

Framework Adjustment 2 to the Herring FMP and 2013-2015 Atlantic Herring Specifications

Lori Steele, NEFMC Staff, Herring PDT Chair

ASMFC Meeting, February 19, 2013

FW 2/Specifications Timeline

| Action | Schedule |
|---------------------------------------|------------------|
| SAW/SARC 54 | June 2012 |
| SSC Meeting: 2013-2015 ABC | Sept 12, 2012 |
| Herring Committee Meeting | Sept 20, 2012 |
| NEFMC Meeting (ABC/Initial Specs) | Sept 25-27, 2012 |
| Herring AP/Committee Meeting | Nov 6/7, 2012 |
| NEFMC Meeting *(Initial FW 2 Meeting) | Nov 13-15, 2012 |
| SSC Meeting: Additional ABC Alts | Nov 19, 2012 |
| Herring AP Meeting | Jan 16, 2013 |
| NEFMC Meeting (Select Final Measures) | Jan 29-31, 2013 |
| Submission/Implementation | ASAP 2013 |

Framework Adjustment 2

November 2012/January 2013 Council Meeting

Measures to allow seasonal (monthly) sub-ACL splitting and unutilized sub-ACL carryover (up to 10%) during herring specifications process

- Policy action – general provisions only
- Impacts of specific splits/carryovers will be analyzed in specifications package
- Target implementation FY2014

FW 2 – Sub-ACL Splitting

Alternative 1: No Action – Status Quo

- Only Area 1A split Jan-May/June-December authorized (FW 1)

Alternative 2 (Selected Jan 2013):

Allow Seasonal (Monthly) Sub-ACL Splitting During Specifications

- Splits would be analyzed in specifications package

FW 2 – Sub-ACL Carryover

Alternative 1: No Action – no carryovers

Alternative 2 (Selected with Option 1, Jan 2013):

Allow un-utilized sub-ACL to be carried over from one fishing to the next, up to a limit of 10% of the sub-ACL

- Option 1 – corresponding sub-ACL would increase; stockwide ACL remain unchanged
- Option 2 – Authorize NMFS RA to allow carryovers
- Option 3 – Carryover would apply to both sub-ACL and stockwide ACL, but stockwide ACL cannot exceed ABC

FW 2 – Sub-ACL Carryover

Provisions that apply to all carryover options:

- All AMs continue to apply to sub-ACLs and stockwide ACL
- All carryovers up to 10% based on initial sub-ACL allocations for that fishing year
- Sub-ACL carryovers only allowed in the following year if total ACL was not exceeded
- Provisions for carryovers can be modified in future through specifications

FW 2 – Sub-ACL Carryover

Preferred Alternative (Example)

| | Year 1 Sub-ACL | Catch (mt) | Carryover (mt) | Year 2 Sub-ACL |
|------------------|----------------|--------------|----------------|----------------|
| Area 1A | 31,200 | 28,000 (90%) | 3,120 | 34,320 |
| Area 1B | 4,600 | 4,600 | | 4,600 |
| Area 2 | 30,000 | 24,000 (80%) | 3,000 | 33,000 |
| Area 3 | 42,000 | 37,000 (88%) | 4,200 | 46,200 |
| Total ACL | 107,800 | | | 107,800 |

- Management areas close to directed fishing when 92% of sub-ACL is reached
- All areas close to directed fishing when 95% of the total ACL is reached

SAW/SARC 54 (June 2012)

Atlantic Herring Stock Status

| | TRAC 2009 | SAW/SARC 54 |
|-----------|--|---|
| F_{MSY} | 0.27 | 0.27 |
| B_{MSY} | 670,000 mt (1/2 $SSB_{MSY} = 335,300$ mt) | 157,000 mt (1/2 $SSB_{MSY} = 78,500$ mt) |
| MSY | 178,000 mt | 53,000 mt |

- 2011 SSB = 517,930 mt
(not overfished; “rebuilt”)
- 2011 $F = 0.14$ (not overfishing)

2013-2015 OFL/ABC

Alternative 2 (“Constant Catch” Preferred Alternative)

| Preferred Alternative | 2013 | 2014 | 2015 |
|-----------------------|---------|---------|---------|
| OFL (mt) | 169,000 | 136,000 | 114,000 |
| ABC (mt) | 114,000 | 114,000 | 114,000 |
| Mgmt. Unc. (mt) | 6,200 | 6,200 | 6,200 |
| ACL/OY (mt) | 107,800 | 107,800 | 107,800 |

