



Report of the 22nd Session of the IPHC Management Strategy Advisory Board (MSAB022)

Meeting held electronically, 12-14 May 2026

Commissioners

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IPHC 2026. Report of the 22nd Session of the IPHC Management Strategy Advisory Board (MSAB022). Meeting held electronically, 12-14 May 2026.
IPHC-2026-MSAB022-R, 20 pp.



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ACRONYMS

AAV	Average Annual Variability
AK	Alaska
AM	Annual Meeting
ADFG	Alaska Department of Fish & Game
CDN	Canada/Canadian
CPUE	Catch-Per-Unit-Effort
DFO	Fisheries and Oceans Canada
EOI	Expressions of Interest
FISS	Fishery-Independent Setline Survey
HSP	Harvest Strategy Policy
IPHC	International Pacific Halibut Commission
MP	Management Procedure
MSAB	Management Strategy Advisory Board
MSE	Management Strategy Evaluation
MSY	Maximum Sustainable Yield
MEY	Maximum Economic Yield
NOAA	National Oceanic and Atmospheric Administration
NPFMC	North Pacific Fishery Management Council
O32	Over 32" (fish length)
OM	Operating Model
PFMC	Pacific Fishery Management Council
PSMFC	Pacific States Marine Fisheries Commission
PDO	Pacific Decadal Oscillation
RSB	Relative Spawning Biomass
SB	Spawning Biomass
SMEA	University of Washington School of Marine and Environmental Affairs
SRB	Scientific Review Board
SPR	Spawning Potential Ratio
TCEY	Total Constant Exploitation Yield
USA	United States of America
UW	University of Washington
WPUE	Weight-Per-Unit-Effort

DEFINITIONS

A set of working definitions are provided in the IPHC Glossary of Terms and abbreviations:
<https://www.iphc.int/the-commission/glossary-of-terms-and-abbreviations>



HOW TO INTERPRET TERMINOLOGY CONTAINED IN THIS REPORT

This report has been written using the following terms and associated definitions so as to remove ambiguity surrounding how particular paragraphs should be interpreted.

- Level 1: RECOMMENDED; RECOMMENDATION; ADOPTED** (formal); **REQUESTED; ENDORSED; ACCEPTED** (informal): A conclusion for an action to be undertaken, by a Contracting Party, a subsidiary (advisory) body of the Commission and/or the IPHC Secretariat.
- Level 2: AGREED:** Any point of discussion from a meeting which the Commission considers to be an agreed course of action covered by its mandate, which has not already been dealt with under Level 1 above; a general point of agreement among delegations/participants of a meeting which does not need to be elevated in the Commission's reporting structure.
- Level 3: NOTED/NOTING; CONSIDERED; URGED; ACKNOWLEDGED:** General terms to be used for consistency. Any point of discussion from a meeting which the Commission considers to be important enough to record in a meeting report for future reference. Any other term may be used to highlight to the reader of an IPHC report, the importance of the relevant paragraph. Other terms may be used but will be considered for explanatory/informational purposes only and shall have no higher rating within the reporting terminology hierarchy than Level 3.



EXECUTIVE SUMMARY

The 22nd Session of the International Pacific Halibut Commission (IPHC) Management Strategy Advisory Board (MSAB022) was held electronically from 12-14 May 2026. The MSAB currently consists of twenty-three (23) board members/positions, fourteen (14) of which attended the Session from the two (2) Contracting Parties. A total of four (4) individuals attended the Session as Observers. The list of participants is provided at [Appendix I](#). The meeting was opened by Dr. Allan Hicks, who welcomed participants.

The following are a subset of the complete recommendations/requests for action from the MSAB022, which are provided in full at [Appendix V](#).

RECOMMENDATIONS

Other Business

- MSAB022–Rec.01** ([para. 49](#)) The MSAB **RECOMMENDED** holding a one-day virtual informational session of the MSAB in mid-October or early November noting that the PFMC meeting is 17–22 September, the NPFMC meeting is 5–14 October, the PSMFC meeting is 28–30 September, the Alaska Board of Fish is 28–29 October, and some members are not available from 19–26 October.
- MSAB022–Rec.02** ([para. 51](#)) The MSAB **RECOMMENDED** holding an in-person MSAB023 meeting during the last week of April or in May of 2027 with a virtual option. Attendance and engagement would likely increase when holding the meeting in-person.

