DRAFT ALTERNATIVES
Framework Adjustment 56
To the Northeast Multispecies FMP

Prepared by the
New England Fishery Management Council
In consultation with the
Mid-Atlantic Fishery Management Council
National Marine Fisheries Service

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NOTES ON CHANGES:

UPDATES SINCE PREVIOUS VERSION

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4.0 DRAFT ALTERNATIVES UNDER CONSIDERATION

4.1 Updates to Status Determination Criteria, and Annual Catch Limits

4.1.1 Revised Status Determination Criteria (*to be provided*)

4.1.1.1 Option 1: No Action

No Action. There would be no revisions to the status determination criteria (SDC) of witch flounder, and numerical estimates would not change (Table 1 and Table 2).

Table 1 - No Action status determination criteria.

Stock	Biomass Target (SSB_{MSY} or proxy)	Minimum Biomass Threshold	Maximum Fishing Mortality Threshold (F_{MSY} or proxy)
Witch Flounder	SSB_{MSY}: SSB/R (40% MSP)	½ Btarget	F40% MSP

Table 2 - No Action numerical estimates of SDCs.

Stock	Model/ Approach	B_{MSY} or Proxy (mt)	F_{MSY} or Proxy	MSY (mt)
Witch Flounder	VPA	9,473	0.279	1,957

4.1.1.2 Option 2: Revised Status Determination Criteria

This option updates the numerical estimates of the status determination criteria for witch flounder (Table 4). The M-S Act requires that every fishery management plan specify "objective and measureable criteria for identifying when the fishery to which the plan applies is overfished." Guidance on this requirement identifies two elements that must be specified: a maximum fishing mortality threshold (or reasonable proxy) and a minimum stock size threshold.

The M-S Act also requires that FMPs specify the maximum sustainable yield and optimum yield for the fishery. The NEFSC conducted a benchmark assessment for witch flounder at SAW/SARC 52 November 29-December 2, 2016. This option updates the numerical estimates of the status determination criteria for witch flounder. The 2016 witch flounder benchmark assessment determined that the stock in 2015 XXX (Table 2 and Table 3).

Rationale: This option would update the numerical estimates of the status determination criteria for witch flounder. This option reflects recent assessment results for witch flounder.

Table 3 - Option 2 status determination criteria

Stock	Biomass Target (SSB_{MSY} or proxy)	Minimum Biomass Threshold	Maximum Fishing Mortality Threshold (F_{MSY} or proxy)
Witch Flounder	SSB_{MSY}: SSB/R (40% MSP)	½ Btarget	F40% MSP

Table 4 - Option 2 current numerical estimates of SDCs (provided for informational purposes only).

Stock	Model/ Approach	B_{MSY} or Proxy (mt)	F_{MSY} or Proxy	MSY (mt)
Witch Flounder	VPA	XXX	XXX	XXX

4.1.2 Annual Catch Limits

4.1.2.1 Option 1: No Action

No Action. There would be no changes to the specifications for FY 2017 – FY 2018 and default specifications that were adopted by FW55 final rule (Table 5). The directed groundfish fishery would be expected to operate in all BSAs, with the exception of the EBG cod management area which would close on May 1, 2017. A scallop fishery sub-ACL for northern windowpane flounder would not be developed or specified. The mid-water trawl Atlantic herring fishery sub-ACL for Georges Bank haddock would remain at 1% of the U.S. ABC. There would be no FY 2017 quotas specified for the transboundary Georges Bank stock of GB cod and no FY 2018 quotas for GB haddock and GB yellowtail flounder, which are managed through the US/CA Resource Sharing Understanding. These quotas are specified annually.

The AM policy established in Framework 47 for the scallop fishery would remain unchanged. FW 47 established a policy that scallop fishery sub-ACLs would be administered and evaluated in the context of total catches in the fishery. The general principle is that if a scallop fishery sub-ACL (for any stock) would be exceeded, but the overall ACL was not exceeded, then the scallop fishery would not be subject to AMs unless the scallop fishery sub-ACL was exceeded by 50 or more percent. There would be two criteria that would result in implementing the AMs if either was met:

1) The scallop fishery exceeds its sub-ACL for a stock and the overall ACL is also exceeded
2) The scallop fishery exceeds its sub-ACL for a stock by 50 or more percent.

Rationale: The No Action alternative uses ABCs/ACLs adopted in FW55. These values are based on earlier assessments, and as indicated for some stock not based on the more recent assessments completed in 2016. This option would not distribute the ACL for northern windowpane flounder to the scallop fishery. This would simplify accounting, but would mean that the groundfish fishery would be responsible for any overages of the ACL. This option would not increase the sub-ACL for GB haddock in the mid-water trawl Atlantic herring fishery, but would continue to allow for long-term sustainable management the GB haddock stock and groundfish fishery while providing incentives for the mid-water Atlantic herring fishery to minimize bycatch for this stock to the extent practicable. The AM policy established in FW 47 for the scallop fishery would remain unchanged. The purpose of the ACL and AM system is to prevent overfishing. Overfishing is likely to occur only if the total ACL is exceeded. It makes little sense to sacrifice yield or increase fishing costs from the scallop fishery because of AMs designed to reduce the catch of groundfish stocks if the total ACL for those stocks is not exceeded. At the same time,

there is a need to hold the scallop fishery accountable for its catch so if the sub-ACL is exceeded by 50 or more percent the AM is implemented even if the overall ACL is not exceeded.

