in the absence of fishing is 2027, while the target rebuilding year associated with a 22 mt OY for 2003 is 2052(TMID). Selecting an OY that corresponds to TMID is consistent with NMFS guidance on rebuilding plans.

NMFS believes that the Magnuson-Stevens Act requires that the Council and NMFS meet the conservation needs of the stock (National Standard 1), and also consider the needs of fishing communities (National Standard 8). A lower rebuilding OY, which would further reduce the potential income of the fishers is not required.

Comment 7: One commenter stated that the sablefish should be set higher, at 8,187 mt, which would be based on recruitment changes affected by environmental conditions, the default MSY proxy, and the Council's harvest control rule. Failing to base the sablefish OY on environmental conditions ignore the best available science, which show that environmental conditions affect stock status. Conversely, another commenter stated that the sablefish OY is 30 percent higher than that recommended by the Council's Allocation Committee, saying that the higher amount is not justified.

Response: The SSC indicated that the medium and high OYs were relatively risk-prone and advised the Council that caution should be used when setting the 2003 harvest levels. The 5,000 mt OY, as recommended by the Council's ad hoc Allocation Committee, was consistent with the Scientific and Statistical Committee (SSC) recommendation because it addressed uncertainty in the assessment relating to the different states of nature.

After deliberations, the Council recommended OY of 6,500 mt which is a 7,455 mt OY, based on a 40/10 adjustment to the ABC, with an additional 1,000 mt precautionary reduction. The Council based its recommendation on the SSC's advice to be precautionary because of assessment uncertainties, and because the sablefish biomass is within the precautionary range. While the OY is higher than that recommended by the Allocation Committee, this OY is still considered to be risk averse rather than risk neutral. NMFS agrees with the Council's recommendation.

Comment 8: One commenter stated that the whiting OY is too low and is set at a harvest rate that is more conservative than the Council's default rate, which is unjustified. Another commenter stated that the OY is contrary to the scientific advice of the U.S. Canada Review Panel. A third commenter stated that the whiting OY was higher than recommended by the Council's SSC and that setting the higher OY was unjustified.

Response: In estimating the current biomass, NMFS used a medium level recruitment assumption of a recent (1999) large year class. The medium recruitment level was considered to be risk neutral. The U.S. ABC of 188,000 mt is 80 percent of the coastwide ABC. The U.S. whiting OY is 148,200 mt which is 80 percent of the coastwide OY (185,325 mt) and is based on the application of an F45% harvest rate, reduced by the Council's default rebuilding 40–10 harvest rate policy. Under the 40–10 harvest rate policy, the OYs of stocks that are below B40% abundance are set at increasingly more conservative rates the farther they are below B40%.

The SSC advised the Council to be precautionary when setting the Pacific whiting OY and not increase it over the 2002 harvest level (U.S. OY for 2002 was 129,600 mt) until a new assessment was conducted. However, the Council indicated that the medium harvest level, 148,200 mt (13 percent increase over 2002), based on the 2003 projected biomass with an F45% harvest rate proxy was sufficiently precautionary, because the risk neutral medium recruitment assumption and a more conservative harvest rate proxy were applied. The ABC for a species or species group is generally derived by multiplying the harvest rate proxy by the biomass to forecast the amount of harvest available to the fishery. Because of expected whiting biomass growth in the coming years, this will result in a short-term increase in the OY. However, the more precautionary harvest rate proxy is expected to increase the rebuilding rate and reduce the risk of declining back into an overfished state because whiting is a highly productive species.

The Joint Canada-U.S. Review Panel on the Stock assessment of the Coastal Pacific Hake/Whiting stock met in February 2002 and prepared a report, which was used by the Council and SSC in recommending the Pacific whiting harvest levels for 2002. While both U.S. and Canadian review panel members had a common interest in conducting sound technical review, they had different responsibilities in terms of the type of advice expected by the Council and Canadian Department of Fisheries and Oceans. Specifically, the review panel recommended changing the harvest rate to an F45% harvest rate and selecting the harvest level bounded by the low and medium recruitment scenarios for the 1999 year-class. This was a risk adverse policy recommendation that was not adopted by the Council for the reasons previously stated.

Comment 9: NMFS has failed to compensate for overharvest in past years' fisheries in proposing harvest limits for 2003. In its proposed rule at 68 FR 953, NMFS discussed overfishing that had occurred in 2001, but not in 2002, claiming that landings data was not available at the time of the publication of the proposed rule. A full month has passed since the end of 2002, therefore, NMFS will violate the Magnuson-Stevens Act if it fails to consider 2002 catch data in making its final decision on the 2003 specifications.