- SSC reviewed two additional alternatives for ABC control rules Nov 2012 –
 - Confirmed previous ABC recommendations for 2013-2015 specifications (Sept 2012)
 - Supported Herring PDT recommendation to further consider these and other ABC alternatives as part of a long-term management strategy

Management Area Sub-ACLs

Atlantic herring = multiple stock components (inshore and offshore) that mix seasonally

Inshore stock component also caught in Canadian (NB weir) fishery

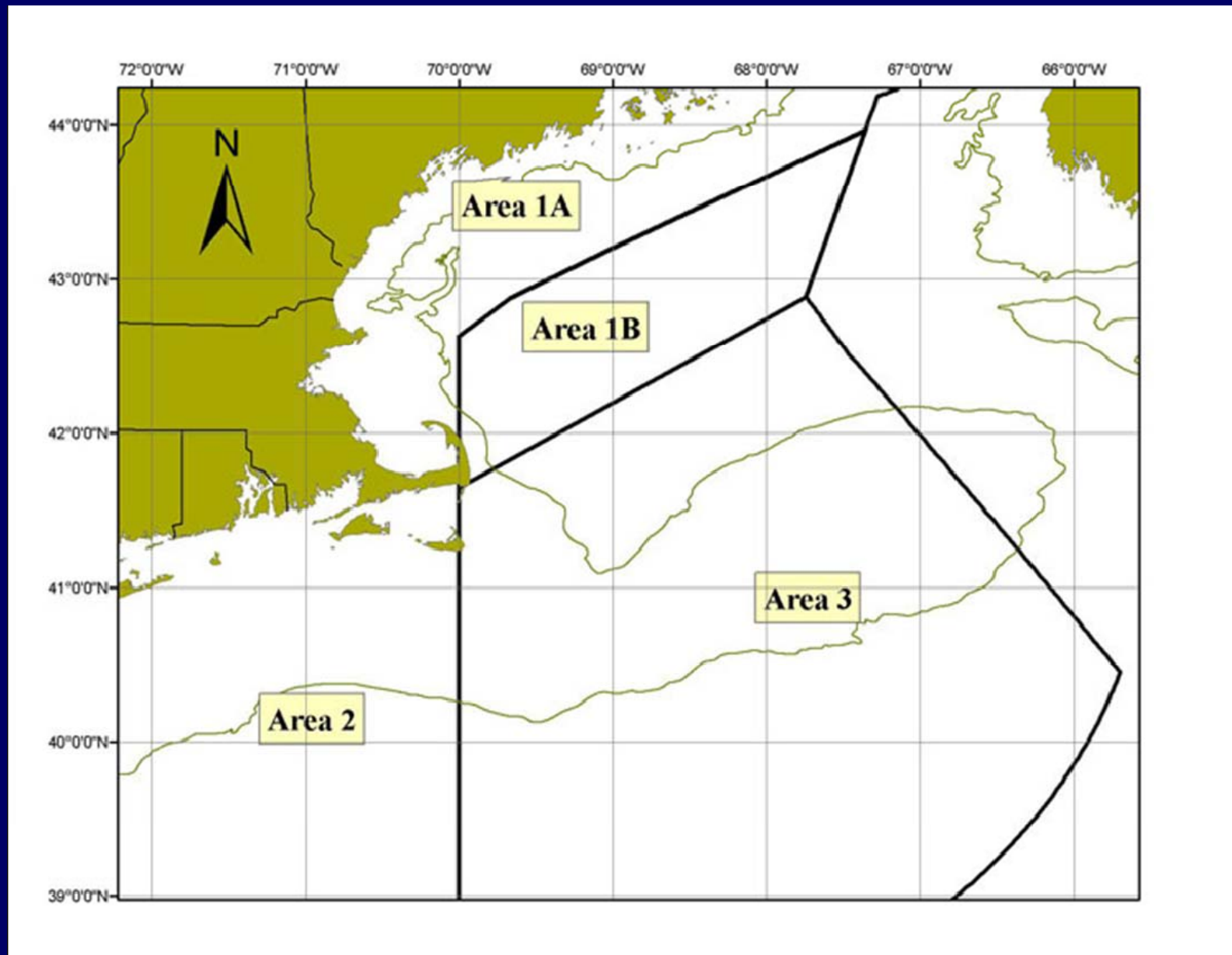
One annual catch limit (ACL) with sub-ACLs assigned to four management areas

Area 1 = Gulf of Maine, divided into inshore (Area 1A) and offshore (Area 1B);

Area 2 – southern New England/Mid-Atlantic;

Area 3 = offshore (Georges Bank)

Atlantic Herring Management Areas



Sub-ACL Seasonal Splits

Proposed for 2014 and 2015

(if provisions to allow splits are approved in Framework 2)

- Area 1A: 0% Jan-May; 100% June-Dec
- Area 1B: 0% Jan-Apr; 100% May-Dec

Area 2 split considered (67% Jan/Feb, 33% Mar-Dec) but not selected for final specifications.