Table 5 - No Action/Option 1 Northeast Multispecies OFLs, ABCs, ACLs, and other ACL sub-components for FY 2017-FY 2018 (metric tons, live weight), based on final sector rosters for 2016. Values are rounded to the nearest metric ton. Default specifications for FY 2019 are shown in italics, and remain in place through July 31st, 2019, published in the final rule to FW 55, May 2, 2016 and not adjusted for final sector rosters in 2016.

Stock	Year	OFL	US ABC	State Waters Sub-Component	Other sub-components	Scallops	Groundfish Sub-ACL	Comm Ground-fish Sub-ACL	Rec Ground-fish Sub-ACL	Preliminary Sectors Sub-ACL	Preliminary Non-sector Ground-fish Sub-ACL	MWT or Small mesh Sub-ACL	Total ACL
GB Cod	2017	1,665	1,249	37	162		997	997		978	19		1,197
	2018	1,665	1,249	37	162		997	997		978	19		1,197
	2019		*583*				*465*			*455*	*10*		*437*
GOM Cod	2017	667	500	27	10		437	280	157	271	9		473
	2018	667	500	27	10		437	280	157	271	9		473
	2019		*233*				*204*			*127*	*4*		*175*
GB Haddock	2017	258,691	48,398	484	484		44,599	44,599		44,306	293	450	46,017
	2018	358,077	77,898	779	779		71,783	44,599		71,312	471	724	74,065
	2019		*125,327*				*5,007*			*4,963*	*44*	*51*	*27,264*
GOM Haddock	2017	5,873	4,534	33	33		4,177	3,017	1,160	2,985	32	42	4,285
	2018	6,218	4,815	35	35		4,436	3,204	1,231	3,170	34	45	4,550
	2019		*2,176*				*1,552*			*1,107*	*14*	*16*	*1,685*
GB Yellowtail Flounder	2017		354		4	55	278	278		274	4	7	343
	2018												
	2019												
SNE/MA Yellowtail Flounder	2017		267	5	29	34	187	187		155	32		256
	2018		267	5	29	37	186	186		154	32		256
	2019						*66*			*52*	*14*		*93*
CC/GOM Yellowtail Flounder	2017	707	427	43	26		341	341		326	14		409
	2018	900	427	43	26		341	341		326	14		409

Stock	Year	OFL	US ABC	State Waters Sub-Component	Other sub-components	Scallops	Groundfish Sub-ACL	Comm Ground-fish Sub-ACL	Rec Ground-fish Sub-ACL	Preliminary Sectors Sub-ACL	Preliminary Non-sector Ground-fish Sub-ACL	MWT or Small mesh Sub-ACL	Total ACL
	2019		*315*				*119*			*113*	*5*		*149*
American Plaice	2017	1,748	1,336	27	27		1,218	1,218		1,198	21		1,272
	2018	1,840	1,404	28	28		1,280	1,280		1,259	22		1,337
	2019		*644*				*448*			*439*	*9*		*491*
Witch Flounder	2017	732	460	12	59		370	370		362	8		441
	2018	954	460	12	59		370	370		362	8		441
	2019		*334*				*129*			*126*	*3*		*161*
GB Winter Flounder	2017	1,056	668		60		590	590		585	5		650
	2018	1,459	668		60		590	590		585	5		650
	2019		*511*				*233*			*231*	*2*		*264*
GOM Winter Flounder	2017	1,080	810	122	16		639	639		607	32		776
	2018	1,080	810	122	16		639	639		607	32		776
	2019		*378*				*224*			*212*	*12*		*284*
SNE/MA Winter Flounder	2017	1,021	780	70	94		585	585		523	62		749
	2018	1,587	780	70	94		585	585		523	62		749
	2019		*555*				*205*			*180*	*25*		*273*
Redfish	2017	14,665	11,050	111	221		10,183	10,183		10,127	56		10,514
	2018	15,260	11,501	115	230		10,598	10,598		10,540	58		10,943
	2019		*5,341*				*3,709*			*3,688*	*21*		*4,025*
White Hake	2017	4,816	3,624	36	72		3,340	3,340		3,314	25		3,448
	2018	4,733	3,560	36	71		3,281	3,281		3,256	25		3,387
	2019		*1,657*				*1,168*			*1,160*	*8*		*1,268*
Pollock	2017	32,004	21,312	1,279	1,279		17,817	17,817		17,704	113		20,374

