Comprehensive ABC Control Rule Amendment

Revisions to the Acceptable Biological Catch Control Rule and Specifications for Carry-Overs and Phase-Ins for the Dolphin Wahoo, Golden Crab, and Snapper Grouper Fishery Management Plans

Joint Advisory Panel Discussion Document

August 2022

This Discussion Document summarizes the South Atlantic Fishery Management Council's (Council) Acceptable Biological Catch Control Rule Amendment. For more information, including the most recent amendment document, please visit the amendment page on the Council's website.

Background

The South Atlantic Fishery Management Council (Council)'s Scientific and Statistical Committee (SSC) developed an acceptable biological catch (ABC) control rule (CR) in 2008. The ABC CR defines how scientific uncertainty and the Council's risk tolerance are addressed in determining the SSC's fishing level recommendations.

The current ABC CR for the Dolphin Wahoo and Golden Crab Fishery Management Plans (FMP) was implemented by the Council through the Comprehensive Annual Catch Limit (ACL) Amendment (2012). The most recent revision of the ABC CR for the Snapper Grouper FMP was through Snapper Grouper Amendment 29 (2015).

In applying the ABC CRs 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.

What is this amendment doing?

This amendment is considering changes to the South Atlantic Council's ABC CRs for its Dolphin Wahoo, Golden Crab, and Snapper Grouper FMPs (Action 1) that would: 1) adjust how the SSC can evaluate and use uncertainty of an assessment in estimating ABC, 2) have the Council more involved in the process of determining acceptable risk of overfishing (P*) that would be applied to estimate ABC, and 3) expand the process for setting ABC for unassessed stocks to be more thorough and include a broader suite of usable methods.

This amendment also considers adding the ability to phase in ABC changes over multiple years (Action 2) and allow carry-over of unharvested portions of ACLs to subsequent years (Actions 3 and 4) to the ABC control rules. These changes would allow additional management flexibility in certain situations. The actions considered for phase-ins and carry-overs would define when and how these management tools may be used.

Changes in the ABC CR are being considered because the Council and SSC have determined that the current CR does not sufficiently address differences in uncertainty levels across assessments, does not adequately accommodate scientific advances in data limited assessment methods and uncertainty evaluation, and confounds the Council and SSC roles in addressing risk and uncertainty. Additionally, the CR needs to be updated to allow the Council to apply 2016 revised guidelines for 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.

What do we get from stock assessments?

Stock assessments typically provide two important types of information for management: 1) The current state of the population and exploitation (i.e., how large is the population relative to how large it should be to support fishing activities, and is the exploitation rate sustainable), and 2) Projections of the future state of the population for various exploitation levels (how would the population be expected to change under various management choices). To accomplish these goals, assessment analysts gather different types of information on the stock and analyze them through population models. Most models rely heavily on fishery catch information, the biological traits of that catch, and independent measures of population abundance. Assessments are also required to address uncertainty in both the inputs and the model estimates. While uncertainty can be evaluated and expressed in many ways, the outcomes of concern to

management primarily relate to stock size and exploitation, such as: What is the probability that the current biomass of the stock is greater than 1 million pounds?" or "If 3,000 fish are harvested next year, what is the probability of the fishing mortality rate exceeding the rate that would provide maximum sustainable yield"

What is overfishing and an OFL?

Overfishing as defined by the Magnuson Stevens Act (MSA) occurs when the rate of exploitation (F, or fishing mortality) is greater than the rate that provides the maximum sustainable yield (MSY, or the largest long-term average catch that can be taken from a stock under current conditions). Overfishing also occurs if the catch in a year exceeds the catch limit. The overfishing limit (OFL), also specified by the MSA, is the estimated total amount of fish that can be removed from the stock given the current stock abundance and the fishing mortality rate that would provide MSY. OFL is an annual value that can be expressed in numbers or weight of fish.

What is an ABC and how is it derived?

Acceptable biological catch (ABC) is the amount of fish that can be removed from a population after accounting for uncertainty and the Council's risk tolerance. ABC must be less than or equal to OFL. ABC is derived by applying the control rule to determine how much buffer (or reduction from the OFL) is necessary to provide an acceptable risk of overfishing. Higher levels of uncertainty and lower levels of tolerance that overfishing will occur result in greater buffers between OFL and ABC and lower ABC levels. The key components of the ABC control rule are uncertainty and risk. The control rule is developed by the Council and the SSC to define how those components are evaluated to determine ABC.

As noted above, uncertainty is an important stock assessment output. The SSC is responsible for evaluating uncertainty and considering it when applying the ABC control rule. Uncertainty can be reported as statistical metrics such as a standard error and coefficient of variation, and also expressed by probability distributions. Assessments are not available for all the stocks managed by the SAFMC, so the control rule must allow for flexibility in the information used to establish catch levels and evaluate uncertainty. These alternative approaches are often referred to as "data-limited methods."

