Comprehensive ABC Control Rule Amendment

Decision Document

September 2021 Council Meeting

Background

The South Atlantic Fishery Management Council (Council) Scientific and Statistical Committee (SSC) developed an acceptable biological catch (ABC) control rule (CR) in 2008, using uncertainty and risk traits to determine the acceptable risk of overfishing. The ABC CR is the method by which ABCs are set, ideally based on an overfishing limit (OFL) from a stock assessment but sometimes using more data-limited methodology. The acceptable risk of overfishing is denoted as P-Star (P*) and is the value that is applied through assessment projections to develop yield values that provide the ABC. During consideration by the Council and development of the Comprehensive Annual Catch Limit (ACL) Amendment, the SSC added additional levels to the ABC CR to better address unassessed and data-limited stocks.

The ABC CR was implemented by the Council through the Comprehensive ACL Amendment that became effective in April 2012. The Comprehensive ACL Amendment amended fishery management plans (FMP) for Snapper Grouper, Dolphin Wahoo, Golden Crab, and Sargassum. A revision to the ABC CR for species managed under the Snapper Grouper FMP occurred in July 2015 when the Only Reliable Catch Stocks (ORCS) approach was added to the CR for snapper grouper stocks, through Amendment 29.

In applying the ABC CRs, as specified in the Comprehensive ACL Amendment and Snapper Grouper Amendment 29, to different stocks and assessments from 2012-2016, the SSC began to express concerns that the rules lacked adequate resolution to distinguish differences in uncertainty levels across assessments, did not address continued developments in data poor assessment methods, and mixed uncertainty evaluation (an SSC role under the Magnuson-Stevens Fishery Conservation and Management Act (MSA)) and risk tolerance determination (a Council role under the MSA). Additionally, the existing CR does not provide a means to make use of 2016 revised guidelines for National Standard 1 (NS 1) that increased the flexibility available to regional fishery management councils for managing catch limits by allowing carry-

over of unharvested portions of the ACL and phasing in of catch level changes. While the addition of the ORCS approach to the ABC CR for snapper grouper species represented some progress in addressing data poor assessment developments, it did not address the other ABC CR concerns or the revisions to the NS1 guidelines.

Actions in this amendment

- **Action 1.** Modify the Acceptable Biological Catch Control Rule.
- **Action 2.** Allow phase-in of acceptable biological catch changes.
- **Action 3.** Allow carry-over of unharvested portion of the annual catch limit.
- **Action 4.** Modify framework procedures for the Snapper Grouper, Dolphin Wahoo, and Golden Crab FMPs

Proposed timing

Process Steps	**Dates**
Scoping webinar hearings	January 2019
Council reviews scoping comments, discuss wording of actions and alternatives	March 2019
Council reviews wording of actions and alternatives	March 2021
Council reviews wording of actions and alternatives and SSC comments	**September 2021**
Council reviews AP comments (from meeting of AP chairs) and reviews and revises action/alternatives	December 2021
Approval for public hearings	June 2022
Public hearings	Summer 2022
Review public hearing comments and approve all actions/alternatives	September 2022
Final action to approve for secretarial review	December 2022

Purpose and need statement

Purpose for Actions

The purpose of this amendment is to revise the acceptable biological catch control rule by clarifying the incorporation of scientific uncertainty and management risk, modifying the approach used to determine the acceptable risk of overfishing, and prioritizing the use of stock rebuilding plans for overfished stocks. Additionally, this amendment will specify conditions and procedures for using carry-overs and phase-ins in setting catch limits.

Need for Actions

The need for this amendment is to ensure catch level recommendations are based on the best scientific information available, prevent overfishing while achieving optimum yield, and include flexibility in setting catch limits as allowed by the Magnuson-Stevens Fishery Conservation and Management Act, and particularly in accordance with 2020 NMFS guidance on carry-over and phase-in provisions.

Council Action:

- REVIEW THE PURPOSE AND NEED STATEMENTS AND MODIFY AS NECESSARY. (IF THE COUNCIL ACCEPTS THE IPT'S RECOMMENDED METHOD FOR IMPLEMENTING CARRY-OVERS THROUGH REVISIONS TO THE FRAMEWORK PROCESSES, THESE STATEMENTS WOULD BE MODIFIED TO REFLECT THAT)

Fishery Management Plans modified by this Comprehensive Amendment

- Snapper Grouper (Amendment 45)
- Dolphin Wahoo (Amendment 11)
- Golden Crab (Amendment 5)

Proposed Actions and Alternatives

Action 1 Modify the Acceptable Biological Catch Control Rule

NOTE: Each alternative includes a general description of the proposed ABC CR (with reference to a descriptive table[s]), associated risk tolerance policy, and application of the CR to overfished stocks. Sub-alternatives may be added to alternatives and are not exclusionary.

Alternative 1 (No Action). The acceptable biological catch for included species will continue to be specified as per the control rule specified by the Comprehensive Annual Catch Limit Amendment for the Dolphin Wahoo and Golden Crab Fishery Management Plans (**Table 1**) and Amendment 29 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (**Table 2**).

- **Control Rule:** **Table 1** and **Table 2**
- **Risk Tolerance:** The accepted risk of overfishing is determined by the ABC CR criteria evaluated by the SSC.
- **Overfished Stocks:** Standard application of the ABC CR to overfished stocks undergoing rebuilding is not specified.

Alternative 2. Specify an acceptable biological catch control rule for the Dolphin Wahoo, Golden Crab, and Snapper Grouper Fishery Management Plans that categorizes stocks based on the available information and scientific uncertainty evaluation and incorporates the Council's risk tolerance policy (described below) through an accepted probability of overfishing (P*) value. When possible, the Scientific and Statistical Committee will determine the overfishing limit and characterize its uncertainty based on, primarily, the stock assessment or, secondarily, the Scientific and Statistical Committee's expert opinion. The overfishing limit and its uncertainty would then be used to derive and recommend the acceptable biological catch, based on the risk tolerance specified by the Council.

- **Control Rule:** **Table 3**
- **Risk Tolerance:** The Council will specify the risk tolerance based on the stock biomass level and a stock risk rating provided by the SSC. Default P* levels according to stock biomass levels and stock risk ratings are defined in **Table 4**.
- **Overfished Stocks:** For overfished stocks, the Council will specify a stock rebuilding plan, considering recommendations from the SSC and FMP's advisory panel (AP), which will determine the ABC while the rebuilding plan is in effect. Per requirements of the Magnuson-Stevens Act, the probability of success for rebuilding plans must be at least 50%.

  Sub-Alternative 2a. Set the boundary between the high biomass and moderate biomass levels at 110% B_{MSY}, and set the boundary between moderate biomass and low biomass levels at the midpoint between 110% B_{MSY} and the minimum stock size threshold.

