eugene Tish, who owns a hotel in Garibaldi and is on the Garibaldi Tourism Commission, says recreational groundfish trips are essential to the economy of Garibaldi and many businesses, including his own, would close with greater depth restrictions in the groundfish fishery. “The economy of Garibaldi is dependent on recreational groundfish anglers and the city is trying to transition to other forms of tourism. This transition will take time and will not occur if recreational groundfish angler trips decrease significantly in the near future.” said Mr. Tish. “Until the schools are out of session, recreational groundfish dollars are the lifeblood of this economy.”

Mr. Tish’s assessment of Garibaldi having a fishing based economy that is vulnerable to restrictive fishing regulations is consistent with the findings of the 2011-2012 DEIS (PFMC 2010, Appendix E). Tillamook County, of which Garibaldi is the major port, is classified as a vulnerable county due to high community engagement in fishing, medium dependence on groundfish fisheries, and low socioeconomic resilience.
The estimated loss in revenue for Garibaldi, a city of less than 1,000 people (2000 Census data), is projected to be up to 3.3 million dollars with an ACL of 13 mt instead of 17 mt. This estimate is based on the estimated recreational saltwater angler expenditure for Tillamook County in 2008 (Dean Runyan Associates 2009) and clearly shows that the economy of Garibaldi could be devastated by up to multi-million dollar losses under a 13 mt ACL.

Revenue of other Oregon coastal economies would also be expected to decrease if the recreational yelloweye rockfish ACL decreases to 13 mt. However, the disproportionate projected impact to Garibaldi is of greatest concern and would be in direct violation of the MSA requirement that restrictions made to rebuild overfished fisheries must fairly and equitably impact sectors of the affected fishery (Sec 304; 104-297(e)(B)). The projected multi-million revenue loss for Garibaldi under a 13 mt ACL also violates the MSA requirement that overfished stocks must be rebuilt as quickly as possible while taking into account the needs of fishing communities (Sec 303; 104-297(e)(A)(i)).

**Impacts to Oregon Commercial Fixed Gear Fisheries**

The economic/community analysis in the 2011-2012 DEIS primarily describes impacts by license type (limited entry versus open access fixed gear fisheries), whereas the integrated analysis (PFMC 2010a) determines impacts to overfished species by fishing strategy (non-nearshore versus nearshore fixed gear fisheries). This disconnect between analyses creates confusion and uncertainty regarding the impact to communities when choosing among alternatives and associated management measures to reduce overfished species impacts by individual fisheries. The following text pulls together projected impacts to overfished species (by fishing strategy) and economic/community impacts (by license type) to predict how a reduction from a 17 mt to a 14 mt yelloweye rockfish ACL or ACT may affect Oregon commercial fixed gear fisheries and the associated coastal communities.

Components of the Magnuson-Stevens Fishery Conservation and Management Act that emphasize the needs of the fishing community when making management decisions were highlighted at the beginning of this document. As the potential impacts of more restrictive management measures to commercial fixed gear fisheries and their associated communities are described, it is important to reflect on a general definition that the Council adopted at its April 2006 meeting:

"Fishing Communities need a sustainable fishery that is safe, well managed, and profitable, that provides jobs and incomes, that contributes to the local social fabric, culture, and image of the community, and helps market the community and its services and products (PFMC 2006)."

* $3.3 million=the fraction of groundfish trips in Tillamook County that are from Garabaldi (.82; ODFW, unpublished data) multiplied by the expected reduction in groundfish trips for Garabaldi under Alternative 1 (.45; Figure 2) multiplied by the fraction of saltwater trips that are groundfish trips in Tillamook County (.46; PFMC and NMFS 2010, Appendix E) multiplied by the estimated revenue generated from saltwater fishing trips in Tillamook County ($20 million; Dean Runyan Associates 2009).
Non-nearshore Fixed Gear Fisheries:

The non-nearshore fixed gear sector is comprised of limited entry and open access vessels targeting species seaward of the non-trawl rockfish conservation area (RCA). These groundfish vessels operate on the shelf and slope, primarily targeting sablefish, shortspine thornyhead, and slope rockfish species. Sablefish comprise the bulk of the landings and associated revenue for these fisheries, making them highly valuable to the fisheries and to coastal economies. Coast-wide sablefish landings for limited entry and open access fixed gear vessels during 2009 totaled 3,457 mt, resulting in an ex-vessel value of $18,094,000 (DEIS 2010); these values are higher than those associated with trawl-caught sablefish (3,010 mt and $12,433,000). Overfished species catch projections for non-nearshore fixed gear fisheries are made using a model that assumes total attainment of the sablefish allocation coupled with depth-specific bycatch rates provided by the West Coast Groundfish Observer Program (Bellman et al. 2010). The management measures available for limiting yelloweye rockfish catch are therefore depth management or reducing sablefish catch (see PFMC 2010a).