Risk specification is the responsibility of the Council, and is based on the Council's tolerance for overfishing occurring. Per the MSA, the risk of overfishing must be lower than 50%. In the South Atlantic, the accepted risk or probability of overfishing occurring that is used to estimate ABC is denoted as "P*". Evaluating risk involves considering characteristics of the species, the stock, and the fishery.

The MSA defines how OFL, ABC, and total ACL relate to one another (Figure 1). ABC must be less than or equal to OFL, with the buffer or difference between these two values accounting for scientific or assessment uncertainty. Total ACL must be less than or equal to ABC, with the difference between the two accounting for uncertainty about management's and the fishery's ability to harvest each year at or below ABC.

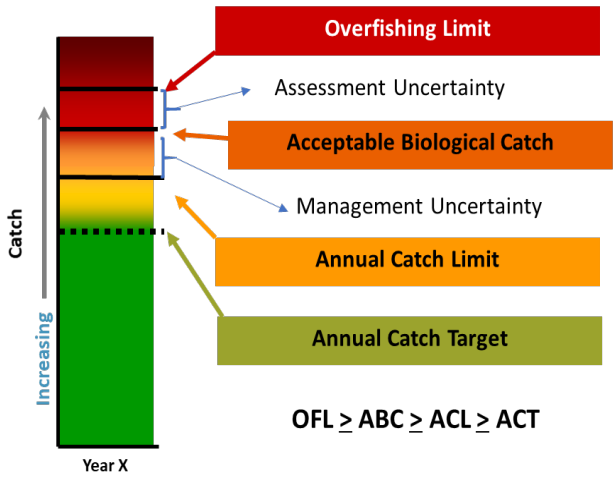

Figure 1. Illustrated general relationship between OFL, ABC, ACL, and Annual Catch Target (ACT). The difference between OFL and ABC addresses assessment uncertainty, while the difference between ABC and ACL addresses management uncertainty.

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 additional SSC input and updated action/alternative language and provides guidance for further development	March 2022
Approval for public hearings	June 2022
Public hearings, review of public comment, and approve all actions/alternatives	**September 2022**
Final action to approve for secretarial review	December 2022

Fishery Management Plans modified by this Comprehensive Amendment

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

Proposed Actions and Alternatives

Action 1. Modify the Acceptable Biological Catch Control Rule

NOTE: Current ABC values will not change for any species through actions in this amendment. Rather, the new control rule will be prospectively applied through future management actions related to setting catch limits.

Purpose of Action: Changes to the ABC control rule are being considered to clarify responsibilities of the Council and SSC in developing risk and uncertainty components, revise methods for evaluating risk and uncertainty to develop ABCs (including the process used for unassessed stock ABCs), and clarify the use of rebuilding plans to develop ABCs for overfished stocks.

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. Multiple sub-alternatives may be added to alternatives, and sub-alternatives are not mutually exclusive.

Alternative 1 (No Action).

- **Control Rule:** Table 1
- **Risk Tolerance:** The accepted risk of overfishing is determined by the acceptable biological catch criteria evaluated by the Scientific and Statistical Committee.
- **Overfished Stocks:** Standard application of the acceptable biological catch control rule to overfished stocks undergoing rebuilding is not specified.

Preferred Alternative 2.

- **Control Rule:** Table 2
- **Risk Tolerance:** The Council will specify the risk tolerance based on the stock biomass level and a stock risk rating. Default P* levels according to stock biomass levels and stock risk ratings are defined in Table 3.
- **Overfished Stocks:** For overfished stocks, the Council will specify a stock rebuilding plan, considering recommendations from the Scientific and Statistical Committee and fishery management plan advisory panel, which will determine the acceptable biological catch while the rebuilding plan is in effect. Per requirements of the Magnuson-Stevens Act, the probability of success for rebuilding plans (1-P*) 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 Scientific and Statistical Committee or other expert advisors. Risk tolerance may not exceed 50%.

Sub-Alternative 2c. 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.

- **Control Rule:** Table 4
- **Risk Tolerance:** Adjusted level/tier structure with similar terminology. 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 Scientific and Statistical Committee and fishery management plan's advisory panel. This initial P* will be reduced according to adjustments defined in Tiers 1 (Assessment Information) and 2 (Uncertainty Characterization). 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 Scientific and Statistical Committee and fishery management plan's advisory panel, that will determine the acceptable biological catch while the rebuilding plan is in effect. Per requirements of the Magnuson-Stevens Act, the probability of success for rebuilding plans (1-P*) 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 overfishing limit (OFL) and ABC under the ABC CR. 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 CR). To derive ABC for a rebuilding plan, the probability of rebuilding (1-P*) must be 50% or greater.

All Action 1 alternatives would maintain these methods for deriving ABC using P* and OFL. Alternatives consider different approaches and responsibilities for characterizing scientific uncertainty in various scenarios and deriving P* (accepted management risk).

What are some of the differences between Alternatives?