  Sub-Alternative 2b. Allow the Council to deviate from the default risk tolerance (accepted probability of overfishing) by up to 10% for an individual stock, based on its

expert judgment, new information, or recommendations by the SSC or other expert advisors. Risk tolerance may not exceed 50%.

Sub-Alternative 2c. Assign unassessed (Category 4) stocks to the moderate biomass level unless there is a recommendation from the Scientific and Statistical Committee that justifies a different level.

Sub-Alternative 2d. When requested by the Council, the Scientific and Statistical Committee will specify the acceptable biological catch for up to 5 years as both a constant value across years and as individual annual values for the same period of years.

Alternative 3. Specify an acceptable biological catch control rule for the FMPs for Dolphin Wahoo, Golden Crab, and Snapper Grouper that is consistent with the current control rules, modified such that the Council will set an initial accepted probability of overfishing between 30% and 50%, based on their risk tolerance, and the Scientific and Statistical Committee will adjust this value as defined in Tiers 1 and 2 of Level 1. Levels 2 through 5 will also be replaced with the process for evaluating ABC for unassessed stocks recommended by the Scientific and Statistical Committee.

- **Control Rule:** Table 5
- **Risk Tolerance:** Tiers 3 and 4 of Level 1 will be deleted, and the Council will specify an initial P* between 30% and 50%, considering advice from the SSC and FMP's AP. This initial P* will be reduced according to adjustments defined in Tiers 1 (Assessment Information) and 2 (Uncertainty Characterization) of the current CR. The adjusted P* will then be applied to derive acceptable biological catch.
- **Overfished Stocks:** For overfished stocks, the Council will specify a stock rebuilding plan, considering recommendations from the SSC and FMP's AP, that will determine the ABC while the rebuilding plan is in effect. Per requirements of the Magnuson-Stevens Act, the probability of success for rebuilding plans must be at least 50%.

  Sub-Alternative 3a. When requested by the Council, the Scientific and Statistical Committee will specify the acceptable biological catch for up to 5 years as both a constant value across years and as individual annual values for the same period of years.

DISCUSSION:

- Stock assessments often include projections of future removals, which are used to derive OFL under the current ABC Control Rule. These projections are run many times, such that the results of each projection include robust estimates of variables like landings or population size, as well as measures of uncertainty.
- To derive the OFL, projections are run with a 50% probability of overfishing occurring (i.e., P*=50%). To derive the ABC, projections are run with P* set at 50% or less (based on adjustments to the P* from the ABC Control Rule).
- All **Action 1** alternatives would maintain these methods for deriving ABC using P* and OFL. Alternatives consider different approaches and responsibilities for characterizing assessment uncertainty in various scenarios and deriving P*.

Action 1-Alternative 1

Table 1. Acceptable biological catch control rule specified by the Comprehensive Annual Catch Limit Amendment for the Snapper Grouper, Dolphin Wahoo and Golden Crab Fishery Management Plans. Parenthetical values in Level 1 indicate (1) the maximum adjustment value for a dimension; and (2) the adjustment values for each tier within a dimension.

Level 1 – Assessed Stocks	
Accepted probability of overfishing (P*) initially set at 50%. Adjustments below are subtracted from this initial value.	
Tier	**Tier Classification and Methodology to Compute ABC**
1. Assessment Information (10%)	1. Quantitative assessment provides estimates of exploitation and biomass; includes MSY-derived benchmarks. (0%) 2. Reliable measures of exploitation or biomass, no MSY benchmarks, proxy reference points. (2.5%) 3. Relative measures of exploitation or biomass, absolute measures of status unavailable. Proxy reference points. (5%) 4. Reliable catch history. (7.5%) 5. Scarce or unreliable catch records. (10%)
2. Uncertainty Characterization (10%)	1. Complete. Key determinant – uncertainty in both assessment inputs and environmental conditions are included. (0%) 2. High. Key determinant – reflects more than just uncertainty in future recruitment. (2.5%) 3. Medium. Uncertainties are addressed via statistical techniques and sensitivities, but full uncertainty is not carried forward in projections. (5%) 4. Low. Distributions of F_{MSY} and MSY are lacking. (7.5%) 5. None. Only single point estimates; no sensitivities or uncertainty evaluations. (10%)
3. Stock Status (10%)	1. Neither overfished nor overfishing. Stock is at high biomass and low exploitation relative to benchmark values. (0%) 2. Neither overfished nor overfishing. Stock may be in close proximity to benchmark values. (2.5%) 3. Stock is either overfished or overfishing. (5%) 4. Stock is both overfished and overfishing. (7.5%) 5. Either status criterion is unknown. (10%)
4. Productivity and Susceptibility Analysis (10%)	1. Low risk. High productivity, low vulnerability, low susceptibility. (0%) 2. Medium risk. Moderate productivity, moderate vulnerability, moderate susceptibility. (5%) 3. High risk. Low productivity, high vulnerability, high susceptibility. (10%)

Level 2 – Unassessed Stocks. Reliable landings and life history information available
OFL derived from "Depletion-Based Stock Reduction Analysis" (DBSRA). ABC derived from applying the assessed stocks rule to determine the adjustment factor if possible, or from expert judgment if not possible.
Level 3 – Unassessed Stocks. Inadequate data to support DBSRA
ABC derived directly from "Depletion-Corrected Average Catch" (DCAC). Done when only a limited number of years of catch data for a fishery are available. Requires a higher level of "informed expert judgment" than Level 2.
Level 4 – Unassessed Stocks.
OFL and ABC derived on a case-by-case basis. Stocks with very low landings that show very high variability in catch estimates (mostly caused by the high degree of uncertainty in recreational landings estimates), or stocks that have species identification issues that may cause unreliable landings estimates. Use "decision tree": 1. Will catch affect stock? NO: Ecosystem Species (Council did this already, ACL Amend) YES: Go to 2 2. Will increase (beyond current range of variability) in catch lead to decline or stock concerns? NO: ABC = 3rd highest point in the 1999-2008 time series YES: Go to 3 3. Is stock part of directed fishery or is it primarily bycatch for other species? Directed: ABC = Median 1999-2008 Bycatch/Incidental: If yes, go to 4. 4. Bycatch. Must judge the circumstance: If bycatch in other fishery: what are trends in that fishery? What are the regulations? What is the effort outlook? If the directed fishery is increasing and bycatch of stock of concern is also increasing, the Council may need to find a means to reduce interactions or mortality. If that is not feasible, will need to impact the directed fishery. The SSC's intention is to evaluate the situation and provide guidance to the Council on possible catch levels, risk, and actions to consider for bycatch and directed components.