Stock	Year	OFL	US ABC	State Waters Sub-Component	Other sub-components	Scallops	Groundfish Sub-ACL	Comm Ground-fish Sub-ACL	Rec Ground-fish Sub-ACL	Preliminary Sectors Sub-ACL	Preliminary Non-sector Ground-fish Sub-ACL	MWT or Small mesh Sub-ACL	Total ACL
	2018	34,745	21,312	1,279	1,279		17,817	17,817		17,704	113		20,374
	2019		*12,161*				*6,236*			*6,196*	*39*		*7,459*
GOM/GB Windowpane Flounder	2017	243	182	2	109		66	66			66		177
	2018	243	182	2	109		66	66			66		177
	2019		*85*				*64*				*64*		*64*
SNE/MA Windowpane Flounder	2017	833	623	37	249	209	104	104			104		599
	2018	833	623	37	249	209	104	104			104		599
	2019		*292*				*218*				*218*		*218*
Ocean Pout	2017	220	165	2	17		137	137			137		155
	2018	220	165	2	17		137	137			137		155
	2019		*77*				*58*				*58*		*58*
Atlantic Halibut	2017	210	124	25	4		91	91			91		119
	2018	210	124	25	4		91	91			91		119
	2019		*74*				*55*				*55*		*55*
Atlantic Wolffish	2017	110	82	1	3		72	72			72		77
	2018	110	82	1	3		72	72			72		77
	2019		*39*				*29*				*29*		*29*

4.1.2.2 Option 2: Revised Annual Catch Limit Specifications

Under Option 2, the annual specification for FY 2017 – FY 2018 for GB yellowtail flounder and FY 2017- FY 2019 witch flounder would be specified in Table 8. Option 2 includes adjustments to the state waters and other sub-component values from those specified in FW 55 under the No Action (see Appendix III for additional information). Table 9 provides the Closed Area I Hook Gear Haddock SAP.

In this section, the Council is considering two options for the northern windowpane flounder sub-ACLs for the scallop fishery (Sub-Options 1A and1B), and one option for the GB haddock sub-ACL for the mid-water trawl Atlantic herring fishery (Sub-Option 2).

U.S./Canada TACs

This alternative would specify TACs for the U.S./Canada Management Area for FY 2017 as indicated in Table 6. If NMFS determines that FY 2015 catch of GB cod, haddock, or yellowtail flounder from the U.S./Canada Management Area exceeded the respective 2016 TAC, the U.S./Canada Resource Sharing Understanding and the regulations require that the 2017 TAC be reduced by the amount of the overage. Any overage reduction would be applied to the components of the fishery that caused the overage of the U.S. TAC in 2017. In order to minimize any disruption to the fishing industry, NMFS would attempt to make any necessary TAC adjustment in the first quarter of the fishing year.

A comparison of the proposed FY 2017 U.S. TACs and the FY 2016 U.S. TACs is shown in Table 7. Changes to the U.S. TACs reflect changes to the percentage shares, stock status, and the TMGC's recommendations.

Table 6 - Proposed FY2017 U.S./Canada TACs (mt).

	Eastern GB Cod	Eastern GB Haddock	GB Yellowtail Flounder
Total Shared TAC	730	50,000	300
U.S. TAC	146	29,500	207
Canada TAC	584	20,500	93

Table 7 - Comparison of the Proposed FY 2017 U.S. TACs and the FY 2016 U.S. TACs (mt).

Stock	U.S. TAC		Percent Change
	FY 2017	FY 2016	
Eastern GB cod	146	138	*+5.8%*
Eastern GB haddock	29,500	15,170	*+94.5%*
GB yellowtail flounder	207	269	*-23%*

Rationale: This measure would adopt new specifications for GB yellowtail flounder, GB haddock, GB cod, and witch flounder consistent with the most recent stock assessment information. For most stocks with the exception of northern windowpane flounder only one alternative to No Action is shown. This is because the values in Option 2 represent the best scientific information, as determined by the Council's

Scientific Committee, and the M-S Act requires that catches not be set higher than these levels. Any catches below these levels would not mitigate economic impact on fishing communities. This measure would also adjust state waters and other sub-component ACLs to reflect recent sub-component performance. Rationale for ABCs set for GB yellowtail flounder and witch flounder can be found in the SSC's reports to the Council in Appendix I.

The U.S. and Canada coordinate management of three management units that overlap the boundary between the two countries on Georges Bank. Agreement on the amount to be caught is reached each year by the TMGC. This framework includes the recommendations of the TMGC, which are consistent with the most recent TRAC assessments.

Table 8 - Option 2 Revised Northeast Multispecies OFLs, ABC, ACLs, and other ACL sub-components for FY 2017-FY 2019 (metric tons, live weight), based on final sector rosters for 2016. Values are rounded to the nearest metric ton. Default specifications for FY 2019 are shown in italics, and remain in place through July 31st, 2019, published in the final rule to FW 55, May 2, 2016 and not adjusted for final sector rosters in 2016. Stocks which are underlined would be subject to adjustments in 2018 based on US/CA quotas. Sub-component values are based on those in FW 55, and do not include adjustments for the PDT's annual sub-component review at this time. The PDT plans to conduct its annual review upon the release of final FY 2015 catches.