Alternative 1 vs. Preferred Alternative 2

- Different structure and terminology for each.
- Under **Alternative 1**, P* is determined by the SSC based on the quality of information included in the assessment, uncertainty characterization, stock status, and risk characterized by the Productivity and Susceptibility Analysis (PSA). Under **Preferred**

Alternative 2, the Council develops a stock risk rating**,** which is a scoring system similar to and based on the PSA, but with the addition of social, economic, and environmental factors, in consultation with the SSC and advisory panel (AP). Then, P* is derived based on relative biomass and stock risk rating.

- **Preferred Alternative 2** allows the SSC to adjust or derive the uncertainty of stock assessment results when deemed appropriate, while **Alternative 1** requires use of the uncertainty as estimated by the stock assessment.
- **Preferred Alternative 2** specifies that ABC for overfished stocks will be determined according to a rebuilding plan with a probability of success (1-P*) of at least 50%. **Alternative 1** does not specify how ABC for overfished stocks should be determined (although common practice is for ABC for overfished stocks to come from the rebuilding plan).
- **Alternative 1** restricts data-limited methods that can be used to determine ABC for unassessed stocks to Depletion-Based Stock Reduction Analysis (DBSRA), Depletion-Corrected Average Catch (DCAC), Only Reliable Catch Stocks (ORCS; Snapper Grouper FMP only), or a decision tree. **Preferred Alternative 2** establishes a standing SSC work group that will evaluate ABC for each unassessed stock or complex, and gives the SSC discretion to use the data-limited method they deem most appropriate, provided adequate description and rationale.

Alternative 1 vs. Alternative 3

- Under **Alternative 1**, 4 (Dolphin Wahoo and Golden Crab) or 5 (Snapper Grouper) levels defining different levels of assessment and methods for developing ABC. Under **Alternative 3**, there would be two levels: assessed stocks and unassessed stocks.
- Under **Alternative 3**, Tiers 3 (Stock Status) and 4 (PSA) of Level 1 would be deleted. Additionally, in Tier 1 (Assessment Information), classifications 4 (reliable catch history only) and 5 (unreliable catch records) would be deleted and the 10% potential adjustment for that tier would be redistributed among the remaining 3 tiers. The SSC recommended this change as stocks with only catch information or unreliable catch information could not be fully assessed and would have to be evaluated using data-limited methods (Level 2 under **Alternative 3**).
- Under **Alternative 1**, the SSC reduces P* of Level 1 stocks from an initial value of 50% according to the adjustments defined in each of the 4 Tiers. Under **Alternative 3**, the Council will specify an initial P* between 30% and 50%, considering advice from the Scientific and Statistical Committee and fishery management plan's advisory panel. This initial P* will be reduced according to adjustments defined in Tiers 1 (Assessment Information) and 2 (Uncertainty Characterization).
- **Alternative 3** specifies that ABC for overfished stocks will be determined according to a rebuilding plan with a probability of success (1-P*) of at least 50%. **Alternative 1** does not specify how ABC for overfished stocks should be determined (although common practice is for ABC for overfished stocks to come from the rebuilding plan).
- **Alternative 1** restricts data-limited methods that can be used to determine ABC for unassessed stocks to DBSRA, DCAC, ORCS (Snapper Grouper FMP only), or a decision tree. **Alternative 3** establishes a standing SSC work group that will evaluate ABC for each unassessed stock or complex, and gives the SSC discretion to use the data-limited method they deem most appropriate, provided adequate description and rationale.

Preferred Alternative 2 vs. Alternative 3

- Different structure and terminology for each. Under **Preferred Alternative 2**, four categories of stock assessments (or lack thereof) based on how well uncertainty is estimated. Under **Alternative 3**, two levels of stock assessments (or lack thereof): assessed and unassessed.
- Under **Preferred Alternative 2**, the Council develops a stock risk rating in consultation with the SSC and AP. Then, P* is derived based on relative biomass and stock risk rating. Under **Alternative 3**, the Council will specify an initial P* between 30% and 50%, considering advice from the SSC and AP. This initial P* will be reduced according to adjustments defined in Tiers 1 (Assessment Information) and 2 (Uncertainty Characterization).
- **Preferred Alternative 2** allows the SSC to adjust or derive the uncertainty of stock assessment results when deemed appropriate, while **Alternative 3** requires use of the uncertainty as estimated by the stock assessment.
- **Preferred Alternative 2** overtly includes stock and fishery characteristics through the stock risk rating and uses them to determine P*. **Alternative 3** does not specify a process for determining initial P*.

Alternative 1 (No Action)

Alternative 1 (No Action) maintains the current control rules set in place for the Dolphin Wahoo FMP and Golden Crab FMP through the Comprehensive Annual Catch Limit Amendment (SAFMC 2011) and Amendment 29 to the Snapper Grouper FMP.

These control rules are described below:

Level 1 – Assessed Stocks

Accepted probability of overfishing (P*) initially set at 50%. Adjustments shown in Table 1 are subtracted from this initial value.

