



INTERNATIONAL PACIFIC
HALIBUT COMMISSION

IPHC–2021–SS011–00
Last Update: 24 June 2021

11th Special Session of the IPHC (SS011) – *Compendium of meeting documents*

22 June 2021, Seattle, WA, USA

Commissioners

Canada	United States of America
Paul Ryall	Glenn Merrill
Neil Davis	Robert Alverson
Peter DeGreef	Richard Yamada

Executive Director

David T. Wilson, Ph.D.



INTERNATIONAL PACIFIC
HALIBUT COMMISSION

IPHC–2021–SS011–00



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The designations employed and the presentation of material in this publication and its lists do not imply the expression of any opinion whatsoever on the part of the International Pacific Halibut Commission (IPHC) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

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Report of the 11th Special Session of the IPHC (SS011)

Meeting held electronically, 22 June 2021

Commissioners

Canada	United States of America
Paul Ryall	Glenn Merrill
Neil Davis	Robert Alverson
Peter DeGreef	Richard Yamada

Executive Director

David T. Wilson, Ph.D.

DISTRIBUTION:

Participants in the Session
Members of the Commission
IPHC Secretariat

BIBLIOGRAPHIC ENTRY

IPHC 2021. Report of the 11th Session of the IPHC
(SS011). Electronic meeting, 22 June 2021.
IPHC-2021-SS011-R, 13 pp.



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ACRONYMS

FY	Financial Year
IFCP	International Fisheries Commission Pension (Fund)
IPHC	International Pacific Halibut Commission
MP	Management Procedure
MSE	Management Strategy Evaluation
OM	Operating Model
PHMEIA	Pacific Halibut Multiregional Economic Impact Assessment
SS	Special Session
USA	United States of America

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** (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.

TABLE OF CONTENTS

Executive summary.....	5
1 Opening of the Session.....	6
2 Adoption of the Agenda and Arrangements for the Special Session	6
3 Management Strategy Evaluation Program of Work	6
4 Budget Estimates: FY2022.....	7
5 Review of the draft and adoption of the report of the 10 th Special Session of the IPHC (SS010).	7
Appendix I Agenda for the 11 th Special Session of the IPHC (SS011).....	8
Appendix II List of Documents for the 11 th Special Session of the IPHC (SS011)	9
Appendix III List of participants for the 11 th Special Session of the IPHC (SS011)	10
Appendix IV FY2022 Financial Budget – Adopted	12
Appendix V Consolidated set of recommendations and requests from the 11 th Special Session of the IPHC (SS011) (22 June 2021).....	13

EXECUTIVE SUMMARY

The 11th Special Session of the International Pacific Halibut Commission (IPHC) (SS011) was held electronically, on 22 June 2021. The meeting was opened by the Chairperson Mr Glenn Merrill (USA), who outlined the need for a Special Session.

The following are the actions arising from the SS011, which are also provided at [Appendix V](#).

RECOMMENDATIONS

Management Strategy Evaluation Program of Work

SS011-Rec.01 ([para. 7](#)) The Commission **RECOMMENDED** that the IPHC Secretariat:

- a) prioritize tasks F1, F.2, F.3 and F.5 to support the development of a robust framework, and E.3 to work with stakeholders and the Commission to improve the methods of presenting MSE results.
- b) continue to work on task M.3 to understand the trade-offs with multi-year stock assessments.
- c) continue investigation of size limits (M.1) to understand the long-term effects of a change in the size limit, including under different realizations of population dynamics such as size-at-age.

Budget estimates: FY2022

([para. 10](#)) The Commission **ADOPTED** the FY2022 budget (1 October 2021 to 30 September 2022), as detailed in [Appendix IV](#), including the Contracting Party contributions to the General Fund as follows:

- Canada: Contribution to the General Fund: US\$900,407
- U.S.A.: Contribution to the General Fund: US\$4,157,760

1 OPENING OF THE SESSION

2. The 11th Special Session of the International Pacific Halibut Commission (IPHC) (SS011) was held electronically, on 22 June 2021. The meeting was opened by the Chairperson Mr Glenn Merrill (USA) who outlined the need for a special session.

2 ADOPTION OF THE AGENDA AND ARRANGEMENTS FOR THE SPECIAL SESSION

3. The Commission **ADOPTED** the Agenda as provided at [Appendix I](#). The documents provided to the SS011 are listed in [Appendix II](#). The list of participants is provided at [Appendix III](#).

3 MANAGEMENT STRATEGY EVALUATION PROGRAM OF WORK

4. The Commission **NOTED** paper [IPHC-2021-SS011-03](#) which lists tasks that may be considered in the development of a Management Strategy Evaluation (MSE) Program of Work (2021-23) for the IPHC Secretariat.
5. The Commission **NOTED** MSE Program of Work tasks within five general categories related to objectives, management procedures, framework development, evaluation, and application as listed in Table 1 of document [IPHC-2021-SS011-03](#).
6. The Commission **NOTED** that:
 - a) the proposed MSE Program of Work was developed taking into consideration current and planned resources (human and financial) at the IPHC Secretariat for the work period, including one principle investigator, with support from current staff within the Quantitative Sciences Branch.
 - b) the continued development of the MSE framework, in particular tasks F.1, F.2, F.3, and F.5 would lead to the development of alternative operating models and provide a more robust evaluation of any type of management procedure.
 - c) a multi-year assessment approach (i.e. not conducting a stock assessment every year) has potential benefits of freeing time for research and development of improved stock assessment methods as well as MSE tasks.
7. The Commission **AGREED**:
 - a) on the need to maintain some level of ongoing stakeholder engagement in the IPHC MSE process, including during the next period of technical development/evaluation. The overall aim of continued engagement would be to ensure that stakeholders are kept informed of the process and any substantial advances in the MSE work. Options could include MSAB meetings, and website updates to aid communication of MSE results.
 - b) that the presentation of results is an important task as improvements would assist stakeholders in understanding the MSE results and support decisions made by the Commission.
 - c) that connecting the MSE with socio-economic outcomes from the Pacific Halibut Multiregional Economic Impact Assessment (PHMEIA) will be deferred at this time. While connecting socio-economic factors with MSE may be useful in the future, they were not deemed to be high priority task at this time.
 - d) work to investigate size limits could include identifying shortcomings within the current MSE framework, a timeline for potential future analysis, and a range of options of interest to stakeholders.

-
8. The Commission **RECOMMENDED** that the IPHC Secretariat:
- a) prioritize tasks F.1, F.2, F.3 and F.5 to support the development of a robust framework, and E.3 to work with stakeholders and the Commission to improve the methods of presenting MSE results.
 - b) continue to work on task M.3 to understand the trade-offs with multi-year stock assessments.
 - c) continue investigation of size limits (M.1) to understand the long-term effects of a change in the size limit, including under different realizations of population dynamics such as size-at-age.