Stock	Year	OFL	US ABC	State Waters Sub-Component	Other sub-components	Scallop	Groundfish Sub-ACL	Comm Ground-fish Sub-ACL	Rec Ground-fish Sub-ACL	Preliminary Sectors Sub-ACL	Preliminary Non-sector Ground-fish Sub-ACL	MWT or Small mesh Sub-ACL	Total ACL
GB Cod	2017	1,665	665	20	86		531	531		521	10		637
	2018	1,665	1,249	37	162		997	997		978	19		1,197
	2019		*583*				*465*			*455*	*10*		*437*
GOM Cod	2017	667	500	27	10		437	280	157	271	9		473
	2018	667	500	27	10		437	280	157	271	9		473
	2019		*233*				*204*			*127*	*4*		*175*
GB Haddock (MWT- 1%)	2017	258,691	57,398	574	574		52,892	52,892		52,545	347	534	54,574
	2018	358,077	77,898	779	779		71,783	44,599		71,312	471	724	74,065
	2019		*125,327*				*5,007*			*4,963*	*44*	*51*	*27,264*
GB Haddock (MWT – 2%)	2017	258,691	57,398	574	574		52,892	52,892		52,545	347	534	54,574
	2018	358,077	77,898	779	779		71,783	44,599		71,312	471	724	74,065
	2019		*125,327*				*5,007*			*4,963*	*44*	*51*	*27,264*
GOM Haddock	2017	5,873	4,534	33	33		4,177	3,017	1,160	2,985	32	42	4,285
	2018	6,218	4,815	35	35		4,436	3,204	1,231	3,170	34	45	4,550
	2019		*2,176*				*1,552*			*1,107*	*14*	*16*	*1,685*
GB Yellowtail Flounder	2017		207		2	32	163	163		160	2	4	201
	2018		354		4	55	278	278		274	4	7	343
	2019												
SNE/MA Yellowtail Flounder	2017		267	5	29	34	187	187		155	32		256
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Stock	Year	OFL	US ABC	State Waters Sub-Component	Other sub-components	Scallop	Groundfish Sub-ACL	Comm Ground-fish Sub-ACL	Rec Ground-fish Sub-ACL	Preliminary Sectors Sub-ACL	Preliminary Non-sector Ground-fish Sub-ACL	MWT or Small mesh Sub-ACL	Total ACL
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CC/GOM Yellowtail Flounder	2017	707	427	43	26		341	341		326	14		409
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	2019		*315*				*119*			*113*	*5*		*149*
American Plaice	2017	1,748	1,336	27	27		1,218	1,218		1,198	21		1,272
	2018	1,840	1,404	28	28		1,280	1,280		1,259	22		1,337
	2019		*644*				*448*			*439*	*9*		*491*
Witch Flounder	2017	XXX	XXX	XXX	XXX		XXX			XXX	XXX		XXX
	2018	XXX	XXX	XXX	XXX		XXX			XXX	XXX		XXX
	2019	XXX	XXX	XXX	XXX		XXX			XXX	XXX		XXX
GB Winter Flounder	2017	1,056	668		60		590	590		585	5		650
	2018	1,459	668		60		590	590		585	5		650
	2019		*511*				*233*			*231*	*2*		*264*
GOM Winter Flounder	2017	1,080	810	122	16		639	639		604	35		776
	2018	1,080	810	122	16		639	639		604	35		776
	2019		*378*				*224*			*212*	*12*		*284*
SNE/MA Winter Flounder	2017	1,021	780	70	94		585	585		523	62		749
	2018	1,587	780	70	94		585	585		523	62		749
	2019		*555*				*205*			*180*	*25*		*273*
Redfish	2017	14,665	11,050	111	221		10,183	10,183		10,127	56		10,514
	2018	15,260	11,501	115	230		10,598	10,598		10,540	58		10,943
	2019		*5,341*				*3,709*			*3,688*	*21*		*4,025*
White Hake	2017	4,816	3,624	36	72		3,340	3,340		3,314	25		3,448

Stock	Year	OFL	US ABC	State Waters Sub-Component	Other sub-components	Scallop	Groundfish Sub-ACL	Comm Ground-fish Sub-ACL	Rec Ground-fish Sub-ACL	Preliminary Sectors Sub-ACL	Preliminary Non-sector Ground-fish Sub-ACL	MWT or Small mesh Sub-ACL	Total ACL
	2018	4,733	3,560	36	71		3,281	3,281		3,256	25		3,387
	2019		*1,657*				*1,168*			*1,160*	*8*		*1,268*
Pollock	2017	32,004	21,312	1,279	1,279		17,817	17,817		17,704	113		20,374
	2018	34,745	21,312	1,279	1,279		17,817	17,817		17,704	113		20,374
	2019		*12,161*				*6,236*			*6,196*	*39*		*7,459*
GOM/GB Windowpane Flounder (Scallop – highest- 46%)	2017	243	182	2	109	XXX	66	66			66		177
	2018	243	182	2	109	XXX	66	66			66		177
	2019		*85*				*64*				*64*		*64*
GOM/GB Windowpane Flounder (Scallop-lowest- 2%)	2017	243	182	2	109	XXX	66	66			66		177
	2018	243	182	2	109	XXX	66	66			66		177
	2019		*85*				*64*				*64*		*64*
SNE/MA Windowpane Flounder	2017	833	623	37	249	209	104	104			104		599
	2018	833	623	37	249	209	104	104			104		599
	2019		*292*				*218*				*218*		*218*
Ocean Pout	2017	220	165	2	17		137	137			137		155
	2018	220	165	2	17		137	137			137		155
	2019		*77*				*58*				*58*		*58*
Atlantic Halibut	2017	210	124	25	4		91	91			91		119
	2018	210	124	25	4		91	91			91		119

