

4.0 DESCRIPTION OF MANAGEMENT ALTERNATIVES AND RATIONALE (EA,RFA)

4.1 Allowable biological catch (ABC)

Intent is to take into account scientific uncertainty and risk tolerance that the ABC may cause overfishing. Lower ABCs imply less risk. The ABCs are expressed as a percentile of the overfishing level (OFL) distribution that estimates quantifiable scientific uncertainty, with the 50th percentile being risk neutral. The ABCs would apply to the 2012-2014 fishing years.

4.1.1 Red hake (northern and southern stocks)

2012-2014 ABC set at 40th percentile of OFL to account for scientific uncertainty
280.1 mt (89% of OFL; 90% of 2010 catch) north;
3259 mt (95% of OFL; 241% of 2010 catch)) south

4.1.2 Silver hake (northern and southern stocks)

2012-2014 ABC set at 25th percentile of OFL to account for scientific uncertainty
13,177 mt (53% of OFL; 532% of 2010 catch) north;
32,635 mt (52% of OFL; 459% of 2010 catch)) south

4.1.3 Offshore hake

Increase silver hake southern stock ABC by 4% to account for estimated historic catches of offshore hake and monitor silver and offshore hake together in southern stock area (SSC recommendation). This would increase the 2012-2014 southern silver hake ABCs to 33,995 and 44,885 mt, respectively.

4.2 Annual Catch Limit (ACL)

The intent of the ACL is to set a catch limit that will account for management uncertainty. This is the amount of catch that would trigger accountability measures. The ACLs would apply to the 2012-2014 fishing years.

4.2.1 Red hake (northern and southern stocks, individually): 95% of the above ABCs to account for management uncertainty

4.2.2 Silver hake (northern and southern stocks, individually), combined with offshore hake in the southern stock area: 95% of the above ABCs to account for management uncertainty

4.3 Specification process

The intent of the specification process is to allow for adjustment of various specifications, including but not limited to ACL specifications and possession limits. These adjustments would respond to changes in resource conditions indexed by the survey and/or estimated by an assessment as well as changes in fishery conditions, such as discarding.

4.3.1 Council and NMFS staff will work together to draft a three-year specification process (with annual monitoring, if necessary) derived from ones used for other FMPs

4.3.1.1 Annual monitoring report to be prepared by the Whiting PDT

4.3.1.2 Annual landings and catch summaries to be reported to the Council in June by NMFS

4.3.2 No Action (no specification process – all changes and specifications to be developed through amendments or framework actions.

4.4 Red hake overfishing definition

4.4.1 SAW51 recommended overfishing definition

4.4.2 No action (pre-SAW51 overfishing definition)

4.5 Northern stock area: Total Allowable Landings (TAL) allocations, accountability measures, and management measures

The intent of the TALs is to monitor landings, rather than catch, to determine when more restrictions are needed during the season to avoid exceeding the ACL. Monitoring landings is less expensive than the at-sea monitoring that would be required to monitor catch. In-season accountability measures may be triggered when landings reach a certain percentage of the TALs. The TALs may also be allocated by area or season to ensure equitable access. TALs are derived from the ACL after setting aside amounts to account for projected discards and state water landings, based on recent fishery characteristics.

The TALs would apply to the 2012-2014 fishing years and landings made after April 30, 2012 and before implementation of Amendment 19 would count against the 2012 TALs (i.e. retroactively).

4.5.1 TAL allocations (red and silver hake individually)

After accounting for assumed discards and state landings, an annual red hake TAL would be 108.4 mt (28% below 2010 landings) and an annual silver hake TAL would be 9,107 mt (473% above 2010 landings)

Table 1. 2012-2014 Northern stock area specifications.

	Red hake	Silver hake
ABC (mt)	280.1	13,177
OFL percentile	0.40	0.25
Percent of ABC=OFL	89%	53%
Percent of 2010 catch	90%	532%
ACL (mt)	266.1	12,518
2010 catch (mt)	311.0	2,478
Difference	-14%	405%
2008-2010 Discard rate	58%	25%
Assumed discards (mt)	154.3	3,130
State landings	3%	3%
Federal TAL (mt)	108.4	9,107
2009 landings (mt)	82	1,007
TAL Difference	36%	832%
2010 landings (mt)	65	1,639
TAL Difference	72%	473%