4 BUDGET ESTIMATES: FY2022

9. The Commission **NOTED** paper [IPHC-2021-SS011-04](#) which provided the Commission with the revised budget estimates for FY2022 (1 October 2021 to 30 September 2022) (for approval) noting the informal request from the Contracting Parties to freeze the FY2022 overall budget at FY2021 levels.
10. The Commission **NOTED** that the proposed FY2022 budget did not involve reducing the current compliment of IPHC Secretariat staff, other than the one position that would be held vacant for FY2022 and then reallocated to a different role in FY2023.
11. The Commission **ADOPTED** the FY2022 budget (1 October 2021 to 30 September 2022), as detailed in [Appendix IV](#), including the Contracting Party contributions to the General Fund as follows:
- Canada: Contribution to the General Fund: US\$900,407
 - U.S.A.: Contribution to the General Fund: US\$4,157,760
12. The Commission **NOTED** the extra-budgetary (IFCP Fund deficit and Headquarters lease/maintenance) contributions from each Contracting Party for FY2022 as follows:
- Canada:
 - 50% Contribution to the IFCP Fund deficit (former staff pension plan): US\$127,848
 - U.S.A.:
 - 50% Contribution to the IFCP Fund deficit (former staff pension plan): US\$127,848
 - Contribution to the headquarters building lease and maintenance costs: US\$475,000

5 REVIEW OF THE DRAFT AND ADOPTION OF THE REPORT OF THE 10TH SPECIAL SESSION OF THE IPHC (SS010)

13. The Report of the 11th Session of the IPHC (IPHC-2021-SS011-R) was **ADOPTED** via correspondence on 24 June 2021, including the consolidated set of recommendations and requests arising from SS011, provided at [Appendix V](#).

APPENDIX I
AGENDA FOR THE 11TH SPECIAL SESSION OF THE IPHC (SS011)

Date: 22 June 2021

Location and Venue: Electronic: Adobe Connect

Time: 11:00-14:00 (PDT)

Chairperson: Mr Glenn Merrill (United States of America)

Vice-Chairperson: Mr Paul Ryall (Canada)

1. **OPENING OF THE SESSION** (*Chairperson*)
2. **ADOPTION OF THE AGENDA AND ARRANGEMENTS FOR THE SPECIAL SESSION**
(*Chairperson*)
3. **MANAGEMENT STRATEGY EVALUATION PROGRAM OF WORK**
 - *IPHC-2021-SS011-03: Management Strategy Evaluation Program of Work (2021-23)*
(*Hicks A, Stewart I, Hutniczak B*)
4. **Budget Estimates: FY2022 (for approval)** (*IPHC Secretariat*)
 - *IPHC-2021-SS011-04: Budget Estimates: FY2022 (for approval)* (*Wilson D, Jernigan K*)
5. **ADOPTION OF THE REPORT OF THE 11TH SPECIAL SESSION OF THE IPHC (SS011)**
(*Chairperson*)

APPENDIX II
LIST OF DOCUMENTS FOR THE 11TH SPECIAL SESSION OF THE IPHC (SS011)

Document	Title	Availability
IPHC-2021-SS011-01	Agenda for the 11 th Special Session of the IPHC (SS011)	✓ 1 June 2021
IPHC-2021-SS011-02	List of Documents for the 11 th Special Session of the IPHC (SS011)	✓ 1 June 2021
IPHC-2021-SS011-03	Management Strategy Evaluation Program of Work (Hicks A, Stewart I, Hutniczak B)	✓ 1 June 2021
IPHC-2021-SS011-04	Budget estimates: FY2022 (for approval) (Wilson D, Jernigan K)	✓ 7 June 2021

APPENDIX III
LIST OF PARTICIPANTS FOR THE 11TH SPECIAL SESSION OF THE IPHC (SS011)

Commission Officers

Chairperson	Vice-Chairperson
Mr Glenn Merrill (United States of America)	Mr Paul Ryall (Canada)

Commissioners

Canada	United States of America
Mr Paul Ryall	Mr Glenn Merrill
Mr Neil Davis	Mr Robert Alverson
Mr Peter DeGreef	Mr Richard Yamada

Observers

Participant	Organisation	Email
Chuck Ashcroft	Sport Fishing Advisory Board	chuckashcroft@telus.net
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IPHC Secretariat

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Mr Afshin Taheri	Programmer	afshin.taheri@iphc.int
Ms Huyen Tran	Fisheries Data Manager	huyen.tran@iphc.int