Under the assumption of a 17 mt ACL (or ACT) for yelloweye rockfish, the Council’s FPA (Agenda Item H.6.b, Supplemental GMT Report 3, November 2010) allocated 0.9 mt of yelloweye rockfish to the non-nearshore fixed gear fishery. At this level, the non-nearshore model projected that the 2011 sablefish allocation could be fully harvested with a seaward RCA of 100 fathoms throughout the Oregon coast (Figure 4; PFMC 2010a). The associated yelloweye rockfish impacts were projected to be 0.8 mt.

<table>
<thead>
<tr>
<th>Seaward RCA Boundary</th>
<th>36°- 40° 10'</th>
<th>40°10'- Col/Eur 43°</th>
<th>Col/Eur 43°- Cascade Head 45.064°</th>
<th>Cascade Head 45.064°- Pt. Chehalis 46.888°</th>
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Figure 4. Non-trawl RCA seaward configuration that would result in full attainment of the sablefish ACL and limit yelloweye rockfish projected impacts to 0.8 mt (Alternative 2; PFMC 2010). Grey shading indicates areas closed to fishing. Copied from Figure C-15 (Appendix C Detailed Analysis of Integrated Alternatives, 2011-2012 DEIS, PFMC 2010a).
Moving the seaward RCA to 125 fathoms between 43° and 45.064° N. latitude (Figure 5), provided an additional savings of < 0.1 mt yelloweye rockfish. Hence, even more restrictive seaward RCAs than those shown in Figure 5 may be necessary to reduce yelloweye rockfish impacts by this fishery to levels lower than 0.8 mt. This reduction may be recommended by the Council in the event that a 14 mt ACL or ACT is permanently adopted for 2011 and 2012.

<table>
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<tr>
<th>Seaward RCA Boundary</th>
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Figure 5. Non-trawl RCA seaward configuration that would result in full attainment of sablefish ACL and limit yelloweye rockfish projected impacts to 0.8 mt (Alternative 2; PFMC 2010a). Grey shading indicates areas closed to fishing. Copied from Figure C-14 (Appendix C Detailed Analysis of Integrated Alternatives, 2011-2012 DEIS, PFMC 2010a).

In this section, the integrated alternative 1 (Low Overfished Species Impacts) is not referred to when attempting to elucidate the effects of reducing the yelloweye rockfish ACL or ACT from 17 mt to 14 mt for several reasons. First, the integrated alternative analysis (PFMC 2010a) assumes not only a low yelloweye rockfish ACL (13 mt) for alternative 1, but also an extremely low canary rockfish ACL (49 and 51 mt) relative to the Council’s FPA (17 mt ACT for yelloweye rockfish and 102 mt ACL for canary rockfish). [Note: at the beginning of 2011, harvest levels of 102 mt will be set for canary rockfish (FPA which is similar to alternative 2 in the integrated analysis) and 14 mt for yelloweye rockfish (less than the Councils FPA and most similar to alternative 1 in the integrated analysis; PFMC 2010a)] The necessary management measures described in the alternative 1 of the integrated analysis were driven by the low canary rockfish ACL, which included area closures off Washington and restricted access to sablefish. Results of these severe actions resulted in projected yelloweye rockfish landings as low as 0.1 mt. The analysis of alternative 1 for the non-nearshore model is therefore not relevant to the current situation, which is a 102 mt ACL for canary rockfish and either a 14 or 17 mt ACL (or ACT) for yelloweye rockfish.

New information provided by the most recent Total Mortality Report (Bellman et al., 2010) may require management measures that are more restrictive than previously anticipated by the 2011-2012 DEIS. The Total Mortality Report shows that the 2009
yelloweye rockfish mortality by the non-nearshore fixed gear fishery was 1.3 mt, or 0.4 mt higher than projected for 2009 using the RCA structure shown in Figure 5. This new information suggests that more restrictive management measures may be required to maintain yelloweye impacts below 0.8 mt in the non-nearshore fixed gear fishery than shown in the figures above.