Response: Each year since 2000, NMFS has provided a brief report within the preamble to the proposed rule on whether overfishing occurred on any groundfish species in the last year for which data was available. This report is not a required part of the preamble to the specifications and is simply provided as an update for the public. The commenter has taken a sentence from that report and revised its context so as to accuse the agency of failing to consider 2002 data in crafting specifications and management measures for 2003. The Council and its participating state and Federal agencies consider all available data, including catch data from the current fishing year when devising specifications and management measures for the upcoming fishing year.

To the extent that they were available, data from fisheries conducted during 2002 were used in evaluating 2003 management options for all fleets targeting groundfish. Inseason comparison of trawl bycatch projections with reported landings during the first four months of 2002 resulted in adjustments to the expected target species landings of vessels within the 2003 model. Additionally, because trawl landings of bocaccio during the first four months exceeded the total bycatch projected for that timespan, bocaccio bycatch rates were increased for modeling the 2003 trawl fishery. Recommendations for management of the fixed gear, daily trip limit fishery for sablefish also incorporated landings during the first four months of 2002, in conjunction with catch rates over the previous three years. Early season landings in the recreational and commercial fixed gear fisheries for nearshore rockfish were included in evaluating 2003 management, along with recent years' landings. However, in the region north of 40°10′ N. lat., participation is usually low early in the year due to bad weather. As a result, landings during this period are of

GMT STATEMENT ON FINAL HARVEST LEVELS AND OTHER SPECIFICATIONS FOR 2003

The Groundfish Management Team discussed the range of considered groundfish harvest levels for 2003 management and the implications of the varying total catch optimum yields (OYs) for each of the nine stocks with alternative specifications. The *Initial Draft Environmental Impact Statement/Regulatory Impact Review/Initial Regulatory Flexibility Analysis For Proposed Groundfish Acceptable Biological Catch and Optimum Yield Specifications and Management Measures For The 2003 Pacific Coast Groundfish Fishery* (Annual Specifications EIS; Exhibit C.3, Attachment 1) provides some of the scientific explanation for alternative harvest specifications. However, further GMT discussion of the management implications of alternative harvest levels may be fruitful for Council considerations. Additionally, the GMT discovered an error in the sablefish specifications. The attached Revised Table 2.1-1 is a revision of the table that appeared in the Annual Specifications EIS. The following summary of alternative harvest specifications and their management implications is provided for consideration.

Lingcod

The alternative lingcod OYs are based on probabilities of rebuilding within T_{MAX} that correspond to the 80%, 60%, and 50% trajectories for *Low OY*, *Medium OY*, and *High OY*, respectively. The Allocation Committee met in August and specified a preference for the *Medium OY* value of 651 mt, which is consistent with the interim Council rebuilding strategy for lingcod. The GMT notes that it is unlikely that any of the considered lingcod harvest levels, including *Low OY*, will be attained in 2003 due to the anticipated binding constraints on fisheries operating on the shelf imposed by the need to rebuild bocaccio, canary rockfish, cowcod, and yelloweye rockfish. Preliminary evidence suggests that lingcod rebuilding is on track to rebuild within ten years in accordance with the interim Council lingcod rebuilding measures, which also alleviates any concern for lingcod.

Pacific Whiting

The Pacific whiting OYs are not ranged according to a rebuilding analysis since one has not been adopted by the Council. All three harvest levels the GMT recommended for consideration assume a medium level of recruitment for the 1999 year class. The *Low OY* is the current OY, which is the default $F_{40\%}$ harvest rate with the 40-10 adjustment applied to the estimated 2002 biomass. The *Medium OY* is derived using the more conservative $F_{45\%}$ harvest rate with the 40-10 adjustment, but applied to projected 2003 biomass. The *High OY* is derived using the default $F_{40\%}$ harvest rate with the 40-10 adjustment applied to the projected 2003 biomass.

Sablefish

The alternative sablefish OYs are derived from the 2002 assessment update and reflect alternative explanations for the poor recruitment observed in the 1990s. The *Low OY* harvest level is derived using an $F_{60\%}$ harvest rate under a density-dependence hypothesis and resampling of the 1992-2001 recruits to determine future recruitment. This harvest alternative was requested by the GMT in May in an effort to identify a harvest rate that would provide greater assurance of stock increase over the next 5-10 years, assuming average recruitment after the 1999 and 2000 year classes. The *Medium OY* alternative is based on the default $F_{45\%}$ harvest rate under a density-dependence hypothesis (resampling of 1992-2001 recruits). The *High OY* alternative is based on the default $F_{45\%}$ harvest rate under an environmental regime shift hypothesis (resampling of 1975-2001 recruits). Previous versions of the alternative harvest levels table prepared by the GMT depicted slightly lower harvest levels under these alternatives. The Team discovered the conversion of the OY derived for the assessed area north of Pt. Conception (34°27' N. lat.) to the management area north of 36° N. lat. incorrectly subtracted the entire Conception area OY. This mistake is corrected in the attached Revised Table 2.1-1.

