GROUND FISH MANAGEMENT TEAM RECOMMENDATIONS FOR THE RANGE OF 2005-06 HARVEST LEVELS

The Groundfish Management Team (GMT) considered the results of recently revised assessments for lingcod and cabezon, new cabezon harvest projections, and the range of rebuilding alternatives for bocaccio, cowcod, widow rockfish, and yelloweye rockfish to recommend a revised list of 2005 and 2006 ABCs and OYs for these species. The GMT attempted to capture the full range of harvest levels available using the revised lingcod and cabezon assessments as well as the full range of harvests specified in the Amendment 16-3 DEIS for bocaccio, cowcod, widow rockfish, and yelloweye rockfish. Revised Tables 1 and 2 of this report present the revised alternative ABCs and OYs for these six species and Table 3 in Exhibit C.8.b, Attachment 1 presents the cabezon harvest projections provided by Dr. Andre Punt. Revised Tables 1 and 2 present alternative harvest levels that are identical to those adopted for analysis by the Council in November 2003 with the following revisions:

Lingcod

The GMT referred to Table 6 on page 15 of the Addendum to the "Assessment of Lingcod for the Pacific Fishery Management Council in 2003" (presented in the March 2004 briefing book) and segregated lingcod ABCs and OYs north and south of the Columbia-Eureka INPFC management line. The range of lingcod OYs was based as follows: the ABC under the Low OY alternative is based on the new assessment adopted by the Council in March. The OY under the Low OY alternative is based on the harvest control rules (F=0.0531 in the north and south) adopted under Amendment 16-2 but applied to the exploitable biomasses projected for 2005 and 2006; P_MAX = 70% under the Medium OY alternative; and P_MAX = 60% under the High OY alternative.

Cabezon

The GMT referred to Table 3 in Exhibit C.8.b, Attachment 1, which provides cabezon harvest level projections based on the SSC-recommended model from the revised assessment, and ranged OYs as follows: the Low OY alternative assumes an F_{50%} harvest rate and a 60-20 precautionary adjustment (this is the precautionary adjustment that CDFG uses for nearshore species management); the Medium OY alternative assumes an F_{45%} harvest rate and a 40-10 precautionary adjustment with a constant catch averaged for 2005-07; and the High OY alternative assumes an F_{45%} harvest rate and a 40-10 precautionary adjustment.

Bocaccio

The GMT referred to tables presented in the Amendment 16-3 DEIS to range bocaccio ABCs and OYs as follows: the ABC/OY under the Low OY alternative assumed the STARb2 model with P_MAX = 90%, the ABC/OY under the Medium OY alternative assumed the STATc model with P_MAX = 70%, and the ABC/OY under the High OY alternative assumed the STARb1 model with P_MAX = 60%.
Cowcod

The GMT referred to tables presented in the Amendment 16-3 DEIS to range cowcod ABCs and OYs as follows: $P_{\text{MAX}}$ under the Low OY alternative is 60% and $P_{\text{MAX}}$ under the High OY alternative is 55%.

Widow Rockfish

The GMT referred to tables presented in the Amendment 16-3 DEIS to range widow rockfish ABCs and OYs as follows: the ABC/OY under the Low OY alternative assumed model 7 with $P_{\text{MAX}} = 90\%$, the ABC/OY under the Medium OY alternative assumed model 8 with $P_{\text{MAX}} = 60\%$, and the ABC/OY under the High OY alternative assumed model 9 with $P_{\text{MAX}} = 60\%$.

Yelloweye Rockfish

The GMT referred to tables presented in the Amendment 16-3 DEIS to range yelloweye rockfish OYs as follows: $P_{\text{MAX}}$ under the Low OY alternative is 90%, $P_{\text{MAX}}$ under the Medium OY alternative is 70%, and $P_{\text{MAX}}$ under the High OY alternative is 60%.

Canary Rockfish

The GMT recommends final harvest specifications for canary rockfish be deferred until June when management measures are decided since the OY depends on the commercial:recreational catch share.

Precautionary Adjustments for Pacific Cod, Other Flatfish, and Other Fish

The Council policy we have been operating under for some years regarding unassessed stocks and stocks with data-poor assessments, which is not limited to rockfish, has been to take a precautionary approach. Specifically, for unassessed stocks, the Council has adjusted OYs to 50% of the historical average catch levels. For stocks with data-poor assessments, the Council has applied a 25% reduction to the assessment value. The GMT notes that this has been done for most of the stocks that fall into these categories; however, the GMT recently discovered the precautionary adjustment has not been made to Pacific cod and species in the other flatfish and other fish categories. Therefore, the GMT recommends the OYs for Pacific cod, other flatfish, and other fish be reduced by 50%.

