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BY EMAIL, and U.S. MAIL

Chairman Cedergreen and Council Members
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Re: Agenda Items H.1 and H.2: 2011-2012 Biennial Specifications and Management Measures and Amendment 16-5 to the Pacific Coast Groundfish Fishery Management Plan.

Dear Chairman Cedergreen and Council Members:

The Natural Resources Defense Council (NRDC) submits the following comments concerning the 2011-2012 Biennial Specifications and Management Measures, and Amendment 16-5 to the Pacific Coast Groundfish Fishery Management Plan (FMP). Please include these comments in the administrative record.

As you are aware, the Order on Remedy resulting from *NRDC v. Locke* requires NMFS, by April 29, 2011, to establish new harvest specifications and rebuilding periods for darkblotched, cowcod and yelloweye that are as short as possible pursuant to the Magnuson-Stevens Act (MSA), and to establish rebuilding periods that are based on the best scientific information available.¹ We believe that the harvest specifications and rebuilding periods proposed by the Council will not comply with the Order. In sum, our concerns are as follows:

- **Darkblotched rockfish** is behind schedule according to the 2009 Assessment, and mortalities have likely exceeded optimum yield (OY) for the past two years. The Council should adopt a rebuilding target closer to the T_{MIN} of 2016, adjust for previous OY overages in the 2011-2012 catch levels, and expand the Rockfish Conservation Areas (RCAs) as necessary to prevent future overages.
- **Cowcod** rebuilding is stagnant, with a depletion level of around 4.5% according to the 2009 Assessment. The Council should adopt a rebuilding target closer to the T_{MIN} of 2060 and preserve the existing boundaries of the Cowcod Conservation Areas (CCAs).

¹ See *NRDC v. Locke*, No. 01-cv-00421-JL (N.D. Cal. April 22, 2010).

- **Yelloweye rockfish** is behind schedule according to the 2009 Assessment. The Council should adopt a rebuilding target closer to the T_{MIN} of 2047 and revise existing management measures where necessary to minimize yelloweye mortalities as much as possible.
- The rebuilding plan for **canary rockfish**, while not specifically covered by the Order, still must comply with the MSA's mandate to rebuild in a period as short as possible. Canary rebuilding is six years behind schedule, its depletion level was lowered by roughly 10% in the most recent assessment, and its OY is regularly exceeded. The Council's proposal to postpone canary's rebuilding target by six years in order to maintain status quo catch levels violates the MSA's rebuilding mandate.
- The default target reference points for **petrale sole** should not be lowered until robust analysis and data collection provide better support for such changes.

We believe that elements of NMFS's emergency rule related to cowcod and yelloweye put rebuilding plans for those species on the right track for compliance with the MSA, including the adoption of a 14 mt OY for yelloweye, and adoption of a shorebased trawl allocation of cowcod quota pounds based on a harvest level of 3 mt. We urge the Council and NMFS to incorporate similarly conservative harvest levels into the final harvest specifications for these species, in addition to the actions discussed below.

I. Introduction

Under the MSA, overfished species must be rebuilt in a time period that is "as short as possible" while giving consideration to "the status and biology of the overfished species and the needs of the fishing communities."² The justification for this priority, even when it causes economic hardship, lies in the statutory recognition that a healthy, rebuilt fishery is in the interests of both fishing community and environmental goals.³ Congress stated explicitly that it intended with the MSA "to take immediate action to conserve and manage the fishery resources."⁴

The issue of how to interpret "considering the needs of the fishing community" in light of the MSA's mandate to "rebuild as quickly as possible" has been squarely considered by a federal Court of Appeals.⁵ In *NRDC v. NMFS*, the Ninth Circuit concluded that "Congress intended to ensure that overfished species were rebuilt as quickly as possible, but wanted to leave leeway to avoid disastrous short-term consequences for fishing communities."⁶ The Court used a "total fishing ban" as an example of "disastrous short-term consequences."⁷ "The purpose of the Act is clearly to give conservation of fisheries priority over short-term economic interests."⁸ Based on available data on recent revenues in the groundfish fishery,

² 16 U.S.C. 1854(e).

³ See 16 U.S.C. § 1801(a)(1) (noting that the nation's fishery resources "constitute valuable and renewable natural resources," that many of these species' survival is threatened and that others' survival will soon be threatened by "increased fishing pressure, . . . the inadequacy of fishery resource conservation and management practices and controls.").

⁴ 16 U.S.C. § 1801(b)(1).

⁵ *NRDC v. NMFS*, 421 F.3d 872 (9th Cir. 2005).

⁶ *Id.* at 880.

⁷ *Id.*

⁸ *Id.* at 879.

we believe the Council can strengthen rebuilding plans—creating more value for fisheries faster—without coming close to disastrous consequences.