REQUESTS

Update on the IPHC MSE Program of Work for 2026

- MSAB022–Req.01** ([para. 24](#)) The MSAB **NOTED** that the 70% probability for a stock to be rebuilt from an overfished status has not been simulation tested and determined appropriate for the management of Pacific halibut, and **REQUESTED** that this definition and other methods to declare a stock rebuilt be simulation tested using the MSE framework.
- MSAB022–Req.04** ([para. 29](#)) The MSAB **REQUESTED** that the HSP Table be expanded to include long- and short-term projections using a fixed productivity regime based on current perceived productivity and additional performance metrics such as the median RSB and median absolute spawning biomass.

Development of a Program of Work for 2026–2027

- MSAB022–Req.06** ([para. 37](#)) The MSAB **REQUESTED** further evaluations of the following MP elements:
- fishing intensities including, but not limited to, SPRs of 40%, 43%, 46%, 49%, 52%, 55%, and 100% (no fishing), as well as no directed fishing (e.g. bycatch only);
 - a triennial assessment frequency with various empirical rules to determine the reference coastwide TCEY in non-assessment years.
- MSAB022–Req.08** ([para. 38](#)) The MSAB **REQUESTED** evaluating constraints and smoothers, along with MP elements listed in [para. 37](#), that would potentially reduce the interannual variability in the TCEY, including:
- a 3-year rolling average (arithmetic or geometric) on the FISS O32 WPUE used in the empirical rule in a triennial stock assessment frequency;



- b) constraints applied only to non-assessment years and/or applied only to assessment years;
- c) a phase-in approach for the change in TCEY in assessment years.

MSAB022–Req.09 ([para. 39](#)) The MSAB **REQUESTED** conducting simulations assuming the following productivity regimes with a subset of the MPs from paras. [37](#) and [38](#) and all other sources of variability:

- a) low recruitment and low weight-at-age;
- b) low recruitment and current weight-at-age (the current perceived productivity regime);
- c) high recruitment and low weight-at-age;

MSAB022–Req.10 ([para. 40](#)) The MSAB **REQUESTED** that simulations to determine a depleted limit reference point include sensitivities to productivity (weight-at-age and PDO regime), the level of depensation, and fecundity-at-size assumptions.

MSAB022–Req.11 ([para. 41](#)) The MSAB **REQUESTED** to conduct MSE simulations to determine appropriate methods of determining when the Pacific halibut stock is recovered after having been defined as depleted.

MSAB022–Req.12 ([para. 42](#)) The MSAB **REQUESTED** that simulations to determine a depleted limit reference point be used to understand the interactions between overfished and depleted (e.g. when could a stock be defined as overfished but not depleted, and vice versa) as well as interactions between rebuilt and recovered.

MSAB022–Req.13 ([para. 46](#)) The MSAB **REQUESTED** that the 23rd Session of the MSAB include an agenda item to discuss objectives and performance metrics focused on a depleted limit reference point (if determined), and an objective related to an absolute spawning biomass to be at or above.

MSAB022–Req.14 ([para. 48](#)) The MSAB **RECALLED** the SRB recommendation in paragraph 22 of [IPHC-2026-SRB027-R](#) and **REQUESTED** that the SRB clarify their recommendation and intent.

(para. 22) *The SRB RECOMMENDED considering some fishery performance indicators that represent metrics directly observable by stakeholders, e.g. fishery CPUE*

The full recording of the MSAB022 is available at the following link: [IPHC-2026- MSAB022-Audio recording](#)



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1. OPENING OF THE SESSION

1. The 22nd Session of the International Pacific Halibut Commission (IPHC) Management Strategy Advisory Board (MSAB022) was held electronically from 12-14 May 2026. The MSAB currently consists of twenty-three (23) board members/positions, fourteen (14) of which attended the Session from the two (2) Contracting Parties. A total of four (4) individuals attended the Session as Observers. The list of participants is provided at [Appendix I](#). The meeting was opened by Dr Allan Hicks, who welcomed participants.
2. The MSAB **NOTED** that apologies were received by the IPHC Secretariat from absentees ([Appendix I](#)).
3. The MSAB **RECALLED** that the primary role of the MSAB is to advise the Commission on the Management Strategy Evaluation (MSE) process. To meet this advisory role, the Commission has articulated the following specific representation and objectives for the MSAB, as described in Appendix V, paras 1 and 2 of the [IPHC Rules of Procedure \(2025\)](#):
 - (para. 1) The Management Strategy Advisory Board (MSAB), on which individuals representing harvesters (commercial, sport, and subsistence), fisheries managers, processors, IPHC Secretariat, science advisors and other experts as required may be represented. The primary roles of the MSAB are to:*
 - a) Suggest topics to be considered in the Management Strategy Evaluation (MSE) process, within the scope defined in paragraph 2.*
 - b) Provide the IPHC Secretariat with direct input and advice on current and planned MSE activities.*
 - c) Represent constituent views in the MSE process.*
 - (para. 2) The MSAB will:*
 - a) recommend clear measurable objectives and performance metrics for the fisheries;*
 - b) propose candidate management strategies, which include aspects of the fisheries that can be managed (e.g. regulatory requirements);*
 - c) provide suggestions to the IPHC Secretariat about plausible fisheries-related scenarios for investigation, which include aspects of the fisheries that cannot be managed by the IPHC (e.g. removals under the management authority of a domestic management agency or changes in fisheries dynamics due to various factors);*
 - d) encourage and allow members to propose tentative or exploratory ideas without prejudice to future discussions;*
 - e) assist with interpreting results and identifying important trade-offs between management procedures;*
 - f) represent information, views, and outcomes of the MSAB discussions to constituents accurately and appropriately;*
 - g) gather and clearly articulate the interests and concerns of constituents and incorporate them into the MSAB's discussions.*
4. **NOTING** [paragraph 3](#), the MSAB **RECALLED** that the Management Strategy Evaluation process is a stakeholder informed, scientifically driven process.