The GMT is not recommending a specific harvest level but does note the STAR-light Panel advice that "given that (1) Q is poorly determined and that (2) at this time there is no compelling scientific basis to select between the two states of nature (density-dependent vs. regime shift), the review panel concluded that a precautionary adjustment that would lower the "risk neutral" sablefish OY is warranted, in order to reduce the possibility of over-harvesting the resource." The GMT is concerned that a harvest level as high as the *Medium OY* risks driving stock spawning biomass down near the overfished threshold if we do not continue to see recruitments

that are as large as 1999 or 2000. Precaution is also warranted due to the expected delays in conducting the next assessment if the Council proceeds with multi-year management.

Pacific Ocean Perch

The Pacific ocean perch OY alternatives range probabilities of 80%, 70%, and 50% of rebuilding within T_{MAX} for *Low OY*, *Medium OY*, *High OY*, respectively. The Team notes that it is unlikely that any of the OYs will be attained in 2003 due to expected measures to constrain darkblotched rockfish mortality.

Widow Rockfish

The range of widow rockfish harvest alternatives corresponds to rebuilding probabilities of 80%, 60%, and 50% under the *Low OY*, *Medium OY* (= *Alloc. Cm. OY*), and *High OY* alternatives, respectively with the *Medium OY* consistent with the Council's interim rebuilding strategy. The *Medium OY* harvest level of 832 mt conforms to the Council's adopted interim strategy for rebuilding the stock and may provide a winter opportunity for a midwater trawl fishery after anticipated bycatch in the at-sea fishery is taken into account. Therefore, the GMT recommends the 60% probability option of 832 mt, as the expected bycatch of widow in other targeted fisheries is approximately 250 mt which provides a significant buffer against unanticipated mortalities, and provides for a midwater opportunity in a portion of period 6. Using the T_{MID} option (which is equivalent to the 80% probability) produces an OY of 656 mt. This *Low OY* alternative would not provide both a midwater opportunity and an adequate buffer against unanticipated mortalities and possible increased effort. A higher harvest level would provide flexibility for scheduling a midwater trawl opportunity and an adequate buffer between expected catches and the OY. Not providing a midwater trawl opportunity in 2003 would reduce widow/yellowtail exvessel revenue by about $600,000-$750,000.

Canary Rockfish

The range of canary rockfish harvest alternatives correspond to rebuilding probabilities of 80%, 60%, and 50% under the *Low OY*, *Medium OY*, and *High OY* alternatives, respectively. The GMT is primarily concerned with the bycatch implications under the considered catch sharing options. The GMT supports Council consideration of canary rockfish catch sharing for 2003 that is higher on the commercial end than 50%. Catch sharing of canary that is 60% commercial:40% recreational would provide for an overall higher OY at the 60% probability level (44 mt vs. 41 mt). The increase in OY is due to the tendency of recreational fisheries to take smaller fish. This creates a greater "per-ton" impact over the course of rebuilding. Not only would this provide for commercial trawl fisheries which would otherwise be constrained, it would also provide for anticipated canary rockfish mortalities associated with proposed exempted fisheries (EFPs) for 2003. As an example, under a 60:40 split, the recreational portion of the OY would be reduced from 19 mt to 16 mt. The additional 3 mt from the recreational share plus the 3 mt from the increased OY under 60:40 sharing would provide most of what the Team believes would be needed to accommodate valuable experimental fisheries in 2003. However, the GMT notes that the current preferred state recreational management proposals cannot be accommodate under the 50:50 catch sharing option (as they produce mortalities in the 21 mt range); therefore, these proposals must be significantly restructured to meet the appropriate OY targets.

Bocaccio

The GMT could not recommend an OY for bocaccio given the lack of any available harvest under rebuilding in the revised rebuilding analysis.