RSAs and FGSA

Research Set-Aside (RSA):

- Initial proposal: 0% RSA for all areas
- MA DMF correspondence
- Support for 3% RSA Herring AP 1/16/13

Fixed Gear Set-Aside (FGSA):

- Initial proposal: maintain 295 mt FGSA for fixed gear fishermen fishing in Area 1A west of Cutler, ME
- General support Herring AP 1/16/13

Management Area Sub-ACLs

Option 1 – No Action (2012 Specifications)

| | 2010-2012 | 2013-2015 |
|--|-------------------------|---------------|
| OFL (mt) | 145,000/134,000/127,000 | 127,000 |
| ABC (mt) | 106,000 | 106,000 |
| ACL (mt) | 91,200 | 91,200 |
| Sub-ACL Area 1A | 26,546 | 26,546 |
| Sub-ACL Area 1B | 4,362 | 4,362 |
| Sub-ACL Area 2 | 22,146 | 22,146 |
| Sub-ACL Area 3 | 38,146 | 38,146 |
| No Research Set-Asides (RSAs) Area 1A Fixed Gear Set-Aside – 295 mt | | 91,200 |

Management Area Sub-ACLs

HERRING AP OPTION – COUNCIL RECOMMENDATION

| | 2010-2012 | 2013-2015 |
|--------------------------------|-----------------------------|-----------------------------|
| OFL (mt) | 145,000/134,000/ 127,000 | 169,000/136,000/ 114,000 |
| ABC (mt) | 106,000 | 114,000 |
| ACL (mt) | 91,200 | 107,800 |
| Sub-ACL Area 1A | 26,546 | 31,200 |
| Sub-ACL Area 1B | 4,362 | 4,600 |
| Sub-ACL Area 2 | 22,146 | 30,000 |
| Sub-ACL Area 3 | 38,146 | 42,000 |
| RSAs 3% of each Sub-ACL | | 107,800 |
| Area 1A FGSA – 295 mt | | |

Other 2013-2015 Specifications

Domestic Annual Harvest (DAH)

DAH = Optimum Yield (OY) = 107,800 mt

Domestic Annual Processing (DAP)

DAP = DAH – 4,000 mt for Border Transfer (BT) = 103,800 mt

Border Transfer (BT)

BT = 4,000 mt

US At-Sea Processing (USAP)

USAP = 0 mt

2013-2015 Herring Fishery Specifications

| SPECIFICATION | 2013-2015 ALLOCATION (MT) |
|-----------------------------------|---------------------------|
| Overfishing Limit (OFL) | 169,000 – 2013 |
| | 136,000 – 2014 |
| | 114,000 – 2015 |
| Acceptable Biological Catch (ABC) | 114,000 |
| Annual Catch Limit (ACL)/OY | 107,800 |
| Domestic Annual Harvesting (DAH) | 107,800 |
| Domestic Annual Processing (DAP) | 103,800 |
| U.S. At-Sea Processing (USAP) | N/A |
| Border Transfer (BT) | 4,000 |
| Sub-ACL Area 1A | 31,200 |
| Sub-ACL Area 1B | 4,600 |
| Sub-ACL Area 2 | 30,000 |
| Sub-ACL Area 3 | 42,000 |
| Research Set-Aside (RSA) | 3% of each sub-ACL |
| Fixed Gear Set-Aside (1A) | 295 |

Accountability Measures (AMs)

Section 2.2.7 (p. 26)

- August 2012 Court Order (and NMFS correspondence 8/31/12) to consider range of alternatives to modify current AMs
- Council reconsidered AM alternatives from AM 4 as well as new alternatives – four comprehensive alternatives considered in specifications package (including no action)
- Current AM for haddock catch cap remains unchanged under all alternatives

AM Alternative 1 (No Action)

Section 2.2.7.1 (p. 27)

1. Directed fishery in an area closes when 95% of the sub-ACL is projected to be reached (not including RSAs)
 - Additional 5% for incidental catch fishing under 2,000 pound trip limit
 - This AM does not apply to stock-wide ACL
2. ACL and/or sub-ACL overage(s) deducted based on NMFS' year-end catch tallying methods (one-year lag time)

AM Preferred Alternative

Modified Alternative 2 (January 2013)

1. Trigger for closing directed fishery reduced to 92% of each sub-ACL (not including RSAs)
 - Option A: Trigger for stockwide ACL established at 95% (closes directed fishery in all areas)
2. Status quo ACL/Sub-ACL overage deduction methods (and carryovers, if approved) – based on year-end catch estimation (with a one-year lag)

Council considered modifying the AM for overage deductions (and carryovers) to eliminate the one-year lag, but selected status quo based on guidance from NMFS re. catch monitoring/timing.