2. ADOPTION OF THE AGENDA AND ARRANGEMENTS FOR THE SESSION

2.1 Adoption of the agenda

5. The MSAB **ADOPTED** the Agenda as provided at [Appendix II](#) with the addition of a presentation from Mr William Le and Dr Anne Beaudreau from the University of Washington (UW) describing research on participatory research. The documents provided to the MSAB022 are listed at [Appendix III](#).



2.2 *Election of co-chairpersons*

6. The MSAB **NOTED** that the terms of the previous Co-Chairpersons, Ms Gwyn Mason (Canada) and Dr Pete Hulson (U.S.A.), expired on 17 October 2024 ([IPHC-2022-MSAB017-R](#), para. 7) and 30 April 2026 ([IPHC-2024-MSAB019-R](#), Para 5), respectively, and as per Appendix V, Sect III of the [IPHC Rules of Procedure \(2025\)](#) the MSAB is required to elect Co-Chairpersons for the next biennium
7. The MSAB **NOTED** that in accordance with Appendix V, Sect III.5 of the [IPHC Rules of Procedure \(2025\)](#), Dr Pete Hulson (USA) was nominated, seconded, and elected as Co-Chairpersons of the MSAB for a two-year period ending 12 May 2028.
8. The MSAB **NOTED** that a nomination for a Canadian co-chair will be forthcoming, and that Ms Ann-Marie Huang was nominated, seconded, and elected to serve as the interim Canadian co-chair during MSAB022.
9. The MSAB **THANKED** Ms Gwyn Mason for her service as Canadian co-chair of the MSAB at previous meetings.

2.3 *UW participatory science research*

10. The MSAB **THANKED** Dr Anne Beaudreau and Mr William Le from the University of Washington School of Marine and Environmental Affairs (SMEA) for their presentation ([IPHC-2026-MSAB022-INF02](#)) on the research they are conducting to characterise stakeholder engagement at IPHC.
11. The MSAB **NOTED** that Dr Anne Beaudreau and Mr William Le will invite some MSAB members to interview, and that members interested in participating may reach out to them as well.

3. IPHC PROCESS

3.1 *MSAB Membership*

12. The MSAB **NOTED** paper [IPHC-2026-MSAB022-03](#) that provided the MSAB membership list as of 19 March 2026 and term expirations.
13. The MSAB **NOTED** that the next term expirations occur on 31 December 2026 for six (6) members.
14. The MSAB **WELCOMED** new members Ms Courtney Young representing Canada (DFO) with a term expiration on 11 May 2030, and Mr Doug Duncan representing the U.S.A. (NOAA-fisheries) with a term expiration 9 July 2029.
15. The MSAB **NOTED** that there are vacancies on the Board, as shown in [Appendix IV](#), and that interested stakeholders submit Expressions of Interest (EOI) for MSAB vacant positions on an ongoing basis to the IPHC Secretariat (secretariat@iphc.int). The IPHC Secretariat collates and provides EOIs to the Commission on a periodic basis for their consideration.