The ABCs for the Other Flatfish category have been based on landings from an earlier period. Recent review of landings data back to 1981 have led the GMT to question the derivation of the 7,700 mt ABC which has been in place since at least 1991. The GMT will require additional time to fully review this issue before it is prepared to recommend ABC and OY amounts for 2005-06. For the present motion we recommend the Council modify the lower end of the ABC range from 7,700 mt to 4,400 mt, and adjust the low OY from 3,850 mt to 2,200 mt. The GMT will finalize evaluation of this issue by the close of its May meeting, and will develop analysis of management measures appropriate for the revised range of OYs.
Amendment 16-2 Species

The harvests projected for canary rockfish, lingcod, darkblotched rockfish, and Pacific ocean perch are based on the rebuilding plans adopted under Amendment 16-2 (see discussion above). The target rebuilding year and harvest control rules for these species remain as adopted.

Amendment 16-3 Species

The GMT recommends the preferred harvest specifications for bocaccio, cowcod, widow rockfish, and yelloweye rockfish be made under agendum C.12 when rebuilding plans for these species are adopted.

Species With Status Quo Harvest Levels

The following species do not have updated assessments with 2005-06 projections and are recommended to be managed under status quo harvest levels: longspine thornyhead, petrale sole, chilipepper rockfish and splitnose rockfish.

Dover Sole

The Dover sole OY has been updated based on projections from the 2001 assessment. The GMT will determine the projected ABC before the June Council meeting.

Pacific Whiting

The Pacific whiting ABC (=OY) under the Medium OY alternative was based on projections from the recent assessment. The OY under the Low OY alternative was based on half the projected ABC and the OY under the High OY alternative was double the projected ABC. This is to explore widow rockfish bycatch implications.
<table>
<thead>
<tr>
<th>Stock</th>
<th>2004 ABCs/OYs</th>
<th>Low OY</th>
<th>Med OY</th>
<th>High OY</th>
<th>Council OY a/</th>
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<td>ABC</td>
<td>OY</td>
<td>ABC</td>
<td>OY</td>
<td>ABC</td>
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<tr>
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<tr>
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<td>45</td>
<td>34</td>
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<td>Cabezon (off CA only)</td>
<td>Managed under &quot;Other Fish&quot;</td>
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<td>Dover Sole</td>
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<td>8,510/</td>
<td>7,440</td>
<td>8,510/</td>
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</tbody>
</table>

a/ Council OY is the Council's preferred harvest alternative for 2005.

b/ The canary rockfish ABC and OY are based on the Council's adopted rebuilding strategy that has a rebuilding target year of 2074, a specified harvest control rule (F = 0.220), and conforms to a Pmax (probability of successful rebuilding within the maximum allowable time period) of 60%. The OY varies by the commercial/recreational catch share due to the fact that the recreational fishery takes smaller fish and therefore has a greater "per ton" impact than the commercial fishery.

c/ The projected ABC for Dover sole is not currently available but will be estimated by the GMT before the June Council meeting.

d/ The cabezon harvest specifications will be subtracted from the Other Fish complex by INPFC area.
### REVISED TABLE 2. Groundfish Management Team-recommended alternatives for acceptable biological catches (ABCs) and total catch optimum yields (OYs) (mt) for 2006. (Overfished stocks in CAPS).

<table>
<thead>
<tr>
<th>Stock</th>
<th>2004 ABCs/OYs</th>
<th>2006 ABC and OY Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low OY</td>
<td>Med OY</td>
</tr>
<tr>
<td></td>
<td>ABC</td>
<td>OY</td>
</tr>
<tr>
<td>LINGCOD - coastwide</td>
<td>1,385</td>
<td>735</td>
</tr>
<tr>
<td>Columbia and US-Vanc. Areas</td>
<td>1,694</td>
<td>574</td>
</tr>
<tr>
<td>Eureka, Monterey, and Conception areas</td>
<td>1,021</td>
<td>366</td>
</tr>
<tr>
<td>Pacific Cod</td>
<td>3,200</td>
<td>3,200</td>
</tr>
<tr>
<td>PACIFIC WHITING (Coastwide)</td>
<td>514,441</td>
<td>250,000</td>
</tr>
<tr>
<td>Salettefish (Coastwide)</td>
<td>8,487</td>
<td>7,786</td>
</tr>
<tr>
<td>S. of Conception</td>
<td>1,021</td>
<td>366</td>
</tr>
<tr>
<td>Pacific Cod</td>
<td>3,200</td>
<td>3,200</td>
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<td>Pacific Cod (South)</td>
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<td>BANK</td>
<td>3,568</td>
<td>1,279</td>
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</tbody>
</table>

### Notes:

a/ Council OY is the Council’s preferred harvest alternative for 2006.

b/ The canary rockfish ABC and OY are based on the Council’s adopted rebuilding strategy that has a rebuilding target year of 2074, a specified harvest control rule (F = 0.220), and comports to a P<sub>max</sub> (probability of successful rebuilding within the maximum allowable time period) of 60%. The OY varies by the commercial:recreational catch share due to the fact that the recreational fishery takes smaller fish and therefore has a greater "per ton" impact than the commercial fishery.

c/ The projected ABC for Dover sole is not currently available but will be estimated by the GMT before the June Council meeting.

d/ The cabezon harvest specifications will be subtracted from the Other Fish complex by INPFC area.