APPENDIX IV FY2022 FINANCIAL BUDGET – ADOPTED

Account Number	Account Name	10 - General	20 - Research	30 - Statistics	10,20,30 - TOTAL	40 - FISS	10,20,30,40 - TOTAL
		FY2022	FY2022	FY2022	FY2022	FY2022	FY2022
Income							
40000	Contracting Party Contributions						
40000.01	Canada	\$ 900,407.00	\$ -	\$ -	\$ 900,407.00	\$ -	\$ 900,407.00
40000.02	United States of America	\$ 4,157,760.00	\$ -	\$ -	\$ 4,157,760.00	\$ -	\$ 4,157,760.00
	Total 40000 - Contracting Party Contributions	\$ 5,058,167.00	\$ -	\$ -	\$ 5,058,167.00	\$ -	\$ 5,058,167.00
40050	IFC Pension						
40050.01	IFC Pension - Canada	\$ 127,848.00	\$ -	\$ -	\$ 127,848.00	\$ -	\$ 127,848.00
40050.02	IFC Pension - United States of America	\$ 127,848.00	\$ -	\$ -	\$ 127,848.00	\$ -	\$ 127,848.00
	Total 40050 - IFC Pension	\$ 255,696.00	\$ -	\$ -	\$ 255,696.00	\$ -	\$ 255,696.00
40055	Headquarters (Lease & Maintenance)	\$ 475,000.00	\$ -	\$ -	\$ 475,000.00	\$ -	\$ 475,000.00
40060	Other Income	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40100	Grants, Contracts & Agreements	\$ -	\$ 44,917.00	\$ 559,975.00	\$ 604,892.00	\$ 48,720.00	\$ 653,612.00
40200	Interest Income	\$ -	\$ -	\$ -	\$ -	\$ 11,550.00	\$ 11,550.00
40200.01	Bank Interest	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40200.02	CD Interest	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total 40200 - Interest Income	\$ 475,000.00	\$ 44,917.00	\$ 559,975.00	\$ 1,079,892.00	\$ 60,270.00	\$ 1,140,162.00
40350	Fish Sales						
40350.01	Fish Sales - Pacific Halibut	\$ -	\$ -	\$ -	\$ -	\$ 5,471,025.00	\$ 5,471,025.00
40350.02	Fish Sales - Byproduct	\$ -	\$ -	\$ -	\$ -	\$ 58,800.00	\$ 58,800.00
	Total 40350 - Fish Sales	\$ -	\$ -	\$ -	\$ -	\$ 5,529,825.00	\$ 5,529,825.00
	Total Income	\$ 5,788,863.00	\$ 44,917.00	\$ 559,975.00	\$ 6,393,755.00	\$ 5,590,095.00	\$ 11,983,850.00
Expense							
Personnel Expenses							
50000	Salaries & Wages	\$ 2,925,000.00	\$ 85,447.00	\$ 668,115.00	\$ 3,678,562.00	\$ 478,584.75	\$ 4,157,146.75
50100	Benefits	\$ 1,260,000.00	\$ 20,335.00	\$ 199,552.50	\$ 1,479,887.50	\$ 14,837.55	\$ 1,494,725.05
50100.09	Medical Reimbursement - Retiree	\$ 92,958.60	\$ -	\$ -	\$ 92,958.60	\$ -	\$ 92,958.60
50200	Training & Education	\$ 5,000.00	\$ -	\$ 21,000.00	\$ 26,000.00	\$ 54,600.00	\$ 80,600.00
50300	Personnel Related Expenses	\$ -	\$ -	\$ 14,700.00	\$ 14,700.00	\$ 36,376.20	\$ 51,076.20
50300.01	Scholarship Awards	\$ 8,000.00	\$ -	\$ -	\$ 8,000.00	\$ -	\$ 8,000.00
	Total Personnel Expenses	\$ 4,290,958.60	\$ 105,782.00	\$ 903,367.50	\$ 5,300,108.10	\$ 584,398.50	\$ 5,884,506.60
Operational Expenses							
51000	Publications	\$ 6,000.00	\$ -	\$ 9,000.00	\$ 15,000.00	\$ -	\$ 15,000.00
51100	Mailing and Shipping	\$ 4,000.00	\$ 2,000.00	\$ 8,400.00	\$ 14,400.00	\$ 79,800.00	\$ 94,200.00
51200	Travel	\$ 70,300.00	\$ 4,150.00	\$ 10,000.00	\$ 84,450.00	\$ 117,516.00	\$ 201,966.00
51300	Meeting and Conference Expenses	\$ 171,000.60	\$ -	\$ -	\$ 171,000.60	\$ -	\$ 171,000.60
51400	Technology	\$ 135,000.00	\$ -	\$ -	\$ 135,000.00	\$ -	\$ 135,000.00
	Total Operational Expenses	\$ 386,300.60	\$ 6,150.00	\$ 27,400.00	\$ 419,850.60	\$ 197,316.00	\$ 617,166.60
Fees and Contract Expenses							
52000	Professional Fees	\$ 240,000.00	\$ -	\$ -	\$ 240,000.00	\$ -	\$ 240,000.00
52200	Other Fees and Charges	\$ -	\$ -	\$ -	\$ -	\$ 590,965.20	\$ 590,965.20
52300	Leases and Contracts	\$ 365,000.00	\$ 76,979.00	\$ 38,850.00	\$ 480,829.00	\$ 2,428,391.70	\$ 2,909,220.70
54000	Communications	\$ 25,000.00	\$ -	\$ 420.00	\$ 25,420.00	\$ 86,782.50	\$ 112,202.50
	Total Fees and Contract Expenses	\$ 630,000.00	\$ 76,979.00	\$ 39,270.00	\$ 746,249.00	\$ 3,106,139.40	\$ 3,852,388.40
Facilities and Equipment Expenses							
53000	Equipment Expense	\$ 28,000.00	\$ -	\$ 18,900.00	\$ 46,900.00	\$ 34,020.00	\$ 80,920.00
53100	Supplies Expense	\$ 32,000.00	\$ 106,452.00	\$ 2,100.00	\$ 140,552.00	\$ 933,980.25	\$ 1,074,532.25
53200	Maintenance and Utilities	\$ 24,000.00	\$ -	\$ -	\$ 24,000.00	\$ 42,000.00	\$ 66,000.00
53300	Facility Rentals	\$ 378,000.00	\$ -	\$ 6,300.00	\$ 384,300.00	\$ 21,000.00	\$ 405,300.00
	Total Facilities and Equipment Expenses	\$ 462,000.00	\$ 106,452.00	\$ 27,300.00	\$ 595,752.00	\$ 1,031,000.25	\$ 1,626,752.25
Other Expenses							
55000	Budget Contingency	\$ 35,000.00	\$ -	\$ -	\$ 35,000.00	\$ -	\$ 35,000.00
55200	Fund Cost Recovery (20 - 30)	\$ 687,808.50	\$ (250,446.00)	\$ (437,362.50)	\$ -	\$ -	\$ -
55201	Fund Cost Recovery (40)	\$ (703,204.70)	\$ -	\$ -	\$ (703,204.70)	\$ 703,204.70	\$ -
	Total Other Expenses	\$ 19,603.80	\$ (250,446.00)	\$ (437,362.50)	\$ (668,204.70)	\$ 703,204.70	\$ 35,000.00
	Total Expense	\$ 5,788,863.00	\$ 44,917.00	\$ 559,975.00	\$ 6,393,755.00	\$ 5,622,058.85	\$ 12,015,813.85
	Net Income (Loss)	\$ -	\$ -	\$ -	\$ -	\$ (31,963.85)	\$ (31,963.85)

APPENDIX V
CONSOLIDATED SET OF RECOMMENDATIONS AND REQUESTS FROM THE 11TH SPECIAL
SESSION OF THE IPHC (SS011) (22 JUNE 2021)

RECOMMENDATIONS

Management Strategy Evaluation Program of Work

SS011-Rec.01 ([para. 7](#)) The Commission **RECOMMENDED** that the IPHC Secretariat:

- a) prioritize tasks F1, F.2, F.3 and F.5 to support the development of a robust framework, and E.3 to work with stakeholders and the Commission to improve the methods of presenting MSE results.
- b) continue to work on task M.3 to understand the trade-offs with multi-year stock assessments.
- c) continue investigation of size limits (M.1) to understand the long-term effects of a change in the size limit, including under different realizations of population dynamics such as size-at-age.

REQUESTS

Nil



**AGENDA FOR THE 11th SPECIAL SESSION OF THE IPHC
(SS011)**

Date: 22 June 2021

Location and Venue: Electronic: Adobe Connect

Time: 11:00-14:00 (PDT)

Chairperson: Mr Glenn Merrill (United States of America)

Vice-Chairperson: Mr Paul Ryall (Canada)

1. **OPENING OF THE SESSION** (*Chairperson*)
2. **ADOPTION OF THE AGENDA AND ARRANGEMENTS FOR THE SPECIAL SESSION**
(*Chairperson*)
3. **MANAGEMENT STRATEGY EVALUATION PROGRAM OF WORK**
 - **IPHC-2021-SS011-03:** *Management Strategy Evaluation Program of Work (2021-23) (Hicks A, Stewart I, Hutniczak B)*
4. **Budget Estimates: FY2022 (for approval)** (*IPHC Secretariat*)
 - **IPHC-2021-SS011-04:** *Budget Estimates: FY2022 (for approval) (Wilson D, Jernigan K)*
5. **ADOPTION OF THE REPORT OF THE 11TH SPECIAL SESSION OF THE IPHC (SS011)** (*Chairperson*)



**LIST OF DOCUMENTS FOR THE 11th SPECIAL SESSION OF THE IPHC
(SS011)**

Last update: 7 June 2021

Document	Title	Availability
IPHC-2021-SS011-01	Agenda for the 11 th Special Session of the IPHC (SS011)	✓ 1 June 2021
IPHC-2021-SS011-02	List of Documents for the 11 th Special Session of the IPHC (SS011)	✓ 1 June 2021
IPHC-2021-SS011-03	Management Strategy Evaluation Program of Work (Hicks A, Stewart I, Hutniczak B)	✓ 1 June 2021
IPHC-2021-SS011-04	Budget estimates: FY2022 (for approval) (Wilson D, Jernigan K)	✓ 7 June 2021



Management Strategy Evaluation Program of Work (2021–23)

PREPARED BY: IPHC SECRETARIAT (HICKS A, STEWART I, HUTNICZAK B; 1 JUNE 2021)

PURPOSE

To provide the Commission with potential topics to include in a Management Strategy Evaluation (MSE) Program of Work (2021-23) for the IPHC Secretariat.