Table 2. Acceptable biological catch control rule specified for Snapper Grouper by Amendment 29 to the Snapper Grouper Fishery Management Plan. Parenthetical values in Level 1 indicate (1) the maximum adjustment value for a dimension; and (2) the adjustment values for each tier within a dimension.

Level 1 – Assessed Stocks	
Accepted probability of overfishing (P*) initially set at 50%. Adjustments below are subtracted from this initial value.	
Tier	**Tier Classification and Methodology to Compute ABC**

1. Assessment Information (10%)	1. Quantitative assessment provides estimates of exploitation and biomass; includes MSY-derived benchmarks. (0%) 2. Reliable measures of exploitation or biomass, no MSY benchmarks, proxy reference points. (2.5%) 3. Relative measures of exploitation or biomass, absolute measures of status unavailable. Proxy reference points. (5%) 4. Reliable catch history. (7.5%) 5. Scarce or unreliable catch records. (10%)
2. Uncertainty Characterization (10%)	1. Complete. Key determinant – uncertainty in both assessment inputs and environmental conditions are included. (0%) 2. High. Key determinant – reflects more than just uncertainty in future recruitment. (2.5%) 3. Medium. Uncertainties are addressed via statistical techniques and sensitivities, but full uncertainty is not carried forward in projections. (5%) 4. Low. Distributions of F_{MSY} and MSY are lacking. (7.5%) 5. None. Only single point estimates; no sensitivities or uncertainty evaluations. (10%)
3. Stock Status (10%)	1. Neither overfished nor overfishing. Stock is at high biomass and low exploitation relative to benchmark values. (0%) 2. Neither overfished nor overfishing. Stock may be in close proximity to benchmark values. (2.5%) 3. Stock is either overfished or overfishing. (5%) 4. Stock is both overfished and overfishing. (7.5%) 5. Either status criterion is unknown. (10%)
4. Productivity and Susceptibility Analysis (10%)	1. Low risk. High productivity, low vulnerability, low susceptibility. (0%) 2. Medium risk. Moderate productivity, moderate vulnerability, moderate susceptibility. (5%) 3. High risk. Low productivity, high vulnerability, high susceptibility. (10%)
Level 2 – Unassessed Stocks. Reliable landings and life history information available	
OFL derived from "Depletion-Based Stock Reduction Analysis" (DBSRA). ABC derived from applying the assessed stocks rule to determine the adjustment factor if possible, or from expert judgment if not possible.	
Level 3 – Unassessed Stocks. Inadequate data to support DBSRA	
ABC derived directly from "Depletion-Corrected Average Catch" (DCAC). Done when only a limited number of years of catch data for a fishery are available. Requires a higher level of "informed expert judgment" than Level 2.	
Level 4 – Unassessed Stocks. Only Reliable Catch Stocks.	

OFL and ABC derived on a case-by-case basis. Apply ORCS approach using a catch statistic, a scalar derived from the risk of overexploitation, and the Council's risk tolerance level.

Level 5 – Unassessed Stocks.

OFL and ABC derived on a case-by-case basis. Stocks with very low landings that show very high variability in catch estimates (mostly caused by the high degree of uncertainty in recreational landings estimates), or stocks that have species identification issues that may cause unreliable landings estimates. Use "decision tree":

1. Will catch affect stock?
   NO: Ecosystem Species (Council did this already, ACL Amend)
   YES: Go to 2

2. Will increase (beyond current range of variability) in catch lead to decline or stock concerns?
   NO: ABC = 3rd highest point in the 1999-2008 time series
   YES: Go to 3

3. Is stock part of directed fishery or is it primarily bycatch for other species?
   Directed: ABC = Median 1999-2008
   Bycatch/Incidental: If yes, go to 4.

4. Bycatch. Must judge the circumstance:
   If bycatch in other fishery: what are trends in that fishery? What are the regulations? What is the effort outlook?

   If the directed fishery is increasing and bycatch of stock of concern is also increasing, the Council may need to find a means to reduce interactions or mortality. If that is not feasible, will need to impact the directed fishery. The SSC's intention is to evaluate the situation and provide guidance to the Council on possible catch levels, risk, and actions to consider for bycatch and directed components.

Action 1-Alternative 2

Under **Action 1-Alternative 2**, the ABC will be derived by applying P* to a stock projection analysis for assessed stocks or an OFL estimated using alternative methods for unassessed stocks, when possible. If an OFL cannot be estimated, the SSC will derive the ABC directly.

- **Action 1-Alternative 2** would maintain derivation of OFL and ABC using projection analyses with specified P* levels.
- Under **Action 1-Alternative 2,** the Council would convey its risk tolerance to impact P* by setting the stock risk rating. The stock risk rating and stock biomass would be used together to derive P*, according to **Table 4**. For example, a stock with high biomass and medium stock risk rating would have a P* of 45%. This would be lower than the OFL, in accordance with MSA.
    - The SSC can recommend the Council reconsider the stock risk rating. This could happen, for example, with the emergence of new scientific studies or new information discovered through a stock assessment.
- The ABC can be increased via greater risk tolerance from the Council (higher P*) OR less uncertainty in the projection results (i.e., a narrower distribution).
- The ABC can be decreased via lower risk tolerance from the Council (lower P*) OR more uncertainty in the projections results (i.e., a wider distribution).

Steps

Before an Assessment:

- SSC recommends stock risk rating to the Council (preliminary recommendations to be included in this amendment). Ratings will be reviewed by the SSC as needed and requested by the Council (e.g., between stock assessments, following observed changes in the fishery, etc.).
- Council sets stock risk rating, considering input from the SSC and AP (could align with Fishery Performance Report process).

During an Assessment:

- P* will be derived using an estimate of relative biomass and the Council's stock risk rating, according to **Table 4**.
- Projection analyses will be run using P*=50% and the P* value defined by **Table 4** to derive estimates of OFL and ABC.

Following an Assessment:

- SSC will review the stock assessment, including how well the assessment was able to incorporate uncertainty. Based on its review, the SSC will determine whether the assessment fits Category 1, 2, or 3.
    - If the assessment is Category 2 or 3, the SSC will adjust or develop uncertainty measures based on expert opinion and assumptions, to be incorporated into projection analyses. Then, apply the previously defined P* levels to the projection analyses.
    - If uncertainty measures are unable to be developed, the SSC may derive and recommend a direct buffer between OFL and ABC.

- Based on the assessment and any follow-up analyses, the SSC will recommend ABC to the Council.

In October 2020, the SSC formed a Working Group to revise and update the ABC Control Rule proposed in **Action 1-Alternative 2** (**Table 3**) for Category 4 (unassessed) stocks and recommend methods for determining ABC for these stocks at the April 2021 SSC Meeting.

Table 3. Acceptable biological catch control rule proposed in **Action 1-Alternative 2**.