The mandate to “rebuild as quickly as possible” was revisited in the recent ruling in *NRDC v. Locke*, which held that the 2009-2010 harvest specifications for three overfished species – darkblotched, cowcod and yelloweye – violated the MSA since they were based neither upon rebuilding periods that were as short as possible nor upon on the best scientific information available.⁹ The associated Order on Remedy requires NMFS by April 29, 2011 to establish new harvest specifications and rebuilding periods for darkblotched, cowcod and yelloweye that are as short as possible pursuant to the MSA and to establish rebuilding periods that are based on the best scientific information available.¹⁰ The Court recently reemphasized the importance of its Order on Remedy in its February 14, 2011 Order on Fees, stating that “[t]his Court’s April 2010 rulings compelled Defendants to revise their rebuilding scheme for the fishery.”¹¹

In short, the Court has made clear that lower catch levels are necessary for yelloweye, cowcod and darkblotched rockfish. The Council and MNFS must now adopt appropriate catch levels and management measures, and demonstrate that the target rebuilding dates for overfished species meet the requirements of the MSA.

II. Darkblotched Rockfish

History and background

Darkblotched rockfish was declared overfished in 2001. The 2005 darkblotched assessment incorporated what turned out to be an overly optimistic stock recruitment curve. On the basis of that erroneous parameter, in 2007 NMFS increased darkblotched catch limits to the highest levels since the species was declared overfished, from a status quo of 200 mt (2006) to 290 mt (2007) and 330 mt (2008). The 2007 darkblotched assessment revealed the error in the 2005 assessment, which was major enough to be called a “fundamental change in our understanding of the stock’s productivity;” indeed, the updated assessment indicated that the target rebuilding year of 2011 in the darkblotched rebuilding plan could not be achieved even under a zero harvest rebuilding strategy.¹²

Yet rather than returning to the catch levels used prior to the introduction of the faulty stock assessment (i.e., the 2006 OY of 200 mt), NMFS adopted catch levels for 2009-10 that were actually higher than those adopted on the basis of the erroneous assessment, and simply pushed the target rebuilding date back 17 years to 2028. In *NRDC v. Locke*, the Court found:

“Contrary to the intent of the MSA, the Agency responded to a new and more pessimistic understanding of darkblotched’s biological capacity to rebuild by keeping harvests at about the levels it set in 2008 – when it

⁹ See *NRDC v. Locke*, No. 01-cv-00421-JL (N.D. Cal. April 22, 2010).

¹⁰ See *id.*

¹¹ *Id.*

¹² PFMC, Agenda Item H.1.c, Supplemental GMT Report, April 2008 at 3. See also 2009-2010 Groundfish Harvest Specifications Final Environmental Impact Statement (FEIS), at 26 (“[T]he new assessment fundamentally changed our understanding of stock productivity.”).

thought the species was far more resilient – and extending the species’ rebuilding period by nearly two decades. This is directly contrary to the court of appeals’ ruling in *NRDC v. NMFS*, on virtually identical facts.”¹³

2009 Assessment indicates rebuilding is behind schedule.

The 2009 darkblotched assessment update essentially confirms the conclusions of the 2007 assessment with respect to the faulty 2005 assessment: according to the DEIS, “the 2009 assessment did not change our fundamental understanding of the stock.”¹⁴ The 2011 target rebuilding date is still infeasible (with $T_{MIN}=2016$), and maintenance of the status quo SPR harvest rate would rebuild the species by 2027 (one year later than estimated in the 2007 assessment).¹⁵ While the 2009 assessment estimates that darkblotched is slowly rebuilding with a 2009 depletion level of 27%, it tempers that estimate with the qualification that it is based upon “recent survey trends [that are] are noisy and relatively flat. The estimated increase in stock size is driven primarily by the assumption that darkblotched productivity is analogous to that of other similar species, and *not on survey and fishery data indicating an upward trend.*”¹⁶ These facts indicate a need for caution in setting catch levels that are based on this uncertain assumption of increased biomass.

The proposed rebuilding date and harvest levels do not respond to the Court Order.

The Council’s proposed rebuilding date of 2025, while a nominal improvement over the vacated 2028 target rebuilding date, does not respond to the Court’s order to establish a rebuilding period for darkblotched that is “as short as possible” within the meaning of the MSA.¹⁷ As shown in Table 1 below, the T_{TARGET} of 2025 would maintain the status quo catch limits that were set in 2007-08 based on faulty information about darkblotched productivity, and extended in the 2009-10 harvest specifications invalidated in *NRDC v. Locke*. According to the 2009 assessment, it is possible to rebuild darkblotched by 2016 with no catch.¹⁸ A catch limit of 130 mt is estimated to rebuild darkblotched by 2018, and a catch limit of 222 mt is estimated to rebuild darkblotched by 2022.¹⁹

Table 1: Darkblotched Rebuilding Plan Targets and Catch Levels

Year	T_{TARGET}	Catch Level (mt)
2012	2025	296
2011		285
2010	2028	291*
2009		285*
2008	2011	330
2007		290
2006	2019	200

*Catch levels vacated by *NRDC v. Locke*

¹³ *NRDC v. Locke*, No. 01-cv-00421-JL at 32.

