



New England Fishery Management Council

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MEMORANDUM

DATE: November 16, 2015
TO: Groundfish Committee
FROM: Groundfish Plan Development Team (PDT)
SUBJECT: **Development of Framework Adjustment 55 (FW 55)**

The Groundfish Plan Development Team (PDT) met on October 29, November 5, and November 16, 2015 to discuss Framework Adjustment 55 (FW 55). The following summarizes the PDT discussion. The PDT also discussed possible 2016 groundfish priorities for the Committee to consider in their discussion.

This memo includes six appendices:

- 1) Catch distribution analysis
- 2) Cost estimates for the haddock separator panel
- 3) Analysis to determine the total observer coverage rate for FY 2016, under No Action
- 4) Using multiple years of information to determine ASM total coverage rates
- 5) Biological and economic information regarding the extra-large mesh ASM exemption alternative
- 6) Biological and economic information to examine the ASM prioritization alternative

Section 4.1: Updates to Status Determination Criteria and Annual Catch Limits

Catch Distribution Analysis

- The PDT reviewed recent non-groundfish fishery catches to estimate catches in state waters and the other catch component.
- The PDT drafted recommended changes to the catch distribution following the same process as previous groundfish actions. The ACL distribution resulting from these recommendation can be found in Table 10 of the draft alternatives (dated November 10, 2015)
- For some stocks, Canadian catches/quotas were deducted from the total ABCs to determine the US ABCs.
- Groundfish sub-ACLs may be reduced to account for catches in other fisheries. The extreme example is for Northern windowpane flounder, in which 60% of the ABC would

be distributed to the other sub-component as an estimate of scallop fishery catches in FY 2016.

- The PDT includes the catch distribution analysis in Appendix I, which is the basis for forthcoming appendix to FW 55.

Scallop sub-ACL for SNE/MA yellowtail flounder:

- The PDT provided a range of values for the Committee to consider, based on the Scallop PDT's estimates of bycatch (see Scallop PDT memo to the Groundfish PDT, dated November 9, 2015). The Scallop PDT noted the uncertainty of yellowtail catch estimates, particularly in FY 2017 and FY 2018.
- The PDT provided two ACL distributions in Table 10 of the draft alternatives.
 - The high/100% value is based on the highest estimated catch in scallop FW 27 alternatives, and is not discounted.
 - The low/90% value is based on 90% of the lowest estimated catch in scallop FW 27.

Section 4.2: Fishery Program Administration

Process for Adding a New Sector:

- The PDT drafted the alternative for the process for adding a new sector to include a review by the Committee and the Council prior to the Council making a recommendation to NMFS.
- The Committee may want to discuss if the PDT's drafted process addresses their concerns.

Haddock Separator Trawl Panel

- The PDT provides cost estimates in Appendix II.

Section 4.3: Commercial and Recreational Fishery Measures

Groundfish Monitoring Program

- No Action
 - The PDT reviewed the working draft coverage rate analysis for FY 2016. This information is subject to change and is considered a working draft, see Appendix III.
 - The rate of coverage required is for total coverage and does not differentiate between NEFOP and ASM.
 - The preliminary results indicate that FY 2016 coverage would be 41% under the current approach (if including the requirement that 80% of all discards be observed); otherwise coverage would be 37%. Redfish is the driver for this rate.
- Multi-year approach
 - The current analysis to determine observer coverage rates depends on using the last full year of data at the time of analysis (e.g., coverage for FY 2015 determined using FY 2013 information).

- One concern raised by the PDT was whether coverage rates at the stock level in one given year should be the driving factor when determining an overall rate for the fishery. The PDT discussed the merits of using multiple years of data to determine coverage rates. Multiple years of information could be used to determine a target coverage rate (i.e., average or median of the CV 30 percent coverage requirement by stock across several years – 2, 3, or 5 years).
- The PDT provides some information in Appendix IV as an example of how these calculations may work.
- In reviewing the information in Appendix IV, the PDT also points out that this information may be helpful if developing a fixed rate alternative for target coverage (see GAP motions, dated November 12, 2015). However, the PDT is unclear if a fixed rate approach could be included in a framework action and is requesting further guidance from NOAA General Council on this issue.
- Extra-Large Mesh (10+) Exemption from ASM
 - The PDT developed this alternative to remove the ASM requirement for sector trips fishing exclusively 10+ inch mesh gillnets.
 - The PDT raised concerns about removing ASM coverage requirements for a subset of sector trips that fish multiple mesh sizes while targeting non-groundfish stocks (dogfish and skates). The PDT recognizes the low catches of groundfish on sub-sets of these trips, and noted that there are multiple processes through which to create an exempted fishery.
 - In addition, the PDT cautioned that sampling bias could occur unless the exemption was broadly applied to the ELM gear. For example if BSA 1 (GOM) would still have the ASM requirement, but other areas would not. Another possible result could be incentivizing fishing outside of BSA 1.
 - The PDT does not have the analysis yet to show the impact of the alternative on the overall FY 2016 sector ASM coverage rate. However, given the composition of the species that would drive the FY 2016 coverage rate (i.e., redfish and GOM winter flounder). The PDT does not expect that removal of the ELM 10”+ trips from ASM will result in substantial changes in the outcomes from the coverage rate analysis for FY 2016.
 - Appendix V provides additional details on the PDT’s analysis.
- Prioritization
 - The PDT developed fishery performance criteria thresholds following the Council meeting. Appendix VI provided details on the PDT’s analysis.
 - If the Council adopted the prioritization approach being considered under FW 55 using the current thresholds developed by the PDT, the FY 2016 coverage could be as low as 26%. The rate would scale down from the redfish rate to the GOM winter flounder rate. FY 2015 total coverage is 24%.

Recommendations for 2016 priorities

The PDT discussed the draft list of possible Council priorities for 2016. The PDT did not weigh in on the ranking or if items should be excluded, rather the PDT offered one additional priority for consideration and some discussion on two items on the draft list of priorities.

- Additional priority suggestion: *Review list of universal sector exemptions*- the PDT noted that some sector exemptions have been implemented multiple times; perhaps an evaluation should be completed to determine if some should be on the list of universal sector exemptions.
- Annual priority list: *Modifications to common pool regulations: trimester quota changes, HA exemptions from broad stock area provisions* – the PDT wondered how this priority may develop if the common pool expanded and how to consider the impacts if a larger portion of the fleet switches over to common pool (e.g., to avoid paying for ASM and in response to low ACLs).
- Multi-year priority list: *Review of groundfish catch in non-groundfish fisheries*- the PDT recognizes that with large reductions in ABCs for some stocks, component that were proportionally smaller in the past are now a larger proportion of the ABC. This may lead to further reduction of the groundfish sub-ACL in some years. A comprehensive review of the data and approach taken for the catch distribution analysis may lead to greater understanding of how to improve the process.

Appendix I: Catch distribution analysis

ABC/ACL Distribution

Background

Groundfish ABCs and ACLs are distributed to various components of the fishery. First, expected catch by Canadian vessels is deducted from the total ABC, and the amount remaining is the portion of the ABC available to U.S. vessels (U.S. ABC). Expected catch from state waters and the other sub-component is then deducted from the U.S. ABC¹. These sub-components are not subject to specific catch controls by the Groundfish FMP. As a result, the state waters and other sub-components are not allocations, and these components of the fishery are not subject to accountability measures if the catch limits are exceeded. Because the state waters and other sub-component values are based on expected catch, there is no downward adjustment for management uncertainty that applies to fisheries with specific allocations and accountability measures.

After the state and other sub-components are deducted, the remaining portion of the U.S. ABC is the amount available to the fishery components that receive an allocation (i.e., subject to accountability measures). Allocation are made first to non-groundfish fisheries (e.g., scallop, midwater trawl, small-mesh fisheries), and the portion of the U.S. ABC remaining is the commercial groundfish allocation.

Once the U.S. ABC is distributed to the various fishery components, sub-annual catch limits (sub-ACLs) are set by reducing the amount of the ABC distributed to each component to account for management uncertainty (i.e., the likelihood that management measures will result in a level of catch greater than the catch target). For each stock, management uncertainty is estimated using the following criteria: Enforceability and precision of management measures, adequacy of catch monitoring, latent effort, and catch of groundfish in non-groundfish fisheries.

The following default management uncertainty buffers are used for groundfish stocks:

- 3% for stocks with no state waters catch;
- 7% for zero possession stocks;
- 7% for recreational allocations; and
- 5% for all other stocks/components of the fishery.

¹ For GOM cod and haddock, the state waters and other sub-component are deducted from the commercial portion of the U.S. ABC (after allocating to the recreational fishery).

Review of Management Uncertainty Buffer

The PDT last reviewed and recommended changes to the management uncertainty buffer for Framework Adjustment 50 (FW 50). During the development of FW 50, the PDT discussed whether the buffer should be increased due to possible observer bias, but did not recommend any increase because no estimate of bias is available to correctly determine the appropriate changes. The PDT made the same conclusions during the development of FW 53.

The PDT reiterated that, at this time, it is not possible to quantify observer bias, and that the direction of any bias can change from year to year. As was the conclusion in FW 53, the PDT concluded that no new information is available that would warrant any changes to the default management uncertainty buffers for FW 55, and is recommending no change.

Canadian Catch of Groundfish Stocks

Since fishing year 2010, expected Canadian catch has only been considered for Eastern GB cod and haddock and GB yellowtail, which are jointly managed with Canada. However, based on the results of recent assessments, some Canadian catch of GB winter flounder, white hake and halibut does occur. Although these stocks are not jointly managed, Canadian catch should be accounted for when distributing the ABC/ACLs to ensure that biological objectives are met and total catch does not exceed the overall ABC.