The remainder of this section describes potential impacts to Oregon communities under the assumption that the seaward RCA is moved to 125 fathoms throughout Oregon waters for the fixed gear non-nearshore fishery, which may be the least restrictive measure that would be required to reduce impacts to yelloweye rockfish to acceptable levels under the 14 mt ACL scenario. More restrictive measures, such as 150 fathom seaward RCAs (PFMC 2010a) or restricting sablefish harvest below the current 2011 and 2012 allocations may be required to ensure even lower yelloweye rockfish impacts if the 14 mt ACL (or ACT) is permanently adopted for 2011 and 2012, especially given the results of the most recent Total Mortality Report (see above).

Economic and Safety Impacts: In 2009, there were 55 limited entry and 243 open access fixed gear vessels that participated in Oregon groundfish fisheries (PFMC 2010a); the 2011-2012 DEIS did not differentiate between non-nearshore and nearshore fixed gear vessels. Since 140 fixed gear vessels landed nearshore species in Oregon during 2009 (A. Dauble, ODFW, unpublished data), we can assume that there were at least 158 vessels that participated in the Oregon non-nearshore fixed gear fishery during 2009.

Moving the seaward RCA from 100 fathoms to 125 fathoms (or possibly 150 fathoms) may affect at least 158 Oregon fixed gear sablefish vessels in regards to both economics and safety. Dialogue with fixed gear sablefish fishermen indicate that moving the seaward RCA deeper results in poorer catches (much of the productive sablefish grounds are between 100 and 125 fathoms, especially during the late summer and fall in southern Oregon). Additional costs will be accrued such as increased time required to set and retrieve gear, greater fuel and equipment costs, and additional running time (vessels must travel farther off shore). These factors result in increased expenses and increased exposure to risks (such as injury).

The problems associated with the additional expense caused by increasing the seaward depth of the non-trawl RCA will be magnified by the recent large reduction of sablefish OY/ACL north of 36° N. latitude (PFMC 2010a). The amount of harvestable sablefish allocated to fixed gear fisheries north of 36° N latitude was reduced from 3,012 mt in 2009 to 2,327 mt in 2011 (23% reduction). The ex-vessel value of fixed-gear caught groundfish landed in Oregon ports during 2009 was $6,857,000 (DEIS 2010). Approximately $1,023,000 of this ex-vessel value included landings of nearshore species (see below; A. Dauble, ODFW, unpublished data), leaving approximately $5,834,000 ex-vessel value for groundfish landed by the non-nearshore fishery. We anticipate, therefore, that the 23% reduction in the sablefish ACL will result in a loss of approximately $1,341,820 (ex-vessel value) for Oregon vessels that participate in the non-nearshore fishery. These reductions in sablefish harvest, coupled with the additional expense incurred if seaward the RCA is moved deeper than 100 fathoms, may be
devastating to the fishery participants and the supporting communities. The potential restrictions described above would likely result in increased expenses, lower harvest, and reductions in the number of participating vessels.

Oregon Communities Impacted: Coastal communities throughout Oregon will be impacted by additional restrictions for this non-nearshore fixed gear fishery. Fixed gear sablefish fisheries occur in all port groups (Astoria, Tillamook, Newport, Charleston, and Brookings port groups; PFMC 2006). It is important to note, however, that only up to two trawl vessels operate out of the Tillamook port group whereas none operate out of Port Orford and Gold Beach, which are part of the Brookings port group (PFMC 2006, 2010a). Even though 10 non-whiting trawl vessels were reported to land groundfish in Brookings during 2009, trawl deliveries to Brookings are low relative to trawl contributions in Newport and Coos Bay, where deliveries were made from 26 and 23 trawl vessels during 2009, respectively (PFMC 2010a). Hence, potential restrictions described above impact not only individual fishermen, but also infrastructure within Tillamook, Port Orford, and Gold Beach because fish buyers associated with those ports have few other options for year-around groundfish product. Any further reductions in sablefish landings to reduce yelloweye rockfish impacts may also impact local economies in the Newport, Charleston, and Brookings port groups, even though each of those port groups exhibit relatively strong trawl components (PFMC 2006). Limited Entry Fixed Gear represents 20.5%, 16.8% and 23.9% of the landings within the Newport, Charleston, and Brookings port groups (PFMC 2010a).