¹⁴ DEIS at 345.

¹⁵ DEIS at 38.

¹⁶ DEIS at 43 (emphasis added).

¹⁷ See *NRDC v. Locke*, No. 01-cv-00421-JL.

¹⁸ DEIS at 38.

¹⁹ *Id.*

Fishery revenue data and recent catch levels justify a shorter rebuilding period and lower catch levels.

Recent catch levels as well as trends in the economic health of the fishery reveal that it is indeed possible to meet MSA's conservation priorities by establishing faster rebuilding targets and lower harvest levels while accommodating the needs of the fishing community.

According to the FMP, "darkblotched rockfish is ... most frequently taken in the commercial trawl fisheries north of 38° N. latitude."²⁰ Historical revenue data indicates that ex-vessel revenues in the groundfish trawl sector have increased over the past five years, from roughly \$23.8 million in 2005 to \$30.5 million in 2009.²¹ Indeed, after overall groundfish fishery revenues hit a low of \$63.9 million in 2002 (concurrent with the disaster declaration in the fishery), they rebounded to significantly higher levels: after adjusting for inflation, average revenues for the groundfish fishery between 2005 and 2009 were slightly over \$85 million.²² In 2008, revenues in the fishery exceeded \$113 million dollars.²³ Per-vessel revenues have rebounded as well. Due in part to the reduction in the trawl fleet resulting from the buyback program, per-vessel revenues are roughly 40% higher in 2009 than they were in 1998 after adjustment for inflation.²⁴

The catch level for darkblotched was set at 200 mt in 2006, prior to the introduction of the faulty stock assessment that led NMFS to increase the catch level by over 50%. Nonetheless, economic data from both the commercial trawl sector and the larger groundfish fishery indicate that revenues in 2006 continued to rebound from 2002 lows.²⁵ Therefore, it is reasonable to assume that the commercial trawl fishery and associated fishing communities can accommodate current catch levels considerably closer of 200 mt for darkblotched, and we urge the Council and NMFS to adopt a rebuilding plan with a target rebuilding date that is associated with that catch level.

Darkblotched OY has been exceeded for the past two years, requiring adjustments in the 2011 OY to account for the overage and changes to the RCAs.

The darkblotched OY was exceeded in 2009 and 2010. The 2009 mortality report revealed that darkblotched exceeded 2009 OY (285 mt) by 15 mt. Under-projection in the trawl sector was responsible: non-whiting trawl exceeded its 2009 projection of 200 mt by 72 mt, or 36%. Darkblotched mortality data from 2010 revealed that darkblotched was on track to exceed the 2010 OY (330 mt) by 53 mt, or 16%. Once again, under-projection in the trawl sector was largely responsible for the overage.

According to the MSA's National Standard 1 Guidelines (NS1 Guidelines), when OY for a rebuilding species is exceeded, the catch limit for the following year should be adjusted by the full amount of the overage.²⁶ The Council didn't make the necessary adjustment to the OY in 2010, intensifying the need to do so in 2011.

²⁰ FMP at 46.

²¹ DEIS at F-11 (Table F-18).

²² DEIS at F-3 (Table F-2).

²³ *Id.*

²⁴ DEIS at 240.

²⁵ DEIS at F-3, F-11.

²⁶ See 50 CFR Sec. 600.310(g)(3).

Additionally, the NS1 Guidelines hold that if catch exceeds the annual catch limit (ACL) more than once in the last four years, the system of ACLs and accountability measures (AMs) should be re-evaluated, and modified if necessary, to improve its performance and effectiveness.²⁷ In the wake of two consecutive darkblotched OY overages, the Council has not yet performed this required evaluation and modification, despite the Groundfish Management Team's (GMT's) suggested expansion of the RCAs during the summer months as one potential fix.²⁸ We strongly urge the Council to follow the GMT's suggestion to expand the seaward RCA boundary from 200 fm to 250 fm during both the winter and summer months.

