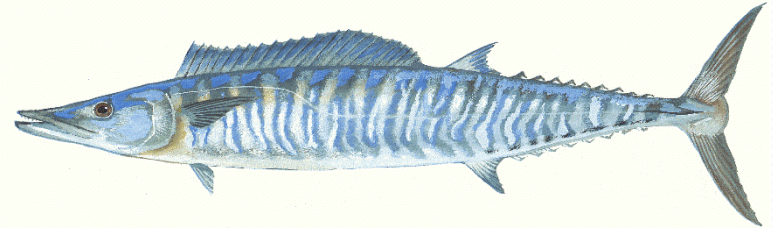




Comprehensive ABC Control Rule Amendment

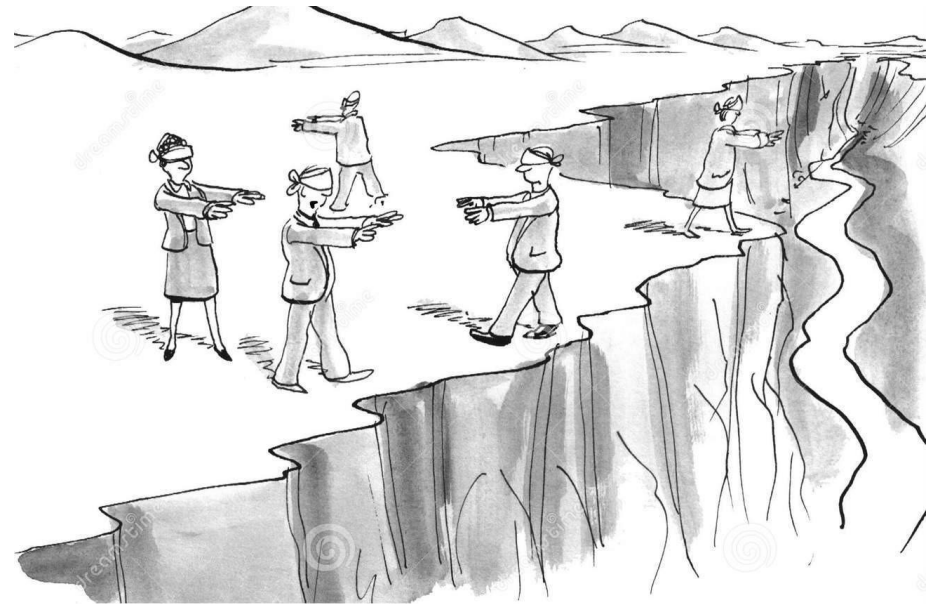


September 2022

Mike Schmidtke, SAFMC Staff

Definitions

- Risk: Used to denote management risk (risk of overfishing – probability and effects; cost/benefit) and is the purview of the Council
- Uncertainty: Used to denote scientific uncertainty (of bio information, assessment results, projections, etc.) and is the purview of the SSC



“I hope our spending does not go over the edge.”

<https://www.dreamstime.com/stock-illustration-spending-business-cartoon-showing-blindfolded-business-people-walking-edge-cliff-hope-does-not-go-over-edge-image94528115>



ABC Control Rule

- **ABC:** SSC-recommended max amount of fish that can be annually harvested after accounting for scientific uncertainty and management risk tolerance
 - Basis for fed fisheries management
- **ABC Control Rule** – Bridge between science and management
 - Defines how risk and uncertainty are evaluated and used to estimate ABC
 - OFL – **sci uncertainty/mgmt risk buffer** = ABC

- Research
- Monitoring
- Assessment
- OFL



- ABC-Based
Management
Regulations



Current ABC Control Rule (Assessed stocks; Level 1)

1. Stock assessment completed
2. SSC reviews assessment to determine if BSIA
3. SSC evaluates 4 tiers of assessment characteristics: Assessment Information, Uncertainty Characterization, Stock Status, PSA
 - Based on evaluation, P^* (accepted probability of overfishing) is reduced from initial value of 50%
4. Adjusted P^* applied to assessment/uncertainty information to estimate ABC



Current ABC Control Rule (Unassessed stocks; Levels 2-4)