Impacts – OFL/ABC

Alternative 2 – Constant Catch – *Preferred Alternative*

| YEAR | 2013 | 2014 | 2015 |
|------------------|---------|---------|---------|
| OFL (mt) | 169,000 | 136,000 | 114,000 |
| ABC (mt) | 114,000 | 114,000 | 114,000 |
| F | 0.17 | 0.22 | 0.27 |
| Prob > F_{MSY} | 0.05 | 0.24 | 0.50 |
| SSB (mt) | 533,289 | 411,951 | 338,957 |

- 50% prob of ‘overfishing’ in 2015, but stock remains ‘rebuilt’ with 0% prob of ‘overfished’
- Some catch foregone in earlier years to allow more catch in later years
- Overall increase in ABC from previous specs will benefit fishery participants
- May allow for better business planning (vs. Alternative 3)

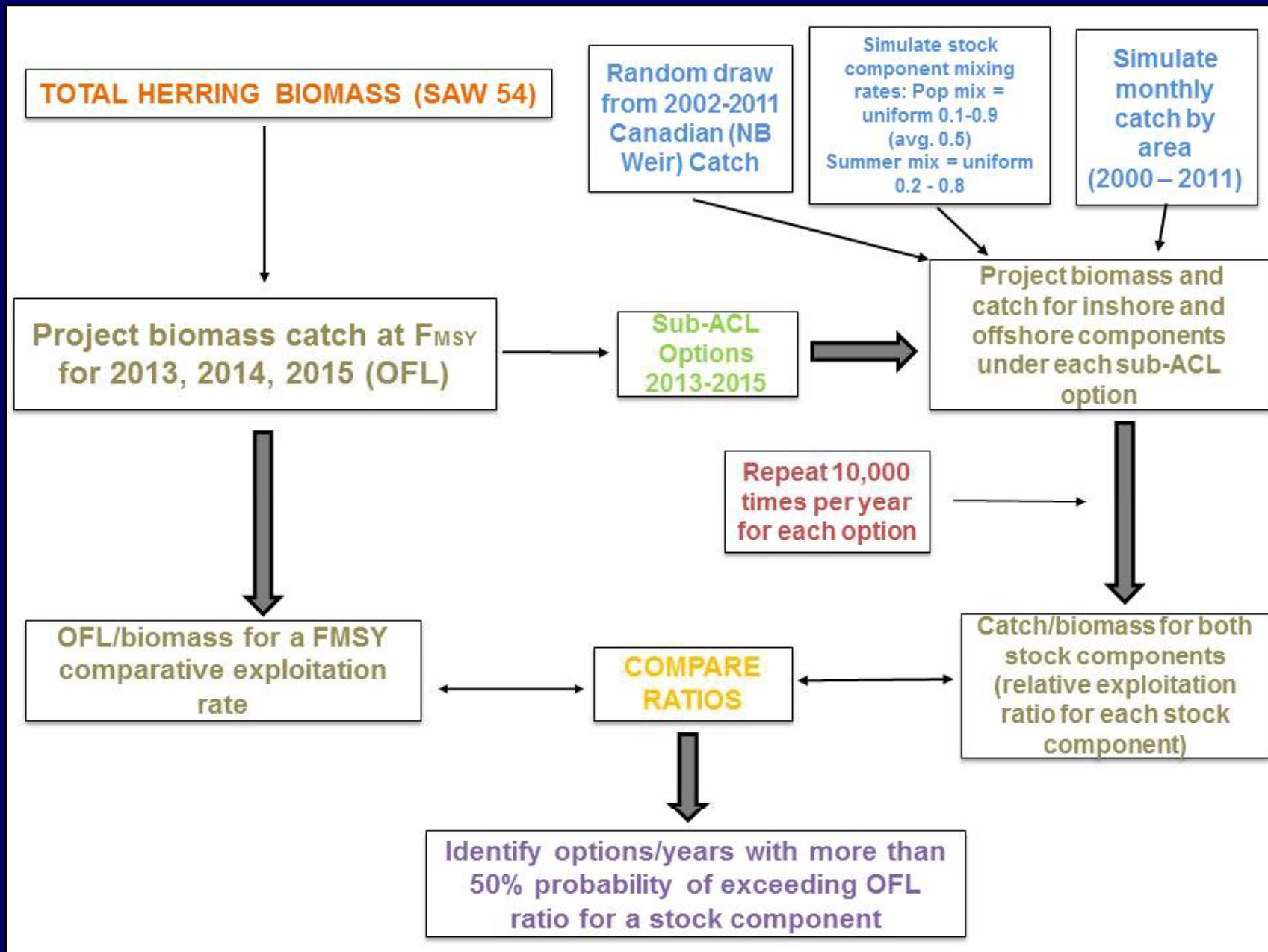
Sub-ACL Analysis – Methods

Six sub-ACL options are evaluated/compared based on simulated removals from the inshore/offshore stock components

1. Population Mixing Rate – inshore/offshore mix – updated information suggests that mix is more variable (average 0.5)
2. Summer Mixing Rate – for Area 1A; same as previous analysis (0.2-0.8)
3. Catch by Month and Area – 2000-2011
4. New Brunswick Weir Catch – 2002-2011

Simulated removals/biomass are compared to OFL/biomass ratio for total stock complex

Sub-ACL Analysis



Sub-ACL Analysis – Results

Section 4.2.2.1, p. 157

- Options with probability of exceeding OFL ratio greater than 50% in 2015 are shaded in grey
- Higher Max:OFL Ratio means higher probability of bigger impact (rare event)

| Sub-ACL Option | 2015 Projected Catch:Biomass Ratio (Probabilities) | |
|----------------|---|--|
| | Inshore Component P>OFL Ratio (Max:OFL Ratio) | Offshore Component P>OFL Ratio (Max:OFL Ratio) |
| Option 2 | 0.47 (5.2) | 0.65 (5.2) |
| Option 3 | 0.52 (5.5) | 0.60 (4.9) |
| Option 4 | 0.52 (5.5) | 0.61 (4.9) |
| Option 5 | 0.52 (5.7) | 0.61 (4.8) |
| Option 6 | 0.63 (6.3) | 0.50 (4.4) |

Sub-ACL Analysis – Results

Section 4.2.2.1, p. 157

- Analysis does not indicate a significant difference in impacts on the inshore/offshore stock components when comparing Options 2-6