3.2 *Update on the actions arising from the 21st Session of the MSAB (MSAB021)*

16. The MSAB **NOTED** paper [IPHC-2026-MSAB022-04](#) that provided the MSAB with an opportunity to consider the progress made during the inter-sessional period in relation to the recommendations and requests of the 21st Session of the IPHC Management Strategy Advisory Board (MSAB021).
17. The MSAB **AGREED** to consider and revise as necessary, the actions arising from MSAB021, and for these to be combined with any new actions arising from MSAB022.
18. The MSAB **RECALLED** the following requests from MSAB021 ([IPHC-2025-MSAB021-R](#)) that are still in progress:

(para. 36) *The MSAB REQUESTED further evaluations of the following MP elements, after the OM is conditioned following the full 2025 stock assessment:*



- a) *fishing intensities including, but not limited to, SPRs of 40%, 43%, 46%, 52%, 55%, and 100% (no directed fishing);*
- b) *a triennial assessment frequency;*
- c) *various empirical rules to determine the reference coastwide TCEY in nonassessment years;*
- d) *control rules with triggers at higher values than RSB30% or based on absolute spawning biomass relative to the spawning biomass estimated at the beginning of 2024.*

(para. 37) *The MSAB REQUESTED evaluating constraints and smoothers, along with MP elements listed in para. 36, that would potentially reduce the interannual variability in the TCEY, including:*

- a) *a 3-year rolling average (arithmetic or geometric) on the FISS O32 WPUE used in the empirical rule in a triennial stock assessment frequency;*
- b) *constraints applied only to non-assessment years and/or applied only to assessment years;*
- c) *a phase-in approach for the change in TCEY in assessment years;*
- d) *using the trends in fishery CPUE and/or FISS WPUE to determine if a bigger reduction should be taken than suggested by the unconstrained reference TCEY to curtail further reductions in the SB.*

(para. 39) *The MSAB REQUESTED conducting simulations assuming the following productivity regimes with a subset of the MPs from paras. 36 and 37 and all other sources of variability:*

- a) *low recruitment and low weight-at-age;*
- b) *low recruitment and current weight-at-age;*
- c) *high recruitment and low weight-at-age.*

3.3 Outcomes of the 102nd Session of the IPHC Annual Meeting (AM102)

19. The MSAB **NOTED** paper [IPHC-2026-MSAB022-05](#) that detailed the outcomes of the 102nd Session of the IPHC Annual Meeting (AM102), relevant to the mandate of the MSAB.

4. MANAGEMENT STRATEGY EVALUATION PROGRAM OF WORK (2026–2027)

4.1 Update on the IPHC MSE Program of Work for 2026

20. The MSAB **NOTED** paper [IPHC-2026-MSAB022-06](#) that describes MSE work completed in 2025 and early 2026, including definitions of overfished and depleted, investigations of effects of productivity regimes on the management of Pacific halibut, evaluations of fishing intensity under low productivity, and conditioning of the OM following the full stock assessment.
21. The MSAB **WELCOMED** the adoption of the [IPHC Harvest Strategy Policy](#) (HSP) on 15 December 2025.
22. The MSAB **NOTED** the description of depleted in the HSP and that the term “recovered” can be used to identify when a stock has recovered from a state defined as depleted.
23. The MSAB **NOTED** that the HSP defines that an overfished stock would be considered rebuilt from an overfished status when it is estimated to be above the limit reference point (RSB_{20%}) with a greater than 70% probability, and that identifying at what level the stock would be defined as recovered from a depleted status is necessary and yet to be determined.
24. The MSAB **NOTED** that the 70% probability for a stock to be rebuilt from an overfished status has not been simulation tested and determined appropriate for the management of Pacific halibut, and



REQUESTED that this definition and other methods to declare a stock rebuilt be simulation tested using the MSE framework.

25. The MSAB **NOTED** that a priority research topic is to investigate variability in size-at-age of Pacific halibut and changes in average weight-at-age over time, which may be related to environmental conditions, inter-species competition, prey availability, as well as other factors.
26. The MSAB **REQUESTED** overlaying on a plot the average annual PDO with changes in weight-at-age and contrasting that to the relationship between average recruitment and the negative/positive PDO regimes.
27. The MSAB **REQUESTED** a plot indicating how often the control rule modified the reference fishing intensity in projections integrating over low and high productivity and those assuming different productivity regimes.
28. The MSAB **NOTED** that the importance of the performance metrics within the fishery objectives may change depending on the state of the stock (e.g. productivity). For example, tolerance to inter-annual variability in the TCEY may vary at different TCEY levels.
29. The MSAB **REQUESTED** that the HSP Table be expanded to include long- and short-term projections using a fixed productivity regime based on current perceived productivity and additional performance metrics such as the median RSB and median absolute spawning biomass.
30. The MSAB **NOTED** that movement is parameterised in the OM to vary with PDO regime, and that there may be other factors affecting variability in movement such as the size of the year class.
31. The MSAB **NOTED** that all individual models of the OM predicted higher proportions of all-sizes biomass in Region 3 in recent years than were observed from the FISS data. This may be due to different Pacific halibut behaviours in recent years not captured in the OM, which could be related to movement rates or recruitment distribution.
32. The MSAB **NOTED** that the MSE simulations with the OM use performance metrics to identify how an MP performs over the short-term (4–13 years), medium-term (14–23 years) and long-term (equilibrium), while the ensemble stock assessment is used for immediate-term (1–3 years) tactical decision-making and current status determination.
33. The MSAB **REQUESTED** a presentation at the 23rd Session of the MSAB on how an ensemble of models is integrated into a single set of results, how an ensemble improves our understanding of the Pacific halibut stock, how each individual model may help with interpretation, the uses of the ensemble stock assessment and OM, and the connections between the two.