- 4.5.1.1 Assume that 2012-2014 discards will be equal to the most recent (2008-2010) three year moving average of the estimated red (58%) and silver (25%) hake discard rate**
- 4.5.1.2 Set aside 3% of the TAL to account for state water landings**
- 4.5.1.3 Annual TAL by stock area**
- 4.5.1.4 Allocate fishing year TALs in three area management groups (see maps), according to historic (2004-2010) landings proportions**
- 4.5.1.5 Cultivator Shoals (Map 1), under harvests to be rolled into the allocations for (b) at the end of the Cultivator Shoals exemption season**
- 4.5.1.6 All other exempted fishery areas (Map 1)**
- 4.5.1.7 Gulf of Maine/Northern Georges Bank exemption area (Map 2)**

4.5.2 In-season accountability measures

The intent of in-season accountability measures is to limit landings and discourage trips targeting red, silver, and offshore hake when landings reach a high proportion of the TAL and catches might exceed the ACL. When this occurs, it would trigger an automatic reduction in the possession limit for that stock or area to incidental catch limits, which will be defined through further analysis in the draft amendment.

- 4.5.2.1 When the Regional Administrator projects that 90% of stock TAL is reached (and if action is not taken the TAL is projected to be exceeded by landings), the possession limit for that stock would be set at a (to be determined based on analysis) lb. incidental limit for the remainder of the fishing year except for (2) Cultivator Shoals.**

4.5.2.2 Cultivator shoals

The intent of the special accountability measures for Cultivator Shoals is that it is an exempted area where vessels specifically target silver hake and during certain times can avoid catching red hake while targeting silver hake. Exceeding the silver hake TAL in Cultivator Shoals would be unlikely to cause catches for the northern stock area to exceed the ACLs.

- 4.5.2.2.1 For red hake, when the Regional Administrator projects that 90% of stock TAL is reached (and if action is not taken, the TAL is projected to be exceeded by landings),**

the red hake possession limit for Cultivator Shoals fishing would be set at a (to be determined based on analysis) lb. incidental limit for the remainder of the fishing year.

4.5.2.2.2 For silver hake, when the Regional Administrator projects that 100% of stock TAL is reached (and if action is not taken the TAL is projected to be exceeded by landings), the silver hake possession limit for Cultivator Shoals fishing stock would be set at a (to be determined based on analysis) lb. incidental limit

4.5.2.2.3 If 100% of the TAL has been taken of either species, all vessels using less than regulated large mesh (currently 6.5 inches) would be prohibited from fishing in Cultivator Shoals.

4.5.2.3 No in-season accountability measures (No Action)

4.5.3 Post season accountability measure (for each stock)

The intent of post season accountability measures are to make up for prior years when the catch exceeds the ACL.

4.5.3.1 Pound for pound payback provision to apply in year 2, following a year when catches exceed the ACL

4.5.3.2 Reduce the incidental possession limit trigger (see (ii)(2) above) in year 2, following a year when catches exceed the ACL

4.5.3.3 No post-season accountability measures (No Action)

4.5.4 TAL monitoring, in addition to existing reporting requirements

Additional monitoring will be needed to make timely assessment of landings to stock or management area.

4.5.4.1 Vessels taking small mesh multispecies trips and landing red, silver, or offshore hake would be required to make weekly VTR reports to assign dealer-reported hake landings to stock area.

4.5.4.2 Only silver hake landings reported by vessels using small mesh (including shrimp trawls) would be counted against the TALs for Cultivator Shoals and other exempted areas (Map 1). Landings by all other gears, including but not limited to large mesh trawl,

gillnets, and herring trawls would be counted against the Gulf of Maine/Northern Georges Bank exemption area (Map 2) TAL.

4.5.4.3 No additional monitoring (No Action) – landings assigned to stock area on an annual basis using existing NEFSC area allocations procedures that use Vessel Trip Reports (VTRs).

4.5.5 Other management measures

The intent of other management measures are to reduce the potential for the season to end early, reduce the risk that catches may exceed the ACL or landings exceed the TAL, and/or improve size selectivity.

4.5.5.1 Red hake

4.5.5.1.1 Establish a red hake possession limit by cod end mesh size in the northern stock area, similar to the provision for silver hake. Possession limits to be analyzed in Draft Amendment 19 document.

4.5.5.1.2 Red hake possession limit for vessels fishing in the northern area while using less than 2.5 inch mesh of 100, 200, and 500 lbs.

4.5.5.1.3 Incidental limit to be determined by analysis in the draft amendment (see PDT analysis)

4.5.5.1.4 No Action – no additional possession limits

4.5.5.2 Silver hake

4.5.5.2.1 Incidental limit to be determined by analysis in the draft amendment (see PDT analysis)

4.5.5.2.2 No Action – no additional possession limits

4.6 Southern stock area: Total Allowable Landings (TAL) allocations, accountability measures, and management measures

The intent of these measures are the same as those described in Section 4.5.1.