III. Cowcod

History and background

Cowcod was declared overfished in 2000. The 2005 cowcod assessment incorporated a model-specification error that suggested cowcod's population to be at 18% of unfished biomass, leading NMFS to establish a target rebuilding year of 2039 and an associated catch limit of 4 mt per year for the 2007-08 harvest specifications for cowcod. However, a correction of the model-specification error in the 2007 cowcod assessment indicated that cowcod in the area covered by the assessment was at only 4.6% of its unfished biomass and could not be rebuilt by the target year, as the new $T_{F=0}$ was estimated to be 2061.²⁹ In spite of the new information revealing that cowcod was actually worse off than previously thought, NMFS chose to maintain the status quo harvest level of 4 mt per year and delay cowcod's target rebuilding date by 33 years, to 2072. Invalidating those harvest levels, the Court in *NRDC v. Locke* ruled that **"NMFS's decision to delay rebuilding the most depleted overfished species by more than a generation ... violates [the MSA requirement that rebuilding periods are as short as possible]."**³⁰

2009 Assessment indicates that cowcod is not rebuilding.

The 2009 cowcod assessment reveals no new data to indicate that cowcod is any closer to rebuilding than it was when the invalidated 2009-2010 specifications were adopted.³¹ Indeed, the estimated cowcod depletion level in 2009 is 4.5%,³² slightly lower than the 4.6% rate estimated in the 2007 assessment, suggesting that the cowcod population is failing to rebuild as projected, and may actually be in decline.

The proposed rebuilding date and harvest levels do not respond to the Court Order.

Nevertheless, as illustrated in Table 2 below, the Council's proposed rebuilding plan would essentially maintain the status quo target rebuilding year of 2071 (an improvement of one year over the current target rebuilding year), in order to sustain the invalidated harvest limits of 4 mt per year.

²⁷ *Id.*

²⁸ PFMC, Agenda Item H.6.b, Supplemental GMT Report 2, November 2010, at 16.

²⁹ 73 Fed. Reg. 80,516, 80,520-80,521 (Dec. 2008).

³⁰ *NRDC v. Locke*, No. 01-cv-00421-JL at 35.

³¹ The DEIS notes that cowcod "continues to display a slow upward trend," in spite of the stagnant depletion rate. DEIS at 338.

³² DEIS at 338.

Table 2: Cowcod Rebuilding Plan Targets and Catch Levels

Year	T _{TARGET}	Catch Level (mt)
2012	2071	4
2011		4
2010	2072	4*
2009		4*
2008	2039	4
2007		4

*Catch levels vacated by *NRDC v. Locke*

The 2009 cowcod assessment estimates a $T_{F=0}$ rebuilding year of 2060, and a rebuilding year of 2064 with a harvest level of 2 mt per year. It is possible to rebuild cowcod more quickly than the 2071 target proposed by the Council, and the Council and NMFS have not addressed why a target rebuilding year that is 11 years later than T_{MIN} is “as short as possible” pursuant to the requirements of the MSA.³³

Fishery revenue data and recent catch levels justify a shorter rebuilding period and lower catch levels.

According to the FMP, cowcod “is most frequently taken off Southern California in commercial non-trawl and recreational fisheries. All groundfish fishing communities off the southern U.S. west coast are affected by cowcod rebuilding measures.”³⁴ As discussed above, overall groundfish fishery revenues have rebounded substantially since 2002. That trend applies to the commercial nontrawl sector as well. In the limited entry fixed gear sector, per-vessel revenue has increased significantly since 1998: In 2009, average per-vessel revenue was 2.5 times greater than average revenue in 1998, after adjustment for inflation.³⁵ Top-earning vessels realized revenue in 2009 that was close to 3.5 times greater than average revenue in 1998.³⁶ In the open access fixed gear sector, 2009 average revenues are almost 2 times greater than 1998 average revenues, and generally indicate a trend of increasing revenues over the past 12 years.³⁷

Historic morality data for cowcod (which are admittedly subject to high levels of uncertainty) suggest that actual total catch has varied between as low as .32 mt in 2003, 2.18 mt in 2004, 1.27 mt in 2005, and 1.18 mt in 2006. Therefore, it is reasonable to assume that a catch level of 3 mt for cowcod, which is projected to rebuild the species by 2068, would promote the conservation goals of the MSA and could be reasonably accommodated by affected fisheries and fishing communities. Furthermore, analysis in the DEIS indicates that fishing communities would not be severely impacted by lower catch levels for cowcod. Alternative 2, which would set catch at 3 mt per year, is associated with a projected 10% drop in revenue for most nontrawl sectors (except for open access nearshore, which is associated with a 6% rise in revenue).³⁸ Alternative 1, which would set catch at 2 mt per year, is associated with essentially identical projected revenue impacts.³⁹ These potential revenue impacts are well within the range of “inter-annual percentage changes witnessed

³³ *NRDC*, 421 F.3d at 880.

³⁴ FMP at 43.

³⁵ DEIS at 246.

³⁶ *Id.*

³⁷ DEIS at 249.

³⁸ DEIS at 413.

³⁹ *Id.*

over the recent past [1999-2009]” that the Council has deemed acceptable in the DEIS.⁴⁰ Alternative 2 is also associated with negligible impacts to both community income and the number of bottomfish recreational angling trips in the Southern California Bight where cowcod is generally located.⁴¹

The emergency rule issued by NMFS is on the right track: we laud NMFS’s use of the 3 mt catch level in the emergency rule to establish the cowcod allocation under the IFQ program, and we urge the Council and NMFS to incorporate a similarly conservative catch level into the final harvest specification and rebuilding plan for cowcod.