2. Unassessed, DBSRA (reliable landings and life history)
 3. Unassessed, DCAC (data deficient for DBSRA)
 4. Unassessed, ORCS (Only Reliable Catch Stocks; SG only)
 - 4/5. Unassessed, Decision Tree (No reliable catch)
- Limited flexibility for incorporating additional methods
 - SSC recommended that methods for data-limited stocks are not “one size fits all”



Action 1

Modify the Acceptable Biological Catch Control Rule

Alt 1 (No Action). Status quo ABC CRs for Dolphin/Wahoo, Golden Crab, and Snapper Grouper (**Table 1** for assessed stocks)

- **Risk Tolerance:** P^* adjusted by SSC's ABC CR criteria
- **Overfished Stocks:** Application not specified in an FMP or amendment (Comp ACL Amendment did not specify)



Action 1. Modify the ABC Control Rule

Preferred Alt 2. Categorizes assessed stocks based on info used to evaluate and characterize assessment uncertainty (**Table 2**)

WHAT CHANGES FROM CURRENT CONTROL RULE?

- New structure/terminology (**Table 2**)
- **Risk Tolerance:** P^* specified by Council using biomass and stock risk rating (**Table 3**); additional Options (2a-c) may be considered
- **Uncertainty:** SSC can adjust or derive OFL uncertainty
- **Overfished Stocks:** Specifies rebuilding plan takes precedence
- **Unassessed Stocks:** SSC will evaluate best method to estimate ABC (not restricted to a set group of methods)



Action 1. Modify the ABC Control Rule

Preferred Alt 2. Categorizes assessed stocks based on info used to evaluate and characterize assessment uncertainty (**Table 3**)

Sub-Alt 2a. Change biomass boundaries $110\% B_{MSY}$ (H-M) and the midpoint between $110\% B_{MSY}$ and MSST (M-L)

Sub-Alt 2b. Allow the Council to deviate from the default accepted P^* by up to 10% for an individual stock, based on advisement or new information; P^* may not exceed 50%

Sub-Alt 2c. The Council can ask the SSC to specify ABC for up to 5 years as a constant value and as annual values



Action 1. Modify the ABC Control Rule

Alt 3. Tiers 3 (Stock Status) and 4 (PSA) of current CR replaced by Council setting initial P^* between 30% and 50% and Levels 2 through 5 replaced by SSC's recommended method for unassessed stock ABCs. Tier 1 (assessment) revised.

- **Risk Tolerance:** Council specifies initial P^* of 30-50%; adjusted according to SSC Tiers 1 and 2 (**Table 4**)
- **Overfished Stocks:** Rebuilding plan takes precedence

Sub-Alt 3a. When requested by the Council, the SSC will specify ABC for up to 5 years as both a constant value across years and as individual annual values.



Action 1. Modify the ABC Control Rule

Summary of Alternatives

Alt 1. Status quo ABC CRs for Dolphin/Wahoo, Golden Crab, and Snapper Grouper (**Table 1** & surrounding description)

Preferred Alt 2. Categorizes assessed stocks based on info used to evaluate and characterize assessment uncertainty (**Table 2**) (uses stock risk rating; **Table 3**)

Sub-Alt 2a. Change biomass boundaries

Sub-Alt 2b. Council can deviate from default P^* by up to 10%

Sub-Alt 2c. Constant and annual ABC recommendations

Alt 3. Council sets initial P^* ; removes Tiers 3 & 4; revises Tier 1; unassessed stocks handled by SSC (**Table 4**)

Sub-Alt 3a. Constant and annual ABC recommendations



Questions and Council Discussion

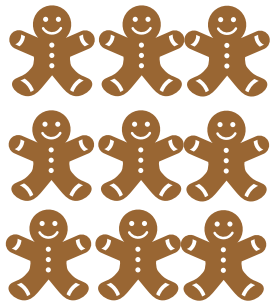
**COUNCIL ACTION: CONFIRM/CHANGE
PREFERRED ALTERNATIVE**



Action 2. Phase-ins

Phase-in: The gradual adjusting to a new ABC over multiple years

Current Diet/Harvest



/day



Assessment



Scientific Review & Recommendation

Too many cookies.
Recommend 3, but no more than 5 per day



Day 1



<u>Cookie Diet Phase-In Plan</u>	
Week 1	5 cookies
Week 2	4 cookies
Week 3	3 cookies
Week 4+	2 cookie



Action 2. Phase-ins

Sub-Action 2.1. Phase-in criteria

Phase-in: The gradual adjusting to a new ABC over multiple years
(Multiple alternatives may be preferred)

Alt 1 (No Action). No phase-ins.