Consistent with the approach used in FW 53, the PDT recommends using the average catch of the most recent three years available (CY 2012- CY 2014) as the expected Canadian catch. This expected Canadian catch should be reduced from the total ABC for the respective stock before distributing the remaining portion of the ABC to U.S. vessels.

Stock	Expected Canadian Catch (mt)
GB winter flounder	86
White hake	62
Atlantic halibut	34

Review of State Waters and Other sub-Components

The state waters and other sub-components values were initially established in Framework 44, which implemented specifications for fishing years 2010-2012, and a few sub-components were adjusted in Framework 47 for the 2012 fishing year. The PDT completed a comprehensive review of the sub-components for Framework 50, and a number of adjustments were adopted beginning in the 2013 fishing year. The sub-components were most recently reviewed and adjusted in Framework 53.

Table 1 summarizes the major highlights from the FY 2014 final catch report. The PDT also reviewed proposed 2016 specifications to determine if additional adjustments to the sub-components are necessary in anticipation of any expected ACL changes.

Table 1– Summary of FY 2014 sub-Component Catches (as percent of sub-component caught)

	Stock	State sub- Component	Other sub- Component
<i>Sub-component 'overages'</i>	GB Cod	-	139%
	GOM Cod	-	138%
	GB Haddock	-	103%
	GOM Haddock	-	208%
	SNE/MA Yellowtail Flounder	-	112%
	CC/GOM Yellowtail Flounder	139%	353%
	Witch Flounder	166%	-
	White Hake	-	331%
	Northern Windowpane Flounder	136%	247%
	Southern Windowpane	-	117%
	Ocean Pout	193%	396%
<i>Sub-Components with High Utilization (\geq 75%)</i>	GB Cod	98%	-
	Plaice	-	79%
<i>Sub-Components with Low Utilization (\leq 25%)</i>	Pollock	-	17%
	GB Haddock	4%	-
	Wolffish	-	6%
	SNE/MA Yellowtail Flounder	9%	-
	GB Yellowtail Flounder	-	0%
	GOM Winter Flounder	-	6%
	Redfish	16%	19%
	White Hake	3%	10%

PDT Recommendations for Changes to sub-Components

The PDT developed recommended changes to the state waters and other sub-components based on recent catch information (FY 2010-2014), expected ACL changes and management measures for 2016, stock abundance and availability, and other information. Table 2 summarizes the PDT's recommended changes for the 2016 fishing year, and each recommended change is described in more detail below².

1. No changes are recommended for either the state waters or other sub-component values for redfish, GB yellowtail flounder, American plaice, white hake and wolffish.
2. GB cod—
 - a. *State Waters* -2014 state waters catches were double 2013 catches; catch mostly comprised of recreational catch in 2014. State waters catch since 2010 has been similar to the 5 year average. Given the recommended decrease in the 2016-2018 ABC, maintaining the state sub-component at 1% of the ABC would be only 12 mt, which is lower than the 5 year average and total catch for all years but 2014. The PDT recommends increasing the 2016-2018 state sub-component to 3% of the ABC (from 1%).
 - b. *Other Sub-Component* – The estimated catch for FY 2014 for other sub-component catch tripled compared to FY 2013. A majority of other sub-component catch has been recreational landings since 2010. Unclear why recreational landings were low in 2013. Given the recommended decrease in the 2016-2018 ABC, maintaining the other sub-component at 4% of the ABC would be only 50 mt, which is lower than the 5 year average and total catch for all years but 2013. The PDT recommends increasing the 2016-2018 other sub-component to 13% of the ABC (from 4%) to cover 5 year average.
3. GOM cod –
 - a. *State Waters* -2014 state waters catches were similar to 2013 catches. It could be expected that states would implement appropriate management measures to correspond to Federal measures. The PDT recommends reducing the state sub-component to 8% (from 10%) to cover the recent three year average of 2012-2014 state waters catches.
 - b. *Other Sub-Component* – Research projects can vary each year; difficult to predict landings that will occur under research projects. The PDT recommends decreasing the 2016-018 other sub-component to 3% of the ABC (from 5%) to keep consistent with 2015 level.

² The PDT did not include lobster/crab fishery groundfish catch estimates which were new for FY 2014 final year catch report, due to the lack of direct link to the assessment and monitoring of the ACLs at this time.

4. GB haddock –

- a. *State Waters* - Since 2010, less than 5% of the state sub-component has been caught. Total catch is well below the total ACL. The PDT recommends no change (1% of the ABC) for the 2016-2018 state sub-component.
- b. *Other Sub-Component* – Other sub-component catch increased by ~750 mt in 2014 due primarily to increases catch in the fluke, herring, scup, squid, squid/whiting, surf clam and unknown groups. It is unclear why catch in these subgroups increased. One potential explanation for these increases in catch could be due to increased haddock abundance. Given recommended ABC increases for 2016-2018, maintaining the other sub-component at its current level, or even reducing to 1%, will more than cover catch. Reducing to 1% is more than the annual other sub-component catch for all years except 2014, and more than the 5 year average. The PDT recommends decreasing the 2016-2017 other sub-component to 1% of the ABC (from 4%).

5. GOM haddock –

- a. *State Waters* - State waters catch has been less than 15 mt each year since 2010. With no adjustment in 2016-2018, state sub-component would be larger than average FY 2010-2014 catch, and larger than the greatest catch (15 mt). The PDT recommends no change (1% of the ABC) for the 2016-2018 state sub-component.
- b. *Other Sub-Component* – The other sub-component catch increased by ~30 mt in 2014 due primarily to increases catch in the herring, whiting and unknown groups; it is unclear why catch in these subgroups increased. The increase may be due to increased haddock abundance. Given recommended ABC increases for 2016-2018, maintaining the other sub-component at its current level, or even reducing to 1%, will more than cover catch. Reducing to 1% is more than the annual other sub-component catch for each year from 2010-2015, and more than the 5 year average. The PDT recommends decreasing the 2016-2017 other sub-component to 1% of the ABC (from 2%).

6. SNE/MA yellowtail flounder –

- a. *State Waters* - State waters catch dropped by 95% from FY 2013 to FY 2014. The SSC's 2016-2018 ABC recommendation is a 62% reduction from 2015. Given this reduction, maintaining the state waters sub-component allocation at 2% would mean an allocation of 5 mt. While a 5 mt allocation would cover the 2014 state waters catch, it is less than a third of recent average state water sub-component catch. The PDT recommends no change (2% of the ABC) for the 2016-2018 state sub-component, assuming that downward trend in stock abundance could translate to reduced catch.
- b. *Other Sub-Component* – Other sub-component catch increased slightly from 2013 to 2014. In FY 2014, other sub-component catch was only 3 mt more than the sub-component value. The SSC's 2016-2018 ABC recommendation is a 62%

reduction from 2015. Given this reduction, maintaining the other sub-component allocation at 4% would mean an allocation of 11 mt, which would only cover less than a third of the recent average other sub-component catch. The PDT recommends increasing the other sub-component to 11% of the ABC (from 4%), based on the 5 year median, and assuming that downward trend in stock abundance could translate to reduced catch.

7. CC/GOM yellowtail flounder

- a. *State Waters* - State waters catch increased by 3 mt from FY 2013 to FY 2014. Without clear indication of why catch has been increasing over the past few years, it is difficult to predict 2016 catches, but there is no reason to expect dramatic changes in 2016 compared to 2014. If maintained at the current level (7% of the ABC), the other sub-component value would be 30 mt, which is less than the FY 14 catch and the 5 year average. The PDT recommends increasing the 2016-2018 state sub-component to 10% of the ABC (from 7%), given that catch has increased for the last 2 years.
- b. *Other Sub-Component* – The other sub-component catch increased by ~10 mt from FY 2013 to FY 2014, primarily due to an increase in scallop fishery catch. In 2014, the sub-component catch was ~30 mt more than the sub-component value. Total catch of this stock has been relatively high since 2012 compared to the ACL (65-90% of ACL). Estimated bycatch in the scallop fishery for 2016 is 6.3 -7.8 mt. Depending on scallop measures for 2016 (i.e., additional days allocated to open areas), bycatch might be similar to 2014, or slightly higher. However, the Scallop PDT's estimates suggest catch will be lower, and stock is trending downwards. If maintained at the current level (5% of the ABC), the other sub-component value would be 21 mt, which is less than the FY 2014 catch and the 5 year average. The PDT recommends increasing the 2016-2018 other sub-component to 6% of the ABC (from 5%).

8. Witch flounder –

- a. *State Waters* – The state waters catch in 2014 increased by ~10 mt over 2013. State sub-component catch was 15 mt more than sub-component value in 2014. Total catch neared total ACL in 2014 (83% of ACL caught). There is no reason to expect dramatic change in 2016 state waters catch compared to 2012-2014. Given the decrease in the ABC, if maintained at the current level (3% of the ABC), the state sub-component value would be 12 mt for 2016-2016, which is less than half of the 5-yr average and lower than the recent 3 years of catch. The PDT recommends increasing the 2016-2018 state waters sub-component to 7% of ABC (from 3%).
- b. *Other Sub-Component* – The 2014 other sub-component catch decreased slightly from 2013. It could be expected that 2016 catch would be similar to 2013-2014 catches. Given the decrease in the ABC, if maintained at the current level (15% of the ABC), the state sub-component value would be 59 mt for 2016-2016, which is lower than the average catch and the total other sub-component catch from 2010-

2014. The PDT recommends increasing the 2016-2018 other sub-component to 19% of ABC (from 15%), to cover catch consistent with 2013-2014.