Stock	Year	OFL	US ABC	State Waters Sub-Component	Other sub-components	Scallop	Groundfish Sub-ACL	Comm Ground-fish Sub-ACL	Rec Ground-fish Sub-ACL	Preliminary Sectors Sub-ACL	Preliminary Non-sector Ground-fish Sub-ACL	MWT or Small mesh Sub-ACL	Total ACL
	2019		*74*				*55*				*55*		*55*
Atlantic	2017	110	82	1	3		72	72			72		77
Wolffish	2018	110	82	1	3		72	72			72		77
	2019		*39*				*29*				*29*		*29*

Table 9- CAI Hook Gear Haddock SAP TACs (~~FY2014 - FY2016~~). (*to be updated*)

Year	Exploitable Biomass (thousand mt)	WGB Exploitable Biomass	B(year)/B(2004)	TAC (mt, live weight)
~~2016~~	~~428,303~~	~~149,906~~	~~5.488~~	~~6,202~~
~~2017~~	~~739,567~~	~~258,848~~	~~9.477~~	~~10,709~~
~~2018~~	~~1,145,309~~	~~400,858~~	~~14.677~~	~~16,584~~

4.1.2.2.1 Sub Option 1: Develop an Atlantic Sea Scallop Fishery Allocation for GOM/GB (Northern) Windowpane Flounder

As part of the specification setting process, the Council is considering developed a GOM/GB (northern) windowpane flounder sub-ACL for the scallop fishery. Besides the groundfish fishery, the scallop fishery is the major contributor to northern windowpane flounder catches. The scallop fishery catches of northern windowpane flounder are not subject to limits, and the groundfish fishery is therefore accountable for any overages. When triggered, AMs restrict the ability of the groundfish fishery to target and catch marketable species, mainly other flatfish such as winter flounder, and resulting in adverse economic impacts to the groundfish fleet fishing on Georges Bank when the gear-restricted areas are in place.

The last three assessments for northern windowpane flounder have only included catches from limited access scallop dredges and trawls. Prior to 2004, there was limited observer coverage of General Category scallop dredge and trawl trips. The Groundfish PDT calculated General Category catch of this stock using data from 2005-2014 ().

Specific scallop fishery accountability measures (AMs) for this sub-ACL would be adopted in a future scallop management action during 2017. The AMs will be implemented in time to be effective in 2018. If there is an overage in the scallop fishery sub-ACL that is allocated in 2017, any overage of the 2017 sub-ACL will be subject to the AMs that are adopted. Consistent with a policy adopted in FW 47 for the scallop fishery, any scallop fishery AMs for this sub-ACL will only be triggered if the overall ACL is exceeded and the scallop fishery sub-ACL is exceeded, or the scallop fishery catch is 150 percent or more of the sub-ACL. The Scallop FMP will develop AMs for this sub-ACL.

Table 10- Approaches to allocating northern windowpane flounder to the scallop fishery (mt) under Sub-Option 1A and Sub-Option 1B.

	Catch Data			Calculation for Fixed percentages	
Calendar Year	Scallop Limited Access Catch Estimate	Total catches for all fisheries	Scallop Gen. Cat. IFQ Catch estimate	2004-2015 (Ten years)	2010-2014 (Five years)
	X	Y	Z	(X+Z)/(Y+Z)	(X+Z)/(Y+Z)
2005	16.59	967.52	5	2.22%	
2006	73.07	682.92	5	11.35%	
2007	97.77	1091.46	3	9.21%	
2008	43.33	375.67	2	12.00%	
2009	15.45	439.56	5	4.60%	
2010	8.59	235.90	5	5.64%	5.64%
2011	32.72	179.84	1	18.65%	18.65%
2012	34.85	199.22	2	18.31%	18.31%
2013	63.37	354.81	3	18.55%	18.55%
2014	95.37	214.67	6	45.94%	45.94%
			Number of years	10	5
			Mean (Average)	14.65%	21.42%
			Median	11.68%	18.55%
	Sub-Option 1A		**90th percentile**	**21.38%**	**35.02%**
	Sub-Option 1B		**Range**	**2-46%**	**6-46%**

The Council may select one option to address the development of a scallop fishery allocation for northern windowpane flounder.

4.1.2.2.1.1 Sub-Option 1A – Fixed percentage based on the 90th percentile of scallop catch rates for northern windowpane flounder

Sub-Option 1A would set the scallop sub-ACL for northern windowpane flounder based the 90th percentile of the scallop fishery catches (as a percent of the total) for either the period calendar year 2005 through 2014 or calendar year 2010 through 2014 using information in the 2015 stock assessment of northern windowpane flounder and the PDT's estimate of General Category catches. A similar approach was used in FW48 to set a scallop fishery allocation for SNE/MA (southern) windowpane flounder ().

The fixed percentage would be applied to the northern windowpane flounder ABC to determine the sub-ABC for the scallop fishery and then reduced for management uncertainty to determine the sub-ACL. The current management uncertainty buffer for non-allocated stocks in 7%.

Under Sub-Option 1A (using a fixed percentage based on the 90th percentile of scallop catch rates for northern windowpane flounder), there are two approaches to consider:

1. Allocation based on catch rates from a range of the most recent 10 years (i.e., 2005-2014) resulting in a percentage of **21%**; or

2. Allocation based on catch rates from a shorter and more recent range of the most recent 5 years (i.e., 2010-2014), resulting in a percentage of **35%**.