4.2 Development of a Program of Work for 2026–2027

34. The MSAB **NOTED** paper [IPHC-2026-MSAB022-07](#) that describes tasks included in the MSE Program of Work for 2026–2027.
35. The MSAB **NOTED** the high priority and low priority topics for the HSP Program of Work (2026–2027) listed in the Report of the 102nd Session of the IPHC Annual Meeting ([IPHC-2026-AM102-R](#)).
36. The MSAB **RECALLED** the following paragraphs from the Report of the 102nd Session of the IPHC Annual Meeting ([IPHC-2026-AM102-R](#)):

(para. 58) *The Commission NOTED that the 2026 MSE and HSP Program of Work should not include topics related to the distribution of the TCEY, as this is part of the decision-making process and not part of the management procedure, as described in the Harvest Strategy Policy.*

(para. 59) *The Commission NOTED that outcomes of the 2026 MSE workplan (e.g. an optimal fishing intensity) may be used to update the Harvest Strategy Policy in the future.*



37. The MSAB **REQUESTED** further evaluations of the following MP elements:
- fishing intensities including, but not limited to, SPRs of 40%, 43%, 46%, 49%, 52%, 55%, and 100% (no fishing), as well as no directed fishing (e.g. bycatch only);
 - a triennial assessment frequency with various empirical rules to determine the reference coastwide TCEY in non-assessment years.
38. The MSAB **REQUESTED** evaluating constraints and smoothers, along with MP elements listed in [para. 37](#), that would potentially reduce the interannual variability in the TCEY, including:
- a 3-year rolling average (arithmetic or geometric) on the FISS O32 WPUE used in the empirical rule in a triennial stock assessment frequency;
 - constraints applied only to non-assessment years and/or applied only to assessment years;
 - a phase-in approach for the change in TCEY in assessment years.
39. The MSAB **REQUESTED** conducting simulations assuming the following productivity regimes with a subset of the MPs from paras. [37](#) and [38](#) and all other sources of variability:
- low recruitment and low weight-at-age;
 - low recruitment and current weight-at-age (the current perceived productivity regime);
 - high recruitment and low weight-at-age;
40. The MSAB **REQUESTED** that simulations to determine a depleted limit reference point include sensitivities to productivity (weight-at-age and PDO regime), the level of depensation, and fecundity-at-size assumptions.
41. The MSAB **REQUESTED** to conduct MSE simulations to determine appropriate methods of determining when the Pacific halibut stock is recovered after having been defined as depleted.
42. The MSAB **REQUESTED** that simulations to determine a depleted limit reference point be used to understand the interactions between overfished and depleted (e.g. when could a stock be defined as overfished but not depleted, and vice versa) as well as interactions between rebuilt and recovered.
43. The MSAB **NOTED** that determining a depleted limit reference point and a method to determine when recovered may inform the development of objectives and/or management procedures to avoid a depleted stock.
44. The MSAB **AGREED** that analyses should be performed to update reference points (e.g. MSY and MEY) using the updated OM and stock assessment models, and that these analyses should occur at a regular interval.
45. The MSAB **AGREED** that guidance documents to support the HSP be developed and may include details on a rebuilding plan, exceptional circumstances, and any other topics the Commission would find useful.
46. The MSAB **REQUESTED** that the 23rd Session of the MSAB include an agenda item to discuss objectives and performance metrics focused on a depleted limit reference point (if determined), and an objective related to an absolute spawning biomass to be at or above.
47. The MSAB **NOTED** that the current fishery performance metrics associated with the priority objectives described in the HSP are informative as fishery performance indicators for the current MSE process, although it may be useful to discuss these in the future as the MSE develops.
48. The MSAB **RECALLED** the SRB recommendation in paragraph 22 of [IPHC-2026-SRB027-R](#) and **REQUESTED** that the SRB clarify their recommendation and intent.