Tillamook, Newport and Brookings port groups exhibited three of the highest poverty ratings along the entire U.S. West coast (17.6%, 16.8% and 15.3%, respectively, which represents the 3rd, 4th, and 7th highest poverty ranks along the coast; PFMC 2010a). Counties associated with Tillamook, Newport, and Brookings port groups were also described as vulnerable and low resilience. These assessments illustrate that increasing expenses (i.e., moving the seaward RCA deeper) and restricting harvest for non-nearshore fixed gear fisheries will likely result in additional negative economic impacts to specific Oregon coastal communities that are already economically depressed. The fixed gear sablefishery will already experience drastic reductions in 2011 relative to 2009 due to the reduced sablefish OY (see above). Restricting this fishery further to reduce yelloweye rockfish impacts lower than the 17 mt ACL will clearly have a detrimental impact to Oregon’s coastal communities.

Nearshore Fixed Gear Fisheries:

The nearshore fixed gear fishery consists of limited entry and open access vessels targeting species shoreward of the non-trawl RCA. These groundfish vessels operate on the shelf shoreward of 30 fathoms, primarily targeting black and blue rockfish, cabezon, greenling, lingcod, and other nearshore rockfish. Overfished species catch projections are made using a model that applies bycatch rates (supplied by the West Coast Groundfish Observer Program) to landed catch stratified by depth (see PFMC 2010a).
Under the FPA ACT for yelloweye rockfish of 17 mt, 1.1 mt were apportioned to the nearshore fixed gear fishery. Under this option, the shoreward RCA restrictions for the Oregon nearshore fixed gear fishery would range from 20 fathoms (40°10’ to 43° N latitude) to 30 fathoms (43° to the Washington border). The FPA would allow Oregon to achieve landings of target species that were near 2007 – 2009 averages (see Table C-14, PFMC 2010a).

Reducing the yelloweye rockfish ACT from 17 mt to 14 mt may result in severe impacts to the nearshore fishery. Under alternative 1 of the integrated analysis (yelloweye rockfish ACL = 13 mt), projections showed that landings of target species may be reduced by as much as 73% for the Oregon nearshore fixed gear fishery relative to the 2007 – 2009 average landings. In other words, it may be necessary to reduce the average annual landings of target species for this Oregon fishery from 218 mt to 59 mt. Potential impacts to Oregon communities under such a drastic potential reduction are described below.

**Economic and Community Impacts:** One hundred forty vessels made nearshore landings in Oregon during 2009 (A. Dauble, ODFW, unpublished data). Most Oregon vessels that fish for nearshore species do not target sablefish seaward of the RCA, so the nearshore represents their primary source of fishery-related income. The ex-vessel value of landings for selected nearshore species (black, blue, and nearshore rockfish, greenling, cabezon, and lingcod) in Oregon during 2009 totaled $1,023,000 (A. Dauble, ODFW, unpublished data).

Many nearshore fixed gear fishermen indicate that they would not be able survive restrictions that are more severe than what they are currently operating under. Some statements from nearshore fishermen include:

“We have been cut back with quota so we can make very little money. To further restrict us would be a disaster financially”, “We simply cannot survive with a 25% reduction, as proposed. Fuel prices, quota reductions, buyer problems, and the new Yelloweye proposal, would simply make this a losing battle”, and “For the past eight years I and many others have had to adjust to reductions of catch for one reason or another. Each reduction has been and is detrimental to my livelihood” (Agenda Item B.3.c, Public Comment, June 2010).

Some of these nearshore fishermen would simply stop fishing and get into another business, which may require leaving the community. These fisheries have already experienced increasingly restrictive regulations to reduce overfished species impacts (e.g., additional shoreward RCA and catch restrictions). Any additional restrictions, and in particular further reductions in harvest, would be dire for participants in this commercial fishery and the associated communities.

Although the fixed gear nearshore fishery operates along most of the Oregon coast, most nearshore landings (76% of selected nearshore species by weight) occur in the Brookings port group (Brookings, Gold Beach, and Port Orford; Figure 6). Tillamook represents
14% of the nearshore landings, followed by Newport (7%), Charleston (3%) and Astoria (<1%). Ninety seven vessels landed nearshore species in the Brookings port group and 26 vessels made nearshore landings in the Tillamook port group during 2009 (A. Dauble, ODFW, unpublished data). Hence, 88% of the Oregon nearshore fleet operates out of the Tillamook (19%) and Brookings (69%) port groups. Note that 45% of the Oregon nearshore fleet, or 63 vessels, delivered catches to Port Orford during 2009.