The longer time period would incorporate higher catches by the groundfish fishery, when the fishery was more active.

Rationale: This option would establish a scallop sub-ACL for northern windowpane flounder similar to the method used to develop a scallop sub-ACL for southern windowpane flounder in FW 48. Under this option, allocating a sub-ACL is based on a fixed percentages approach based on catch history because projected catch can fluctuate greatly and therefore would not be used to set catch limits. The scallop fishery catches of this stock are large enough that the effectiveness of the AM system could be undermined if those catches are not constrained and subject to an AM. This measure would create a sub-ACL, based on recent scallop fishery catches. AMs for the scallop fishery will be adopted in a future action and will be applicable to any overage that occurs in FY 2017 and subsequent years.

4.1.2.2.1.2 Sub-Option 1B – Select a percentage from a range of recent scallop catches

Sub-Option B would set the scallop sub-ACL for northern windowpane flounder using a fixed percentage chosen from a range of scallop discards as percentages of catch. The range of percentages is based on bycatch estimates from the 2015 operational assessment, and used to calculate scallop catch as a percentage of total catch between calendar years 2005 through 2014 and the PDT's estimate of General Category catches ().

The fixed percentage would be applied to the northern windowpane flounder ABC to determine the sub-ABC for the scallop fishery and then reduced for management uncertainty to determine the sub-ACL. The current management uncertainty buffer for non-allocated stocks in 7%.

Under Sub-Option B (select a percentage from a range of recent scallop catches), there are two approaches to consider:

1. Allocation based on catch rates from a range of the most recent 10 years (i.e., 2005-2014), resulting in a range of **2%-46%**; or
2. Allocation based on catch rates from a shorter and more recent range of the most recent 5 years (i.e., 2010-2014), resulting in a range of **6%-46%**.

Rationale: The approach is similar to how scallop sub-ACLs were developed for GB yellowtail and could be used to allocate a scallop sub-ACL for northern windowpane flounder. Under this option, allocating a sub-ACL is based on a fixed percentages approach based on catch history because projected catch can fluctuate greatly and therefore would not be used to set catch limits. The scallop fishery catches of this stock are large enough that the effectiveness of the AM system could be undermined if those catches are not constrained and subject to an AM. This measure would create a sub-ACL, based on recent scallop fishery catches. AMs for the scallop fishery will be adopted in a future action and will be applicable to any overage that occurs in FY 2017 and subsequent years.

4.1.2.2.2 Sub Option 2: Increase the Midwater Trawl Atlantic Herring Fishery Sub-ACL for Georges Bank Haddock

This option would consider measures to incentivize the midwater trawl fleet to minimize the incidental catch of GB haddock to the extent practicable in the midwater trawl Atlantic herring fishery while providing the opportunity for the fleet to fully harvest its herring sub-ACL for Herring Management

Areas 1B and 3. Sub-Option 2A and Sub-Option 2B would reduce the potential for negative impacts on the herring fishery caused by reductions in fishing opportunities in Areas 1B and 3, and avoid potential market interruptions for the supply of herring as bait for the lobster fishery. The GOM haddock sub-ACL in the mid-water trawl Atlantic herring fishery would remain the same at 1% of the ABC.

Option 2 would increase the current sub-ACL for GB haddock in the mid-water trawl Atlantic herring from 1% of the US ABC to 1.5% or 2% of the US ABC, reduced by the management uncertainty buffer to determine the sub-ACL. The uncertainty buffer is currently 7%.

This option would also establish a review process. Such that following an assessment of the entire GB haddock stock, the Groundfish PDT would conduct a review of the sub-ACL to recommend to the Council a sub-ACL for the mid-water trawl Atlantic herring fishery of up to 2% of the US ABC. The review for GB haddock would consider but not be limited to: fishery catch performance, utilization, status of the resource, recruitment, and incoming year-class strength. The Council would review the work of the PDT and determine if a change in the sub-ACL (up or down) would be considered in the action in which specifications for GB haddock would be adopted.

Rationale: Sub-Option 2 would continue to allow for long-term sustainable management the GB haddock stock and groundfish fishery while providing incentives for the mid-water Atlantic herring fishery to minimize bycatch for this stock to the extent practicable since some proportion of the fish caught by the mid-water trawl Atlantic herring fishery would be immature (i.e., pre-spawners) and not be fully recruited to the groundfish fishery (i.e., smaller fish). Further, this option better meets the goals and objectives of the Atlantic herring management program, particularly the goal to achieve, on a continuing basis, optimum yield, and the objectives to achieve full utilization from the catch of herring, and to promote the utilization of the resource in a manner which maximizes social and economic benefits to the nation, while taking into account the protection of marine ecosystems. The review process would allow for consideration of the most recent stock assessment and fishery information to allow for an adjustment of the sub-ACL.

4.1.2.2.3 Sub Option 3: Exception to the scallop fishery AM implementation policy for the GB yellowtail flounder stock

This option would allow for an exception to the AM implementation policy for the GB yellowtail flounder stock only so that the second criteria (2) the scallop fishery exceeds its sub-ACL for a stock by 50 or more percent would not apply. Therefore for GB yellowtail flounder only, the criteria to determine if an AM would be implemented would be the first 1) the scallop fishery exceeds its sub-ACL for a stock and the overall ACL is also exceeded.