Alt 2. Phase-in of increases allowed. Phase-in of decreases allowed only if new ABC is less than:

Sub-Alt 2a. 60% of existing ABC

Sub-Alt 2b. 70% of existing ABC

Sub-Alt 2c. 80% of existing ABC

Alt 3. Phase-in of increases allowed at any stock biomass level. Phase-in of decreases allowed only if stock biomass exceeds:

Sub-Alt 3a. MSST (a.k.a. not overfished)

Sub-Alt 3b. midpoint between B_{MSY} and MSST



Action 2. Phase-ins

Sub-Action 2.2. Phase-in Timeframe

Alt 1 (No Action). No phase-ins.

Alt 2. Phase-in of decreases over no more than 3 years

Alt 3. Phase-in of decreases over no more than 2 years

Alt 4. Phase-in of decreases over no more than 1 year

- Numbers of years denote “transition years” when the ABC in effect is not the new, long-term ABC
- Flexibility: Alt 2 > Alt 3 > Alt 4 (years are MAXES)
- All alternatives: phase-ins of increases can be any timeframe



Action 2. Phase-ins

Sub-Action 2.2. Phase-in Timeframe

Alt 1 (No Action). No phase-ins.

Alt 2. Phase-in of decreases over no more than 3 years

Alt 3. Phase-in of decreases over no more than 2 years

Alt 4. Phase-in of decreases over no more than 1 year

- Process: Phase-ins implemented through amendment changing ABC
- After phase-in period, long-term ABC will be a revised projection that accounts for revised ABCs during phase-in



Action 2. Phase-ins

Sub-Action 2.2. Phase-in Timeframe

	3-Year Schedule (Alternative 2 max)	2-Year Schedule (Alternative 3 max)	1-Year Schedule (Alternative 4 max)
Year 1	Temporary ABC \leq OFL	Temporary ABC \leq OFL	Temporary ABC \leq OFL
Year 2	Temporary ABC \leq midpoint between OFL and recommended ABC	Temporary ABC \leq midpoint between OFL and recommended ABC	NA
Year 3	Temporary ABC \leq recommended ABC	NA	NA
Subsequent Years	Long-term ABC based on revised projections that account for the phase-in during years 1-3.	Long-term ABC based on revised projections that account for the phase-in during years 1 and 2.	Long-term ABC based on revised projections that account for the phase-in during year 1.



Shadow Shark Phase-In Example

Current ABC: 50,000 lbs

Projection: F rate

Phase-in time shown is the maximum allowed under each alternative

Year	Recommended OFL (lbs)	Recommended ABC (lbs)	Alt 2 Effective ABC (lbs)	Alt 3 Effective ABC (lbs)	Alt 4 Effective ABC (lbs)	Notes
2023	28,000	25,000	28,000	28,000	28,000	Temporary ABC ≤ OFL
2024	32,000	29,000	30,500	30,500	28,000	Temporary ABC ≤ OFL-recommended ABC midpoint
2025	35,000	31,500	31,500	29,500	30,500	Temporary ABC ≤ recommended ABC
2026+	38,000	35,000	30,500	33,000	34,000	

REVISED PROJECTIONS ACCOUNTING FOR PHASE-IN



Example Questions to Consider in Comments About Action 2

- **Should phase-ins be a management tool available for the Council to use?**
- **Sub-Action 2.1**
 - Should phase-ins only be applied for “big changes” to ABC? If so, how big is a “big change”? (Sub-Act 2.1-Alt 2)
 - Should phase-ins only be applied for stocks that are not overfished (Sub-Alt 3a) or stocks that are close to BMSY (Sub-Alt 3b)?
- **Sub-Action 2.2**
 - Should the maximum time for phase-ins to occur be 3 years, 2 years, or 1 year?