9. GB winter flounder–

- a. *Other Sub-Component* – The 2014 other sub-component catches decreased slightly compared to 2013 due to reduction in bycatch occurring in the squid/whiting fishery. Compared to 2015, scallop effort on GB is expected to be higher in 2016. Exploitable scallop biomass in GB open areas has increased slightly and the fishery may receive slightly higher DAS allocations (~36 DAS compared to 31). Additionally, unlike in 2015, a portion of the scallop fleet may have access to the Closed Area 2 Access Area (about half of the full-time fleet would potentially receive one 17,000-lb trip) and another alternative under consideration would open a portion of the Nantucket Lightship Access Area to a limited number of scallop vessels. Given the recommended ABC reduction for 2016-2018, maintaining the other sub-component at 3% of the ABC would be 23 mt. This is less than FY 2013 and 2014, and only a quarter of the 5 year average. The PDT recommends increasing the 2016-2018 other sub-component to 9% of ABC (from 3%), with the expectation that catch will be slightly higher than FY 2013 and FY 2014 because of the expected increase in catch in the scallop fishery.

10. GOM winter flounder –

- a. *State Waters* –The 2014 catch increased to 113.3 mt, compared to ~60-70 mt since 2012. There is no reason to expect states would change management measures. With no adjustment for 2016-2018, the state sub-component value will be larger than the most recent 4-year average (88.5). The PDT recommends decreasing the 2016-2018 state sub-component to 15% of the ABC from 17%.
- b. *Other Sub-Component* – The other sub-component catch has been less than 10 mt since 2012 fishing year. With no adjustment for 2016-2018, the sub-component value would be larger than the most recent 4-year average. There is no reason to expect 2016 other sub-component catches to differ dramatically from 2013 and 2014 catches. The PDT recommends maintaining the 2016-2018 other sub-component at 2% of ABC.

11. SNE/MA winter flounder –

- a. *State Waters* – The state waters catch increased slightly compared to FY 2013, but has been below 75 mt since 2011. There is no reason to expect that states would change management measures. The PDT recommends increasing the 2016-2018 state sub-component to 9% of the ABC (from 7%).
- b. *Other Sub-Component* – The other sub-component catch decreased by roughly half in 2014 compared to 2013, primarily due to decreases in bycatch in the scallop fishery, research landings, and unknown categories. There have been a number of conservation gear modifications that went into effect in 2014 that may have led to decreases in other sub-component catch. Decreases in SNE/MA

yellowtail ACL for FY 2016 may mean that bycatch in the scallop fishery could be similar or lower than in FY 2014. Research projects vary each year; it is difficult to predict landings that will occur under research projects. The PDT recommends increasing the 2016-2018 other sub-component to 12% of the ABC (from 11%).

12. Pollock –

- a. *State Waters* – The state waters catch decreased by ~400 mt in 2014 compared to 2013. The state waters catch is mostly comprised of recreational landings. If it is assumed that state waters catch will be similar to 2012 and 2014 (as opposed to 2013 which had a lot of state rec discards), there may be a possible increase. ABC and sub-component value will increase in 2016-2018 relative to 2015. If maintained at 6%, the sub-component value (1,279) is more than average catch and more than the highest catch in the last 5 years. The PDT recommends maintaining the 2016-2018 state sub-component at 6% of ABC.
- b. *Other Sub-Component* – The other sub-component catch decreased significantly in 2014 compared to 2013 due to exclusion of Federal recreational discards from other sub-component catch accounting. It is expected that 2016-2018 catch would be more similar to 2014 given the exclusion of recreational discards. The ABC and sub-component value will increase in 2016 relative to 2014. If maintained at 7%, the sub-component value (1,492) is more than average catch and more than the highest catch in the last 5 years. The PDT recommends decreasing the 2016-2018 other sub-component to 6% of ABC (from 7%);

13. Northern windowpane flounder –

- a. *State Waters* – The state sub-component catch increased by ~1 mt in 2014 compared to 2013. The average catch for the last 5 years has been below the current state sub-component value. The PDT recommends maintaining the 2016-2018 state sub-component at 1% of the ABC.
- b. *Other Sub-Component* – The 2013 the sub-component catches increased by ~60 mt compared to 2013. Since 2010, the scallop fishery has made up over 90% of the total other sub-component catches. Compared to 2015, scallop effort on GB is expected to be higher in 2016. Exploitable scallop biomass in GB open areas has increased slightly and the fishery may receive slightly higher DAS allocations (~36 DAS compared to 31). Additionally, unlike in 2015, a portion of the scallop fleet may have access to the Closed Area 2 Access Area (about half of the full-time fleet would potentially receive one 17,000-lb trip) and another alternative under consideration would open a portion of the Nantucket Lightship Access Area to a limited number of scallop vessels. The estimated Northern windowpane flounder bycatch in the scallop fishery for 2016 is estimated at 110 mt (based on observer data from Sept 2014 – Aug 2015). The PDT recommends increasing the 2016-2018 other sub-component to 60% of the ABC (from 29%), to cover projected scallop catch.

14. Southern windowpane flounder –

- a. *State Waters* – The state sub-component catch has been below 37 mt since 2010. ABC and sub-component value will increase in 2016-2018 relative to 2015. If maintained at 10%, the sub-component value (62 mt) is more than average catch and more than the highest catch in the last 5 years. The PDT recommends decreasing the 2016-2018 state sub-component to 6% of the ABC (from 10%) to cover the 5-year high.
- b. *Other Sub-Component* – The scallop fishery has a separate sub-ACL. Prior to 2013, scallop catches were attributed to the other sub-component. The total ACL has been close to fully utilized, or exceeded in the last few years. The PDT recommends increasing the 2016-2018 other sub-component to 40% of the ABC (from 34%), based on 2013-2014 average, absent reasons to believe catches will decrease or other management measures will reduce bycatch in these fisheries.

15. Ocean Pout

- a. *State Waters* – The state waters catch more than doubled compared to FY 2013. There is no reason to expect the increase will persist 2016-2018. Given the recommended decrease in the 2016-2018 ABC, if the state waters sub-component is maintained at 1% of the ABC, the value would still be 2 mt, which above the total state waters catch for 2010-2013. The PDT recommends maintaining the 2016-2018 state sub-component at 1% of ABC.
- b. *Other Sub-Component* – Total catch of ocean pout is well below the total ACL. There is no evidence that catch in 2016-2018 would differ much from 2013 and 2014. Given the recommended decrease in the 2016-2018 ABC, if the other subcomponent is maintained at 10% of the ABC, the value would be 16 mt, which is lower than 2013 and 2014 catch, and lower than the 5 year average. The 3 year average is 20 mt. The PDT recommends increasing in the 2016-2018 other sub-component to 14% of the ABC (from 10%), to exceed recent 3 year average.

16. Halibut –

- a. *State Waters* – The state waters catch more than doubled compared to FY 2013. There is no reason to expect the increase will persist 2016-2018. Given the recommended decrease in the 2016-2018 ABC, if the state waters sub-component is maintained at 1% of the ABC, the value would still be 2 mt, which is above the total state waters catch for 2010-2013. The PDT recommends maintaining the 2016-2018 state sub-component at 1% of ABC.
- b. *Other Sub-Component* – The other sub-component catch has been below the sub-component value since 2010; however, size of sub-component is small (<5 mt). Given the recommended increase in the 2016-2018 ABC, maintaining the other sub-component at 5% would be 7 mt, which is well over the average catch for the last 5 years and the highest catch in the last 5 years. The PDT recommends maintaining the 2016-2018 other subcomponent at 3% of ABC.

Table 2 – Summary of ABC Distribution to State and Other sub-Components (as percent of ABC)

Stock	State sub-Component						Other sub-Component					
	FW 44 (FY 10-11)	FW 47 (FY 12)	FW 50 (FY13-14)	FW51 (FY14)	FW53 (FY15-17)	FW55 (FY16-18)	FW 44 (FY 10-11)	FW 47 (FY 12)	FW 50 (FY13-14)	FW51 (FY14)	FW53 (FY15-17)	FW55 (FY16-18)
GB cod	0.01	0.01	0.01	0.01	0.01	0.03	0.04	0.04	0.04	0.04	0.04	0.13
GOM cod	0.10	0.10	0.10	0.10	0.10	0.08	0.05	0.05	0.05	0.05	0.05	0.03
GB Haddock	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.04	0.04	0.04	0.04	0.01
GOM Haddock	0.01	0.02	0.02	0.02	0.01	0.01	0.04	0.03	0.03	0.03	0.02	0.01
GB Yellowtail Flounder	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.04	0.04	0.02	0.01	0.01
SNE/MA Yellowtail Flounder	0.01	0.01	0.01	0.01	0.02	0.02	0.04	0.04	0.04	0.04	0.04	0.11
CC/GOM Yellowtail Flounder	0.01	0.03	0.06	0.06	0.07	0.10	0.04	0.02	0.02	0.02	0.05	0.06
Plaice	0.01	0.01	0.02	0.02	0.02	0.02	0.04	0.04	0.02	0.02	0.02	0.02
Witch Flounder	0.01	0.03	0.03	0.03	0.03	0.07	0.04	0.04	0.15	0.15	0.15	0.19
GB Winter Flounder	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.03	0.03	0.03	0.09
GOM Winter Flounder	0.25	0.25	0.25	0.25	0.17	0.15	0.05	0.05	0.05	0.05	0.02	0.02
SNE/MA Winter Flounder	0.08	0.28	0.14	0.14	0.07	0.09	0.05	0.20	0.10	0.10	0.11	0.12
Redfish	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.04	0.02	0.02	0.02	0.02
White Hake	0.01	0.02	0.01	0.01	0.01	0.01	0.04	0.03	0.02	0.02	0.02	0.02
Pollock	0.06	0.05	0.06	0.06	0.06	0.06	0.06	0.09	0.07	0.07	0.07	0.06
Northern Windowpane	0.01	0.01	0.01	0.01	0.01	0.01	0.29	0.19	0.29	0.29	0.29	0.60
Southern Windowpane	0.01	0.10	0.10	0.10	0.10	0.06	0.29	0.70	0.34	0.34	0.34	0.40
Ocean Pout	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.09	0.09	0.09	0.1	0.14
Halibut	0.50	0.50	0.40	0.40	0.30	0.20	0.05	0.05	0.05	0.05	0.03	0.03
Wolffish	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.04	0.04	0.04	0.04	0.04

Note: Highlighted cells indicate changes from the previous specifications (RED = increase to sub-component percentage; GREEN = decrease to sub-component percentage).