Table 1. Level 1 (Assessed Stocks) of the current acceptable biological catch control rule Dolphin Wahoo, Golden Crab, and Snapper Grouper Fishery Management Plans (FMP). Parenthetical values indicate (1) the maximum adjustment value for a dimension; and (2) the adjustment values for each tier within a dimension.

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 $FR_{MSY}R$ 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 (Snapper Grouper FMP Only) – 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 4 (Dolphin Wahoo and Golden Crab FMPs)/Level 5 (Snapper Grouper FMP) – 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- Preferred Alternative 2

Under **Preferred 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 (Table 2). If an OFL cannot be estimated, the SSC will derive the ABC directly.

Table 2. Acceptable biological catch control rule proposed in Action 1- Preferred Alternative 2 for the Dolphin Wahoo, Golden Crab, and Snapper Grouper Fishery Management Plans.

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 (https://safmc.net/wp-content/uploads/2022/05/SSC_May_2021_Report_with_Appendices.pdf). 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.

Note: 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. As part of the SSC's guidance on deviating from the ABC control rule, a recurring situation when this would be used is in developing ABC for an inter-regionally assessed stock (e.g. yellowtail snapper). For such stocks, the SSCs of all managing regions will cooperatively decide which control rule would be applied to develop ABC. The ABC recommendation to the South Atlantic Council would be the result of the cooperatively agreed upon control rule, including regional allocations as applicable.

For **Preferred Alternative 2**, the Council, with advice from the SSC and AP, will evaluate management risk for each stock through a stock risk rating. Stock risk ratings include information currently used in the PSA, but also incorporate socio-economic and environmental attributes. 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 (P*) for each stock.

The stock risk rating and stock biomass would be used together to derive P*, according to Table 3. 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 from a stock assessment.

Table 3. Summary table of default risk tolerance (P*) levels based on stock risk ratings and relative biomass levels, proposed in Action 1- Preferred Alternative 2.

Stock Risk Rating	**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%

ABC includes both components of scientific uncertainty and management risk tolerance. Under **Preferred Alternative 2**, 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 about OFL) determined by the SSC. 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 about OFL) determined by the SSC.

Steps for Stock Risk Rating Use for Assessed Stocks under **Preferred Alternative 2**
Before an Operational Assessment:

- SSC and AP recommend risk levels for attributes that contribute to the stock risk rating to the Council. The most current attribute ratings and overall stock risk rating will be shown and feedback will be requested on whether any changes are necessary to depict the current state of the stock and fishery.
    - Preliminary stock risk ratings are in Appendix F of the amendment. Preliminary recommendations will be used to inform future risk determinations but will not impact ABCs that are already in place.
    - Estimates for biological attributes, including natural mortality and age at maturity, should be available from the most recent research track assessment. These values typically would not change prior to the operational assessment, but additional

Council review of changes to these values and effects on the overall risk rating can be accommodated on a case-by-case basis.
    - AP input can be gathered as part of Fishery Performance Reports conducted before each assessment.
- The Council reviews SSC and AP recommendations and determines the stock risk rating.

During an Operational Assessment:

- P* will be derived using an estimate of relative biomass and the Council's stock risk rating, according to Table 3.
- Projection analyses will be run using P*=50% and the P* value defined by Table 3 to derive estimates of OFL and ABC.

Stock Risk Ratings and ABC Recommendations for Unassessed Stocks (Category 4)

- If **Preferred Alternative 2** is implemented, the SSC will work through groups of unassessed stocks to determine ABC recommendations.
- Prior to the SSC developing an ABC recommendation for a group of unassessed stocks, the SSC and AP will provide input on stock risk rating attributes and the Council will determine stock risk rating, as described for assessed stocks, without the benefit of the same level of biological information on the stock.
- When possible, OFL will be defined and the ABC control rule will applied to the OFL and its distribution, as described for assessed stocks. However, in cases where OFL cannot be defined and the SSC recommends ABC directly, the SSC will describe in their report how they considered the Council's stock risk rating in developing their recommendations.

Preferred Alternative 2 Sub-Alternatives

Preferred Alternative 2 can include one or more sub-alternatives. **Sub-Alternative 2a** would increase the relative biomass thresholds used to determine P* (see Table 3). A stock's biomass would need to be greater than the midpoint between 110% B_{MSY} and the minimum stock size threshold (MSST) to be considered "moderate" and would need to be greater than 110% B_{MSY} to be considered "high biomass". Use of greater thresholds to qualify for greater P* can have conservation benefits for the stock but lessens the probability of a higher ABC.

Sub-Alternative 2b would give the Council added flexibility, allowing them to deviate from the default P* levels (Table 3) by up to 10%, provided that P* does not exceed 50%. This could increase or decrease ABC, depending on the stock and information supporting deviation. However, any increase in ABC would still be constrained by the recommended OFL.