Category	Criteria	ABC Determination
Category 1.	Stock is assessed; scientific uncertainty is adequately incorporated	The P* is applied to the assessment information to derive ABC.
Category 2.	Stock is assessed; scientific uncertainty is not adequately evaluated or some assessment outputs may be lacking.	The SSC will adjust the measures of uncertainty, P* will then be applied to the assessment information.
Category 3.	The stock is assessed; scientific uncertainty is not adequately evaluated and cannot be addressed by adjusting the available uncertainty measures.	The SSC will develop uncertainty measures as necessary to apply the P* to the available assessment information. Alternatively, the SSC may apply a direct buffer to the overfishing limit (or an overfishing limit proxy) to derive the ABC.
Category 4	No formal stock assessment accepted to provide OFL and ABC recommendations (reviewed through SEDAR or SSC).	OFL and ABC will be developed according to the strategy proposed by the SSC's Data-Limited Working Group (Append WG Report). The SSC will attempt to estimate OFL and its uncertainty using available data, applicable methods, and expert judgement. If an OFL and its uncertainty are defined, the SSC will apply P* to derive ABC. If an OFL is unable to be defined, the SSC will directly recommend an ABC. The process of updating OFLs and ABCs for unassessed stocks will occur over time as directed by the Council. The current OFL and ABC for unassessed species and species complexes will be maintained until updated levels are recommended by the SSC and approved by the Council.

For **Action 1-Alternative 2**, the SSC will evaluate and recommend stock risk ratings to the Council. Stock risk ratings include information currently used in the Productivity and Susceptibility Analysis (PSA), but also incorporate socio-economic and environmental attributes (see **Appendix 1**). These recommendations will be revisited when new information becomes available (for example, a new stock assessment). The Council will then specify the risk rating as low, medium, or high risk of overfishing. A higher risk of overfishing would indicate that risk tolerance (the accepted probability of overfishing) should be lower. These stock risk ratings, along with relative biomass levels, will be used to determine the Council's default risk tolerance for each stock.

Table 4. Summary table of default risk tolerance levels based on stock risk ratings and biomass levels, proposed in **Action 1-Alternative 2**.

Stock Risk Rating	Council's Default Risk Tolerance: accepted risk of overfishing (P* values)		
	High Biomass Biomass exceeds B_{MSY} (or 110% B_{MSY} per Sub-Alternative 2a)	**Moderate Biomass** Biomass is ABOVE the midpoint between B_{MSY} and MSST	**Low Biomass** Biomass is below the midpoint between B_{MSY} and MSST
low	45%	45%	40%
medium	45%	40%	30%
high	40%	30%	20%

Action 1-Alternative 3

For **Action 1-Alternative 3**, the ABC will be derived by applying P* to a stock projection analysis for assessed stocks or an OFL estimated using alternative methods for unassessed stocks, when possible. If an OFL cannot be estimated, the SSC will derive the ABC directly.

Table 5. ABC Control Rule proposed through **Action 1-Alternative 3**. Parenthetical values in Level 1 indicate (1) the maximum adjustment value for a dimension; and (2) the adjustment values for each tier within a dimension.

Level 1 – Assessed Stocks	
Accepted probability of overfishing (P*) initially set by the Council between 30% and 50%. Adjustments below are subtracted from this initial value.	
Tier	**Tier Classification and Methodology to Compute ABC**
1. Assessment Information (10%)	1. Quantitative assessment provides estimates of exploitation and biomass; includes MSY-derived benchmarks. (0%) 2. Reliable measures of exploitation or biomass, no MSY benchmarks, proxy reference points. (2.5%) 3. Relative measures of exploitation or biomass, absolute measures of status unavailable. Proxy reference points. (5%) 4. Reliable catch history. (7.5%) 5. Scarce or unreliable catch records. (10%)

2. Uncertainty Characterization (10%)	1. Complete. Key determinant – uncertainty in both assessment inputs and environmental conditions are included. (0%) 2. High. Key determinant – reflects more than just uncertainty in future recruitment. (2.5%) 3. Medium. Uncertainties are addressed via statistical techniques and sensitivities, but full uncertainty is not carried forward in projections. (5%) 4. Low. Distributions of F_{MSY} and MSY are lacking. (7.5%) 5. None. Only single point estimates; no sensitivities or uncertainty evaluations. (10%)
Level 2 – Unassessed Stocks	
OFL and ABC will be developed according to the strategy proposed by the SSC's Data-Limited Working Group (Append WG Report). The SSC will attempt to estimate OFL and its uncertainty using available data, applicable methods, and expert judgement. If an OFL and its uncertainty are defined, the SSC will apply P* to derive ABC. If an OFL is unable to be defined, the SSC will directly recommend an ABC. The process of updating OFLs and ABCs for unassessed stocks will occur over time as directed by the Council. The current OFL and ABC for unassessed species and species complexes will be maintained until updated levels are recommended by the SSC and approved by the Council.	

SSC Deviation from the ABC Control Rule (applies to all Action 1 Alternatives)

As noted in the National Standard 1 of the MSA, the SSC may provide an ABC that deviates from strict application of the approved ABC Control Rule if necessary to address scientific uncertainty, recruitment variability, declining population trends, or available information. If the SSC deviates from the ABC Control rule, it must provide a written explanation describing why the deviation was necessary, how the alternative ABC recommendation is derived, and how the alternative ABC prevents overfishing, addresses scientific uncertainty and the Council's specified risk tolerance level for the stock.

Council Action:

- DISCUSS **ACTION 1** AND ITS ALTERNATIVES AND MODIFY IF NEEDED.

SSC Recommendations:

- The SSC supported modifying the ABC CR as described in **Action 1-Alternative 2**.
- The SSC recommended not including ecosystem component stocks in the ABC CR provisions.
- The SSC did not support designing the ABC CR solely around data or assessment categories or levels, and recommended that the treatment of uncertainty was a more robust and useful categorization approach.
- The SSC supports allowing constant ABC recommendations for 3-5 years.

- The SSC recommends addressing circumstances when the Council can remand, or ask the SSC to reconsider, an ABC recommendation, and developing rules or guidelines to address ABC remands.
- The SSC supports varying risk tolerance by biomass levels and considering the PSA risk categories for assigning stock risk ratings.
- The SSC recommends including preliminary risk ratings in the draft amendment, and finalizing those ratings once the amendment is approved.
- The SSC recommends evaluating risk ratings as part of each stock assessment, and also when necessary to address new information that becomes available for a stock.
- The SSC recommends considering social and economic considerations when evaluating risk tolerance. Fishery Performance reports may be useful to identify factors.
- The SSC recommends exploring the option to scale scoring by standard deviations from the mean risk score.
- The SSC supports specifying rebuilding probabilities and considering stock risk categories.