Appendix II:

Cost estimates for the haddock separator panel

Vessels using separator trawl by FY

Table 1 - Unique vessels permits reporting haddock separator trawl on vessel trip report (VTR), FY2013-FY2015.

Fishing Year	Permits
2013	12
2014	38
2015	27

Source: DMIS as of 10/05/2015

*Only includes haddock separator trawl gear reported on VTR

Separator panel cost estimates

Haddock Separator Panel- Cost estimates. Council staff reached out to multiple net manufacturers in the region. The following table summarizes the availability and cost to install a separator panel.

Table 2 - Estimated cost of separator panel (materials and installation)

	Contrasting colors available?	Amount of twine needed?	Cost of twine?	Cost of installation?	Total Cost
Estimates	Yes. Ex: blue and orange.	60lbs-100lbs	\$360 - \$800 (\$5.95-\$8 lb)	\$200 - \$600	\$560 - \$1200

Multiply the total cost by the number of vessels using haddock separator trawls during 2013-2015, assuming that each vessel has one such net.

Appendix III:

Analysis to determine the total observer coverage rate for FY 2016, under No Action

The preliminary summary of Multispecies FY 2014 discard performance for use in the FY 2016 ASM Coverage is summarized in the following tables and figures.

The overall realized coverage level for FY 2014 is 25.7%.

Table 1. Realized Coverage Levels

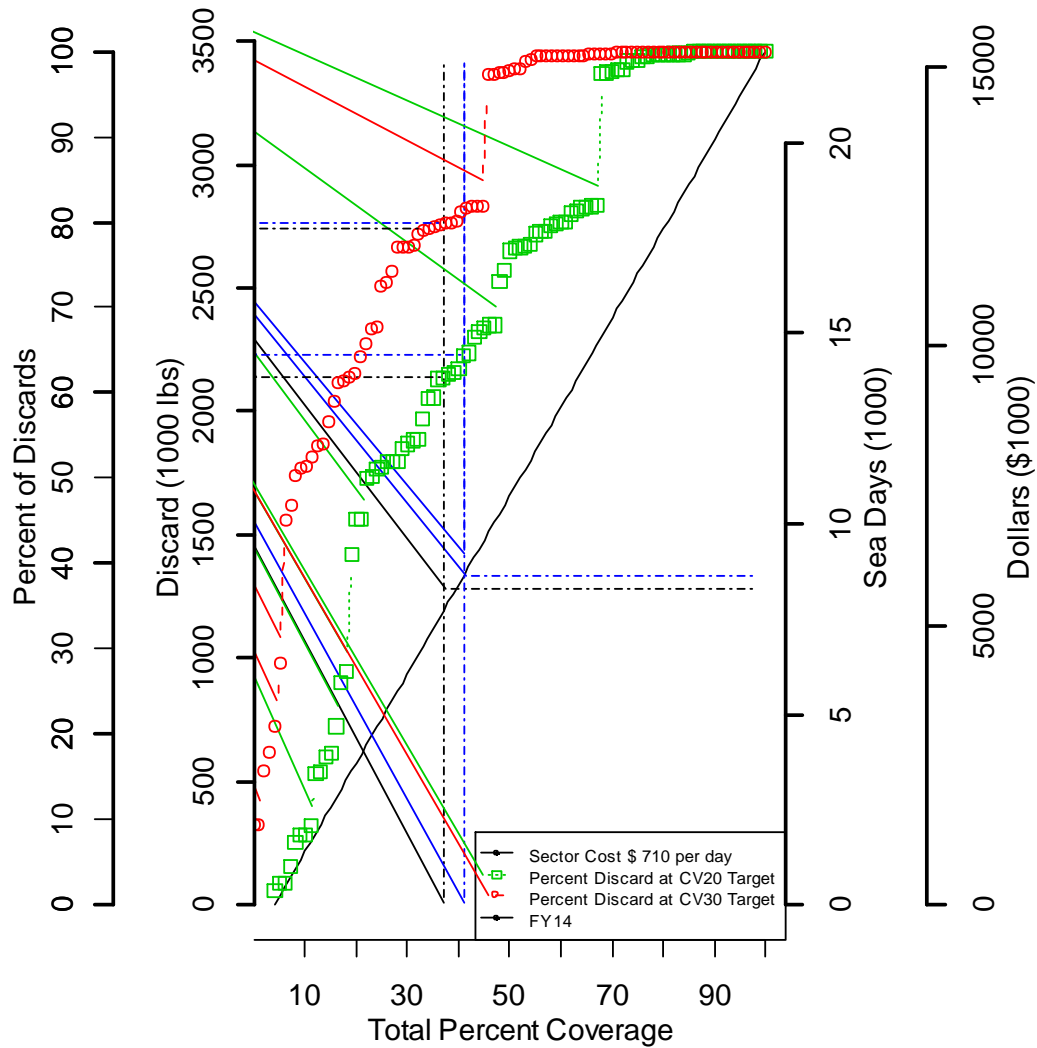
Fishing Year	NEFOP target coverage level	ASM target coverage level	Total target coverage level	Realized coverage level
FY 2010	8 %	30 %	38 %	32 %
FY 2011	8 %	30 %	38 %	27 %
FY 2012	8 %	17 %	25 %	22 %
FY 2013	8 %	14 %	22 %	20 %
FY 2014	8 %	18 %	26 %	25.7 %
FY 2015			24 %	n/a*

The Stock CVs for FY 2014 is summarized in Table 2. Redfish has a CV of 41.5 with an estimated coverage rate of 37 percent needed to reach a CV 30. GOM winter flounder has a CV of 29.06 with an estimated coverage rate of 26 percent to reach a CV 30.

Table 2. Realized Stock CVs.

	FY 2010		FY 2011		FY 2012		FY 2013		FY 2014	
	Realized CV	CV 30 Percent Coverage Required	Realized CV	CV 30 Percent Coverage Required	Realized CV	CV 30 Percent Coverage Required	Realized CV	CV 30 Percent Coverage Required	Realized CV	CV 30 Percent Coverage Required
GB cod	5.61	1.7	8.39	3.05	10.5	3.03	14.56	5.19	13.94	6.41
GB cod E	9.73	3.9	15.44	11.29	20.1	9.81	48.61	27.74	24.77	14.61
GB cod W	6.27	2.16	9.85	4.09	12.26	4.09	15.17	5.74	16.15	8.56
GOM cod	4.74	1.33	4.74	1.04	9.73	2.95	6.07	1.11	11.16	5.02
Plaice	4.96	1.23	4.36	0.76	5.52	0.82	6.51	1.05	7.33	1.75
GB winter flounder	16.29	8.77	27.67	21.71	21.29	8.87	23	10.63	20.84	11.27
GOM winter flounder	10.56	6.19	8.81	3.5	8.96	2.54	15.1	6.4	29.06	25.99
Witch flounder	5.76	1.6	5.11	1.06	8.87	2.05	7.41	1.35	8.95	2.54
CC/GOM yellowtail flounder	8.66	4.19	6.9	2.07	7.8	1.81	9.32	2.43	14.10	7.35
GB yellowtail flounder	11.13	4.29	10.36	3.69	15.97	5.11	24.84	12.42	21.14	11.59
SNE/MA yellowtail flounder	13.95	10.44	9.39	4.15	12.9	4.63	31.37	20.63	23.08	13.93
GB haddock	9.4	4.61	10.22	4.55	21.48	11.29	11.81	3.59	8.55	2.71
GB haddock E	12.73	6.43	17.36	13.97	33.64	23.36	29.98	12.67	10.79	3.27
GB haddock W	13.31	9.05	10.1	4.37	27.04	16.8	12.83	4.35	10.02	3.78
GOM haddock	9.94	5.56	9.11	3.68	12.26	4.6	12.98	4.84	12.03	5.76
White hake	9.21	4.15	7.76	2.36	12.95	4.44	11.94	3.41	15.29	7.51
Pollock	8.01	3.19	6.91	1.88	7.71	1.64	7.64	1.41	9.72	3.31
Redfish	11.51	6.15	8.98	3.11	13.79	4.87	21.16	9.87	41.5	36.83
SNE/MA winter flounder	10.61	7.2	12.85	7.74	15.44	7.24	21.05	11.77	16.66	10.84
S windowpane flounder	9.12	4.75	8.22	3.23	10.7	2.99	7.98	1.74	8.26	2.04
N windowpane flounder	13.22	8.08	9.04	3.05	11.01	3.21	16.69	6.45	12.75	5.31
Ocean pout	9.69	4.58	9.38	3.36	11.7	3.55	11.57	2.8	16.50	7.44
Halibut	6.34	2.01	6.95	1.93	6.66	1.22	7.68	1.43	6.97	1.68
Wolffish	6.66	2.18	7	1.9	8.34	1.93	9.55	2.24	9.72	3.16

FY14 Percent Discards at CV Level



As shown in the above figure, a 41 percent coverage rate is estimated to be required 80 percent of the total aggregated discards to reach a CV 30 or better. Figures 2 through 4 summarize the observed and unobserved discards in terms of percent sub-ACL and total discards.