Sub-Alternative 2c would allow the Council to request that the SSC recommend ABC under two scenarios: as a constant value for 5 years and as individual annual values for 5 years. Recent amendments have considered constant catch levels at the request of stakeholders and advisers seeking management stability. However, these catch levels have had to be the lowest value from 5-year projections of annually evaluated ABCs, because the Council cannot set ABC higher than the SSC's recommendation for that year. Inclusion of **Sub-Alternative 2c** would make requesting projections to support a constant ABC a more standard part of terms of reference

given to analysts when developing stock assessments and the SSC when reviewing assessments and making ABC recommendations.

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.

This control rule is described below:

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.

Table 4. Acceptable biological catch control rule proposed in Action 1-Alternative 3. Level 1 (Assessed Stocks) of the acceptable biological catch control rule specified by the Comprehensive Annual Catch Limit Amendment for the Dolphin Wahoo, Golden Crab, and Snapper Grouper Fishery Management Plans. Parenthetical values indicate (1) the maximum adjustment value for a dimension; and (2) the adjustment values for each tier within a dimension.

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. (5%) 3. Relative measures of exploitation or biomass, absolute measures of status unavailable. Proxy reference points. (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 $FR_{MSY}R$ 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 (https://safmc.net/wp-content/uploads/2022/05/SSC_May_2021_Report_with_Appendices.pdf). 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 or its uncertainty are 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.

Sub-Alternative 3a would allow the Council to request that the SSC recommend ABC under two scenarios: as a constant value for 5 years and as individual annual values for 5 years. Recent amendments have considered constant catch levels at the request of stakeholders and advisers seeking management stability. However, these catch levels have had to be the lowest value from 5-year projections of annually evaluated ABCs, because the Council cannot set ABC higher than the SSC's recommendation for that year. Inclusion of **Sub-Alternative 3a** would make requesting projections to support a constant ABC a more standard part of terms of reference given to analysts when developing stock assessments and the SSC when reviewing assessments and making ABC recommendations.

AP Discussion

- PROVIDE COMMENTS OR RECOMMENDATIONS FOR ACTION 1.
    - IF RECOMMENDING **PREFERRED ALTERNATIVE 2** OR **ALTERNATIVE 3**, SHOULD ANY SUB-ALTERNATIVES BE PREFERRED AS WELL?

Action 2. Allow phase-in of acceptable biological catch changes under the acceptable biological catch control rule

NOTE: Current ABC values will not change for any species through actions in this amendment. Rather, the new control rule will be prospectively applied through future management actions related to setting catch limits.

Purpose of Action: In accordance with NS 1 Technical Guidance for Designing, Evaluating, and Implementing Carry-over and Phase-in Provisions (2020), eligibility criteria and allowable implementation methods for phasing in changes to ABC are being considered to increase management flexibility and reduce negative economic and social effects from large, immediate changes to the ABC.

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 of increases to acceptable biological catch, as specified by the Council. Allow phase-in of decreases when a new acceptable biological catch is less than:

Sub-Alternative 2a. 60% of the existing acceptable biological catch.

Sub-Alternative 2b. 70% of the existing acceptable biological catch.

Sub-Alternative 2c. 80% of the existing acceptable biological catch.

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:

Sub-Alternative 3a. if stock biomass exceeds the minimum stock size threshold.

Sub-Alternative 3b. 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 5**. 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 5**. 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 5**. Acceptable biological catch increases may be phased-in as specified by the Council with advice from the SSC and AP.

Discussion

This action addresses flexibility allowed under the revised NS 1 guidelines (Holland et al. 2020). Phase-in of the ABC is an option the Council can consider to address the social and economic impacts from management changes. Adopting this flexibility does not require the Council to phase-in all ABC changes, nor does adopting one approach prevent the Council for choosing a more restrictive schedule of ABC phase-in.

Sub-Action 2.1 specifies when phase-in would be allowed, addressing the National Standard guidance directing the Council to consider when phase-in is appropriate. Phase-ins are not required by any of the proposed sub-actions or alternatives. Multiple alternatives may be selected under Sub-Action 2.1 to address multiple criteria for allowing phase-ins. Phase-ins of ABC increases are allowed under all considered alternatives, as initial ABCs for those phase-ins would be less than the new recommended ABC levels.

Sub-Action 2.1-**Alternative 2** states that the difference between existing and new ABCs must exceed a minimum level (**Sub-Alternative 2a**. 40% difference; **Sub-Alternative 2b**. 30%; **Sub-Alternative 2c**. 20%) to justify phase-in of an ABC decrease. This alternative would specify and limit application of phase-ins for decreasing ABCs to "large changes."

Sub-Action 2.1-**Alternative 3** specifies stock conditions that must be met to justify phase-in of an ABC decrease. **Sub-Alternative 3a** would require that a stock must not be overfished (biomass greater than the minimum stock size threshold (MSST)) to allow consideration of phasing in an ABC decrease. **Sub-Alternative 3b** sets a more conservative threshold, requiring stock biomass to be greater than the midpoint between MSST and B_{MSY} for that stock to be eligible for phasing in a decrease to its ABC.