<u>New SSC Feedback from April 2021</u>

- Category 4/Unassessed Stocks
  - The SSC supports the establishment of a Working Group to address Category 4 or unassessed stocks with the addition of a standard Statement of Work as described in the recommendation below.
  - Be careful to distinguish between catch and landings given the growing importance of discards in the US South Atlantic.
  - Identify stocks with large discard components that are either characterized with data or described in other sources of information.
  - Schedule regular review of data-limited literature every 3 to 5 years that would be conducted by the Workgroup and reviewed by the SSC and Council.
  - Develop a standard Statement of Work for the Working Group that would include the following:
    - Provide research recommendations on improving ABC setting or SEDAR process
    - Attention should be paid to the directed vs non-directed nature of each fishery for unassessed/data-limited stocks given that some data-limited approaches may not be applicable for species caught as bycatch.
    - Species identification is an issue for several of these stocks (e.g., black grouper and gag grouper). ABC-setting for complexes rather than individual stocks may address this issue.
- Action 1 Alternative 2:
  - The SSC recommends more careful separation of values used to determine scientific uncertainty vs management risk.
  - The SSC recommends maintaining the ability to consider susceptibility scores in their portion of the control rule given scientific uncertainty is the SSC's purview. The SSC would like an opportunity to re-evaluate the process being proposed to establish the P* and would appreciate a review presentation on how Action 1 Alternative 2 would be applied to establish the P*.
  - The language describing risk and uncertainty in the first column (low, medium, or high overfishing risk) of Table 4 under Action 1 Alternative 2 is ambiguous and

should be clarified. The SSC was unsure if the Council intends to use PSA for this or an alternative.

- Both assessment uncertainty and biological uncertainty need to be considered in establishing the P*.
- The document indicates there were plans for the SSC to review preliminary stock risk ratings at the Fall 2021 SSC meeting. The SSC requests that this be placed on the agenda for that meeting (if not before).

Action 2 Allow phase-in of acceptable biological catch changes

Sub-Action 2.1. Establish criteria specifying when phase-in is allowed.

Alternative 1 (No Action). Do not establish provisions to allow the phase-in of acceptable biological catch changes.

Alternative 2. Allow phase-in when a new acceptable biological catch is less than X%. Allow phase-in of increases to acceptable biological catch, as specified by the Council.

Option 1. X=60%

Option 2. X=70%

Option 3. X=80%

Alternative 3. Allow phase-in of increases to acceptable biological catch at any stock biomass level, as specified by the Council. Allow phase-in of decreases to acceptable biological catch only:

Option 1. if stock biomass exceeds the minimum stock size threshold.

Option 2. if the stock biomass is greater than the midpoint between the biomass that provides maximum sustainable yield and the minimum stock size threshold.

Sub-Action 2.2. Specify the approach for phase-in of acceptable biological catch changes.

Alternative 1 (No Action). No phase-in of acceptable biological catch changes is allowed.

Alternative 2. Phase-in acceptable biological catch decreases over no more than 3 years, as specified in **Table 6.** Acceptable biological catch increases may be phased-in as specified by the Council with advice from the SSC and AP.

Alternative 3. Phase-in acceptable biological catch decreases over no more than 2 years, as specified in **Table 6.** Acceptable biological catch increases may be phased-in as specified by the Council with advice from the SSC and AP.

Alternative 4. Phase-in acceptable biological catch decreases over 1 year, as specified in **Table 6.** Acceptable biological catch increases may be phased-in as specified by the Council with advice from the SSC and AP.

Table 6. Annual specifications for phase-in of decreases to acceptable biological catches over 3 years (**Sub-Action 2.2-Alternative 2**), 2 years (**Sub-Action 2.2-Alternative 3**), or 1 year (**Sub-Action 2.2-Alternative 4**).

Specifications for Phase-Ins Over			
	3 Years	**2 Years**	**1 Year**
Year 1	Modified acceptable biological catch may not exceed the overfishing limit.	Modified acceptable biological catch may not exceed the overfishing limit.	Modified acceptable biological catch may not exceed the overfishing limit.
Year 2	Modified acceptable biological catch may not exceed one-half the difference between the overfishing limit and the new acceptable	Modified acceptable biological catch may not exceed one-half the difference between the overfishing limit and the new acceptable	Acceptable biological catch is based on revised projections that account for the phase-in during year 1.

	biological catch recommendation.	biological catch recommendation.	
Year 3	Modified acceptable biological catch may not exceed the original recommended year 3 acceptable biological catch (based on the projections and analyses that triggered the phase-in).	Acceptable biological catch is based on revised projections that account for the phase-in during years 1 and 2.	
Subsequent Years	Acceptable biological catch is based on revised projections that account for the phase-in during years 1-3.		

Council Action:

- NONE NEEDED AT THIS TIME.

Action 3 Allow carry-over of unharvested portion of the annual catch limit

Sub-Action 3.1. Establish criteria specifying circumstances when unharvested portion of the sector ACL can be carried over from one year to increase the available harvest in the next year. Multiple alternatives and sub-alternatives may be selected under this Sub-Action.

Alternative 1 (No Action). Do not establish provisions to allow the carry-over of annual catch limits.

Alternative 2. Allow carry-over of the unharvested portion of a sector's annual catch limit if the stock status is known, the stock is neither overfished nor experiencing overfishing, an overfishing limit for the stock is defined, and

Sub-Alternative 2a. the stock biomass exceeds the midpoint between the B_{MSY} and MSST biomass levels (or proxies of these levels).

Sub-Alternative 2b. that fishery sector has experienced a regulatory closure due to landings being projected to exceed that sector's annual catch limit at least once in the previous 3 years.

Sub-Alternative 2c. the sum of total landings for all sectors over the previous 3 years is less than the sum of the total annual catch limits over those same years.

Alternative 3. Do not allow carry-over of the unharvested portion of the annual catch limit if

Sub-Alternative 3a. ABC decreases are being phased-in.

Sub-Alternative 3b. there is no in-season accountability measure in place for that stock and sector.

Sub-Action 3.2. Specify limits on how much of the unharvested portion of a sector annual catch limit may be carried over from one year to increase the sector annual catch limit in the next year.

Alternative 1 (No Action). No carry-over provisions are currently in place for the Snapper Grouper, Dolphin Wahoo, or Golden Crab Fishery Management Plans.

Alternative 2. Allow carry-over of the unharvested portion of a sector's annual catch limit. The acceptable biological catch and the total annual catch limit may be temporarily increased to allow this carry-over but may not exceed the overfishing limit or the total annual catch limit plus the carried over amount, whichever is less.