Action 2. Phase-ins

Summary of Alternatives

Sub-Action 2.1. Phase-in Criteria (Multiple may be preferred)

Alt. 1 (No Action). No phase-ins.

Alt 2. Phase-in of increases allowed. Phase-in of decreases allowed only if new ABC is less than: 60% (**2a**), 70 % (**2b**), or 80% (**2c**) of existing ABC

Alt 3. Phase-in of increases any biomass level. Phase-in of decreases allowed only if biomass exceeds: MSST (**3a**) or B_{MSY} -MSST midpoint (**3b**)

Sub-Action 2.2. Phase-in Timeframe

Alt. 1 (No Action). No phase-ins.

Alt 2. Phase-in decreases ≤ 3 years.

Alt 3. Phase-in decreases ≤ 2 years.

Alt 4. Phase-in decreases ≤ 1 years.



Questions and Council Discussion

**COUNCIL ACTION: SELECT PREFERRED
ALTERNATIVE(S) FOR ACTION 2 (PHASE-
INS)**







Actions 3 & 4. Carry-Overs

Carry-over: Increasing ACL in one year based on underharvest of the ACL in the previous year.

Recommend 3,
but no more
than 5 cookies
per day



Day 1	
Day 2	
Day 3	
Day 4	
Day 5	



Action 3. Carry-Over Eligibility

Sub-Action 3.1. Criteria for Eligibility

Carry-over: Increasing ACL in one year based on underharvest of the ACL in the previous year.

Alt 1 (No Action). No carry-over.

Alt 2. Allow carry-over if stock status is known, not overfished & not overfishing, OFL is defined, AND (Multiple sub-alt's may be preferred)

Sub-Alt 2a. Biomass exceeds the B_{MSY} -MSST midpoint.

- Closer to B_{MSY} than to being overfished

Sub-Alt 2b. Sector carrying over has had regulatory closure due to landings being projected to exceed the ACL at least once in the previous 3 years.

- Potential early closure

Sub-Alt 2c. Sum of total landings the previous 3 years < sum of total ACLs.

- Long-term underharvest

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

Sub-Alt 2e. Both in-season AND post-season accountability measures.



Action 3. Carry-Over Eligibility

Sub-Action 3.2. Amount

Alt 1 (No Action). No carry-over

Alt 2. ABC and total ACL can be increased for carry-over up to the OFL or total ACL plus carry-over, whichever is less.

Alt 3. ABC and total ACL can be increased for carry-over up to the OFL, total ACL plus carry-over, or total ACL plus 25% of the carrying-over sector's ACL, whichever is less.

- **Alts 2 & 3**, if both sectors carrying over in the same year and OFL is the limiting amount, difference between OFL and total ACL will be allocated using sector allocation percentages



Action 4. Carry-Over Implementation

- 3 Sub-Actions; same language, one for each FMP (SG, DW, GC)
- When specifying an ABC and ACL, the Council would determine whether carry-over will be authorized, if **annual conditions** cause a stock ACL or sector ACL to qualify for carry-over
 - Carry-over written into the amendment
 - Carry-over would happen automatically in every year when annual conditions from Action 3 are met (not overfished, not overfishing, etc.)



Action 4. Carry-Over Implementation

- 3 Sub-Actions; same language, one for each FMP (SG, DW, GC)
- When specifying an ABC and ACL, the Council would determine whether carry-over will be authorized, if **annual conditions** cause a stock ACL or sector ACL to qualify for carry-over
 - Council IS ABLE BUT NOT REQUIRED to approve carry-over during the amendment process (if not in an amendment, carry-over not allowed)
 - IF the Council approves carry-over via an amendment, that approval is for carry-over to occur automatically in ALL years that a stock/sector qualifies (until changed by a future amendment)



Action 4. Carry-Over Implementation

Step-by-Step

1. SSC gives ABC recommendation with carry-over eligibility
2. Council passes amendment with new ABC AND allowing carry-over.
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 per Sub-Action 3.2 in the next fishing year
5. When sector is no longer eligible, ACL goes back to value specified in the FMP
 - If no sectors eligible for carry-over, ABC goes back to value in the FMP