Darkblotched Rockfish

The darkblotched OYs reviewed with their associated probabilities of rebuilding within T_{MAX} were as follows: *Low OY* (~92%), *2001 OY* (~88%), *Alloc. Cm. OY* (80%), *Medium OY* (70%), and *High OY* (50%). The consequence of managing for the lower OYs are that the trawl fishery would be constrained for a greater portion of the year outside of 250 fm. Smaller vessels would be most affected since they may not be able to effectively fish in deeper water. Opportunities to fish flatfish in shallower water could also be more constrained due to projected bycatch of young darkblotched rockfish inside 100 fm. Some of these vessels could be forced out of the fishery with no viable economic incentives. The GMT believes the T_{MID} value of 172 mt (*Alloc. Cm. OY*) provides a reasonable balance for rebuilding the stock while lessening the potential adverse economic impacts to the limited entry trawl sector.

Yelloweye Rockfish

The *Low OY* is based on the older rebuilding analysis considered in June which was called into question due

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON PRELIMINARY HARVEST LEVELS AND OTHER SPECIFICATIONS FOR 2003

Dr. Jim Hastie presented an overview of the Groundfish Management Team (GMT) preliminary acceptable biological catch (ABC) and optimum yield (OY) determinations for 2003 (Exhibit C.4, Attachment 1). The Scientific and Statistical Committee (SSC) comments on ABC and OY determinations for Pacific whiting, sablefish, and yelloweye rockfish as follows:

Pacific whiting - Pacific whiting was declared overfished because of a recently completed assessment that estimated spawning biomass to be 20% of an unfished stock in 2001. The rebuilding analysis for whiting indicates that the 40-10 rule is adequate to achieve recovery to $B_{40\%}$ within 10 years. The potential rapid recovery of whiting is due to an above-average (but still uncertain) 1999 year-class that would increase spawning stock biomass as it becomes mature and due to the relatively high growth rate of whiting. The SSC recommends that any 40-10 rule OY values be based on the results of the assessment conducted in 2002 rather than the rebuilding software, because the 2002 assessment model includes multiple fisheries and time-varying weight-at-age. The 2002 whiting Stock Assessment Review (STAR) Panel concluded that "given concerns with the current formulation of the stock reconstruction model and the dependence of yield options beyond 2002 on continued recruitment of the 1999 year-class and recruitment from year-classes not actually observed, the Panel recommends against adopting 2003 projections until another assessment is conducted." The SSC again strongly supports this recommendation.

Sablefish - An updated assessment for sablefish was completed in 2002 and reviewed under the terms of reference for an expedited stock assessment update. Sablefish was considered for an expedited review, because of 2001 shelf survey results that suggested strong sablefish recruitment (primarily the 1999 year class) that was not included in the previous assessment. Contrast in the relative abundance of young fish in the shelf and slope surveys in 2001 resulted in a relatively large decrease in the slope survey catchability (Q), which translates into a substantial increase in the sablefish OY. The SSC cautions that the estimate of Q, and the implied estimate of sablefish OY remain highly uncertain. Management decisions should be made with the expectation that future sablefish assessments will result in similarly large swings in Q and the implied sablefish OY (both upwards and downwards).

Exhibit C.4, Attachment 1 show three alternatives for 2003 OY: a density-dependent recruitment scenario (alternative 2), a regime-shift scenario (alternative 3), and an $F_{60\%}$ density-dependent scenario that was developed by the Groundfish Management Team (GMT) to stabilize the spawning stock biomass (currently estimated to be 31% of unfished). Given the potential for an OY based on an imprecise stock assessment to reduce spawning stock biomass to a level approaching the overfished threshold, the SSC considers that a precautionary adjustment to the OY is warranted. This could be accomplished by setting the sablefish OY less than Alternative 2 of Exhibit C.4, Attachment 1, while Alternative 1 might usefully be considered as a lower bound to the sablefish OY.

Yelloweye rockfish - The yelloweye rockfish OY is based on a rebuilding analysis that considers two cases: a density-dependent hypothesis (scenario 1), and regime-shift hypothesis (scenario 2).

The SSC requests that, for consistency, the rebuilding analysis define B_0 for the regime-shift hypothesis (scenario 2) on recruitments for the years 1967-1993 and project future recruitment for the density-dependence hypothesis (scenario 1) on recruits/spawning output ratios for the years 1983-1993. The assessment author provided the SSC with revised rebuilding analysis results.

The SSC has no clear basis to choose between the two scenarios for yelloweye. These scenarios bound the range of possibilities. However, the SSC notes that the Terms of Reference for Groundfish Rebuilding Analysis (April 2001) suggest that the density-dependent scenario should be the default case, because stocks that have declined into an overfished condition are more likely to be unproductive (e.g., low spawner-recruit steepness).