Multiple eligible sectors may use carry-over in the same year. Sector-specific amounts being carried over will be allocated entirely to the sector from which they came unless the sum of the specified total annual catch limit and all sector-specific amounts that could be carried over exceeds the overfishing limit. If the sum of the specified total annual catch limit and all sector-specific amounts that could be carried over exceeds the overfishing limit, the difference between the temporary acceptable biological catch and the specified total annual catch limit will be allocated according to sector allocation percentages defined in the fishery management plan.

Alternative 3. Allow carry-over of the unharvested portion of a stock's annual catch limit. The acceptable biological catch may be temporarily increased to allow this carry-over but may not exceed the overfishing limit, the total annual catch limit plus the carried

over amount, or the total annual catch limit plus 25% of the sector annual catch limit, whichever is least.

Multiple eligible sectors may use carry-over in the same year. Sector-specific amounts being carried over will be allocated entirely to the sector from which they came unless the sum of the specified total annual catch limit and all sector-specific amounts that could be carried over exceeds the overfishing limit. If the sum of the specified total annual catch limit and all sector-specific amounts that could be carried over exceeds the overfishing limit, the difference between the temporary acceptable biological catch and the specified total annual catch limit will be allocated according to sector allocation percentages defined in the fishery management plan.

DISCUSSION:

This action addresses flexibility allowed under the revised National Standard 1 Guidelines. Carry-over that does not exceed the original ABC can be accommodated under existing rules, using the buffer that exists between the ACL and ABC. However, for many Council stocks, ACL=ABC, so there is no buffer available. Per the National Standard 1 guidance, an ABC CR may include provisions to increase the ABC in the next year to address an ACL underage.

Relevant National Standard 1 guidance:

> *Carry-over ABC control rules. An ABC control rule may include provisions for the carry-over of some of the unused portion of an ACL (i.e., an ACL underage) from one year to increase the ABC for the next year, based on the increased stock abundance resulting from the fishery harvesting less than the full ACL. The resulting ABC recommended by the SSC must prevent overfishing and must consider scientific uncertainty consistent with the Council's risk policy. Carry-over provisions could also allow an ACL to be adjusted upwards as long as the revised ACL does not exceed the specified ABC. When considering whether to use a carry-over provision, Councils should consider the likely reason for the ACL underage. ACL underages that result from management uncertainty (e.g., premature fishery closure) may be appropriate circumstances for considering a carry-over provision. ACL underages that occur as a result of poor or unknown stock status may not be appropriate to consider in a carry-over provision. In addition, the Councils should evaluate the appropriateness of carry-over provisions for stocks that are overfished and/or rebuilding, as the overriding goal for such stocks is to rebuild them in as short a time as possible.*

- The overall purpose of this action is to develop criteria to guide when carry-over can be allowed while preventing overfishing, and develop an efficient process that would accommodate temporary increases in an ABC to support carry-over. Overfishing is prevented as long as the revised ABC stays below OFL, so no increased ABC due to carry-over can exceed the annual OFL.
- The National Standard 1 guidance addressing carry-over allowances indicates that Councils must state in their FMP when carry-over can and cannot be used.

- **Sub-Action 3.1** provides guidance on circumstances when carry-over would be allowed (though not required). Multiple alternatives and sub-alternatives under this Sub-Action could be selected and combined.
  - Under **Sub-Action 3.1-Alternative 1**, no carry-over would be allowed.
  - **Sub-Action 3.1-Alternative 2** addresses criteria defining eligibility for carry-over. Eligibility would be evaluated for an individual stock and individual sector that has a specified ACL. The base criteria carry-over eligibility are that the stock is not overfished (B>MSST), overfishing is not occurring (F<MFMT), and the stock's OFL is defined. Additional criteria are considered through sub-alternatives.
    - **Sub-Action 3.1-Sub-Alternative 2a** requires that the stock's biomass be above a more conservative threshold than MSST, the midpoint between MSST and B_{MSY}.
    - **Sub-Action 3.1-Sub-Alternative 2b** addresses carry-over following catch-based regulatory closures for an individual fishery sector. A sector must have experienced a catch-based regulatory closure during the prior 3 years to be considered eligible for carry-over. The amount that may be carried over would still be determined from the unused ACL in the immediately preceding year, as specified by **Sub-Action 3.2**.
    - **Sub-Action 3.1-Sub-Alternative 2c** bases eligibility on landings history over the entire fishery (all sectors) during the prior 3 years. The sum of all landings during the prior 3 years must be less than the sum of the total ACLs in effect during the same time period. If different sector ACLs are specified in different catch units (e.g., one in pounds and another in numbers), landings will be converted and evaluated using the units used to specify ABC.
  - **Sub-Action 3.1-Alternative 3** considers management conditions that would disallow use of carry-overs, even if criteria defined by **Alternative 2** are fulfilled.
    - Under **Sub-Action 3.1-Alternative 3a**, carry-over would not be allowed when an ABC decrease is being phased in.
    - Under **Sub-Action 3.1-Alternative 3a**, carry-over would not be allowed for a stock and sector that does not have in-season accountability measures.
- **Sub-Action 3.2** addresses the amount of unused ACL that can be carried over.
  - Carry-over would be applied on a sector-by-sector basis, and the amount that may be carried over may not exceed the amount of unused sector ACL in the prior year.
  - Unharvested portions of the sector ACL will be evaluated using the same units of measurement (e.g., weight or numbers) used to specify catch limits for the sector. If necessary, carried over amounts will be converted to the same unit as the ABC to calculate the temporary revised ABC and compare to the OFL.
  - **Sub-Action 3.2-Alternative 1** would not allow carry-over.
  - Under **Sub-Action 3.2-Alternatives 2** and **3**:
    - An ABC may be temporarily revised to allow a sector ACL increase that would accommodate the carried over amount. The sum of the sector ACLs (total ACL) may not exceed the revised ABC.
    - Carry-overs are sector-specific, thus if only one sector is carrying over unused ACL, the carried-over amount is allocated completely to that sector, subject to limitations defined in **Alternatives 2** and **3**.
    - If more than one sector is carrying over unused ACL in the same year, each sector's carry-over amount will be completely allocated to the sector from which

it was derived unless the sum of all carry-over amounts plus the specified total ACL is greater than the OFL. In this case, the difference between the temporary revised ABC and the specified total ACL will be allocated using sector allocation percentages specified by the FMP.
        - A revised sector ACL and revised ABC would remain in place for the remainder of the current fishing year. At the end of the fishing year, the sector ACL and ABC will return to the values specified by the FMP.
        - Evaluations of carry-over amounts for future years would be based on the ABC and sector ACLs specified by the FMP, not the temporarily revised values.
        - Further specifications are defined under each of these alternatives.
    - Under **Sub-Action 3.2-Alternative 2**, a temporarily revised ABC may not exceed the OFL.
        - The OFL places an upper limit on the amount of unused ACL that may be carried over. The carried over amount cannot exceed the difference between the OFL and the specified total ACL.
    - Under **Sub-Action 3.2-Alternative 3**, a temporarily revised ABC may not exceed the OFL. A temporarily revised ABC also may not exceed the total ACL plus 25% of the sector ACL for the sector carrying over.
        - This sub-alternative includes an additional limitation on the amount that may be carried over, making it potentially more conservative than **Alternative 2**.