Rationale: The purpose of the ACL and AM system is to prevent overfishing. Overfishing is likely to occur only if the total ACL is exceeded. It makes little sense to sacrifice yield or increase fishing costs from the scallop fishery because of AMs designed to reduce the catch of groundfish stocks if the total ACL for those stocks is not exceeded for GB yellowtail flounder because recent quotas and utilization are low. No other provisions of the AMs would change (e.g., the AMs and pound for pound payback provisions).

4.2 Commercial and Recreational Fishery Measures

4.2.1 Recreational Fishery Measures

4.2.1.1 Option 1: No Action

Framework Adjustment 48 revised the recreational AMs so that the Regional Administrator may proactively adjust recreational management measures to ensure the recreational fishery will achieve, but not exceed, its sub- ACL. To the extent possible, any changes to the recreational management measures would be made prior to the start of the fishing year. The Regional Administrator would consult with the Council, or the Council's designee, and would tell the Council, or its designee, what recreational measures are under consideration for the upcoming fishing year. If time allows, the Council would also provide its RAP an opportunity to meet and discuss the proposed management measures. These AMs require development in consultation with the Council, because the appropriate suite of measures (e.g., bag limit, minimum fish size, and season) depends on the ACL specified.

The Council provided guidance in FW48 on its preference of measures that NMFS should consider if additional recreational effort controls are necessary to reduce GOM cod or GOM haddock catches, though this guidance does not restrict NMFS's discretion in selecting management measures that would best achieve, but not exceed, the recreational sub-ACL.

- Cod: If additional effort controls are necessary to reduce cod catches, the Council's non-binding preference is that NMFS first consider increases to minimum fish sizes, then adjustments to seasons, followed by changes to bag limits.
- Haddock: If additional effort controls are necessary to reduce haddock catches, the Council's non-binding preference is that NMFS first consider increases to minimum size limits, then changes to bag limits, followed by adjustments to seasons.

4.2.1.2 Option 2: Revised Recreational Fishery Measures

Under Option 2, the process would be changed such that regulations for the recreational fishery be made available sooner with the goal for knowing the upcoming regulations by the end of February each year. More specifically, XXX

Marine Recreational Information Program (MRIP) is released in two-month 'waves' with preliminary data provided approximately six weeks following the end of each wave (Table 11). Wave 6 catch could be projected since the preliminary estimate for wave 6 catch would not be available in time. However, assumptions about Wave 6 data would need to be made for projections including using information from previous years.

Table 11 – Description of MRIP 'Waves'

Wave	Period Covered	Data Availability
Wave 1	January - February	April
Wave 2	March - April	June
Wave 3	May – June	August
Wave 4	July – August	October
Wave 5	September - October	December
Wave 6	November - December	February

Rationale: The Council expressed concern about the recreational fishery management measures process given dramatic changes in recreational management measures each year for Gulf of Maine cod and haddock. Some State Directors explained the difficultly in aligning their state measures with federal measures due to time constraints resulting from the late notice of the federal management measures in recent years. The for-hire segment of the recreational fishery raised concerns that the process negatively impacts their ability to operate their businesses effectively. Private anglers expressed concerns with a lack of outreach and timely information on the regulations. This approach could increase compliance with regulations by providing recreational measures earlier in the calendar year, which would improve 'for hire' and charter business planning.

5.0 ALTERNATIVES CONSIDERED AND REJECTED

5.1 Updates to Status Determination Criteria, and Annual Catch Limits

5.1.1 Annual Catch Limits

5.1.1.1 Sub-Option 1C– Use a Dual Fixed Percentage Baseline

Sub-Option C would set a lower sub-ACL based on a fixed percentage in years when the fishing patterns of the limited access scallop fleet more closely reflects a year the current rotational access and open area management program is expected to have a relatively low interaction with northern windowpane flounder compared to historic levels. Sub-Option 1C would set a higher sub-ACL in years when the fishing patterns of the limited access scallop fleet more closely reflects a year the current rotational access and open area management program is expected to have a relatively high interaction with northern windowpane flounder compared to historic levels.

Table 12- Approach to allocating northern windowpane flounder to the scallop fishery (mt) under Sub-Option 1C.

	Catch Data			**Calculation for Dual Fixed Percentages**		
Calendar Year	**Scallop Limited Access Catch Estimate**	**Total catches for all fisheries**	**Scallop Gen. Cat. IFQ Catch estimate**	**Scallop LA and Gen. Cat. IFQ Catch Estimates**	**Low Fixed Percentage**	**High Fixed Percentage**
	X	**Y**	**Z**	**(X+Z)**	**Mean (3 lowest values)/ 2017 ABC**	**Mean (3 highest values) 2017 ABC**
2005	16.59	967.52	5	21.59	21.59	
2006	73.07	682.92	5	78.07		78.07
2007	97.77	1091.46	3	100.77		100.77
2008	43.33	375.67	2	45.33		
2009	15.45	439.56	5	20.45	20.45	
2010	8.59	235.90	5	13.59	13.59	
2011	32.72	179.84	1	33.72		
2012	34.85	199.22	2	36.85		
2013	63.37	354.81	3	66.37		
2014	95.37	214.67	6	101.37		101.37
				Mean	18.54	93.40
				ABC	182	182
				Percentage	**10.19%**	**51.32%**
					Sub-Option 1C	

The formula used to determine high or low bycatch year would need to be specified upfront and the intent is to set the sub-ACL for the entire scallop fishery, limited access and limited access general category. For each fishing year, a determination regarding high or low catch year would be made, based on projected northern windowpane catch rates for the scallop fishery completed by the Scallop PDT.