BACKGROUND

Report of the 97th Session of the IPHC Annual Meeting ([IPHC-2021-AM097-R](#)), AM097-Req.02:

(para. 70) The Commission REQUESTED that the IPHC Secretariat consider and develop a draft MSE Program of Work for review by the Commission. The MSE Program of Work should describe technical versus policy-oriented issues, linkages between/among specific work products, and sequencing considerations between/among items. The MSE Program of Work should describe the resources required to complete items.

A draft Program of Work has been developed based on the request from AM097, including a description of activities related to the Management Strategy Evaluation (MSE) that the IPHC Secretariat may engage in over the next two years. It presents and describes many tasks categorized by topic and whether it is technical or policy related. It identifies the time and some of the resources needed for each task, and provides a linkages between tasks. As per the established IPHC peer review process, all MSE products would be reviewed by the Scientific Review Board (SRB). In addition, relevant tasks would be considered by the Management Strategy Advisory Board (MSAB).

It is important to have a set of working definitions, and this is especially true to the MSE process since it involves many technical terms that may be interpreted or used differently by different people. 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>

Management Strategy Evaluation (MSE)

Management Strategy Evaluation (MSE) is a process to evaluate alternative management procedures (MPs) and identify those that are robust to uncertainty and meet the defined objectives. This process, in general, involves the following:

1. defining fishery goals and objectives with the involvement of stakeholders and managers,
2. identifying management procedures to evaluate,
3. simulating a population with application of the management procedures,

4. evaluating and presenting the results in a way that examines trade-offs between objectives,
5. applying a chosen management procedure, and
6. repeating this process in the future to address changes in objectives, assumptions, and expectations.

Figure 1 shows these different components and that the process is not necessarily sequential but may iterate between components as learning progresses.



Figure 1. A depiction of the Management Strategy Evaluation (MSE) process showing the iterative nature of the process with the possibility of moving either direction between most components.

A complete MSE for Pacific halibut (*Hippoglossus stenolepis*) was delivered to the Commission at the 97th Session of the IPHC Annual Meeting (AM097) (see [IPHC-2021-AM097-11](#)). Many of the tasks proposed in this program of work will use past accomplishments to further the MSE process. The past accomplishments include the following:

- Stakeholder familiarization with the MSE process.
- Defined conservation and fishery goals and objectives.
- Defined performance metrics for those objectives.
- Coast-wide (single-area) and spatial (multiple-region) models.
- Identified management procedures for the coastwide fishing intensity and distributing the TCEY to IPHC Regulatory Areas.
- Results investigating coastwide fishing intensity ([IPHC-2020-AM096-12](#)) and results incorporating MPs to distribute the TCEY to IPHC Regulatory Areas ([IPHC-2021-AM097-11](#)).

MSE is a process that can develop over many years with iterations to investigate different aspects of a harvest strategy with the goals of identifying robust management procedures as well as understanding the dynamics of Pacific halibut. It is also a process that needs monitoring and adjustments to make sure that management procedures are performing adequately. Therefore, the MSE work for Pacific halibut will be ongoing as new objectives are defined, more complex models are built, new management procedures are defined, results are updated, and defined exceptional circumstances are observed. Embracing this iterative process, this program of work identifies the tasks that are a continuation of past work and those that are new.

General Categories

The tasks are divided into five general categories, which are related to Figure 1.

1. **Objectives:** The goals and objectives that are used in the evaluation.
2. **Management Procedures (MPs):** Specific, well-defined management procedures that can be coded to produce simulated TCEYs for each IPhC Regulatory Area.
3. **Framework:** The specifications and computer code for the closed-loop simulations including the operating model (OM) and how it interacts with the MP.
4. **Evaluation:** The performance metrics and presentation of results. This includes how the performance metrics are evaluated (e.g. tables, figures, and rankings), presented to the Commission and its subsidiary bodies, and disseminated for outreach.
5. **Application:** Specifications of how a MP may be applied in practice and re-evaluated in the future.

The tasks, without rationale and importance, are listed in Table 1, and [Appendix I](#) provides a full description of each task. There are many tasks listed and only a few tasks, at most, can be completed in 2021. Therefore, a “time” indication is provided where 1 indicates a short amount of time (approximately one month) and a 10 indicates a full year (i.e. for presentation at IM097 in November 2021). Times can be added to indicate the total time for multiple tasks. Additionally, the completion of some tasks may be necessary or helpful to complete other tasks to their fullest extent. For example, the development of migration scenarios is necessary to fully understand the long-term effects of size limits, whereas the integration of length-at-age models would be useful but not entirely necessary (if willing to apply simplifying assumptions).

Table 1. Tasks for consideration in the development of an IPHC Secretariat Program of Work for MSE. Time is an estimate of the amount of time to complete that task without any prerequisites. The Total Time includes the time to complete (or partially complete) prerequisite tasks (where 10 indicates a full schedule up to IM097 in November 2021 and 20 a full schedule up to IM098 in November 2022).

ID	Category	Task	Deliverable	Time	Total Time
O.1	Objectives	Revisit sustainability objectives	Updated coastwide and regional objectives	1–2	1–2
O.2	Objectives	Revisit fishery objectives	Updated coastwide and regional objectives	2–4	2–4
M.1	MPs	Size limits	Identification, evaluation of size limits	2–3	10–20
M.2	MPs	Survey-based MPs	Identification, evaluation of empirical MPs using FISS data directly	2–4	4–6
M.3	MPs	Multi-year assessments	Evaluation of multi-year assessments	1–2	2–4
M.4	MPs	Non-directed discard mortality	Evaluation of management procedures related to non-directed discard mortality.	2–4	3–6
M.5	MPs	Additional MPs with scale and distribution components	Evaluation of additional MPs incorporating scale and distribution elements	1–5	3–8
F.1	Framework	Develop migration scenarios	Develop OMs with alternative migration scenarios	3–7	3–7
F.2	Framework	Implementation variability	Incorporate additional sources of implementation variability in the framework	2–4	2–4
F.3	Framework	Develop more realistic simulations of estimation error	Improve the estimation model to more adequately mimic the ensemble stock assessment	3–8	3–8
F.4	Framework	Time-varying parameters	Code into the OM the option for more time-varying parameters.	2–4	2–4
F.5	Framework	Develop alternative OMs	Code alternative OMs in addition to the one already under evaluation.	3–4	5–8
F.6	Framework	Improve framework code	A more usable framework	1–10	1–10
F.7	Framework	Model length-at-age	OM that can model length specifically	6–10	6–10
E.1	Evaluation	Develop conservation and fishery performance metrics	Performance metrics linked to primary objectives. Additional performance metrics for evaluation beyond primary objectives	1	1–2
E.2	Evaluation	Add economic performance metrics	Develop economic performance metrics to link with the economic study and bring the human dimension into the MSE	2-3	2-4
E.3	Evaluation	Presentation of results	Develop methods and outputs that are useful for presenting outcomes to stakeholders and Commissioners	1–2	1–3
A.1	Application	Develop exceptional circumstances	A list of exceptional circumstances that would result in additional MSE evaluations	1–3	1–3

RECOMMENDATION/S

That the Commission:

- 1) **NOTE** paper IPHC-2021-SS011-03 which lists tasks that may be considered in the development of a Management Strategy Evaluation (MSE) Program of Work (2021-23) for the IPHC Secretariat;
- 2) **RECOMMEND** connecting the MSE with economics outcomes from the Pacific Halibut Multiregional Economic Impact Assessment (PHMEIA);
- 3) **RECOMMEND** and prioritize tasks for inclusion in a Program of Work for MSE related activities by the IPHC Secretariat.