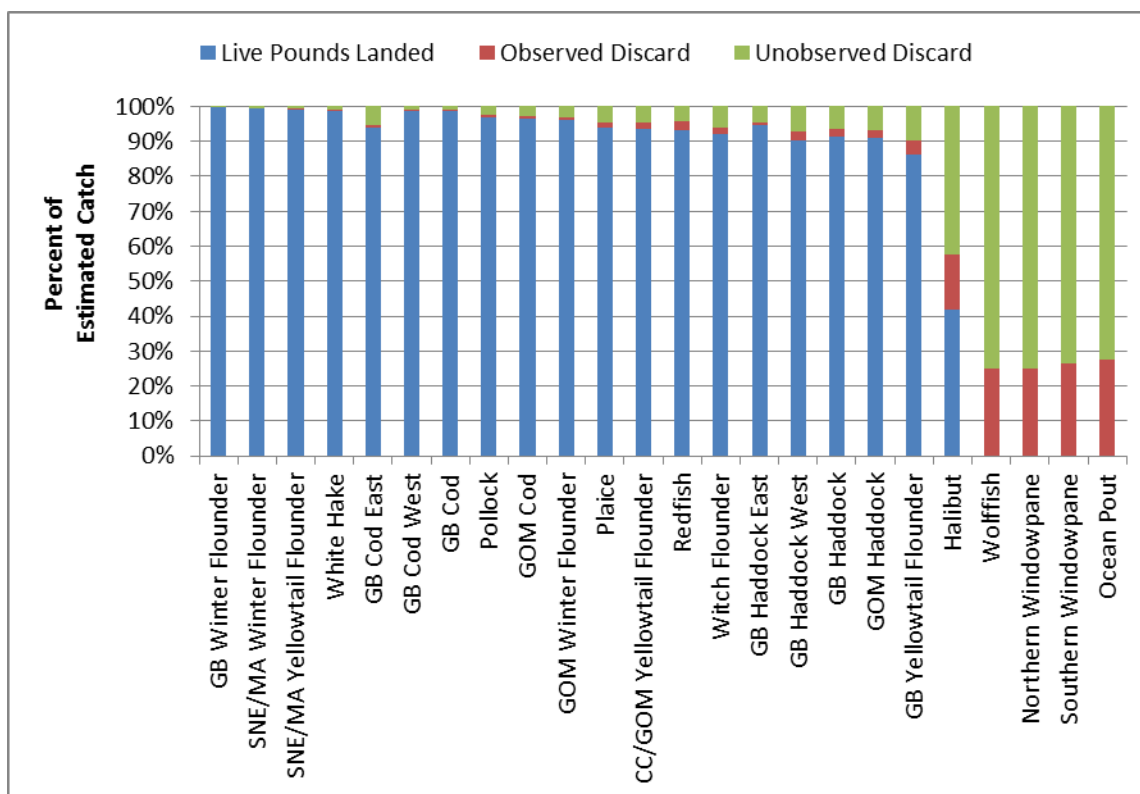


Figure 2: Fishing Year 2014 Groundfish Discards as a Percentage of Catch

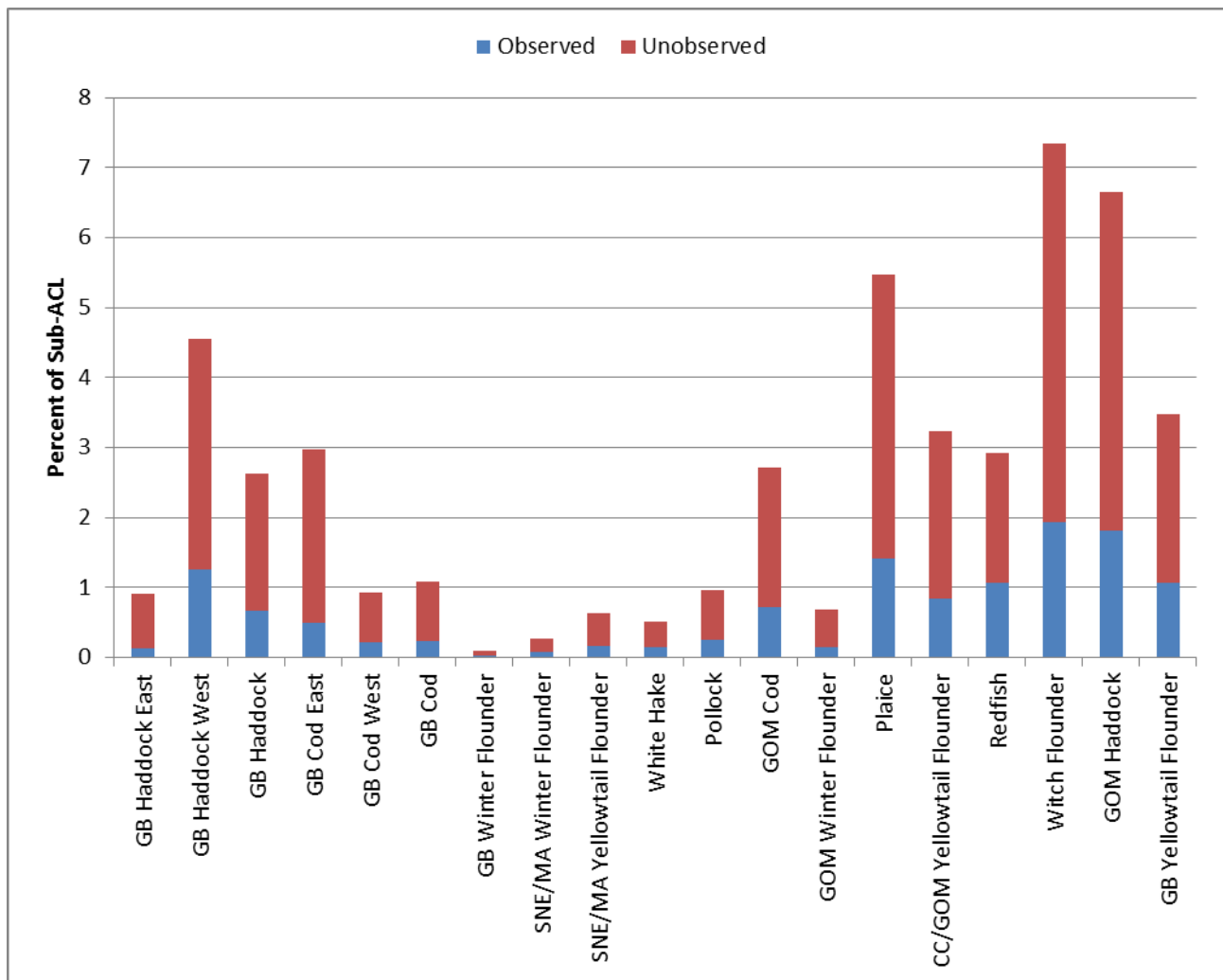


Figure 3A: Fishing Year 2014 Allocated Groundfish Discards as a Percentage of Sub-ACL

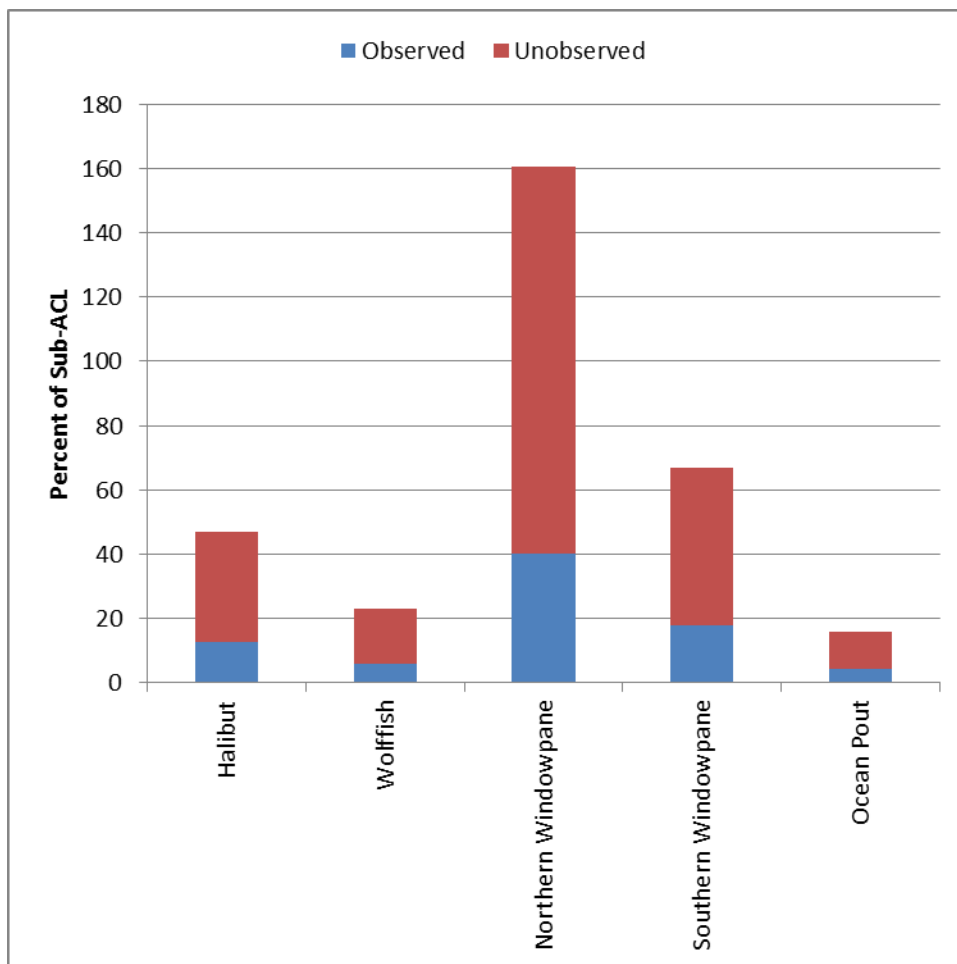


Figure 3B: Fishing Year 2014 Non-allocated Groundfish Discards as a Percentage of Sub-ACL