Shadow Shark Carry-Over Example

- **Shadow Shark Stock Status:** Not Overfished and Overfishing Not Occurring
- **OFL:** 12,000 lbs
- **Via amendment, Council has approved:**
 - **ABC = Total ACL = 10,000 lbs**
 - **Sector Allocation: 50/50**
 - **Both sector ACLs will carry-over when eligible**
- **Criteria for annual eligibility:** Not overfished and not overfishing status, **underage of the sector ACL** (Action 3-Sub-Action 3.1-Alternative 2 [No Sub-Alternatives])
- **Amount eligible for carry-over:** **Temporary revised ABC and total ACL may not exceed OFL** (Action 3-Sub-Action 3.2-Alternative 2)



Shadow Shark Carry-Over Example

OFL: 12,000 lbs; Sector ACLs: 5,000 lbs each

Year	Effective ABC (lbs)	Commercial ACL (lbs)	Commercial Landings (lbs)	Commercial Carry-Over	Recreational ACL (lbs)	Recreational Landings (lbs)	Recreational Carry-Over
2023	10,000	5,000	4,000	1,000 lbs to 2024	5,000	5,200	None
2024	11,000	6,000	5,200	None	5,000	4,500	500 lbs to 2025
2025	10,500	5,000	5,500	None	5,500	4,500	500 lbs to 2026
2026	10,500	5,000	3,000	1,000 lbs to 2027	5,500	3,500	1,000 lbs to 2027
2027	12,000	6,000	2,500	2,000 lbs to 2028	6,000	6,500	None
2028	12,000	7,000			5,000		



Example Questions to Consider in Comments About Actions 3 & 4

- **Should carry-overs be a management tool available for the Council to use?**
- **Sub-Action 3.1**
 - Should carry-overs only be applied for stocks that are close to B_{MSY} ? (Sub-Alt 2a)
 - Should carry-overs only be applied for stocks that were recently closed before harvesting ACL? (Sub-Alt 2b)
 - Should carry-overs only be applied for stocks that have experience longer-term underharvest? (Sub-Alt 2c)
- **Sub-Action 3.2**
 - Should a sector be allowed to carry-over more than 25% of its ACL?



Action 3. Carry-Over Eligibility

Summary of Alternatives

Sub-Action 3.1. Criteria for Eligibility

Alt 1 (No Action). No carry-over.

Alt 2. Allow carry-over if stock status is known, not overfished & not overfishing, OFL is defined, and (Multiple sub-alts may be preferred) biomass exceeds the B_{MSY} -MSST midpoint (2a), regulatory closure within the previous 3 years (2b), last 3 years of total landings > last 3 years of total ACLs (2c), no ABC decrease phase-in (2d), or in-season and post-season AMs (2e).

Sub-Action 3.2. Amount

Alt 1 (No Action). No carry-over.

Alt 2. ABC and total ACL can be increased for carry-over up to the OFL or total ACL plus carry-over, whichever is less.

Alt 3. ABC and total ACL can be increased for carry-over up to the OFL, total ACL plus carry-over, or total ACL plus 25% of the carrying-over sector's ACL, whichever is less.



Action 4. Carry-Over Implementation

Summary of Alternatives

Sub-Action 4.1. Modify Snapper Grouper FMP Framework Procedures

Alt 1 (No Action). Do not modify.

Alt 2. Modify to allow implementation of carry-over via framework procedures.

Sub-Action 4.2. Modify Dolphin Wahoo FMP Framework Procedures

Alt 1 (No Action). Do not modify.

Alt 2. Modify to allow implementation of carry-over via framework procedures.

Sub-Action 4.3. Modify Golden Crab FMP Framework Procedures

Alt 1 (No Action). Do not modify.

Alt 2. Modify to allow implementation of carry-over via framework procedures.



Questions and Council Discussion

COUNCIL ACTION: SELECT PREFERRED ALTERNATIVE(S) FOR ACTION 3 (CARRY-OVER ELIGIBILITY) AND ACTION 4 (FRAMEWORK PROCEDURE REVISION TO IMPLEMENT CARRY-OVERS)

