

The views and opinions expressed in this report do not necessarily reflect the official policy or position of the Marine Stewardship Council. This is a working paper, it represents work in progress and is part of ongoing policy development. The language used in draft scoring requirements is intended to be illustrative only, and may undergo considerable refinement in later stages. This work is licensed under Creative Commons BY 4.0 to view a copy of this license, visit (https://creativecommons.org/licenses/by/4.0) How to refence this report: Beamesderfer, R. 2021. Fisheries Standard Review impact assessment – MSC Auditability Review (Annex SC) - Pilot testing and auditability review reporting template. Published by the Marine Stewardship Council [www.msc.org], (link), 7 pages.

Fisheries Standard Review impact assessment – MSC Auditability Review (Annex SC) – August 2021 Pilot testing and auditability review reporting template

Assessor:	Ray Beamesderfer
Date:	8/18/2021

Auditability issue	Notes and feedback	Clause number (SA or GSA)	PI	SI
Choose an item.	Please carefully describe any issues related to auditability (e.g. a particular word that creates confusion, or requires definition) and explain why and/or how it may create problems. Where relevant, add specific clauses (SA or GSA) that this applies to in the final column.			
	Please refer to the list of potential auditability issues below this reporting template and choose the relevant one in the drop down list.			
	If there is more than one issue, please add an additional row.			
Definition	Some aspects of the new risk based approach require further definition to accurately assign fisheries to the risk categories. Information that would help this assignment are x, y, z.			
Time and cost	Revisions are largely minor and editorial in nature and will not significantly affect the time or costs associated with assessments and audits.	all	all	all
Clarity	Minor revisions generally improve clarity and consistency unless otherwise noted below.	all	all	all
Clarity	Revisions are clear and consistent with previous guidance. However, this direction has been a source of confusion in assessments of enhanced salmon fisheries in Alaska and Russia. The primary issue is that salmon escapement goals are generally based on habitat capacity for spawning and rearing which is often reflected in stock-recruitment production curves. At escapements greater than capacity, productivity and yields decline. Target escapements are based on total spawners which include wild fish and, where present, hatchery fish. If only wild spawners are counted toward goals and hatchery fish are present, this effectively means that escapements would be managed for numbers higher than capacity which in many cases would reduce productivity which would be counterproductive in managing for maximum sustained yields for wild production. The theory behind the guidance is apparently to penalize a situation where hatchery fish lead to high exploitation rates and effectively replace wild fish on the spawning grounds and/or mask the status of the wild stock. However, the practicalities are more complicated which is the source of confusion. Hatchery effects are directly addressed in PI 1.3.1, 1.3.2 and 1.3.2. PI 1.3.1 explicitly and clearly considers the magnitude of	SC 2.2.2.2	1.1.1	b

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	hatchery contributions to natural spawning. Thus, also scoring hatchery effects in PI 1.1.1 is duplicative. Deleting hatchery related guidance for PI 1.1.1 would eliminate related confusion and redundancy. Hatchery effects would continue to be effectively addressed in PI 1.3. Perhaps this is comment is beyond the scope of the current review, but if not, this issue may warrant further consideration.			
Clarity	Added text defines ≥50% of the most recent years as ≥7.5 of the 15 years. The 7.5 should probably be 8 because it's not possible to split years in the analysis.	SC 2.2.3.2	1.1.1	b
Consistency	Suggest use of consistent wording with SC 2.2.1.2. Suggest including "at a level at which the SMU maintains high production" from SC 2.2.1.2 in 2.7.1.2. The key concept is to maintain high production. In many salmon stocks, MSY is not well defined and goals are based on sustained levels of high yield (e.g., SEGs in Alaska).	SC 2.7.1.2	1.2.3	b
Clarity	Agree with deletion as duplicative. If not deleted, would need to clarify reference to "private" hatchery operators which is not reference in the corresponding SG.	SC 4.9.1	3.2.3	С
Process flow	Medium change addition regarding IPI announcement is a good clarification.	SC 6.1.3		
Clarity	See previous comments regarding SC 2.2.2.2	GSC 2.2.2		
Effectiveness	Revision referencing midpoint of the goal range is consistent with previous guidance but not with standard management practice. This is creating an artificially high standard where a fishery is consistently meeting its TRP and producing high yield but does not meet the standard. Many or most TRPs are yield based and yields are similar across target ranges. So consistently meeting the low bound is perfectly appropriate, especially given normal variability in salmon run sizes. Perhaps this is comment is beyond the scope of the current review, but if not, this issue may warrant further consideration.	GSC 2.2.3		
Effectiveness	Comment is relative to "SC2.2.3.2 assume an approximately random distribution of performance over the 15 15-year period. Where this is not the case, and there is instead a consistent trend downwards such that most of the failures to reach the escapement goals were in the most recent years, then SG 80 is not met." The issue is that salmon numbers are typically random lognormally distributed but autocorrelated with sequences of high or low values. This can lead to misleading interpretations of "trends". Suggest replacing "is not met" with something like "may be considered".	GSC 2.2.3		
Consistency	Direction regarding consideration of cyclic dominant stocks is inconsistent. "The team <u>may</u> consider each cycle line separately" "For example, the team <u>should</u> assess pink salmon even-year and odd-year populations separately." I suggest that. "may" is the proper term so that the team can consider the specific of management of the subdominant run year on a case-by-case basis particular to a given situation.	GSC 2.2.3		

