Outcomes of the 17th Session of the IPHC Scientific Review Board (SRB017)

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PURPOSE

To provide the MSAB with the outcomes of the 17th Session of the IPHC Scientific Review Board (SRB017) relevant to the mandate of the MSAB.

BACKGROUND

The agenda of the 17th Session of the IPHC Scientific Review Board (SRB) included two agenda items dedicated to Management Strategy Evaluation (MSE).

DISCUSSION

During the course of the 17th Session of the IPHC Scientific Review Board (SRB017), a number of specific requests and recommendations regarding the IPHC MSE process where proposed by the SRB. Relevant sections from the report of the meeting are provided in Appendix A for the MSAB's consideration.

RECOMMENDATION

That the MSAB:

1) **NOTE** paper IPHC-2020-MSAB016-05 which details the outcomes of the 17th Session of the IPHC Scientific Review Board (SRB017) relevant to the mandate of the MSAB.

APPENDICES

Appendix A: Excerpt from the 17th Session of the IPHC Scientific Review Board (SRB017) Report (IPHC-2020-SRB017-R).

APPENDIX A
Excerpt from the 17th Session of the IPHC Scientific Review Board (SRB017) Report (IPHC-2020-SRB017-R)

SECTION 6

6. PEER REVIEW OF THE IPHC MANAGEMENT STRATEGY EVALUATION PROCESS

25 The SRB **NOTED** the presentation provided by Dr Trevor Branch, the independent peer reviewer of the IPHC MSE process. Dr Branch presented his draft report, with the intention of seeking additional feedback from the SRB before finalising the report. The following is a summary of the report findings, as provided by Dr Branch:

> "*The management strategy evaluation (MSE) of IPHC is intended to simulation test rules for setting allowable catch for Pacific halibut and the allocation of catch and bycatch among IPHC Regulatory Areas. In my judgment the MSE is technically sound. Furthermore, the MSE team led by Allan Hicks was praised by all interviewed participants involved in the process for their technical work, collaboration with stakeholders in developing harvest control rules, and communication of results to stakeholders. However, the following issues need to be resolved to ensure the continued success and accuracy of MSE simulation for IPHC: (1) decide soon on the future of the MSE process beyond January 2021 and allocate necessary funding; (2) treat the MSE framework as an ongoing process that will be used over many years alongside the stock assessment, to test the effectiveness of data gathering, stock assessment assumptions, and catch -setting in IPHC; (3) require the Commission to codify the rules they used to adjust catch levels within each Regulatory Area after the harvest control rule is applied, so that the MSE framework accurately evaluates risk to the stock and catches within each such Area.*"

26 The SRB **AGREED** that the peer review was a thorough analysis, and met the desired objectives of providing a fully independent external review of the IPHC's Management Strategy Evaluation work undertaken to date.

27 The SRB **AGREED** with conclusions of the independent peer reviewer that:

a) the MSE framework establishes a valuable new tool for formally evaluating and prioritizing research objectives;

b) uncertainty regarding staffing for MSE work is inconsistent with the long-term role of MSE in addressing critical strategic needs of the Commission in setting and distributing Pacific halibut yield among regulatory areas;

c) the IPHC Secretariat continue to improve and develop communication tools and participation in the MSE process;

d) the IPHC Secretariat establish a formal process for determining whether Exceptional Circumstances exist in a given year that would justify deviating from the harvest control rule.

28 The SRB **NOTED** that the independent peer review suggested a further round of development may be necessary on the spatial allocation of TCEY.

SECTION 8

8. MANAGEMENT STRATEGY EVALUATION: UPDATE

8.1 An update on the IPHC Management Strategy Evaluation (MSE) process

55 The SRB **NOTED** paper IPHC-2020-SRB017-09 which provided the SRB with a description of the IPHC MSE framework, a description of the specifications of the multi-area operating model, results from conditioning the multi-area operating model, and an overview of the implementation of management procedures.

56 The SRB **NOTED** the MSE Explorer tool available online to present and evaluate MSE results. The SRB was impressed by the flexibility of the tool to facilitate stakeholder education of fishery management and MSE concepts, as well as the power to analyze complex outputs from the simulations.

57 The SRB **NOTED** three options for estimation error are available and currently the option of simulating estimation is the most appropriate option to evaluate results in 2020, but **RECOMMENDED** continuing work to incorporate actual estimation models, as in the third option, because that method would best mimic the current assessment process.

58 The SRB **NOTED** that results from the multi-region simulations showed a higher average TCEY and lower probabilities of low stock status for a given SPR than the previous coastwide MSE results, but average stock status was similar. This is consistent with the lower variability incorporated in the multi-region approach due to the use of a single operating model as opposed to the 2 used in the coast-wide operating model. Low biomass regionally and the need for the model to maintain all populations means the parameter space may be more restrictive resulting in greater stability.

59 The SRB **RECOMMENDED** using the current MSE results to compare and contrast management procedures incorporating scale and distribution elements, but **NOTED** that, current results are conditional on some parameters and processes that remain uncertain. The uncertainty in applying the untested current approach potentially creates greater risk than adopting a repeatable management procedure that has been simulation tested under a wide range of uncertainties.

60 The SRB **RECOMMENDED** that Exceptional Circumstances be defined to determine whether monitoring information has potentially departed from their expected distributions generated by the MSE. Declaration of Exceptional Circumstances may warrant re-opening and revising the operating models and testing procedures used to justify a particular management procedure.

61 The SRB **REQUESTED** that the IPHC Secretariat include plotting function in the MSE Explorer to visualize among-Regulatory Area trade-offs in various yield statistics.