Given cowcod’s poor rebuilding performance and stagnant depletion level, no reductions should be made to the existing Cowcod Conservation Areas.

The Cowcod Conservation Area (“CCA”) has proven quite effective in restricting take of cowcod below prescribed catch levels, which is a critical element for protecting and rebuilding the highly vulnerable stock. Nonetheless, cowcod’s estimated depletion level is just 4.5%, and the stock appears to be stagnating rather than rebuilding as planned (see discussion supra). Cowcod, which under the current rebuilding plan will not achieve rebuilt status until 2072, was ranked as one of the most vulnerable stocks in the fishery by the recently completed Productivity and Susceptibility Analysis (PSA).⁴²

By moving the existing CCA boundary from 20 fm to 30 fm, the Council’s proposal would open a substantial portion of currently protected area to fishing. Specifically, the change would open 61.2 square miles of cowcod habitat within the existing CCA to fishing.⁴³ Since cowcod are known to occur between 20 fm and 267 fm,⁴⁴ allowing fishing at 30 fm could result in increased take of cowcod. Furthermore, juvenile cowcod occur in habitats at depths between 28 and 180 fm,⁴⁵ so the change would move the CCA boundary inside of known juvenile habitat. This change would effectively eliminate the 10 fm buffer created by the existing 20 fm boundary between fishable area and known cowcod habitat.⁴⁶

The 10 fm buffer is a critical feature of the CCA that helps address a number of sources of management uncertainty, including gaps in enforcement, difficulty by anglers in identifying boundaries, and errors in bycatch estimates. Eliminating the buffer and allowing fishing in known habitat for both adult and juvenile cowcod presents threats to both the viability of the beleaguered cowcod stock as well as the quality of its habitat.

In addition, it is unclear in the DEIS what other bycatch species co-occur with cowcod and would be subject to increased fishing pressure and habitat impacts by the proposed change. For example, china rockfish, which is subject to overfishing according to the depletion-based stock reduction analysis (DB-SRA), occurs in highest density between 2-50 fm,⁴⁷ and in areas currently within the CCA, including the area off San Nicolas Island.⁴⁸ Since china is

⁴⁰ DEIS at 409.

⁴¹ DEIS at 416, 418.

⁴² DEIS at 291.

⁴³ DEIS at B-84.

⁴⁴ DEIS at B-90.

⁴⁵ DEIS at B-91.

⁴⁶ DEIS at B-96.

⁴⁷ DEIS at 235.

⁴⁸ <http://www.dfg.ca.gov/marine/nearshorefinfish/chinarockfish.asp>

an unassessed species and managed in the nearshore complex, it is difficult to determine what impacts the boundary shift would have on the overfished stock, though it would almost certainly result in increased fishing pressure. The proposed boundary change must be supported by an analysis of impacts on all affected species and habitats.

We strongly urge the Council to maintain the existing CCA boundary of 20 fm so that the necessary 10 fm buffer will remain in place. Cowcod's rebuilding progress is stagnating, and the stock has the lowest known depletion level in the fishery. By protecting juvenile habitat, the buffer is a crucial feature for allowing this stock to gain a foothold so that it continue down the long path of rebuilding. The CCA may also have the added benefit of protecting other fish that are severely depleted and subject to overfishing, though analysis of impacts to other species by the proposed change is absent in the DEIS.

IV. Yelloweye

History and background.

Yelloweye rockfish was declared overfished in 2002. In the wake of year-after-year declines in the stock's unfished biomass, NMFS in 2007 adopted a "ramp-down" rebuilding strategy for yelloweye, which utilized hard catch limits rather than a constant harvest rate. The 2007 ramp-down plan provided for an initial harvest limit of 23 mt in 2007 that would gradually decline until it landed at 12.6 mt in 2011, where it would remain for the rest of the rebuilding period. The stated intention of the ramp-down strategy was to provide time for the fishery to prepare for lower catch levels.

In 2009, NMFS responded to an assessment indicating that yelloweye was behind schedule by increasing the 2010 harvest level from the 14 mt specified for 2010 in the 2007 ramp-down plan to 17 mt and simultaneously extended yelloweye's target rebuilding date. In invalidating the 2009-2010 specifications for yelloweye, the Court in *NRDC v. Locke* noted that increasing fishing pressure in light of estimates that a rebuilding species is in worse shape clearly violates the MSA's rebuilding mandate:

"This is essentially what the Agency did to darkblotched rockfish between the 2001 and 2002 Specifications cycles, and what the court of appeals so decisively rejected in *NRDC v. NMFS*. Whatever the outer limits of the range of permissible constructions of the [MSA], we are certain that what lies beyond them is an interpretation allowing [NMFS], upon discovering that a species is in significantly worse shape than previously thought, to increase dramatically the fishing pressure on that species."⁴⁹ "Yelloweye is biologically capable of rebuilding by 2049, three and a half decades earlier than the Agency's current harvest levels for the species will allow. Accordingly, the NMFS 'ramp-down' harvest plan does not provide for rebuilding within the shortest time possible and violates the MSA."⁵⁰

⁴⁹ *NRDC v. Locke*, No. 01-cv-00421-JL at 38 (quoting *NRDC v. NMFS*, 421 F.3d 872, 881(9th Cir. 2005)).