APPENDICES

Appendix I: Descriptions of potential tasks for the IPHC MSE

APPENDIX I

DESCRIPTIONS OF POTENTIAL TASKS FOR THE IPHC MSE

The tasks presented in Table 1 are listed below with a full description. The tasks are placed into three categories of priority.

- **High priority** contains tasks that affect other tasks, are necessary for a more scientifically defensible MSE, and have been identified in past reports of the Commission, subsidiary bodies, or peer reviews.
- **Mid priority** contains tasks that have been identified in past reports of the Commission, subsidiary bodies, or peer reviews.
- **Low priority** contains tasks that are of general interest and would be useful for development of a robust harvest strategy policy by the IPHC.

For each task from Table 1 the deliverable, time, and resources involved are listed. The linkages with other tasks are provided by describing the tasks that are dependent on the tasks being described (*dependent tasks*), the tasks that would concurrently benefit from the completion of the task (*concurrent tasks*), and tasks that are necessary to complete before the tasks described (*prerequisite tasks*).

HIGH PRIORITY***F.1. Develop migration scenarios***

Type: Technical

Deliverable: Operating models incorporating a range of migration hypotheses. These may be individual models with uncertainty in migration parameters, multiple models with specific hypotheses about migration/movement, or a combination of both.

Time: 3–7

Resources: IPhC Secretariat time to investigate data, write computer code, and run models.

Dependent tasks: This task is necessary for the evaluation of all MP tasks (MP.1 through MP.5) and will help to identify exceptional circumstances (A.1).

Concurrent tasks: Tasks F.4, F.5, and F.6 would be partially achieved with the completion of this task.

Prerequisite tasks: None.

Description: Migration of Pacific halibut is complex, and some aspects are still uncertain. Including multiple migration models in the simulations would assist in identifying MPs that are robust to this uncertainty. For example, paragraph 46b of [IPHC-2020-MSAB016-R](#) noted “*it is uncertain if this MP is robust to alternative assumptions about movement, recruitment distribution, and productivity.*” Additionally, this investigation will help identify reasonable methods to model the movement of Pacific halibut. Overall, this work is essential to the robust investigation of all management procedures.

F.2. Incorporate additional sources of implementation variability

Type: Technical

Deliverable: Incorporate additional sources of implementation variability in the framework.

Time: 2–4

Resources: IPhC Secretariat time to investigate data and write computer code. Some aspects, such as the deviations of realized mortality in various fisheries from the mortality limits, would benefit from input by the MSAB.

Dependent tasks: This task would be helpful for the evaluation of all MP tasks (MP.1 through MP.5) and will help to identify exceptional circumstances (A.1).

Concurrent tasks: Task F.6 would be partially achieved with the completion of this task.

Prerequisite tasks: None

Description: It is important to simulate implementation variability, the deviation of realized mortality limits from the limits determined by the MP, to identify MPs that are robust to all sources of variability. The current framework would benefit from adding other sources of implementation variability such as the final mortality limits departing from the MP determined mortality limits. This was a priority recommendation from the [independent peer review of the MSE](#).

F.3. Develop more realistic simulations of estimation error

Type: Technical

Deliverable: Improved estimation models to better mimic the ensemble stock assessment.

Time: 3–8

Resources: IPhC Secretariat time to investigate models and write computer code.

Dependent tasks: This task would be helpful for the evaluation of all MP tasks (MP.1 through MP.5) and will help to identify exceptional circumstances (A.1).

Concurrent tasks: Task F.6 would be partially achieved with the completion of this task.

Prerequisite tasks: None

Description: The current results are based on simulating estimation error, which is a useful assumption but may not represent the behavior of the ensemble stock assessment. A more realistic approach would be to use a simplified version of the current ensemble stock assessment. Work has already been completed for this task, but it will take some additional time to ensure a complete and accurate method.

F.5. Develop alternative OMs

Type: Technical

Deliverable: Implement additional OMs in addition to the current OM being used to represent a wider range of potential future states of the Pacific halibut population.

Time: 3–4

Resources: IPhC Secretariat time to evaluate data, investigate models, and write computer code

Dependent tasks: This task would be helpful for the evaluation of all MP tasks (MP.1 through MP.5) and will help to identify exceptional circumstances (A.1).

Concurrent tasks: Tasks F.1, F.4, and F.6 would be partially achieved with the completion of this task.

Prerequisite tasks: Partial completion of tasks F.1, F.4, and F.6 are necessary for this task.

Description: The OM represents the Pacific halibut population and fisheries, and incorporates uncertainty, variability, and alternative hypotheses. The coastwide MSE used two models to represent multiple hypotheses (a long and a short coastwide model), while the current multi-regional MSE incorporates a single model with variability in specific parameters. Improvements would include expanding the options for variability in a single model and developing additional OMs based on alternative hypotheses to use in the simulations.

MID PRIORITY TASKS**F.4. Time-varying parameters**

Type: Technical

Deliverable: Options in the OM for more time-varying parameters.

Time: 2–4

Resources: IPHC Secretariat time to write computer code.

Dependent tasks: This task would be helpful for the evaluation of all MP tasks (MP.1 through MP.5) and will help to identify exceptional circumstances (A.1).

Concurrent tasks: Task F.1 and F.6 would be partially achieved with the completion of this task

Prerequisite tasks: None

Description: Processes such as selectivity and movement likely change over time and currently are not completely implemented in the OM. Allowing for time-varying parameters will allow for incorporation of variability in the OMs resulting in a more robust analysis of MPs.

F.6. Improve the framework code

Type: Technical

Deliverable: A more complete, general, and usable MSE framework for use at the IPHC and potentially by Contracting Party domestic agencies.

Time: 1–10

Resources: IPHC Secretariat time to research elements of MSE and write computer code

Dependent tasks: This task would be helpful for the evaluation of all MP tasks (MP.1 through MP.5).

Concurrent tasks: This encompasses all framework tasks but is more general than those.

Prerequisite tasks: None

Description: An improved framework would allow for more robust and rapid investigations, as well as usability in other fisheries. There are many aspects that could be improved including updating the code for easier future modifications, improving the user interface for easier use by others, adding additional options that may be useful now or in the future, and improving outputs for a more thorough investigation of the results.

F.7. Model length-at-age

Type: Technical

Deliverable: An OM with the option to model length-at-age as an intermediate step to determine the weight-at-age.

Time: 6–10

Resources: IPHC Secretariat time to research elements of MSE and write computer code.

Dependent tasks: The task would be especially helpful for task MP.1 (size limits), but may benefit the investigation of other MPs.

Concurrent tasks: This task could benefit task F.6.

Prerequisite tasks: None

Description: The IPHC MSE framework currently uses weight-at-age to translate the numbers of fish into biomass. This is useful for Pacific halibut because the variability in length-at-age is high, is not well characterized, and there are many observations of weight-at-age. An alternative is to model length-at-age and weight-at-length to translate numbers of fish to biomass, which allows for the specific application of size-based processes such as length sampling, length-based selectivity, and length-based management options such as size limits. This is a considerable task because not only would the code need to be added, but research is needed to characterize the length processes and condition the OMs. An alternative to using specific length-based models is to make assumptions of the proportion of fish greater than a specific length at each age. This is useful, but less accurate and understandable.

M.1. Size limits

Type: Policy

Deliverable: Identification and evaluation of size limits.