(para. 22) *The SRB RECOMMENDED considering some fishery performance indicators that represent metrics directly observable by stakeholders, e.g. fishery CPUE*



5. OTHER BUSINESS

49. The MSAB **RECOMMENDED** holding a one-day virtual informational session of the MSAB in mid-October or early November noting that the PFMC meeting is 17–22 September, the NPFMC meeting is 5–14 October, the PSMFC meeting is 28–30 September, the Alaska Board of Fish is 28–29 October, and some members are not available from 19–26 October.
50. The MSAB **NOTED** that the 23rd Session of the MSAB (MSAB023) is scheduled to be held over two (2) to three (3) days in May 2027 with a virtual option.
51. The MSAB **RECOMMENDED** holding an in-person MSAB023 meeting during the last week of April or in May of 2027 with a virtual option. Attendance and engagement would likely increase when holding the meeting in-person.

6. REVIEW OF THE DRAFT AND ADOPTION OF THE REPORT OF THE 22ND SESSION OF THE IPHC MANAGEMENT STRATEGY ADVISORY BOARD (MSAB022)

52. The report of the 22nd Session of the IPHC Management Strategy Advisory Board (IPHC-2026-MSAB022-R) was **ADOPTED** on 14 May 2026, including the consolidated set of recommendations and/or requests arising from MSAB022, provided at Appendix V.

APPENDIX I

**LIST OF PARTICIPANTS FOR THE 22ND SESSION OF THE IPHC MANAGEMENT STRATEGY
ADVISORY BOARD (MSAB022)**

Officers

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APPENDIX II

AGENDA FOR THE 22ND SESSION OF THE IPHC MANAGEMENT STRATEGY ADVISORY BOARD (MSAB022)

1. OPENING OF THE SESSION

2. ADOPTION OF THE AGENDA AND ARRANGEMENTS FOR THE SESSION

2.1. Adoption of the agenda

- *IPHC-2026-MSAB022-01: Agenda & Schedule for the 22nd Session of the IPHC Management Strategy Advisory Board (MSAB022)*
- *IPHC-2026-MSAB022-02: List of Documents for the 22nd Session of the IPHC Management Strategy Advisory Board (MSAB022)*

2.2. Election of co-chairs

2.3. UW participatory research

- *IPHC-2026-MSAB022-INF02: Characterizing the role of Participatory Science in Pacific Halibut Fisheries Management*

3. IPHC PROCESS

3.1. MSAB Membership

- *IPHC-2026-MSAB022-03: MSAB Membership (IPHC Secretariat)*

3.2. Update on the actions arising from MSAB in 2025

- *IPHC-2026-MSAB022-04: Update on the actions arising from the 21st Session of the MSAB (MSAB021) (A. Hicks)*
- *IPHC-2026-MSAB022-INF01: Outcomes of the 2025 Informational Meeting of the Management Strategy Advisory Board*

3.3. Outcomes of the 102nd Session of the IPHC Annual Meeting (AM102)

- *IPHC-2026-MSAB022-05: Outcomes of the 102nd Session of the IPHC Annual Meeting (AM102) (A. Hicks)*

4. MANAGEMENT STRATEGY EVALUATION PROGRAM OF WORK (2026–2027)

4.1. Update on the IPHC MSE Program of Work for 2026

- *IPHC-2026-MSAB022-06: Updates to the IPHC MSE Program of Work for 2026 and a review of coastwide management procedures (A. Hicks & I. Stewart)*

4.2. Development of a Program of Work for 2026–2027

- *IPHC-2026-MSAB022-07: Considerations for the Management Strategy Evaluation Program of Work for 2026–2027 (A. Hicks & I. Stewart)*

5. OTHER BUSINESS

6. REVIEW OF THE DRAFT AND ADOPTION OF THE REPORT OF THE 22ND SESSION OF THE IPHC MANAGEMENT STRATEGY ADVISORY BOARD (MSAB022)



APPENDIX III
LIST OF DOCUMENTS FOR THE 22ND SESSION OF THE MANAGEMENT STRATEGY ADVISORY BOARD (MSAB022)