⁵⁰ *Id.* at 39.

2009 Assessment indicates that yelloweye rebuilding is behind schedule

The 2009 rebuilding analysis indicates that yelloweye rebuilding is three years behind schedule under the status quo harvest rate – in other words, forecasted yelloweye rebuilding under the status quo harvest rate is three years beyond the invalidated rebuilding target year of 2084.⁵¹ Historic yelloweye rebuilding targets and catch levels are summarized in Table 3 below.

Table 3: Yelloweye Rebuilding Plan Targets and Catch Levels

Year	T _{TARGET}	Catch Level (mt)
2012	2084	20
2011		20
2010	2084	17*
2009		17*
2008	2084	20
2007		23

*Catch levels vacated by *NRDC v. Locke* as not low enough given that yelloweye was behind schedule

The proposed rebuilding date and harvest levels do not respond to the Court Order.

It is possible to rebuild yelloweye by 2047 with no fishing, and there is a wide range of possible harvest limits in the 37 year time span between T_{F=0} and the proposed target year of 2084 in Amendment 16-5 that would rebuild yelloweye more quickly and still allow for unavoidable bycatch. The Council proposes a rebuilding target date that is almost four decades longer than possible with zero fishing, and associated catch levels that are actually higher than those invalidated by the order, despite the fact that yelloweye is once again behind schedule.

Fishery revenue data and recent catch levels justify a shorter rebuilding period and lower catch levels.

The FMP indicates that yelloweye “is most frequently taken in recreational and commercial hook-and-line fisheries north of 40°10’ N. lat. Measures to rebuild yelloweye rockfish by eliminating its directed harvest and preventing its incidental catch affect all hook-and-line groundfish fishing off the northern U.S. west coast.”⁵² Historic revenue data indicate that average ex-vessel revenues in the groundfish hook-and-line fishery have rebounded since hitting a low of just over \$13 million in 2002.⁵³ Annual ex-vessel revenues for the fishery averaged nearly \$18 million between 2005-2009, reaching a new high of \$22.8 million in 2009, almost 50% greater than average revenue in 1998 after adjustment for inflation.⁵⁴

The Court Order resulting from the decision in *NRDC v. Locke* vacated the 2010 yelloweye catch level of 17 mt and replaced it with a catch level of 14 mt. Accordingly, the Council’s proposed status quo target rebuilding date of 2084 and *higher* catch level of 20 mt for 2011-12 is inconsistent with the Court Order and the MSA. The adoption of a 14 mt OY for

⁵¹ DEIS at 356.

⁵² FMP at 55.

⁵³ DEIS at F-6 (Table F-6).

⁵⁴ *Id.*

yelloweye, consistent with the 2010 catch level set by the Order, will equip the Council and NMFS with the flexibility to establish a final OY and a new rebuilding plan for yelloweye that rebuild the species in a time period that is “as short as possible” while giving consideration to “the status and biology of the overfished species and the needs of the fishing communities,” consistent with the Magnuson-Stevens Act (“MSA”)⁵⁵ and the Order.

V. Canary

History and background

The rebuilding plan for Canary rockfish is six years behind schedule, according to the 2009 stock assessment. The new assessment shows a biomass depletion level of 23.7% instead of 32.4% just two years before.⁵⁶ As a result, the species is “very unlikely to rebuild by T_{target} .”⁵⁷ In addition, the cumulative OY from 2000-2007 (years with reliable catch data since rebuilding began) was exceeded by 14%.⁵⁸ The current T_{min} is estimated as three years more than the previous T_{target} , meaning that if all fishing mortality was halted, it would take three years longer than the current T_{target} (with fishing) to rebuild.⁵⁹

In response, the Council’s proposed rebuilding plan would postpone rebuilding by six years, extending the target rebuilding date from 2021 to 2027, in order to maintain status quo catch levels of roughly 100 mt per year. Rather than responding to new information that a species is doing worse than expected by lowering catch rates, the Council has again indicated that it is willing to extend target rebuilding dates in order to maintain status quo catch levels. Table 4 below summarizes the proposed and historical target rebuilding date and catch levels.