Time: 2–3

Resources: IPHC Secretariat time to implement computer code, develop MPs, and tabulate results. MSAB to identify potential MPs.

Dependent tasks: None

Concurrent tasks: None

Prerequisite tasks: Tasks F.1 and F.7 are essential to a robust analysis. Tasks F.2 through F.6 would be useful.

Description: The Commission has identified size limits as a potential topic to investigate using a MSE approach to evaluate long-term effects of different size limit options, as mentioned in [IPHC-2021-AM097-R](#).

para 50: The Commission NOTED that the evaluation provided decision-making information for consideration of the current MinSL and/or a MaxSL. The focus is on short-term yield, fishery and stock performance while retaining all other aspects of the IPHC's interim management procedure. It is not intended to provide a comparison of long-term performance of size limits as one part of a comprehensive management procedure. Such a comprehensive analysis may be done through management strategy evaluation (MSE). Questions regarding long-term change in spatial distribution and scale of recruitment and spawning biomass require the full 'closed-loop' approach used in the MSE.

Some additions to the MSE framework code would be necessary, as identified in F.7. Furthermore, the integration of multiple hypothesis for migration would allow for a more robust evaluation (task F.1). Any of the other framework tasks would improve the evaluation further.

M.2. IPHC Fishery-Independent Setline Survey (FISS)-based MPs

Type: Policy

Deliverable: Identification and evaluation of empirical MPs using IPHC Fishery-Independent Setline Survey (FISS) data directly

Time: 2–4

Resources: IPHC Secretariat to develop MPs and implement them in the computer code. MSAB to identify MPs.

Dependent tasks: None

Concurrent tasks: None

Prerequisite tasks: None are essential, although any of the framework tasks (F.1 through F.7) may benefit this task.

Description: Paragraph 41 of [IPHC-2019-SRB015-R](#) and paragraph 21, 22, and 51 of [IPHC-2020-MSAB015-R](#) mentioned the use of FISS observations to determine mortality limits directly within an IPHC Regulatory Area. This would be a different paradigm than the current interim harvest strategy policy where a coastwide TCEY is distributed to IPHC Regulatory Areas. This task would take a considerable amount of time developing potential MPs.

M.3. Multi-year assessments

Type: Policy

Deliverable: Evaluation of setting mortality limits at a period greater than annually.

Time: 1–2

Resources: IPHC Secretariat time to implement computer code and tabulate results.

Dependent tasks: None

Concurrent tasks: Tasks E.1 and E.2 would be useful to complete for a thorough evaluation.

Prerequisite tasks: None are essential, although any of the framework tasks (F.1 through F.7) may benefit this task.

Description: The 2nd Performance Review of the IPHC ([PRIPHC02-Rec.10](#), para 82) recommended the investigation of multi-year decision-making. Yearly revisions of harvest policies lead to fluctuation in quota, which in turn affects harvest and investment decisions of fishers. Multiannual quotas, on the other hand, increases the risk of periodical substantial adjustments to quota. The current MSE has performed preliminary evaluations of a MP setting mortality limits every fifth year. This type of MP would allow time for more in-depth research on the assessment and MSE. Continued investigation of this topic would be easy to do, although it would benefit from completion of any of the framework tasks and developing performance metrics more meaningful to this type of MP.

M.4. Non-directed discard mortality

Type: Policy

Deliverable: Evaluation of management procedure related to non-directed discard mortality

Time: 2–4

Resources: IPHC Secretariat time to implement computer code and tabulate results.

Dependent tasks: None

Concurrent tasks: None

Prerequisite tasks: None are essential, although any of the framework tasks (F.1 through F.7) may benefit this task.

Description: Paragraph 83 of [IPHC-2020-AM096-R](#) noted that the MSE is an appropriate tool to investigate non-directed discard mortality. Paragraph 89 of [IPHC-2020-AM096-R](#) requested topics of work beyond AM097, including work on non-directed discard mortality. The MSE framework is capable of investigating any aspect of mortality on Pacific halibut.

M.5. Additional MPs with scale and distribution components

Type: Policy

Deliverable: Additional evaluation of MPs incorporating scale and distribution components.

Time: 1–5

Resources: IPHC Secretariat to develop MPs and implement them in the computer code. MSAB to identify MPs.

Dependent tasks: None

Concurrent tasks: None

Prerequisite tasks: None are essential, although any of the framework tasks (F.1 through F.7) may benefit this task.

Description: The MSE completed for AM097 provided many useful results as well as insights into potential MPs using the SPR-based approach of determining a coastwide TCEY and distributing it to IPHC Regulatory Areas. Evaluating additional MPs may provide further insight into implementing an IPHC harvest strategy policy. Paragraph 53 of [IPHC-2020-MSAB016-R](#) identified two additional MPs for evaluation. There are many other possible MPs.

LOW PRIORITY TASKS**O.1. Revisit sustainability objectives**

Type: Policy

Deliverable: Updated biological sustainability objectives for the entire stock and for each Biological Region.

Time: 1–2

Resources: IPHC Secretariat time to determine sensible objectives.

Dependent tasks: Tasks E.1 and E.3 would be affected by any change to the primary objectives.

Concurrent tasks: None

Prerequisite tasks: None

Description: The current biological sustainability objectives are useful for the evaluation of MPs, but the minimum proportions of spawning biomass in each Biological Region were determined in an *ad hoc* manner. Additional research could be done to determine reasonable minimums for this biological sustainability objectives, or to redefine the measurable objectives for the general objective to conserve spatial population structure.

O.2. Revisit fishery objectives

Type: Policy

Deliverable: Updated fishery objective for the entire range of Pacific halibut and for each IPHC Regulatory Area.

Time: 2–4

Resources: IPHC Secretariat time to develop objectives and an MSAB meeting for identification and discussion of fishery objectives.

Dependent tasks: Tasks E.1 and E.3 would be affected by any change to the primary objectives.

Concurrent tasks: None

Prerequisite tasks: None

Description: The MSE is currently using a wide range of pertinent fishery objectives. However, these fishery objectives are minimally defined, although purposefully to allow for examination of trade-offs between objectives, especially between IPHC Regulatory Areas. It may be worthwhile to revisit these fishery objectives to determine if new objectives have been identified in the MSE process and if any additional details can be supplied for the current objectives.

E.1. Develop conservation and fishery performance metrics

Type: Policy and technical

Deliverable: Performance metrics linked to primary objectives, and additional performance metrics for evaluation beyond primary objectives

Time: 1

Resources: IPHC Secretariat time to develop performance metrics and implement them into the framework.

Dependent tasks: None

Concurrent tasks: Tasks O.1 and O.2 would determine primary performance metrics. Task E.3 would be affected because performance metrics are used to present results.

Prerequisite tasks: Possibly tasks O.1 and O.2 if they are undertaken and result in changes to the primary objectives.

Description: Performance metrics are used to present results and evaluate MPs. Therefore it is very important to have meaningful performance metrics that are easily understood.

E.2. Develop economic performance metrics

Type: Policy and technical

Deliverable: Additional performance metrics for evaluation.

Time: 2-3

Resources: IPHC Secretariat time to work with the Fisheries Policy & Economics Branch (FPEB) on integrating the Pacific halibut multiregional economic impact assessment (PHMEIA) model results into the MSE (e.g. adopting economic metrics based on the PHMEIA model to present alongside already developed biological/ecological performance metrics).

Dependent tasks: Relies on the work by the FPEB.