4.6.1 TAL allocations (red hake, silver and offshore hake combined)

After accounting for discards and state landings, an annual red hake TAL would be 1081 mt (108% above 2010 landings) and an annual silver hake TAL would be 27,254 mt (358% above 2010 landings)

Table 2. 2012-2014 Northern stock area specifications.

	Red hake	Silver and offshore hake
ABC (mt)	3,259	33,995
OFL percentile	0.40	0.25
Percent of ABC=OFL	95%	55%
Percent of 2010 catch	241%	478%
ACL (mt)	3,096	32,295
2010 catch (mt)	1,352	7,110
Difference	129%	354%
2008-2010 Discard rate	64%	13%
Assumed discards (mt)	1,981	4,198
State landings	3%	3%
Federal TAL (mt)	1,081	27,254
2009 landings (mt)	654	6,408
TAL Difference	70%	338%
2010 landings (mt)	536	6,140
TAL Difference	108%	358%

4.6.1.1 Assume that 2012-2014 discards will be equal to the most recent (2008-2010) three year moving average of the estimated red (64%) and silver (13%) hake discard rate

4.6.1.2 Set aside 3% of the TAL to account for state water landings

4.6.1.3 Annual TAL by stock area and species

4.6.1.4 Annual TAL, triggered quarterly (fishing year) allocation if previous year's (Y+0) landings are more than 2/3rds of the following year's (Y+2) TAL. Quarterly allocations, if triggered, would roll over unlanded amounts into the next quarter, except the first quarter would roll unlanded amounts into the third quarter. All overages of quarterly TALs would be deduced from the fourth fishing year quarter.

4.6.1.5 Quarterly fishing year TAL allocations, regardless of relationship to current landings.

4.6.2 In-season accountability measures

The intent of in-season accountability measures is to limit landings and discourage trips targeting red, silver, and offshore hake when landings reach a high proportion of the TAL and catches might exceed the ACL. When this occurs, it would trigger an automatic reduction in the possession limit for that stock or area to incidental catch limits, which will be defined through further analysis in the draft amendment.

4.6.3 When the Regional Administrator projects that 90% of stock TAL is reached (and if action is not taken, the TAL is projected to be exceeded by landings), the possession limit for that stock would be set at a (to be determined based on analysis) lb. incidental limit for the remainder of the fishing year

4.6.4 No in-season accountability measures (No Action)

4.6.5 Post season accountability measure (for each stock)

The intent of post season accountability measures are to make up for prior years when the catch exceeds the ACL.

4.6.5.1 Pound for pound payback provision to apply in year 2, following a year when catches exceed the ACL

4.6.5.2 Reduce the incidental possession limit trigger (see (ii)(2) above) in year 2, following a year when catches exceed the ACL

4.6.5.3 No post-season accountability measures (No Action)

4.6.6 TAL monitoring, in addition to existing reporting requirements

Additional monitoring will be needed to make timely assessment of landings to stock or management area.

4.6.6.1 Vessels taking small mesh multispecies trips and landing red, silver, or offshore hake would be required to make weekly VTR reports to assign dealer-reported hake landings to stock area.

4.6.6.2 Only silver hake landings reported by vessels using small mesh (including shrimp trawls) would be counted against the TALs for Cultivator Shoals and other exempted areas (Map 1). Landings by all other gears, including but not limited to large mesh trawl, gillnets, and herring trawls would be counted against the Gulf of Maine/Northern Georges Bank exemption area (Map 2) TAL.

4.6.6.3 No additional monitoring (No Action) – landings assigned to stock area on an annual basis using existing NEFSC area allocations procedures that use Vessel Trip Reports (VTRs).

4.6.7 Other management measures

The intent of other management measures are to reduce the potential for the season to end early, reduce the risk that catches may exceed the ACL or landings exceed the TAL, and/or improve size selectivity.

4.6.7.1 Red hake

4.6.7.1.1 7,500 lb. possession limit

4.6.7.1.2 2,500 lb. possession limit for vessels using trawls with mesh < 2.5 inches, 5,000 lb. possession limit for vessels using trawls with mesh 2.5-3.0 inches, 7,500 lb. possession limit for vessels using trawls with mesh > 3.0 inches

4.6.7.1.3 No Action – no additional possession limits

4.6.7.2 Silver hake

4.6.7.2.1 Incidental limit to be determined by analysis in the draft amendment (see PDT analysis)

4.6.7.2.2 No Action – no additional possession limits