Table 4: Canary Rebuilding Plan Targets and Catch Levels

Year	Relative depletion	T_{TARGET}	Catch Level (mt)
2012	23.7%	2027	107
2011			102
2010	32.4%	2021	105
2009			105
2008	9.4%	2063	44
2007			44

The FMP indicates that canary “is taken coastwide in all of the groundfish fisheries, commercial and recreational, as well as in many commercial and recreational fisheries targeting species other than groundfish.”⁶⁰ As discussed above, after overall groundfish fishery revenues hit a low of \$63.9 million in 2002 (concurrent with the disaster declaration in the fishery), they rebounded to significantly higher levels: after adjusting for inflation, average revenues for the groundfish fishery between 2005 and 2009 were slightly over \$85 million.⁶¹ In 2008, revenues in the fishery exceeded \$113 million dollars.⁶² Per-vessel

⁵⁵ 16 U.S.C. 1854(e).

⁵⁶ PFMC, Agenda Item B.3.a, Attachment 2, June 2010, at 29.

⁵⁷ PFMC, Agenda Item B.3.a, Attachment 2, June 2010, at 24.

⁵⁸ PFMC, Agenda Item B.3.a, Attachment 2, June 2010, Table 2-11.

⁵⁹ PFMC, Agenda Item B.3.a, Attachment 2, June 2010, Table 2-11.

⁶⁰ FMP at 39.

⁶¹ DEIS at F-3 (Table F-2).

revenues have rebounded as well. Due in part to the reduction in the trawl fleet resulting from the buyback program, per-vessel revenues are roughly 40% higher than they were in 1998 after adjustment for inflation.⁶³ Therefore, maintenance of the status quo catch levels at the expense of a longer rebuilding period for canary is clearly inconsistent with the MSA's mandate to rebuild in a period as short as possible.

In addition, the GMT explained that “the canary rockfish management challenge has been extreme” due to the fact that it is caught in all groundfish fisheries, has unpredictable distribution, and the impact projection model used to predict catch is relatively imprecise.⁶⁴ The uncertainty of recreational catches of Canary further confuses the picture. The GMT concluded that “current catch monitoring systems and impact projection models have failed to adequately perform in managing fishery impacts within canary rockfish OYs.”⁶⁵ To address these shortcomings, the GMT recommended the use of annual catch targets (ACTs) for Canary and stocks presenting similar management challenge,⁶⁶ but the Proposed Rule does not incorporate them for Canary.

VI. Petrale Sole

Petrable sole, which is currently estimated at 11.6% of unfished biomass, was declared overfished in 2009 based on most recent stock assessment.⁶⁷ The assessment shows that fishing mortality has continually exceeded the status quo target of F40% since the 1940s and the overfished threshold of B25% since 1953.⁶⁸

We are concerned with the proposed changes to the default reference points and harvest control rules for assessed flatfish species in Amendment 16-5. While the default reference points for groundfish are a proxy Fmsy harvest rate of F40%, a B40% target and B25% overfished level, the Proposed Rule would lower those reference points to F30%, B25% target and B12.5% overfished levels, and change the harvest control rule from 40-10 to 25-5.

From Hilborn (2010) Pretty Good Yield:

“...there is little long term yield to be lost by keeping most stocks at 50% of unfished stock size. Given the growing social acceptance of more intact ecosystems as an objective of fisheries management, higher target stock size ranges than 35–40% should be considered desirable. Furthermore, it is generally expected that fisheries will be more profitable at the higher end of stock sizes, and economic arguments would favor aiming at or above the 35–40% target levels.”

A similar conclusion was reached by Worm *et al. Science* 325, 578 (2009) Rebuilding Global Fisheries.

⁶² *Id.*

⁶³ DEIS at 240.

⁶⁴ *Id.* at 3.

⁶⁵ *Id.* at 3.

⁶⁶ *Id.* at 4.

⁶⁷ PFMC, Agenda Item B.3.a, Attachment 2, June 2010, at 37.

⁶⁸ PFMC, Agenda Item B.3.a, Attachment 2, June 2010, at 37.

“... a wide range of exploitation rates yield $\geq 90\%$ of maximum catch but with very different ecosystem consequences: whereas at high end of range, almost half of the species are predicted to collapse, reducing exploitation rates to the lower end of the range is predicted to rebuild total biomass, increase average body size, and strongly reduce species collapses with little loss in long-term yield. In addition to reconciling fishery and conservation objectives, setting exploitation rate below MSY reduces the cost of fishing and increases profit margins over the long term.”

These recent statements by prominent fisheries scientists and ecologists illustrate that the greatest benefits to the nation (e.g., long-term catch, profits from fishing, more intact ecosystems, reduced risk of species collapse, increased average body size) are achieved at levels above the PFMC’s default proxy target reference point of B40%. One only has to consider how different the West Coast groundfish fishery would be today had we been managing the currently overfished species at rates more conservative than F40%, as the fishery would be much more profitable than it is in the current state of rebuilding.