Concurrent tasks: This task would complement task O.2 and be added to the set of performance metrics to present. Task E.3 would be affected because performance metrics are used to present results.

Prerequisite tasks: None within MSE, unless the economics component will be used to revisit fishery objectives (task O.2). It is dependent on the development of the PHMEIA model.

Description: Performance metrics are used to present results and evaluate MPs. Therefore it is very important to have meaningful performance metrics that are easily understood. Economic performance metric would bring the human dimension to the MSE framework. Potential metrics include: 1) contribution to the gross domestic product/GDP, 2) contribution to labor compensation (wages), 3) contribution to employment and 4) impact on households. These economic performance metrics can be separated into economic impact in the region where harvest occurs and spillover effects to other regions. The MSE OM could be aggregated to the PHMEIA model regions of AK, BC, and West Coast. Overall, economics performance metrics would provide an important additional evaluation of management procedures.

E.3. Presentation of results

Type: Technical

Deliverable: Methods and outputs that are useful for presenting outcomes to stakeholders and Commissioners

Time: 1–2

Resources: IPHC Secretariat time to develop methods and create outputs. MSAB to identify preferred methods.

Dependent tasks: None

Concurrent tasks: None

Prerequisite tasks: If tasks O.1, O.2, E.1, and E.2 are to be undertaken, they would need to be completed before the full completion of this task.

Description: Presenting results in a way that can be easily interpreted will assist with evaluation, as well as increase understanding and acceptance of MSE results. Identify useful ways to communicate results to stakeholders and the Commission will help identify candidate MPs for a harvest strategy policy. This task includes figures and tables for reports, oral presentation methods, distributed media, and interactive tools such as [MSE Explorer](#).

A.1 Develop exceptional circumstances

Type: Policy

Deliverable: A list of exceptional circumstances that would result in additional MSE evaluations.

Time: 1–3

Resources: IPHC Secretariat time to develop exceptional circumstances and determine how they would be monitored. MSAB to review and suggest additional exceptional circumstances of interest to stakeholders.

Dependent tasks: None

Concurrent tasks: None

Prerequisite tasks: None

Description: The [independent peer review of the MSE](#) and paragraph 60 of [IPHC-2020-SRB017-R](#) recommended that exceptional circumstances be developed to trigger further MSE research, if observed. From paragraph 60 of [IPHC-2020-SRB017-R](#), an exceptional circumstance is “*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.*” This process would be used once a harvest strategy policy is determined from MSE results and applied in the management process. Exceptional circumstances may relate to any process simulated in the MSE including population processes, fishing mortality, implementation variability, data generation, and estimation error.



Budget Estimates: FY2022 (for approval)

PREPARED BY: IPHC SECRETARIAT (D. WILSON, K. JERNIGAN; 7 JUNE 2021)

PURPOSE

To provide the Commission with the revised budget estimates for FY2022 (1 October 2021 to 30 September 2022) (for approval) noting the informal request from the Contracting Parties to freeze the FY2022 overall budget at FY2021 levels.

BACKGROUND

In accordance with Regulation 5, para. 3, of the IPHC Financial Regulations (2021) (shown below), the budgets for the next three (3) fiscal years consist of FY2022, FY2023, and FY2024, were presented to the FAC097 in January 2021 for consideration.

*(Para. 3) "The Executive Director shall prepare and submit to the FAC, Contracting Parties, and Commissioners, no later than **30 days before** the FAC meeting, budget estimates for the next three fiscal years."*

At FAC097, the following recommendation was developed and provided to the Commission:

Budget estimates: FY2022

FAC097–Rec.03 ([para. 25](#)) *The FAC **RECOMMENDED** that the Commission **AGREE** for the two Contracting Parties to engage in inter-sessional discussions over the coming months to adopt a budget for FY2022 and the associated Contributions. In doing so, the Contracting Parties may consult with and request assistance from the IPHC Secretariat.*

At AM097, the Commission considered the recommendation from FAC097 (above) and recorded the following:

***Budget estimates: FY2022 (for approval); FY2023 and FY2024 (for information)
FY2022***

IPHC-2021-AM097-R, para. 100: *The Commission **NOTED** the proposed FY2022 budget (financial period: 1 October 2021 to 30 September 2022; [Appendix IX](#)), presented by the IPHC Secretariat.*

IPHC-2021-AM097-R, para 101: *The Commission **NOTED** the IPHC Secretariat proposed Contracting Party contributions for FY2022 as follows:*

a) ***Canadian Contribution:***

- i. **US\$945,427** for contributions to the IPHC General Fund;*
- ii. **US\$111,250** to cover IFC pension deficit payments.*

b) **U.S.A. Contribution:**

- i. **US\$4,365,648** for contributions to the IPHC General Fund;
- ii. **US\$139,424** to cover IFC pension deficit payments;
- iii. **US\$475,000** to cover the IPHC Headquarters (lease and maintenance).

IPHC-2021-AM097-R, para 102: *The Commission **AGREED** for the two Contracting Parties to engage in inter-sessional discussions over the coming months to adopt a budget for FY2022 and the associated Contributions. In doing so, the Contracting Parties may consult with and request assistance from the IPHC Secretariat.*

On 3 May 2021, the Secretariat was advised that the budget for FY2022 would not be less than the contributions provided for FY2021. This would result in a contribution of US\$900,407 from Canada, and US\$4,157,760 from the U.S.A. The U.S.A. contribution would be exclusive of payments toward the IFCP (former staff pension plan) liability and the IPHC Headquarters costs.

Discussion

Noting the inter-sessional directive to reduce the overall proposed FY2022 budget to the FY2021 level, this would require a reduction of **US\$252,908** from the originally proposed budget at FAC097 (Table 1).

Table 1. FAC097 proposed, and SS011 revised, contributions to the General Fund to cover IPHC Secretariat expenses for Funds 10 (General), 30 (Statistics) and 20 (Research).

Description	FAC097 proposed	SS011 proposed
Canada – General Fund	\$945,427	\$900,407
United States of America – General Fund	\$4,365,648	\$4,157,760
Sub Total	\$5,311,075	\$5,058,167
Difference		-\$252,908

PROPOSED EXPENDITURES FOR THE FY2022 BUDGET (US\$)

FY2022 INCOME AND EXPENSES – The IPHC budget for FY2022 is proposed at [Appendix I](#), and results in a balanced budget for FY2022 for funds 10, 20 and 30 combined.

To reach the requested total Contracting Party contributions to the General Fund, the IPHC Secretariat has revised down several budget lines. Several of the key reductions are listed in Table 2 for information.

Other budget lines have been ‘refined’ through a detailed budget review process resulting in some increased (meetings and conferences) and decreased budget lines (travel). The IPHC Secretariat’s proposed income and expenses for the IPHC Fishery-Independent Setline Survey (FISS) (Fund 40) are based on the design tentatively endorsed at IM097 and reaffirmed at AM097. Fund 40 will be re-estimated later in 2021 to accommodate market conditions encountered throughout FY2021.

Table 2. Key proposed budget line item reductions for Funds 10 (General), 30 (Statistics) and 20 (Research).