IPT Comments

- Previous drafts have included alternatives defining parameters for amounts that stocks without a defined OFL may carry over, based on percentages of the specified ABC. However, IPT-drafted language for **Sub-Action 3.1** requires a defined OFL. If the Council requires a defined OFL for a stock to be eligible for carry-over, alternatives defining carry-over amounts for stocks without a defined OFL would not be needed.

- The IPT recommends removing **Sub-Action 3.2-Alternative 3**, as this may be unnecessarily complicated for South Atlantic species. For most species, especially those for which the total ACL equals the ABC, the OFL will often be similar to or lower than the total ACL plus 25% of the sector ACL. Therefore, the total ACL plus 25% of the sector ACL upper limit could be applied only infrequently, if at all. **Sub-Action 3.2-Alternative 2**, specifies OFL as the upper limit of total ACL plus carried over amounts, in line NMFS technical guidance.

Council Action:

- DISCUSS **ACTION 3**, ITS SUB-ACTIONS, AND ITS ALTERNATIVES AND MODIFY IF NEEDED.
- CONSIDER THE IPT'S COMMENT AND DRAFTED ALTERNATIVES FOR **SUB-ACTION 3.1** (CARRY-OVER ELIGIBILITY). CONSIDER WHETHER ANY OF THE CURRENT ALTERNATIVES SHOULD BE REMOVED FROM FURTHER CONSIDERATION TO REDUCE ADMINISTRATIVE AND ANALYTICAL BURDEN.
- CONSIDER THE IPT'S RECOMMENDATION TO REMOVE **SUB-ACTION 3.2-ALTERNATIVE 3**.

SSC Recommendations:

- The SSC supported this action if applied to stocks that are neither overfished nor overfishing, and have catch close to the ACL.
- The SSC commented that species' biology is a factor, and the stock consequences of carry-over will differ between short-lived and long-lived stocks.
- The SSC recommended requesting updated stock projections to evaluate carry-over and to provide a basis for ABC recommendations in years after carry-over occurs.
- The SSC recommended considering the precision of catch estimates when allowing carry-over of a percentage of the ACL (**Sub-Action 3.2-Alternative 3**).
- The SSC recommended adding a terms of reference to future assessment reviews and ABC recommendations addressing whether carry-over should be allowed for a stock. The SSC could then consider the stock's condition and trend, past management and fishery trends, and recommended whether carry-over would result in an unacceptable risk of overfishing during the period covered by the ABC recommendation.
- The SSC recommended considering the B_{MSY}-MSST midpoint as a threshold for carry-over. Carry-over would not be allowed if the stock biomass is below the midpoint (or estimated to fall below the midpoint during the period covered by the ABC recommendation).

<u>New SSC Feedback from April 2021</u>

- A simpler process than what has been proposed would be to have a buffer between the ABC and the ACL. This would enable the Council to act without requiring the SSC to meet and consider a temporary ABC revision. The SSC recognizes, though, that adding or expanding a buffer may be problematic because it will increase the likelihood of exceeding the ACL.
- The SSC is concerned that the proposed process will take too long to be effective. Consider that data indicating an underage in Year 1 would not be available until partway through Year 2. At that point, for a species without a buffer, the Council would have to request the SSC consider a temporary increase in the ABC. The SSC would have to then meet, review new projections provided by the SEFSC, and approve the new ABC. That new ABC would then need to be reviewed and acted upon by the Council in order to increase the ACL. At this point in the process, Year 2 may be mostly over.
- Timeliness of stock assessment advice might not be adequate for this new process.
- The SSC agreed with NMFS Guidance on Carry-Overs (pdf page 33).
- If carry-overs are allowed in situations for which species distribution changes have occurred, this may lead to localized depletion.
- Changing the ACL/ABC may increase the uncertainty in stock projections. For complexes where bycatch is an issue, this may create greater uncertainty in other species and their projections and assessments.
- Council should look to the Center for more information on how best to include the PSE into projections provided to the SSC for any carry-over request given this may vary from stock to stock due to differences among stocks with regards to productivity, generation time, stock assessment frequency, etc.

- If catch PSE is high, it may be difficult to determine whether an underage has actually occurred. To be confident that an underage occurred, estimated catch should be more than two standard deviations below the ACL. To thoroughly address this question, though, a formal analysis of projection methodologies and their associated assumptions used to set ABC/ACLs would need to be conducted that involved the Center.

Action 4 Modify framework procedures for the Snapper Grouper, Dolphin Wahoo, and Golden Crab FMPs

NOTE: Action 4 was tentatively added to this amendment to address implementation of carry-overs, address in previous versions through **Sub-Action 3.3**. This approach was taken to more specifically define the process of carry-over implementation within the FMPs' framework procedures.

Sub-Action 4.1. Modify Section I of the Snapper Grouper Framework Procedure to include a closed framework process to approve carry-overs.

Alternative 1 (No Action). Do not modify the Snapper Grouper Fishery Management Plan framework procedure.

Alternative 2. Modify the Snapper Grouper Fishery Management Plan framework procedure by adding the following language to Section I:

Temporary adjustments to ABCs and ACLs that would allow carry-over of unused amounts of a sector ACL, according to the existing ABC Control Rule(s) and ACLs that have been approved by the Council and that were implemented in an amendment to the FMP, may be made through a closed framework procedure. This process is authorized as follows:

a. Following the conclusion of the fishing year, the Council will consider the need for and benefits of carry-over for eligible stocks with unused ACL during a scheduled Council meeting, potentially using preliminary landings estimates.
b. If the Council decides carry-over would be beneficial to a fishery and would not result in overfishing, it will send a letter to the Regional Administrator (RA) notifying the RA of the recommendation for carry-over. The letter will include the Council's analysis of the relevant biological, economic, and social information necessary to meet the criteria and guidance of the existing ABC Control Rule and support the Council's request.
    i. To expedite availability of potential carry-over justification, a Term of Reference will be added for stock assessments to project the amount of landings beyond the ABC that could be carried over in one year while not resulting in overfishing nor the stock becoming overfished within the projection period.
c. The RA will review the Council's recommendations and supporting information. If the RA concurs that the Council's recommendations are consistent with the objectives of the FMP, the MSA, and all other applicable law, the RA is authorized to implement the Council's proposed action through publication of appropriate notification in the *Federal Register*, providing appropriate time for additional public comment as necessary.
d. If the Council chooses to deviate from the criteria and guidance of the ABC control rule that the Council previously approved and that was implemented in a fishery management plan amendment to the FMP, this abbreviated process would not apply.