Sub-Action 2.2 specifies the maximum duration for phase-ins of ABC decreases and maximum levels of ABC that can be implemented during the phase-in period for ABC decreases. A longer phase-in period allows a more gradual change from the existing ABC to the new ABC, greater ABCs during the phase-in period, but a lower long-term new ABC after revised projections account for the higher catch limits during the phase-in period. A shorter phase-in period results in a more immediate change from the existing ABC to the new ABC, lower ABCs during the phase-in period, and a higher long-term ABC after revised projections account for the catch limits used during the phase-in period. The Council may use a shorter phase-in period than the maximum specified by this sub-action, if desired.

Sub-Action 4.2-**Alternative 2** allows phase-in decreases over no more than 3 years, which is the maximum phase in period allowed by the NS1 guidelines. The maximum allowable phase in period is shortened for **Alternative 3** (2 years) and **Alternative 4** (1 year). The time periods specified in Sub-Action 2.2-**Alternatives 2-4** are according to the number of years between the existing ABC and the long-term new ABC, which would remain in place following the phase-in period until changed by future actions.

The long-term new ABC would differ from the SSC's initial recommended ABC in that the SSC's initial recommended ABC would be based on projections that do not account for a phase-in period, while the long-term ABC would be based on projections that do account for a phase-in

period. ABC requirements for different phase-in time periods are shown in Table 5. For example, a one-year phase-in does not indicate a within-year change to the ABC, but a single year in which (in the case of a phase-in decrease) the ABC may be less than or equal to the newly recommended OFL (which is greater than the SSC's initially recommended ABC). Revised projections accounting for this one-year phase-in would then estimate a long-term ABC, which would be implemented in the second year and beyond.

Steps for Implementing ABC Decrease

1. SSC recommends a new ABC for a stock that is lower than the current ABC.
2. Council evaluates whether that stock is eligible for phase-in based on its most recent stock assessment and according to criteria defined by Sub-Action 2.1.
3. If eligible for phase-in, the Council may determine a phase-in schedule, subject to requirements defined in Sub-Action 2.2 and Table 5. All phase-in schedules considered would require revised projections to determine ABC after the phase-in period that include modified ABCs during the phase-in period.
4. Council revises ABC for the phase-in period and future years through an amendment to the FMP.

Table 5. Annual requirements for phase-in of decreases to acceptable biological catches (ABC) over a 3-year schedule (Sub-Action 2.2-**Alternative 2**), 2-year schedule (Sub-Action 2.2-**Alternative 3**), or 1-year schedule (Sub-Action 2.2-**Alternative 4**).

	3-Year Schedule (Alternative 2)	**2-Year Schedule (Alternative 3)**	**1-Year Schedule (Alternative 4)**
Year 1	Modified ABC may not exceed the overfishing limit (OFL).	Modified ABC may not exceed the OFL.	Modified ABC may not exceed the OFL.
Year 2	Modified ABC may not exceed one-half the difference between the OFL and the new ABC recommendation.	Modified ABC may not exceed one-half the difference between the OFL and the new ABC recommendation.	NA
Year 3	Modified ABC may not exceed the original recommended year 3 ABC (based on the projections and analyses that triggered the phase-in).	NA	NA
Subsequent Years	ABC is based on revised projections that account for the phase-in during years 1-3.	ABC is based on revised projections that account for the phase-in during years 1 and 2.	ABC is based on revised projections that account for the phase-in during year 1.

AP Discussion

- PROVIDE COMMENTS OR RECOMMENDATIONS FOR ACTION 2.
    - SHOULD PHASE-INS BE ALLOWED TO BE USED UNDER EACH OF THE FMPS?
    - IF PHASE-INS ARE ALLOWED, WHAT SHOULD BE THE CONSTRAINTS ON WHICH STOCKS ARE ELIGIBLE (SUB-ACTION 2.1) AND THE MAXIMUM PHASE-IN TIME PERIOD (SUB-ACTION 2.2)?

Action 3. Allow carry-over of unharvested portion of the annual catch limit under the acceptable biological catch control rule

NOTE: Current ABC values will not change for any species through actions in this amendment. Rather, the new control rule will be prospectively applied through future management actions related to setting catch limits.

Sub-Action 3.1. Establish criteria specifying circumstances when an unharvested portion of the originally specified sector annual catch limit can be carried over from one year to increase the available harvest in the immediate next year. Carry-overs may not be delayed, and only amounts from the originally specified sector annual catch limit may be carried over.

*NOTE: Multiple sub-alternatives may be selected under Sub-Action 3.1-**Alternative 2**.*

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.

Sub-Alternative 2d. ABC decreases are not being phased-in.