The fixed catch rates would be based on a range of fishing years to estimate a low and high catch rate by percentage (i.e., 2005-2014) (). To select a high fixed catch rate, consider the average in catch for the top three years from 2005 to 2014 with high catch rates for windowpane flounder. A low fixed percentage would be calculated based on comparing the average high catch rate to the FY 2017 ABC for northern windowpane flounder, which is 182 mt. To select a low average catch, consider the average catch rate by percentage for the three years in which catch rates were at its lowest for the time series, 2005 to 2014. A low fixed percentage would be calculated based on a comparison of the average low catch to the FY2017 ABC for northern windowpane flounder, which is 182 mt. Based on this approach, the low fixed percentage would be **10%** and the high fixed percentage would be **51%** of the ABC. In the future, the Council may want to consider updating these fixed percentages to reflect recent catch rates.

The low and high percentages would be applied to the northern windowpane flounder ABC to determine the sub-ABC options for the scallop fishery and then reduced for management uncertainty to determine the sub-ACL. The current management uncertainty buffer for non-allocated stocks in 7%.

Rationale: This option would consider a dual sub-ACL that is more flexible than a single percentage allocation. The intent of this option is to recognize that scallop area rotation can vary greatly annually, which impacts northern windowpane flounder catch rates by the scallop fleet. For example, in years when more effort is expected on Georges Bank, a higher sub-ACL percentage would be used compared to years when less scallop fishing effort is expected on Georges Bank. However, the AMs developed later through the scallop fishery management plan may consider different AMs for each component of the scallop fishery. The scallop fishery catches of this stock are large enough that the effectiveness of the AM system could be undermined if those catches are not constrained and subject to an AM. This measure would create a sub-ACL, based on recent scallop fishery catches. AMs for the scallop fishery will be adopted in a future action and will be applicable to any overage that occurs in FY 2017 and subsequent years.

Rationale for not including 5.1.1.1: Although initially promising, the Council discontinued work on this approach and in light of concerns raised from the Groundfish PDT and Scallop PDT about accurately identifying future "low" and "high" northern windowpane flounder years.

5.1.1.2 Sub-Option 2B – Increase the Midwater Trawl Atlantic Herring Fishery Sub-ACL for Georges Bank Haddock with a transfer provision

Sub-Option 2B would increase the current sub-ACL for GB haddock in the mid-water trawl Atlantic herring from 1% of the US ABC to 1.5% or 2% of the US ABC reduced by the management uncertainty buffer to determine the sub-ACL. The uncertainty buffer is currently 7%. This allocation would be available at the start of the groundfish fishing year. The addition of the transfer provision would accommodate an in-season transfer of GB haddock allocation from the mid-water trawl Atlantic herring fleet to the groundfish fleet, similar to the existing regulations regarding an in-season transfer of GB and SNE/MA yellowtail flounder from the scallop fishery to the groundfish fishery (Refer to 50 CFR 648.90(a)(4)(iii)(C)).

By December of that year, about mid-way through the fishing year, if the mid-water trawl Atlantic herring fishery is not projected to harvest its full sub-ACL of GB haddock, NMFS would provide catch projections for GB haddock that is expected to be caught by the mid-water trawl Atlantic herring fishery through the remainder of the fishing year. If NMFS makes the determination that the mid-water trawl Atlantic herring fishery catch is projected to be less than 90 percent of the mid-water trawl Atlantic herring fishery's allocation for that year, the Regional Administrator may reduce the appropriate allocation to match the herring fishery's projected catch quantity, and increase the allocation to the

groundfish fishery up to the reduced mid-water trawl Atlantic herring fishery quantity. Any additional GB haddock to the groundfish fishery would be allocated proportionally among the groundfish sectors and common pool vessels.

Rationale: Similar to Sub-Option 2A, Sub-Option 2B would continue to allow for long-term sustainable management the GB haddock stock and groundfish fishery while providing incentives for the mid-water Atlantic herring fishery to minimize bycatch for this stock to the extent practicable. Further, this option better meets the goals and objectives of the Atlantic herring management program, particularly the goal to achieve, on a continuing basis, optimum yield, and the objectives to achieve full utilization from the catch of herring, and to promote the utilization of the resource in a manner which maximizes social and economic benefits to the nation, while taking into account the protection of marine ecosystems. A transfer provision would help balance fishing opportunities for the groundfish and mid-water trawl Atlantic herring fleets.

Rationale for not including 5.1.1.2: The Council discontinued work on this approach for two primary reasons: 1) the transfer provision lacks the right incentives to be beneficial to the groundfish fishery due to the abundant GB haddock resource and 2) concerns raised about the ability to accurately project mid-water trawl Atlantic herring fishery catch of GB haddock to determine if a transfer would be available.