![Pie chart showing nearshore fishing ports]

Figure 6. 2010 landings of selected nearshore species by port group (percent of landed weight; through November 29, 2010) for the nearshore fixed gear fishery (G. Krutzikowsky, ODFW, unpublished data). Species included were black, blue, tiger, vermilion and nearshore rockfish, greenling, and cabezon. Port groups were Astoria, Tillamook (Garibaldi, Tillamook, and Pacific City), Newport (Newport and Depoe Bay), Charleston (Winchester Bay, Charleston, Coos Bay and Bandon), and Brookings (Brookings, Port Orford and Gold Beach).

Communities that are most affected by restrictions to the nearshore fixed gear fishery (Brookings and Tillamook port groups) are communities that have no or limited trawl fisheries (PFMC 2010a). Zero to two trawl vessels delivered groundfish in Tillamook during recent years and no trawl fisheries exist in Gold Beach and Port Orford (PFMC 2006, 2010a). The trawl fishery in Brookings is limited to 10 vessels that landed groundfish in 2009; PFMC 2010a). The ports of Charleston (and Coos Bay), Newport, and Astoria each took landings from more than 20 non-whiting trawl vessels during
Furthermore, there are no large-scale processing plants remaining in Brookings or Tillamook port groups. Impacts of reduced groundfish deliveries to the infrastructure within Tillamook and Brookings port groups may be severe because groundfish landings and the infrastructure needed to accept landings is already limited. Fish buyers require constant and sufficient supply of product. With the planned reductions of sablefish landings (see above) and the potential severe restrictions for the nearshore fishery, it is possible that fish buyers will no longer purchase groundfish from these ports. For example, one nearshore fisherman stated “We have to be able to supply an ample amount of fish to our buyers in order to keep them in business as well” (Agenda Item B.3.c, Public Comment, June 2010). If these restrictions come to fruition, many fishermen may deliver to other ports where infrastructure exists, move to a different port, or get out of the business all together, subsequently impacting the full economy of the port left behind.

The nearshore fixed gear fisheries within the Brookings port group provides live fish for the special live-fish market. Live fish are provided primarily by small vessels fishing in nearshore waters. The Brookings port group provides more live-fish landings than any other port group along the U.S. west coast (DEIS 2010). Not only does this live product provide high ex-vessel value to nearshore fishermen (2010 average ex-vessel values were as much as $7.00 per pound for some species; G. Krutzikowsky, ODFW, unpublished data), but it also provides the freshest and most specialized product for local and non-local restaurants and farmers markets. A much reduced or infrequent supply of this live product would have community impacts reaching much deeper than the significant loss of income for the individual fishermen and their crew. These potential management restrictions would affect the infrastructure (buyers and local processing), restaurants, shipping companies, and tourit industry within these communities. The limited entry nearshore fixed gear fishery in southern Oregon is primarily for live fish (G. Krutzikowsky, ODFW, personal communication), and these fish buyers are different than those for sablefish (= non-nearshore fishery). It is quite probable that if nearshore landings were severely restricted, that the primary live-fish buyer in Oregon would leave the state. The loss of this single fish buyer could put an end to live-fish deliveries for these southern Oregon ports.

As described above, Tillamook and Brookings port groups are among the most impoverished ports along the entire U.S. west coast, are vulnerable, and have low resiliency to changes in fishery regulations (PFMC 2010a). One hundred twenty three fixed gear vessels landed nearshore species in Tillamook and Brookings port groups during 2009 (A. Dauble, ODFW, unpublished data). It is our assessment that any additional management measures to further reduce yelloweye rockfish impacts for the nearshore fixed gear fishery will result in disproportionate and dire impacts to the communities of Tillamook, Brookings, Gold Beach, and Port Orford.
Conclusion

This report shows that maintaining a yelloweye rockfish ACL (or ACT) of 14 mt results in impacts much more detrimental to Oregon fisheries and communities than described in the 2011-2012 DEIS. Reasons that the impacts may be more severe than shown are:

(1) The No Action Alternative does not adequately portray the impacts to fisheries and communities that would be experienced under a 14 mt ACL for yelloweye rockfish. The No-Action Alternative described in the 2011-2012 DEIS includes reduction or elimination of research and EFPS to remain under 14 mt for yelloweye rockfish. The Council has no control over research catch (i.e., Federal and International), and it is not advisable for the States to continue forgoing the collection of research data that is needed by the Council and Federal Government to improve stock assessments and detect changes in abundance (increases or decreases) of overfished species.