Sub-Alternative 2e. there are both in-season accountability measures that restrict annual landings to the annual catch limit and post-season accountability measures that reduce the annual catch limit in the following year according to any landings overages 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 carrying-over sector's 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 or 125% of the total annual catch limit, whichever is least. If the sum of the specified total annual catch limit and all sector-specific amounts that could be carried over exceeds the overfishing limit or 125% of the total annual catch limit, whichever is least, 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 NS 1 guidelines (Holland et al. 2020). Carry-over that does not exceed the original ABC can be accommodated under existing rules, using the buffer between the ACL and ABC. However, for many Council stocks, ACL=ABC, so there is no buffer available. Per the NS 1 guidance, an ABC CR may include provisions to increase the ABC in the next year to address an ACL underage.

Action 3 addresses carry-over eligibility criteria (Sub-Action 3.1) and constraints on the amount of unused ACL that may be carried over (Sub-Action 3.2). For effective timing, carry-overs would need to be implemented using a faster process than is typically conducted for ABC revisions. The process for implementing carry-over is addressed in Action 4.

The NS 1 guidance addressing carry-overs indicates that Councils must state in their FMP when carry-over can and cannot be used. Sub-Action 3.1 specifies circumstances when carry-over would be allowed (though not required). 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. Base criteria for 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. Multiple sub-alternatives under Sub-Action 3.1-**Alternative 2** could be selected and combined.

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 a 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 for 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 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-**Sub-Alternative 2d**, would require that carry-overs only be applied for ABCs that are not undergoing a phase-in for an ABC decrease.

Sub-Action 3.1-**Sub-Alternative 2e**, would require that carry-overs only be applied to stocks and sectors that have both in-season accountability measures to limit harvest to the ACL and post-season accountability measures that would pay back ACL overages. The 2020 NS1 guidance recommends against applying carry-overs of underharvests to stocks that do not also have paybacks of overharvest, as this could lead to the long-term average harvest being greater than the ACL.

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. Sub-Action 3.2-**Alternatives 2** and **3** specify the amount of unused ACL that can by carried over.

Both **Alternatives 2** and **3** under Sub-Action 3.2 would allow an ABC to 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 total ACL specified in the FMP 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 a single fishing year. Following a year that included carry-over, 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.

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 more conservative than **Alternative 2** for ACL underages that are greater than 25% of the sector ACL or 25% of the total ACL (if both sectors are carrying over).

AP Discussion

- PROVIDE COMMENTS OR RECOMMENDATIONS FOR ACTION 3.
    - SHOULD CARRY-OVERS BE ALLOWED TO BE USED UNDER EACH OF THE FMPS?
    - IF CARRY-OVERS ARE ALLOWED, WHAT SHOULD BE THE CONSTRAINTS ON WHICH STOCKS ARE ELIGIBLE (SUB-ACTION 3.1)?
    - IF CARRY-OVERS ARE ALLOWED, WHAT SHOULD BE THE CONSTRAINTS ON THE MAXIMUM CARRY-OVER AMOUNT (SUB-ACTION 3.2)?

Action 4. Modify framework procedures for the Snapper Grouper, Dolphin Wahoo, and Golden Crab Fishery Management Plans

NOTE: Action 4 was added to this amendment to address implementation of carry-overs. This approach was taken to more specifically define the process of carry-over implementation within the FMPs' framework procedures. Current ABC values will not change for any species through actions in this amendment. Rather, the new control rule will be prospectively applied through future management actions related to setting catch limits.

Sub-Action 4.1. Modify Section I of the Snapper Grouper Framework Procedure to include a 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:

Single season adjustments to ABCs and ACLs to allow carry-over of unused sector ACL may be implemented through this framework procedure. This procedure is only available for use when the applicable ABC and ACLs were approved according to the ABC control rule authorizing carry-over and have been implemented pursuant to the FMP with the potential for carry-over already addressed. This process is authorized as follows:

a. When specifying an ABC and ACL for a stock, or through specific action on an existing ABC and ACL, the Council will determine whether carry-over will be authorized, if annual conditions cause a stock ACL or sector ACL to qualify for carry-over. In doing so, the Council will consider potential need for, and benefits of, carry-over for stocks that could become eligible according to criteria specified in the ABC control rule. The Council will also determine the duration of time when the specified ABC and ACL are effective. An amendment or framework that specifies carry-over for a stock will include analysis of the relevant biological, economic, and social information necessary to meet the criteria and guidance of the existing ABC Control Rule.
    i. To support potential carry-over justification, a Term of Reference will be added for stock assessments to project the maximum 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.
b. Following the conclusion of each fishing year, staff will notify the Council if any stocks and sectors for which carry-over is approved qualify based on the previous year's landings, potentially using preliminary landings estimates.
c. If a sector qualifies for carry-over according to specifications of the ABC and annual landings meeting criteria specified in the ABC control rule, NOAA Fisheries will enact carry-over of eligible landings from the previous year.
d. If the Council chooses to deviate from the criteria and guidance of the effective ABC control rule, this abbreviated process would not apply.