Sub-Action 4.2. Modify the Dolphin Wahoo Fishery Management Plan framework procedure to include a closed framework process to approve carry-overs.

Alternative 1 (No Action). Do not modify the Dolphin Wahoo Fishery Management Plan framework procedure.

Alternative 2. Modify the Dolphin Wahoo Fishery Management Plan framework procedure by adding the following language:

Temporary adjustments to ABCs and ACLs that would allow carry-over of unused amounts of a sector ACL, according to the existing ABC Control Rule(s) and ACLs that have been approved by the Council and that were implemented in an amendment to the FMP, may be made through a closed framework procedure. This process is authorized as follows:

a. Following the conclusion of the fishing year, the Council will consider the need for and benefits of carry-over for eligible stocks with unused ACL during a scheduled Council meeting, potentially using preliminary landings estimates.
b. If the Council decides carry-over would be beneficial to a fishery and would not result in overfishing, it will send a letter to the Regional Administrator (RA) notifying the RA of the recommendation for carry-over. The letter will include the Council's analysis of the relevant biological, economic, and social information necessary to meet the criteria and guidance of the existing ABC Control Rule and support the Council's request.
    i. To expedite availability of potential carry-over justification, a Term of Reference will be added for stock assessments to project the amount of landings beyond the ABC that could be carried over in one year while not resulting in overfishing nor the stock becoming overfished within the projection period.
c. The RA will review the Council's recommendations and supporting information. If the RA concurs that the Council's recommendations are consistent with the objectives of the FMP, the MSA, and all other applicable law, the RA is authorized to implement the Council's proposed action through publication of appropriate notification in the *Federal Register*, providing appropriate time for additional public comment as necessary.
d. If the Council chooses to deviate from criteria and guidance of the ABC control rule that the Council previously approved and that was implemented in a fishery management plan amendment to the FMP, this abbreviated process would not apply.

Sub-Action 4.3. Modify the Golden Crab Fishery Management Plan framework procedure to include a closed framework process to approve carry-overs.

Alternative 1 (No Action). Do not modify the Golden Crab Fishery Management Plan framework procedure.

Alternative 2. Modify the Golden Crab Fishery Management Plan framework procedure by adding the following language:

Temporary adjustments to ABCs and ACLs that would allow carry-over of unused amounts of a sector ACL, according to the existing ABC Control Rule(s) and ACLs that have been approved by the Council and that were implemented in an amendment to the FMP, may be made through a closed framework procedure. This process is authorized as follows:

a. Following the conclusion of the fishing year, the Council will consider the need for and benefits of carry-over for eligible stocks with unused ACL during a scheduled Council meeting, potentially using preliminary landings estimates.
b. If the Council decides carry-over would be beneficial to a fishery and would not result in overfishing, it will send a letter to the Regional Administrator (RA) notifying the RA of the recommendation for carry-over. The letter will include the Council's analysis of the relevant biological, economic, and social information necessary to meet the criteria and guidance of the existing ABC Control Rule and support the Council's request.
    ii. To expedite availability of potential carry-over justification, a Term of Reference will be added for stock assessments to project the amount of landings beyond the ABC that could be carried over in one year while not resulting in overfishing nor the stock becoming overfished within the projection period.
c. The RA will review the Council's recommendations and supporting information. If the RA concurs that the Council's recommendations are consistent with the objectives of the FMP, the MSA, and all other applicable law, the RA is authorized to implement the Council's proposed action through publication of appropriate notification in the *Federal Register*, providing appropriate time for additional public comment as necessary.
d. If the Council chooses to deviate from criteria and guidance of the ABC control rule that the Council previously approved and that was implemented in a fishery management plan amendment to the FMP, this abbreviated process would not apply.

- **Action 4** addresses the process by which catch limits would be temporarily adjusted to accommodate carry-over. This process would be incorporated into the framework procedures for each of the Snapper Grouper, Dolphin Wahoo, and Golden Crab FMPs.
- Under existing procedures, the Council could ask the SSC to consider recommending a temporary, higher ABC to accommodate carry-over. This approach is not particularly efficient, given the timing of Council and SSC meetings and the need to implement carry-overs within a fishing year based on landings from the previous year.
- Under **Alternative 2** in **Sub-Actions 4.1-4.3**, temporary adjustments to ABCs and ACLs to accommodate carry-overs would occur through a closed framework procedure that does not require additional public comment, apart from the public comment at the Council meeting, or additional SSC input, provided that the adjustments are consistent with current ABC and OFL recommendations, as well as carry-over guidance from the ABC Control Rule (**Action 3** of this amendment).
    - Under this procedure, the Council could review landings (or preliminary landings) from the previous year, determine eligibility and need for carry-over, and request that carry-over be implemented in the current fishing year within a Council meeting.

- If the RA approves the carry-over, the ACLs would be updated to reflect the temporary levels during that fishing year.

Council Action:

- CONSIDER ADDITION OF **ACTION 4** AS THE IMPLEMENTATION METHOD FOR CARRY-OVERS, REPLACING PREVIOUS SUB-ACTION 3.3.
- DISCUSS **ACTION 4**, ITS SUB-ACTIONS, AND ITS ALTERNATIVES AND MODIFY IF NEEDED.

Appendix 1.

Stock Risk Rating Summary

Action 1-Alternative 2 proposes determination of a stock risk rating to inform the South Atlantic Fishery Management Council (Council) when setting its risk tolerance for a stock. The Council Scientific and Statistical Committee (SSC) has developed an evaluation method for these ratings based on information currently used in the Productivity and Susceptibility Analysis, but also incorporating socio-economic and environmental attributes. Stock risk ratings are evaluated with respect to three types of attributes: Biological, Human Dimension, and Environmental. Within each type, are specific attributes that can inform risk of overfishing:

- Biological:
  - Estimated natural mortality
  - Age at maturity
- Human Dimension:
  - Ability to regulate fishery
  - Potential for discard losses
  - Annual commercial value
  - Recreational desirability
  - Social concerns
- Environmental:
  - Ecosystem importance
  - Climate change
  - Other environmental variables

After specific attributes are evaluated on a scale of high (1), medium (2), or low (3) risk, ratings will be averaged by type, and ratings for each type will be averaged for an overall stock risk rating. The SSC has had preliminary discussions on how ratings for each type will be averaged (weighting or not, how to handle missing values, etc.) as well as how thresholds for overall ratings should be determined. The SSC will revisit these in an upcoming meeting.