Meeting documents	Title	Availability
IPHC-2026-MSAB022-01	Agenda & Schedule for the 22 nd Session of the IPHC Management Strategy Advisory Board (MSAB022)	✓ 12 Feb 2026 ✓ 19 Mar 2026 ✓ 15 Apr 2026
IPHC-2026-MSAB022-02	List of Documents for the 22 nd Session of the IPHC Management Strategy Advisory Board (MSAB022)	✓ 12 Feb 2026 ✓ 19 Mar 2026 ✓ 15 Apr 2026
IPHC-2026-MSAB022-03	MSAB membership (IPHC Secretariat)	✓ 19 Mar 2026
IPHC-2026-MSAB022-04	Update on actions arising from the 21 st Session of the MSAB (MSAB021) (A. Hicks)	✓ 19 Mar 2026
IPHC-2026-MSAB022-05	Outcomes of the 102 nd Session of the IPHC Annual Meeting (AM102) (A. Hicks)	✓ 19 Mar 2026
IPHC-2026-MSAB022-06	Updates to the IPHC MSE Program of Work for 2026 and a review of coastwide management procedures (A. Hicks & I. Stewart)	✓ 9 Apr 2026
IPHC-2026-MSAB022-07	Considerations for the Management Strategy Evaluation Program of Work for 2026-2027 (A. Hicks & I. Stewart)	✓ 8 Apr 2026
IPHC-2026-MSAB022-INF01	Outcomes of the 2025 Informational Meeting of the Management Strategy Advisory Board	✓ 15 Apr 2026
IPHC-2026-MSAB022-INF02	Characterizing the role of Participatory Science in Pacific Halibut Fisheries Management	✓ 13 May 2026



APPENDIX IV
MSAB MEMBERSHIP
(as of 12 May 2026)

Membership category	Member	Canada	U.S.A.	Current Term commencement	Current Term expiration
Commercial harvesters (6-8)					
1	Sporer, Chris	CDN Commercial		10-April-23	31-Dec-26
2	Hauknes, Robert	CDN Commercial		03-Apr-25	02-Apr-29
3	Grout, Angus	CDN Commercial		10-April-23	31-Dec-26
4	Vacant	CDN Commercial			Vacant
5	Behnken, Linda		USA Commercial	01-May-24	30-April-28
6	Elwood, Garrett		USA Commercial	03-Apr-25	02-Apr-29
7	Conrad, Michele		USA Commercial	01-May-24	30-Apr-28
8	Johnson, James		USA Commercial	03-Apr-25	02-Apr-29
First Nations/ Tribal fisheries (2-4)					
1	Lane, Jim	CDN First Nations		10-April-23	31-Dec-26
2	Vacant	CDN First Nations			Vacant
3	Mazzone, Scott		USA Treaty Tribes	03-Apr-25	02-Apr-29
4	Fitting, Emily		USA Treaty Tribes	25-Sept-24	24-Sept-28



Membership category	Member	Canada	U.S.A.	Current Term commencement	Current Term expiration
Government Agencies (4-8)					
1	Mason, Gwyn	DFO		16-April-24	15-April-28
2	Huang, Ann-Marie	CDN Science Advisor		1-Jan-25	31-Dec-28
3	Young, Courtney	DFO		11-May-26	10-May-30
4	Duncan, Doug		NOAA-Fisheries	10-Jul-25	09-Jul-29
5	Hulson, Pete		USA Science Advisor	1-Jan-25	31-Dec-28
6	Mattes, Lynn		PFMC	25-Jun-24	31-Dec-26
7	Bush, Karla		NPFMC	10-Jan-25	9-Jan-29
8	Joy, Philip		ADFG	1-Jan-25	31-Dec-28
Processors (2-4)					
1	Vacant	CDN Processing			Vacant
2	Vacant	CDN Processing			Vacant
3	Parker, Peggy		USA Processing	03-Apr-25	02-Apr-29
4	Drobnica, Angel		USA Processing	17-Apr-23	31-Dec-26
Recreational/ Sport fisheries (2-4)					
1	Fowler, Michael	CDN Sportfishing		01-May-24	30-April-28
2	Vacant	CDN Sportfishing			Vacant
3	Marking, Tom		USA Sportfishing (CA)	9-May-23	31-Dec-26
4	Braden, Forrest		USA sportfishing (AK)	03-Apr-25	02-Apr-29



APPENDIX V

CONSOLIDATED SET OF RECOMMENDATIONS AND REQUESTS OF THE 22ND SESSION OF THE
IPHC MANAGEMENT STRATEGY ADVISORY BOARD (MSAB022)

RECOMMENDATIONS

Other Business

- MSAB022–Rec.01** ([para. 49](#)) The MSAB **RECOMMENDED** holding a one-day virtual informational session of the MSAB in mid-October or early November noting that the PFMC meeting is 17–22 September, the NPFMC meeting is 5–14 October, the PSMFC meeting is 28–30 September, the Alaska Board of Fish is 28–29 October, and some members are not available from 19–26 October.
- MSAB022–Rec.02** ([para. 51](#)) The MSAB **RECOMMENDED** holding an in-person MSAB023 meeting during the last week of April or in May of 2027 with a virtual option. Attendance and engagement would likely increase when holding the meeting in-person.