- Probability of exceeding OFL ratio for total herring stock complex is 0.5 in 2015 (based on ABC), so results ~0.5 for each stock component would be expected in 2015
- Selection of sub-ACL option for 2013-2015 should be primarily an allocation decision, not driven largely by biological impacts

Fishery Impacts (Sub-ACLs/Specs)

Section 4.2.2.5, Section 4.2.4.5

- Sub-ACL Option 2 = may be perceived as most “fair” allocation of additional yield across fishery
- Sub-ACL Options 4 and 5 may benefit herring/mackerel fishery participants most; Option 6 increases inshore opportunities the most
- AM Alternative 2 generally supports real-time catch monitoring; possible short-term impacts from lowering the trigger to 92%, but more long-term benefits from timely management and reduction of sub-ACL overages
- No significant impacts from proposed specifications of DAH, DAP, BT and USAP



NEFMC Specification Recommendations

| | 2010-2012 | 2013-2015 |
|--|-----------------------------|-----------------------------|
| OFL (mt) | 145,000/134,000/ 127,000 | 169,000/136,000/ 114,000 |
| ABC (mt) | 106,000 | 114,000 |
| ACL (mt) | 91,200 | 107,800 |
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| RSAs 3% of each Sub-ACL Area 1A FGSA – 295 mt | | 107,800 |



Specifications

- **Council proposed to close fishery at 92%**
 - **Commission closes at 95% for 1A (Approved at October 2012 Section Meeting)**
 - **2,000 lbs per trip after trigger**
- **Council proposed to close the entire fishery when 95% of the total ACL is reached**
 - **Commission does not have a trigger for total ACL**



Framework 2 Adjustments

- **Proposes seasonal split for all areas**
 - **Current year specs propose a split for 1A and 1B**
 - **Commission does not have a split for 1B, 2 and 3**
 - **Commission does split 1A**
- **Proposes to allow for up to 10% quota rollover**
 - **Commission does not allow quota rollover**