Auditability issue	Notes and feedback	Clause number (SA or GSA)	PI	SI
Clarity	List of causes of reduce stock status can include normal annual variation in environmental patterns that may or may not be due to human intervention (El Nino or pacific decadal oscillation for instance).	GSC2.3		
Clarity	Regarding "When an artificial production strategy is used, the team should consider it as an interim strategy of short, finite duration in order to address immediate demographic risks to the population." This needs something more. I think the point is that artificial production as a short-term strategy is appropriate but as a long-term strategy is not.	GSC2.3		
Clarity	See previous comments regarding SC 2.2.2.2	GSC2.3.1		
Clarity	Addition of "Differential harvest, for example, altering the time, location, or effort of the fishery." Is appropriate and adds clarity.	GSC2.4.1		
Consistency	Need consistent of explanation for TRPs throughout. Suggest use of consistent wording with SC 2.2.1.2. Suggest including "at a level at which the SMU maintains high production" from SC 2.2.1.2 in 2.7.1.2. The key concept is to maintain high production. In many salmon stocks, MSY is not well defined and goals are based on sustained levels of high yield (e.g., SEGs in Alaska).	GSC 2.7	1.2.4	b
Clarity	Regarding suggested deletion of "The team can calculate goals using a variety of methods such as, Ricker spawner recruit analysis, yield analysis, spawning habitat capacity, or sustained yield analysis." Description is informative and deletion is unnecessary.	GSC 2.7	1.2.4	b
Effectiveness	Suggested proxy limit reference point for Alaska more appropriately should be 50% of the lower bound of the escapement goal range. Escapement goal ranges in Alaska may be relatively wide and generally bracket Smsy. Lower bounds reflect TRPs based on maximum or optimum yields. The point of significant reproductive impairment is generally substantially lower than the lower end of the escapement goal range. Therefore, treating the lower goal as a TRP would be technically inappropriate. Perhaps this is comment is beyond the scope of the current review, but if not, this issue may warrant further consideration. Perhaps this is comment is beyond the scope of the current review, but if not, this issue may warrant further consideration.	Table GSC2		
Clarity	Recommendation to use 50% of the escapement goal SMSY point estimate as a proxy limit reference point is inappropriate. In the US, actual limit reference points govern most salmon fisheries due to limits defined for stocks listed formally under the US Endangered Species Act. LRPs are in the form of exploitation rate limits where limits are generally defined to ensure <i>de minimis</i> effects of fishing on the depleted stocks. Perhaps this is comment is beyond the scope of the current review, but if not, this issue may warrant further consideration.	Table GSC2		
Consistency	Addition to the effect that "the CAB should interpret." Should this rather be "the team."	GSC2.11	1.3.3	а

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Clarity	References to "adverse impacts" should perhaps say "significant adverse impacts." For instance, building a hatchery might require clearing some land which we might consider to be more than a zero impact but it would not be considered significant unless it affects a large or particularly sensitive area.	GSC3.13	2.4.1	d
Clarity	Definition of a populations and distinction from an SMU is confusing and need to be clarified - not because of proposed changes but because they were confusing before. Populations are typical demographically independent groups of reproducing individuals. SMUs of salmon generally include multiple populations. ESUs in the US generally include multiple populations and sometimes multiple ESUs but in a few cases have been defined for individual populations.	Table GSC21		
Clarity	Table GSC3 has redundant terms with Table SC8 and Table SC8 should be a GSC label.	Table GSC3		

Potential auditability issues for use in providing notes and feedback

Issue	Description
Time and cost	Any changes in the predicted time and cost of assessments (both increasing or decreasing). Please provide an estimate of this change (e.g. 10% increase).
Clarity	Issues with clarity
Clause construction	Issues with clause construction (e.g. complex 'if' clauses)
Challenge for non-English speakers	Issues that could create challenges for readers for whom English is a second language.
Consistency	Any issues with consistency between similar processes, or language (e.g. two terms used for the same concept, or one term used for two different concepts?)
Duplicative	Any clauses that are duplicative of other clauses.
Definition	Whether any terms used require definition
Lack of instruction	Any requirements where there is a lack of instruction for how to complete the action [note, this has been identified as a common problem with MSC requirements and is often missed during quality checks]
Process flow	Any sections where the process flow does not reflect the reality of the assessment process
Scenarios	Possible scenarios that may not have been taken into account in the process flow [note, this has been identified as a common problem with MSC requirements and is often missed during quality checks]
Effectiveness	Any elements where the CAB deems that suggested changes to requirements will not achieve their intended outcome
Contextual application	If the clause will be more challenging to apply in some contexts compared to others.
Contextual auditability	If the clause will be more challenging to audit in some contexts compared to others.
Perverse incentives	Any areas where suggested changes to requirements may lead to perverse incentives, or unintended consequences.
Loopholes	Any areas where suggested changes to requirements may introduce loopholes
ISO terminology	Any clauses that are inconsistent with ISO terminology and applicable standards (E.g. Is should/shall used correctly? Does the clause contradict ISO or ASI requirements?).
Restrictive	Any clauses that should be less restrictive (e.g. "should" instead of "shall") or more restrictive (e.g. "shall" instead of "should").
Audience	Whether the clause is written to the appropriate audience (i.e. clause in standard should apply to certificate holders; clause in process requirements should apply to CABs).
None	There are no auditability issues
Not applicable	Not applicable