REQUESTS

Update on the IPHC MSE Program of Work for 2026

- MSAB022–Req.01** ([para. 24](#)) The MSAB **NOTED** that the 70% probability for a stock to be rebuilt from an overfished status has not been simulation tested and determined appropriate for the management of Pacific halibut, and **REQUESTED** that this definition and other methods to declare a stock rebuilt be simulation tested using the MSE framework.
- MSAB022–Req.02** ([para. 26](#)) The MSAB **REQUESTED** overlaying on a plot the average annual PDO with changes in weight-at-age and contrasting that to the relationship between average recruitment and the negative/positive PDO regimes.
- MSAB022–Req.03** ([para. 27](#)) The MSAB **REQUESTED** a plot indicating how often the control rule modified the reference fishing intensity in projections integrating over low and high productivity and those assuming different productivity regimes.
- MSAB022–Req.04** ([para. 29](#)) The MSAB **REQUESTED** that the HSP Table be expanded to include long- and short-term projections using a fixed productivity regime based on current perceived productivity and additional performance metrics such as the median RSB and median absolute spawning biomass.
- MSAB022–Req.05** ([para. 33](#)) The MSAB **REQUESTED** a presentation at the 23rd Session of the MSAB on how an ensemble of models is integrated into a single set of results, how an ensemble improves our understanding of the Pacific halibut stock, how each individual model may help with interpretation, the uses of the ensemble stock assessment and OM, and the connections between the two.

Development of a Program of Work for 2026–2027

- MSAB022–Req.06** ([para. 37](#)) The MSAB **REQUESTED** further evaluations of the following MP elements:
- fishing intensities including, but not limited to, SPRs of 40%, 43%, 46%, 49%, 52%, 55%, and 100% (no fishing), as well as no directed fishing (e.g. bycatch only);
 - a triennial assessment frequency with various empirical rules to determine the reference coastwide TCEY in non-assessment years.



- MSAB022–Req.08** ([para. 38](#)) The MSAB **REQUESTED** evaluating constraints and smoothers, along with MP elements listed in [para. 37](#), that would potentially reduce the interannual variability in the TCEY, including:
- a) a 3-year rolling average (arithmetic or geometric) on the FISS O32 WPUE used in the empirical rule in a triennial stock assessment frequency;
 - b) constraints applied only to non-assessment years and/or applied only to assessment years;
 - c) a phase-in approach for the change in TCEY in assessment years.
- MSAB022–Req.09** ([para. 39](#)) The MSAB **REQUESTED** conducting simulations assuming the following productivity regimes with a subset of the MPs from paras. [37](#) and [38](#) and all other sources of variability:
- a) low recruitment and low weight-at-age;
 - b) low recruitment and current weight-at-age (the current perceived productivity regime);
 - c) high recruitment and low weight-at-age;
- MSAB022–Req.10** ([para. 40](#)) The MSAB **REQUESTED** that simulations to determine a depleted limit reference point include sensitivities to productivity (weight-at-age and PDO regime), the level of depensation, and fecundity-at-size assumptions.
- MSAB022–Req.11** ([para. 41](#)) The MSAB **REQUESTED** to conduct MSE simulations to determine appropriate methods of determining when the Pacific halibut stock is recovered after having been defined as depleted.
- MSAB022–Req.12** ([para. 42](#)) The MSAB **REQUESTED** that simulations to determine a depleted limit reference point be used to understand the interactions between overfished and depleted (e.g. when could a stock be defined as overfished but not depleted, and vice versa) as well as interactions between rebuilt and recovered.
- MSAB022–Req.13** ([para. 46](#)) The MSAB **REQUESTED** that the 23rd Session of the MSAB include an agenda item to discuss objectives and performance metrics focused on a depleted limit reference point (if determined), and an objective related to an absolute spawning biomass to be at or above.
- MSAB022–Req.14** ([para. 48](#)) The MSAB **RECALLED** the SRB recommendation in paragraph 22 of [IPHC-2026-SRB027-R](#) and **REQUESTED** that the SRB clarify their recommendation and intent.
- (para. 22) *The SRB RECOMMENDED considering some fishery performance indicators that represent metrics directly observable by stakeholders, e.g. fishery CPUE*