However, rather than increasing the reference points above B40%, the Council and NMFS are proposing to make drastic reductions in the target reference points from B40% down to B25% for all assessed flatfish species. At this time, such a reduction is premature, lacks crucial analyses, and fails to consider key potential consequences and significant environmental impacts.

In its analysis of the flatfish reference points, the SSC Groundfish Subcommittee Report on Petrale Sole highlighted the lack of analysis on which to base the new B25% harvest control rule proxy for flatfish:

“The [SSC groundfish] subcommittee also recommends that a more comprehensive analysis of the PFMC’s harvest control rule proxies be undertaken as soon as practicable, which may influence and/or supersede these recommendations. In particular, biomass targets and thresholds should be established that are consistent with expected stock productivities and in accordance with expected levels of intrinsic stock variability. The subcommittee recognizes that this will be a major undertaking, which logically should be conducted as a full management strategy evaluation, but these issues and concerns are fundamental to proper utilization, conservation, and stewardship of groundfish resources.”⁶⁹

Since that recommendation has been made, no management strategy evaluation has been performed, nor has additional comprehensive analysis been conducted, and such analysis as absent in the 2011-2012 specifications DEIS. Furthermore, there has been no analysis of the services rendered by flatfish such as petrale sole in the California Current marine ecosystem, or other benefits associated with higher biomass, such as increased catch rates as predicted in Hilborn (2010). Instead, the Council proposes to make a radical change in fishery management that fails to consider the overall benefits to the nation, in an apparent attempt to maintain the status quo fishing levels as close to the harvest rates associated with the massive historical overfishing on which the Pacific Coast groundfish fishery has become accustomed.

⁶⁹ AFSC, Seattle WA – August 31, 2009, presented as part of Agenda Item E.2.c Supplement al SSC Report, September 2009.

It would be a grave mistake to make such a decision without robust analysis of the consequences, and in direct conflict with the growing understanding among fisheries scientists that the greatest benefits to the nation accrue when fish stocks are kept above B40%.

Furthermore, the 25-5 rule is not as precautionary as the corresponding rule that would mimic the 40-10 rule. According to the SSC, “A policy that mimics the Council’s default proxies for groundfish would be to set the MSST to B15%, which is 60 percent of the target stock size, and to implement a 25-6.25 precautionary adjustment for OY” SSC Suppl. report (Nov 2009). Rather than the corresponding minimum stock size threshold (MSST) of B15%, it is set at B12.5%, and rather than the level at which all fishing stops at 6.25%, it is set at 5%. Given the uncertainty in stock biomass (i.e., lower bound of sigma = 0.36) and the precipitous drop in recruitment at low biomass levels for species like flatfish populations with high steepness parameters, we believe the risk of recruitment failure and/or complete stock collapse under such a strategy has been overlooked, and clearly is not analyzed in the Groundfish Specifications 2011-2012 DEIS. Finally, in addition to the incautiously lowered reference points and risk-prone rebuilding rule, the 2011-2012 specifications for Petrale sole violate the Council’s own 25-5 rule, setting the ACL for 2011 above the maximum level specified by the 25-5 rule.

At present, there is insufficient analysis of the environmental consequences of the changes to the reference points and the default harvest control rule for assessed flatfish. Any lowering of reference points or major changes to the harvest control rule must be accompanied by a comprehensive analysis, including a Management Strategy Evaluation, which considers the impacts and overall benefits to the nation, as required in the definition of Optimum Yield.

Our concerns with Petrale sole are summarized as follows,

1. It is premature and irresponsible to lower the default target reference points for flatfish from B40% to B25% based on the analysis in the DEIS;
2. Even if the target reference point is lowered to B25%, the 25-5 rule is more aggressive than the equivalent rebuilding strategies to the 40-10 rule corresponding with the B25% target reference point,
3. The 2011-2012 specifications allow catch levels exceed the 25-5 rule and do not result in the quickest rebuilding time for this species.

Conclusion

The mandate from the Court in *NRDC v. Locke* is clear: rebuilding plans and catch levels for overfished species must rebuild those species as quickly as possible without causing severe short-term consequences for fishing communities. The purpose of rebuilding species as quickly as possible is simple: healthy fish populations support both the health of the marine ecosystem and livelihoods. Extended rebuilding periods based on so-called “long-term cumulative yield” prioritizes yield over conservation and incurs risks that some species will not rebuild, delaying sustainable prosperity indefinitely. That approach is fundamentally inconsistent with the intent and letter of MSA’s rebuilding provision.

The Council must adjust its rebuilding targets and catch levels for yelloweye, darkblotched and cowcod to respond to the Court’s Order, to make them consistent with the MSA and

honor the intent of MSA's rebuilding provisions to protect valuable marine resources for generations to come. We are heartened by NMFS's direction for cowcod and yelloweye in the emergency rule, and strongly urge the Council and NMFS to move forward by formalizing shorter rebuilding periods and lower catch levels for those species, along with the other overfished species discussed above.

Sincerely,



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