Sub-Action 4.2. Modify the Dolphin Wahoo Fishery Management Plan framework procedure to include a 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:

Single season adjustments to ABCs and ACLs to allow carry-over of unused sector ACL may be implemented through this framework procedure. This procedure is only available for use when the applicable ABC and ACLs were approved according to the ABC control rule authorizing carry-over and have been implemented pursuant to the FMP with the potential for carry-over already addressed.. This process is authorized as follows:

a. When specifying an ABC and ACL for a stock, or through specific action on an existing ABC and ACL, the Council will determine whether carry-over will be authorized, if annual conditions cause a stock ACL or sector ACL to qualify for carry-over. In doing so, the Council will consider potential need for, and benefits of, carry-over for stocks that could become eligible according to criteria specified in the ABC control rule. The Council will also determine the duration of time when the specified ABC and ACL are effective. An amendment or framework that specifies carry-over for a stock will include analysis of the relevant biological, economic, and social information necessary to meet the criteria and guidance of the existing ABC Control Rule.
    i. To support potential carry-over justification, a Term of Reference will be added for stock assessments to project the maximum 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.
b. Following the conclusion of each fishing year, staff will notify the Council if any stocks and sectors for which carry-over is approved qualify based on the previous year's landings, potentially using preliminary landings estimates.
c. If a sector qualifies for carry-over according to specifications of the ABC and annual landings meeting criteria specified in the ABC control rule, NOAA Fisheries will enact carry-over of eligible landings from the previous year.
d. If the Council chooses to deviate from the criteria and guidance of the effective ABC control rule, this abbreviated process would not apply.

Sub-Action 4.3. Modify the Golden Crab Fishery Management Plan framework procedure to include a 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:

Single season adjustments to ABCs and ACLs to allow carry-over of unused sector ACL may be implemented through this framework procedure. This procedure is only available for use when the applicable ABC and ACLs were approved according to the ABC control rule authorizing carry-over and have been implemented pursuant to the FMP with the potential for carry-over already addressed. This process is authorized as follows:

a. When specifying an ABC and ACL for a stock, or through specific action on an existing ABC and ACL, the Council will determine whether carry-over will be authorized, if annual conditions cause a stock ACL or sector ACL to qualify for carry-over. In doing so, the Council will consider potential need for, and benefits of, carry-over for stocks that could become eligible according to criteria specified in the ABC control rule. The Council will also determine the duration of time when the specified ABC and ACL are effective. An amendment or framework that specifies carry-over for a stock will include analysis of the relevant biological, economic, and social information necessary to meet the criteria and guidance of the existing ABC Control Rule.
    i. To support potential carry-over justification, a Term of Reference will be added for stock assessments to project the maximum 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.
b. Following the conclusion of each fishing year, staff will notify the Council if any stocks and sectors for which carry-over is approved qualify based on the previous year's landings, potentially using preliminary landings estimates.
c. If a sector qualifies for carry-over according to specifications of the ABC and annual landings meeting criteria specified in the ABC control rule, NOAA Fisheries will enact carry-over of eligible landings from the previous year.
d. If the Council chooses to deviate from the criteria and guidance of the effective ABC control rule, this abbreviated process would not apply.

Discussion

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**, single season adjustments to ABCs and ACLs to accommodate carry-overs would occur automatically for stocks for which: 1) the SSC has recommended be eligible for potential carry-over when recommending the ABC, 2) the Council has decided be eligible for potential carry-over when specifying the ABC and ACL, and 3) annual conditions have fulfilled criteria specified in Action 3.

This procedure would not require additional public, SSC, or advisory panel comment, as comments relevant to the ABC being approved with potential for carry-over would be part of the development process for the amendment or framework in which the ABC and ACL are specified.

Steps for evaluating/implementing carry-over

1. SSC provides an ABC recommendation for a stock and includes with its recommendation notice that the stock's ABC is eligible for carry-over in years when it qualifies according to criteria in Sub-Action 3.1.
2. Council revises the ABC, based on the SSC's recommendation, through an amendment to the FMP. The action revising ABC in the amendment includes a statement that this stock's ABC will be carried over in years when it qualifies, subject to the constraints of Sub-Action 3.1 and Sub-Action 3.2.
3. One or both sectors underharvest the ACL, and all criteria for eligibility under Sub-Action 3.1 are met.
4. ABC and applicable sector ACL(s) are automatically increased according to the limitations of Sub-Action 3.2 in the next fishing year.
5. Sector ACL(s) automatically reverts to the value specified in the FMP when that sector is no longer eligible according to criteria in Sub-Action 3.1. The ABC automatically reverts to the value specified in the FMP when neither sector is eligible for carry-over or when the carried over amount does not exceed the buffer between ABC and total ACL.

AP Discussion

- PROVIDE COMMENTS OR RECOMMENDATIONS FOR ACTION 4.