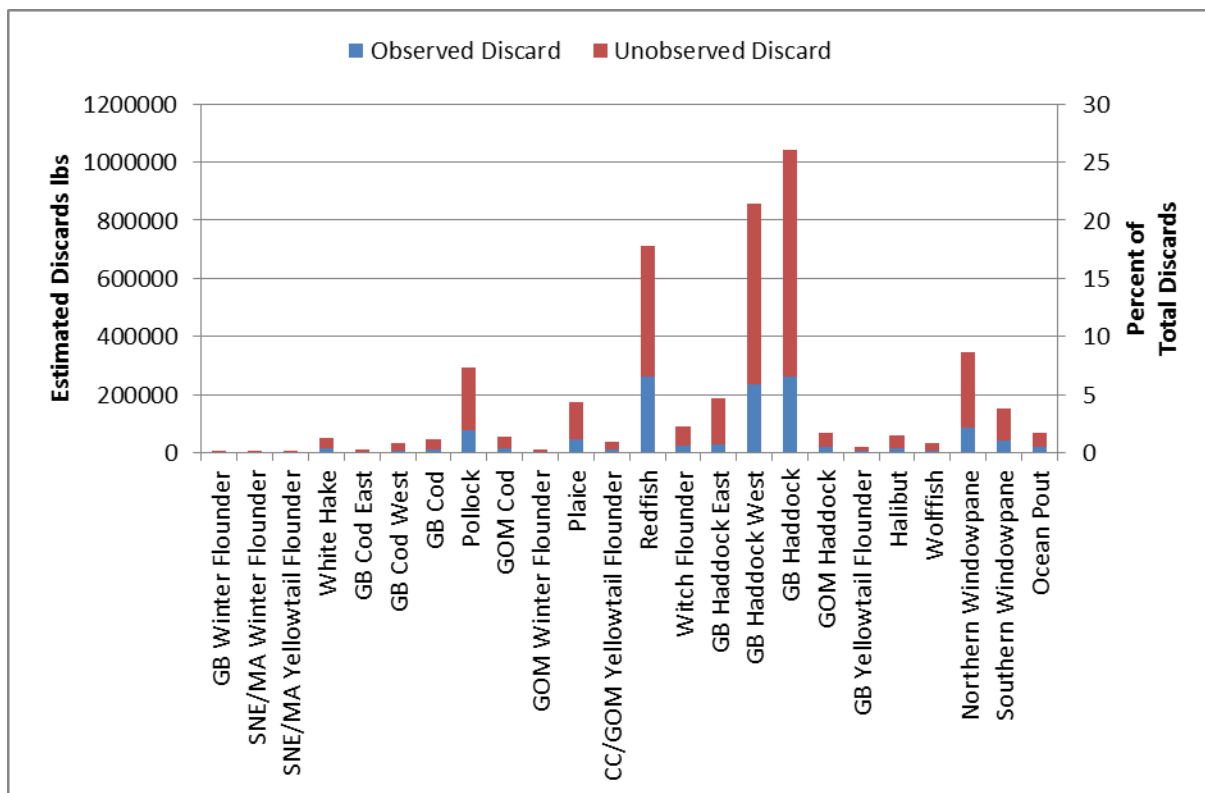


Figure 4: Fishing Year 2014 Discards (Live lbs and Percent of Total Discards)

Appendix IV:

Using multiple years of information to determine ASM total coverage rates

		=max within stock across years										
	2010	2011	2012	2013	2014	Variation in the variation						
	CV 30	CV 30	CV 30	CV 30	CV 30							
	Percent	Percent	Percent	Percent	Percent							
	Coverage	Coverage	Coverage	Coverage	Coverage	5 YEAR		3 YEAR		2 YEAR		
	Required	Required	Required	Required	Required	AVG	MEDIAN	AVG	MEDIAN	AVG		
GB cod	1.7	3.05	3.03	5.19	6.41	3.88	3.05	4.88	5.19	5.80		
GB cod E	3.9	11.29	9.81	27.74	14.61	13.47	11.29	17.39	14.61	21.18		
GB cod W	2.16	4.09	4.09	5.74	8.56	4.93	4.09	6.13	5.74	7.15		
GOM cod	1.33	1.04	2.95	1.11	5.02	2.29	1.33	3.03	2.95	3.07		
Plaice	1.23	0.76	0.82	1.05	1.75	1.12	1.05	1.21	1.05	1.40		
GB winter flounder	8.77	21.71	8.87	10.63	11.27	12.25	10.63	10.26	10.63	10.95		
GOM winter flounder	6.19	3.5	2.54	6.4	25.99	8.92	6.19	11.64	6.40	16.20		
Witch flounder	1.6	1.06	2.05	1.35	2.54	1.72	1.60	1.98	2.05	1.95		
CC/GOM yellowtail flounder	4.19	2.07	1.81	2.43	7.35	3.57	2.43	3.86	2.43	4.89		
GB yellowtail flounder	4.29	3.69	5.11	12.42	11.59	7.42	5.11	9.71	11.59	12.01		
SNE/MA yellowtail flounder	10.44	4.15	4.63	20.63	13.93	10.76	10.44	13.06	13.93	17.28		
GB haddock	4.61	4.55	11.29	3.59	2.71	5.35	4.55	5.86	3.59	3.15		
GB haddock E	6.43	13.97	23.36	12.67	3.27	11.94	12.67	13.10	12.67	7.97		
GB haddock W	9.05	4.37	16.8	4.35	3.78	7.67	4.37	8.31	4.35	4.07		
GOM haddock	5.56	3.68	4.6	4.84	5.76	4.89	4.84	5.07	4.84	5.30		
White hake	4.15	2.36	4.44	3.41	7.51	4.37	4.15	5.12	4.44	5.46		
Pollock	3.19	1.88	1.64	1.41	3.31	2.29	1.88	2.12	1.64	2.36		
Redfish	6.15	3.11	4.87	9.87	36.83	12.17	6.15	17.19	9.87	23.35		
SNE/MA winter flounder	7.2	7.74	7.24	11.77	10.84	8.96	7.74	9.95	10.84	11.31		
S windowpane flounder	4.75	3.23	2.99	1.74	2.04	2.95	2.99	2.26	2.04	1.89		
N windowpane flounder	8.08	3.05	3.21	6.45	5.31	5.22	5.31	4.99	5.31	5.88		
Ocean pout	4.58	3.36	3.55	2.8	7.44	4.35	3.55	4.60	3.55	5.12		
Halibut	2.01	1.93	1.22	1.43	1.68	1.65	1.68	1.44	1.43	1.56		
Wolffish	2.18	1.9	1.93	2.24	3.16	2.28	2.18	2.44	2.24	2.70		

Appendix V:

Biological and economic information regarding the extra-large mesh ASM exemption alternative

ELM Information:

The Council is considering removing sector ASM requirements for sector vessels fishing extra-large mesh on trips that target non-groundfish species such as skates and monkfish.

For the purposes of SBRM, ELM for gillnets are considered to be 8" or greater. The PDT has noted that skates and monkfish are primarily targeted using mesh sizes 10" or greater. With this in mind, the PDT has recommended that relief from ASM coverage should be for trips fishing 10" mesh or greater. Table 3 depicts the number of observed sector gillnet trips that fished only 10" or greater mesh from FY2012 – FY2014 by broad stock areas. Note that there were no observed gillnet trips that fished exclusively ELM in the GB broad stock area (BSA 3).

Table 3 - Observed sector trips that fished only ELM gillnets of 10" or greater from FY2012 – FY2014. Data Source: NEFSC Observer Database.

ELM, 10"+	Fishing Year			Grand Total (2012-2014)
	2012	2013	2014	
Gulf of Maine	***	***	***	27
Inshore GB	41	59	127	227
Multiple BSAs	***	***	***	22
SNE	168	47	122	337
Total ELM, 10"+	225	119	269	613

Table 4 describes the type of monitor that sailed on an observed sector trip by fishing year. Through FW48, the Council provided relief from full ASM coverage for sector trips targeting monkfish in SNE. The SNE Monkfish Exemption category (see Table 4) are observed sector trips that fished on a monkfish DAS in SNE using mesh size of 10" or greater. The other category in Table 2 captures observed ELM 10"+ trips in other monitoring programs.

Table 4 - Observed sector trips by monitoring program from FY 2012 - FY2014. Data source: NEFSC Observer Database.