(2) A recent WCGOP Total Mortality Report (Bellman et al. 2010) indicates that yelloweye rockfish mortality by the non-nearshore fixed gear fishery during 2009 exceeded the projected mortality, even under a restrictive RCA design (i.e., Figure 5). Therefore, management measures shown by the 2011-2012 DEIS may not be enough to achieve described goals for this fishery under a 14 mt yelloweye rockfish ACL (or ACT).

(3) Impacts to communities shown by the 2011-2012 DEIS were described by fixed-gear license (limited entry versus open access), and not by fishing strategy (non-nearshore fixed gear versus nearshore fixed gear). Both open access and limited entry landings are dominated by sablefish, and are therefore most reflective of the non-nearshore fishery. Hence, impacts to nearshore fisheries are severely underrepresented in the community/economic analysis of the 2011-2012 DEIS.

(4) Models used to project impacts and management measures cannot adequately project or control landings of overfished species under low ACL scenarios. Management measures and models are not designed to control fisheries at such low levels and the probability of being wrong (exceeding allocations and ACLs) increases as the ACL decreases. Under the new NS1 guidelines, the cost of being wrong is great, and reducing the yelloweye rockfish ACL (or ACT) below 17 mt will result in more frequent, “unanticipated” overages.

Even though all Oregon ports and all fisheries would be impacted by a 14 mt ACL (or ACT), the impact is disproportionate among ports and fisheries. For the recreational fishery, Garibaldi, the main recreational fishing port in Tillamook County, would be most affected because of the likely elimination of the majority of the fishing grounds caused by the associated requirement of a 20 fathoms RCA. The nearshore fixed gear fishery (primarily Tillamook, Brookings, Gold Beach, and Port Orford) may experience up to a 72% reduction in landings, which could ultimately eliminate this fishery altogether. The non-nearshore fishery may seem to be less impacted by a reduction in yelloweye rockfish
ACL than the other fisheries; however, any additional restrictions to this fishery will be magnified by the large reduction in the sablefish ACL north of 36° N. latitude that will be effective January 1, 2011.

The economies of cities that are dependent on commercial fixed gear fisheries (Tillamook, Brookings, Gold Beach, and Port Orford) or recreational groundfish fisheries (Garibaldi) would likely be devastated by further management restrictions because they lack other sources of fishery-related income (i.e., trawl fisheries). The counties where these ports are located, Tillamook County (Garibaldi and Tillamook) and Curry County (Gold Beach, Brookings, and Port Orford), were shown to be vulnerable to adverse socio-economic impacts and least likely to respond to severe decreases in landings (i.e., low resiliency). Tillamook and Curry counties already have some of the weakest economies among the U.S. West Coast, with high unemployment levels (Curry=8%; Tillamook=5.4%) and high poverty levels (Curry=15.3%; Tillamook=17.6%). Additional job losses would be expected with greater management restrictions, which would result in wide-spread and far-reaching economic devastation for these counties.

It has been clearly demonstrated that the “fastest rebuilding times to rebuild overfished species are not necessarily those that best achieve our long-term conservation objectives” (Agenda Item I.4.c, WDFW Report, September 2010). The Councils final preferred alternative for yelloweye rockfish (17 mt ACT) was lower than that necessary to reach $T_{\text{target}}$ (= 20 mt ACL). Reducing the ACT to a lower level (e.g., 14 mt) in hopes of achieving a faster rebuilding time will be devastating to Oregon communities, will be difficult if not impossible to predict and track (due to imprecise models), will not be manageable (due current management tools available), and will not achieve long-term conservation objectives.

Given the uncertainty and imprecision of rebuilding a species such as yelloweye rockfish to a $T_{\text{target}}$ date that is more than 50 years away, and given that the fastest rebuilding times may not achieve long-term conservation objectives, it is highly questionable whether the severe impacts to communities under a 14 mt ACL for yelloweye rockfish is justified. Rebuilding plans predict that a 14 mt ACL would reduce the rebuilding time for yelloweye rockfish by only 7 years relative to a 17 mt ACL, from 2074 to 2067. Clearly the onerous management measures required to achieve this small and uncertain improvement in rebuilding time would not “take into account needs of fishing communities”, as required by MSA, nor would they provide for a “safe, well managed and profitable fishing community”, which was part of a definition provided by the Council at the April, 2006 meeting (PFMC 2006). The best scientific data and analyses (e.g., 2009 Stock Assessment, Stewart et al., 2009) should not be discounted due to misunderstanding by the courts, or to poor justification shown by the 2011-2012 DEIS; an ACL (or ACT) for yelloweye rockfish should not be lower than 17 mt.

**Literature Cited**