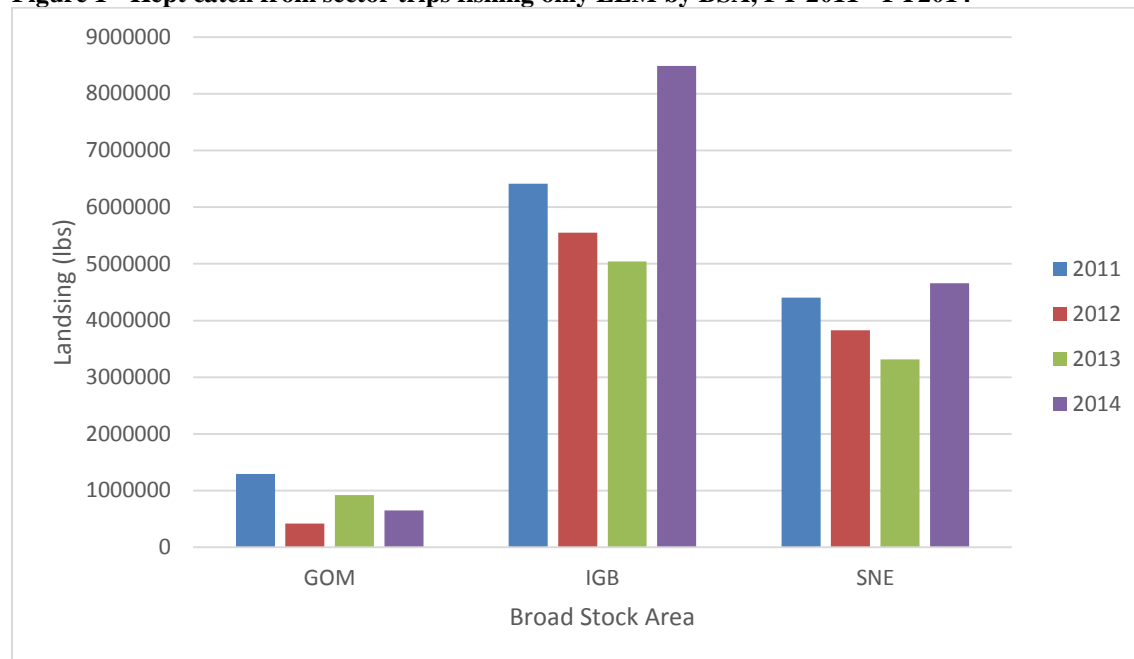
ELM, 10"+	Fishing Year			Grand Total (2012-2014)
	2012	2013	2014	
ASM	176	59	141	376
NEFOP	47	43	69	159
SNE Monkfish Exemption	n/a	16	59	75
Other	***	***	***	3
Total ELM, 10"+	225	119	269	613

Kept catch on sector gillnet trips fishing only mesh size of 8" or greater varies greatly by BSA fished (Table 5), with the majority of landings coming from BSA 2, inshore Georges Bank. Figure 1 depicts annual landings of ELM 8"+.

Table 5 - Commercial landings on sector groundfish gillnet trips fishing mesh size of 8" or greater.

Commercial Landings on Sector Groundfish GNS ELM Trips				
MULT_YEAR	BSA	KALL	VESSEL_COUNT	
2011	GOM	1,296,111	24	
2011	IGB	6,413,731	15	
2011	SNE	4,404,371	38	
2012	GOM	418,433	25	
2012	IGB	5,549,951	14	
2012	SNE	3,829,406	39	
2013	GOM	922,521	16	
2013	IGB	5,042,322	14	
2013	SNE	3,313,405	35	
2014	GOM	652,975	18	
2014	IGB	8,492,619	17	
2014	SNE	4,659,861	29	
Total	GB	22,864	5	
Total	GOM	3,290,040	38	
Total	IGB	25,498,623	20	
Total	SNE	16,207,043	45	
Note GB by year are confidential due to fewer than three vessel reports.				
Based on DMIS SSB tables as of 10/23/15				

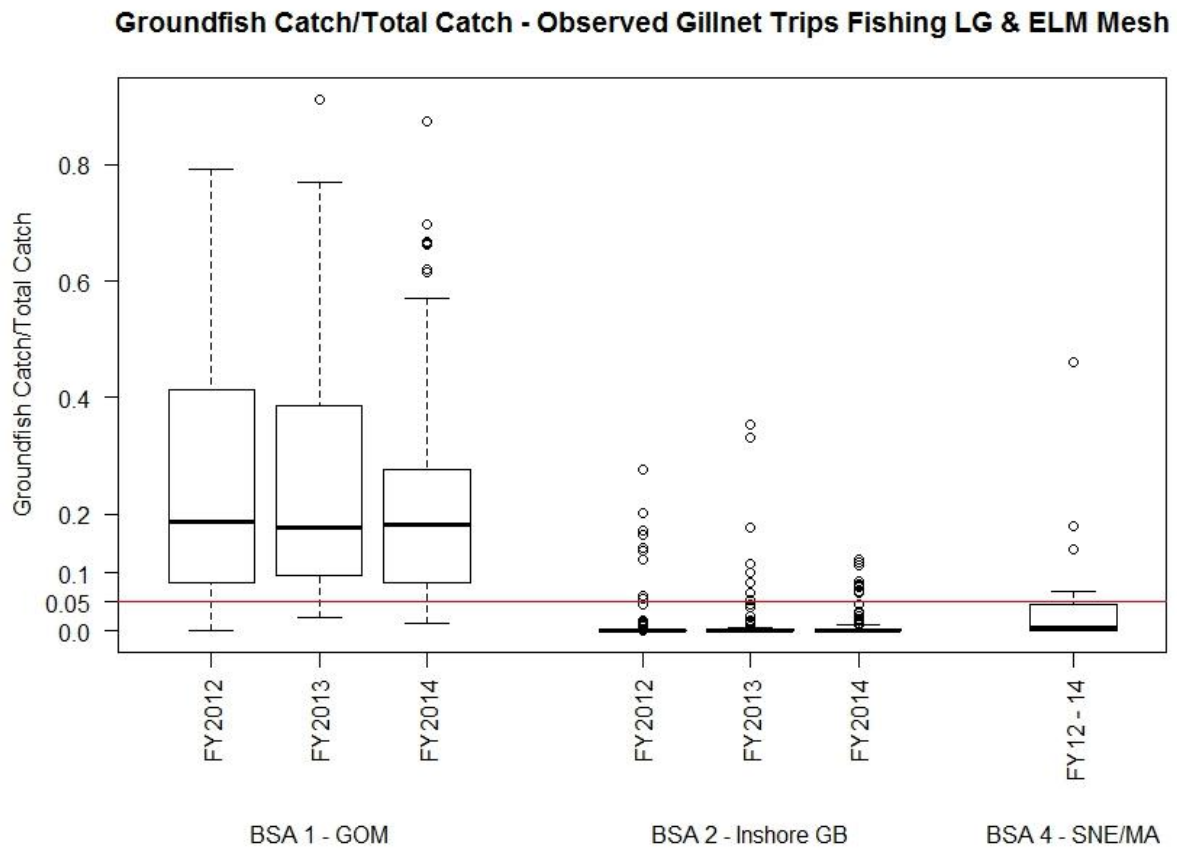
Figure 1 - Kept catch from sector trips fishing only ELM by BSA, FY 2011 - FY2014



LG & ELM information

Sector vessels fishing on a sector trip may fish multiple mesh sizes on the same trip. The PDT reviewed catch of groundfish on sector gillnet trips by year and broad stock area. Figure 2 depicts groundfish catch as a proportion of total catch on sector gillnet trips fish large and ELM mesh on the same trip. The number of observed trips fishing multiple mesh sizes in the GOM ranged from 74 – 132, from 97 – 143 in the Inshore GB, and 21 in trips in SNE. The boxplot in Figure 2 indicates that groundfish catch represents less than 5% of total catch on the majority of trips fishing multiple mesh sizes in BSA 2 and 4.

Figure 2 - Groundfish catch to total catch ratios for sector trips fishing both LG and ELM gillnets by fishing year and broad stock area (BSA). Due to a low sample size, SNE/MA trips were binned.



Appendix VI:

Biological and economic information to examine the ASM prioritization alternative

ASM Prioritization Criteria

Figure 3 depicts the process for applying the prioritization criteria, and Table 6 describes how the criteria would impact ASM coverage rates since 2012. To determine this, the PDT looked at whether or not the stock with the highest coverage needed to achieve a CV30 would have been exempt from meeting the CV standard in that FY based on performance criteria developed by the PDT.

Prioritization Thresholds:

1. Stock condition
 - a. Not overfished and overfishing is not occurring (7 stocks)
2. Percentage of ACL harvested
 - i. 50% of sub-ACL caught
 - ii. 75% of sub-ACL caught
3. Percentage of catch comprised of discards
 - i. >5% of total catch
 - ii. >10% of total catch

When developing catch and discard thresholds, the PDT considered additional uncertainty in discard estimates associated with high realized CVs (above the CV30). As percentages of the ACL harvested and the percentages of catch comprised as discards vary widely across stocks, a ‘hybrid’ approach could be to use multiple thresholds within a single option. For example, if 1) sector discards of a stock are less than 10% of total sector catch, but the fishery is catching less than 50% of the sub-ACL, or 2) sector discards of a stock are less than 5% of total sector catch, but the fishery is catching less than 75% of the sub-ACL, the stocks could be considered for exclusion from meeting the CV standard.

From FY 2012 – FY 2016, there were two years when the prioritization criteria would have reduced ASM coverage: 2015 and 2016. The result of exempting SNE/MA YT from the CV standard would be that coverage for the sectors would be set based on GB Yellowtail Flounder (12.42%) in FY2015. Without factoring in the secondary 80% discard threshold, this would result in an 8% reduction in ASM coverage (12% ASM rate for FY2015). In FY2016, application of the prioritization criteria would result in exempting redfish from meeting the CV standard, resulting in an ASM coverage rate of 25.99% (GOM winter flounder). While discards and catch of GOM winter flounder are within all of the proposed prioritization thresholds, the overfishing status of this stock is unknown, and therefore it would not qualify for exemption based on its stock status.

shows which stocks would have met the Council’s proposed performance criteria using a range of PDT proposed thresholds. All stocks listed in the table were not overfished and overfishing was not occurring (at the time). The 50/5 criteria is the most rigorous, followed by a hybrid approach (50/10 or 75/5), and 75/10. In the one instance when performance criteria would have reduced coverage, the stock met the hybrid and the 75/10 threshold.

The performance criteria seek to balance the monitoring goals. In linking ASM coverage rates to % of the ACL harvested or discarded, this alternative would create both an incentive to reduce discards, and potentially an incentive to cap landings of a stock a exceeding a threshold would lead to higher ASM coverage in subsequent fishing years.

Table 6 - ASM performance criteria applied retrospectively. Note that the only year in which the

Fishing Year	Data used to set ASM Coverage			Application of Performance Criteria			Adjusted ASM Rate		
	Stock driving coverage	Realized CV	Coverage Rate Needed CV30	PDT Proposed Thresholds (Catch & Discards)			Criteria Met?	New Stock Driving Coverage	Coverage Rate Need CV30
				50/5	50/10 75/5	75/10			
2012	SNE/MA YT	13.95	10.44	n/a	n/a	n/a	No		
2013	GB winter	27.67	21.71	n/a	n/a	n/a	No		
2014	GB haddock	21.48	11.29	n/a	n/a	n/a	No		
2015	SNE/MA YT	31.37	20.63	No	Yes	Yes	Yes	GB YT	12.42
2016	Redfish	41.5	36.83	No	Yes	Yes	Yes	GOM WF	25.99

Figure 3 - Process for applying prioritization criteria

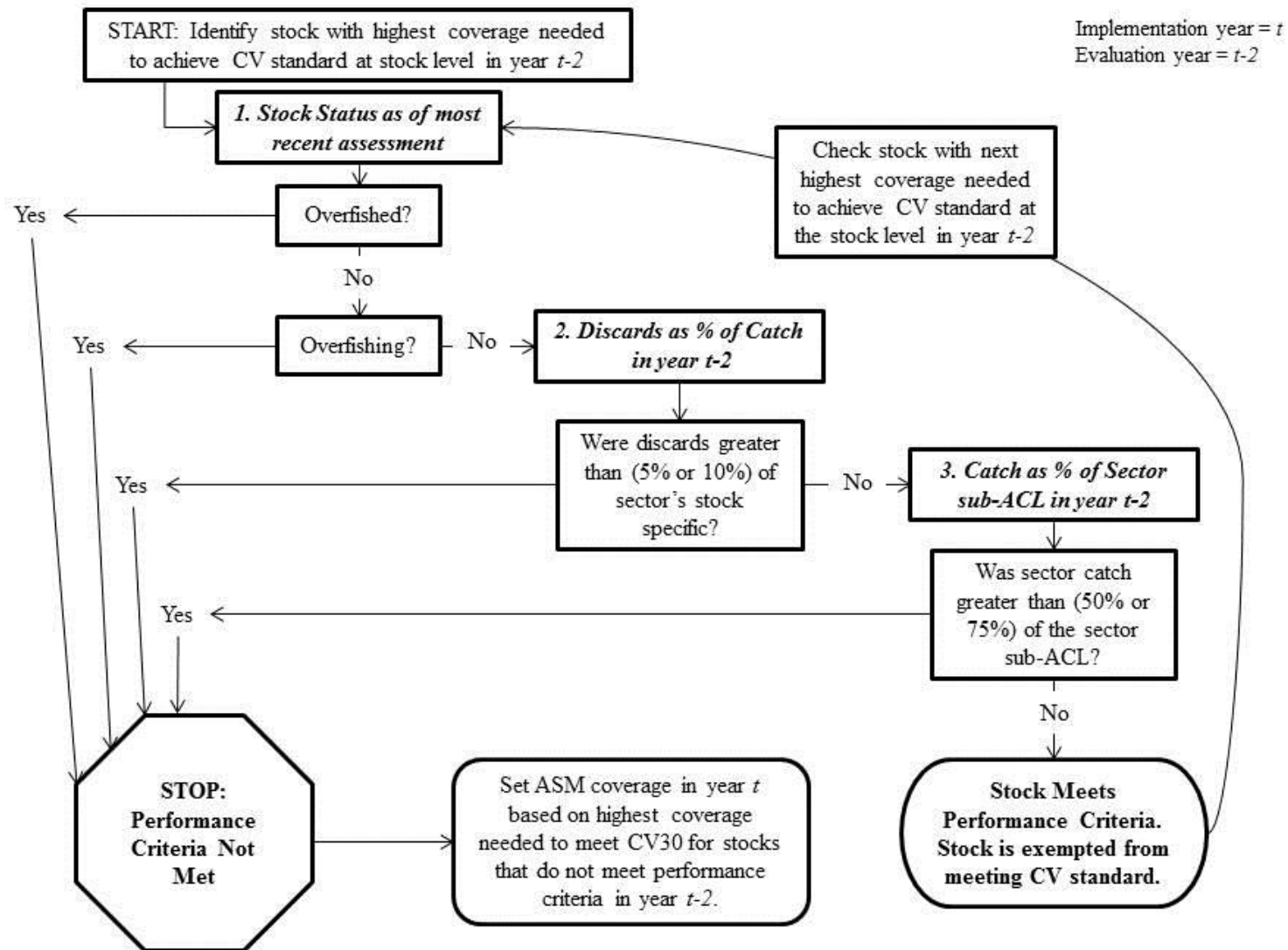


Table 7 - Stocks which would meet the performance criteria by FY (stock status, % of sector sub-ACL caught, and discards as % of catch)

Stock/FY	PDT Recommended Threshold Options (% sub-ACL caught/discards as % catch)		
FY2016	50/5	50/10 or 75/5	75/10
<i>GB haddock</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>
<i>GOM haddock</i>	<i>No</i>	<i>No</i>	<i>Yes</i>
<i>Pollock</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Redfish</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>
<i>White hake</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
FY2015	50/5	50/10 or 75/5	75/10
GB winter flounder	Yes	Yes	Yes
Pollock	Yes	Yes	Yes
Redfish	No	Yes	Yes
SNE/MA yellowtail flounder	No	Yes	Yes
FY2014	50/5	50/10 or 75/5	75/10
GB winter flounder	No	Yes	Yes
Pollock	No	Yes	Yes
Redfish	No	No	Yes
FY2013	50/5	50/10 or 75/5	75/10
GB haddock	No	Yes	Yes
GOM haddock	No	Yes	Yes
Pollock	No	Yes	Yes
Redfish	No	Yes	Yes
FY2012	50/5	50/10 or 75/5	75/10
GB haddock	Yes	Yes	Yes
GOM haddock	Yes	Yes	Yes
Redfish	No	Yes	Yes

Table 8 - Sector Discards by stock and fishing year, with total discards by stock for FY2010-2014. Stocks that are highlighted in tan are non-allocated. Note that SNE/MA winter flounder was zero a possession stock for FY2010 – FY2012.

Sector Discards by Fishing Year (mt)						
Stock	FY2010	FY2011	FY2012	FY2013	FY2014	Total Discards
GB Cod	118	144.3	131.9	46.6	19.9	460.7
GOM Cod	79.9	145.5	122.1	19.7	24	391.2
GB Haddock	40.6	82	270.6	281.1	473.6	1147.9
GOM Haddock	2.7	7.4	33.3	20.8	29.9	94.1
GB YT	66.7	48.9	13	9.6	8.7	146.9
SNE/MA YT	4.6	18.7	41.8	10.9	3.1	79.1
CC/GOM YT	59.7	83.7	111.4	16.7	15.8	287.3
American Plaice	171.8	195.7	236.6	104.5	78.1	786.7
Witch Flounder	57.2	62	65.6	39.3	41.5	265.6
GB Winter Flounder	17.9	13.2	4.5	5.3	3	43.9
GOM Winter Flounder	1.6	5.1	8.5	4.5	4.9	24.6
SNE/MA Winter Flounder	34.3	83.5	104.2	6.8	3.1	231.9
Redfish	151.8	184.4	320	385.6	323.8	1365.6
White Hake	31.5	32.6	32.9	23.2	22.9	143.1
Pollock	78.3	109.4	98.2	105.4	133.6	524.9
GOM/GB Windowpane	151.4	156.2	129.5	237.3	157.4	831.8
SNE/MA Windowpane	52.6	82.8	95.8	86	68.2	385.4
Ocean Pout	56.4	56.3	35.4	27.3	30.8	206.2
Atlantic Halibut	19.5	31.1	45.2	40.4	26.6	162.8
Wolffish	18.7	32.2	30	17.1	14.3	112.3
Total Discards - All stocks (mt)	1215.2	1575	1930.5	1488.1	1483.2	7692
Total Discards - Allocated Stocks (mt)	882.3	1132.9	1490.4	1080	1185.9	5771.5

Table 9 - Stock specific discards as a proportion of total groundfish discards by stock and fishing year. Note that discard values for SNE/MA winter flounder for FY2010 - FY2012 were not used. Read this table by FY. (Stock specific discards/total groundfish discards FY). SNE/MA grayed out because the stock was zero possession.

Discards lbs by stock as a percentage of GF discards for allocated stocks only						
Stock	FY2010	FY2011	FY2012	FY2013	FY2014	Total Discards
GB Cod	13.4%	12.7%	8.8%	4.3%	1.7%	8.0%
GOM Cod	9.1%	12.8%	8.2%	1.8%	2.0%	6.8%
GB Haddock	4.6%	7.2%	18.2%	26.0%	39.9%	19.9%
GOM Haddock	0.3%	0.7%	2.2%	1.9%	2.5%	1.6%
GB YT	7.6%	4.3%	0.9%	0.9%	0.7%	2.5%
SNE/MA YT	0.5%	1.7%	2.8%	1.0%	0.3%	1.4%
CC/GOM YT	6.8%	7.4%	7.5%	1.5%	1.3%	5.0%
American Plaice	19.5%	17.3%	15.9%	9.7%	6.6%	13.6%
Witch Flounder	6.5%	5.5%	4.4%	3.6%	3.5%	4.6%
GB Winter Flounder	2.0%	1.2%	0.3%	0.5%	0.3%	0.8%
GOM Winter Flounder	0.2%	0.5%	0.6%	0.4%	0.4%	0.4%
SNE/MA Winter Flounder	NA	NA	NA	0.6%	0.3%	0.2%
Redfish	17.2%	16.3%	21.5%	35.7%	27.3%	23.7%
White Hake	3.6%	2.9%	2.2%	2.1%	1.9%	2.5%
Pollock	8.9%	9.7%	6.6%	9.8%	11.3%	9.1%