Description	FAC097 proposed (10,20,30 Funds)	Budget reduction	SS011 proposed
Salaries and wages	\$3,786,632.85	<ul style="list-style-type: none"> One FTE – FSSB to be held vacant for FY2022. -\$77,230.00 Re-calculation of all salaries. -\$30,840.85 	\$3,678,562.00
Benefits	\$1,595,241.90	<ul style="list-style-type: none"> Re-assessed benefits. -\$115,354.40 	\$1,479,887.50
Medical Reimbursement - Retiree	\$102,217.50	<ul style="list-style-type: none"> Re-assessed benefits -\$9,258.90 	\$92,958.60
Contingency	\$53,013.00	<ul style="list-style-type: none"> Reduce contingency -\$18,013.00 	\$35,000
Key savings		-\$250,697.15	

The proposed other general cost assumptions include increases in salaries (based on cost of living and step increases, ~2.5%) and predicted annual increases in health care costs. These increases have been offset elsewhere in the budget ([Appendix I](#)).

RECOMMENDATION/S

That the Commission:

- 1) **NOTE** paper IPhC-2021-SS011-04 which provided the Commission with the revised budget estimates for FY2022 (1 October 2021 to 30 September 2022) (for approval) noting the informal request from the Contracting Parties to freeze the FY2022 overall budget at FY2021 levels.
- 2) **ADOPT** the FY2022 budget (1 October 2021 to 30 September 2022), as detailed in [Appendix I](#).

APPENDICES

[Appendix I](#): FY2022 Financial Budget – Proposed for adoption

Appendix I

FY2022 Financial Budget – Proposed for adoption

Account Number	Account Name	10 - General	20 - Research	30 - Statistics	10,20,30 - TOTAL	40 - FISS	10,20,30,40 - TOTAL
		FY2022	FY2022	FY2022	FY2022	FY2022	FY2022
Income							
40000	Contracting Party Contributions						
40000.01	Canada	\$ 900,407.00	\$ -	\$ -	\$ 900,407.00	\$ -	\$ 900,407.00
40000.02	United States of America	\$ 4,157,760.00	\$ -	\$ -	\$ 4,157,760.00	\$ -	\$ 4,157,760.00
	Total 40000 - Contracting Party Contributions	\$ 5,058,167.00	\$ -	\$ -	\$ 5,058,167.00	\$ -	\$ 5,058,167.00
40050	IFC Pension						
40050.01	IFC Pension - Canada	\$ 127,848.00	\$ -	\$ -	\$ 127,848.00	\$ -	\$ 127,848.00
40050.02	IFC Pension - United States of America	\$ 127,848.00	\$ -	\$ -	\$ 127,848.00	\$ -	\$ 127,848.00
	Total 40050 - IFC Pension	\$ 255,696.00	\$ -	\$ -	\$ 255,696.00	\$ -	\$ 255,696.00
40055	Headquarters (Lease & Maintenance)	\$ 475,000.00	\$ -	\$ -	\$ 475,000.00	\$ -	\$ 475,000.00
40060	Other Income	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40100	Grants, Contracts & Agreements	\$ -	\$ 44,917.00	\$ 559,975.00	\$ 604,892.00	\$ 48,720.00	\$ 653,612.00
40200	Interest Income	\$ -	\$ -	\$ -	\$ -	\$ 11,550.00	\$ 11,550.00
40200.01	Bank Interest	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40200.02	CD Interest	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total 40200 - Interest Income	\$ 475,000.00	\$ 44,917.00	\$ 559,975.00	\$ 1,079,892.00	\$ 60,270.00	\$ 1,140,162.00
40350	Fish Sales						
40350.01	Fish Sales - Pacific Halibut	\$ -	\$ -	\$ -	\$ -	\$ 5,471,025.00	\$ 5,471,025.00
40350.02	Fish Sales - Byproduct	\$ -	\$ -	\$ -	\$ -	\$ 58,800.00	\$ 58,800.00
	Total 40350 - Fish Sales	\$ -	\$ -	\$ -	\$ -	\$ 5,529,825.00	\$ 5,529,825.00
	Total Income	\$ 5,788,863.00	\$ 44,917.00	\$ 559,975.00	\$ 6,393,755.00	\$ 5,590,095.00	\$ 11,983,850.00
Expense							
Personnel Expenses							
50000	Salaries & Wages	\$ 2,925,000.00	\$ 85,447.00	\$ 668,115.00	\$ 3,678,562.00	\$ 478,584.75	\$ 4,157,146.75
50100	Benefits	\$ 1,260,000.00	\$ 20,335.00	\$ 199,552.50	\$ 1,479,887.50	\$ 14,837.55	\$ 1,494,725.05
50100.09	Medical Reimbursement - Retiree	\$ 92,958.60	\$ -	\$ -	\$ 92,958.60	\$ -	\$ 92,958.60
50200	Training & Education	\$ 5,000.00	\$ -	\$ 21,000.00	\$ 26,000.00	\$ 54,600.00	\$ 80,600.00
50300	Personnel Related Expenses	\$ -	\$ -	\$ 14,700.00	\$ 14,700.00	\$ 36,376.20	\$ 51,076.20
50300.01	Scholarship Awards	\$ 8,000.00	\$ -	\$ -	\$ 8,000.00	\$ -	\$ 8,000.00
	Total Personnel Expenses	\$ 4,290,958.60	\$ 105,782.00	\$ 903,367.50	\$ 5,300,108.10	\$ 584,398.50	\$ 5,884,506.60
Operational Expenses							
51000	Publications	\$ 6,000.00	\$ -	\$ 9,000.00	\$ 15,000.00	\$ -	\$ 15,000.00
51100	Mailing and Shipping	\$ 4,000.00	\$ 2,000.00	\$ 8,400.00	\$ 14,400.00	\$ 79,800.00	\$ 94,200.00
51200	Travel	\$ 70,300.00	\$ 4,150.00	\$ 10,000.00	\$ 84,450.00	\$ 117,516.00	\$ 201,966.00
51300	Meeting and Conference Expenses	\$ 171,000.60	\$ -	\$ -	\$ 171,000.60	\$ -	\$ 171,000.60
51400	Technology	\$ 135,000.00	\$ -	\$ -	\$ 135,000.00	\$ -	\$ 135,000.00
	Total Operational Expenses	\$ 386,300.60	\$ 6,150.00	\$ 27,400.00	\$ 419,850.60	\$ 197,316.00	\$ 617,166.60
Fees and Contract Expenses							
52000	Professional Fees	\$ 240,000.00	\$ -	\$ -	\$ 240,000.00	\$ -	\$ 240,000.00
52200	Other Fees and Charges	\$ -	\$ -	\$ -	\$ -	\$ 590,965.20	\$ 590,965.20
52300	Leases and Contracts	\$ 365,000.00	\$ 76,979.00	\$ 38,850.00	\$ 480,829.00	\$ 2,428,391.70	\$ 2,909,220.70
54000	Communications	\$ 25,000.00	\$ -	\$ 420.00	\$ 25,420.00	\$ 86,782.50	\$ 112,202.50
	Total Fees and Contract Expenses	\$ 630,000.00	\$ 76,979.00	\$ 39,270.00	\$ 746,249.00	\$ 3,106,139.40	\$ 3,852,388.40
Facilities and Equipment Expenses							
53000	Equipment Expense	\$ 28,000.00	\$ -	\$ 18,900.00	\$ 46,900.00	\$ 34,020.00	\$ 80,920.00
53100	Supplies Expense	\$ 32,000.00	\$ 106,452.00	\$ 2,100.00	\$ 140,552.00	\$ 933,980.25	\$ 1,074,532.25
53200	Maintenance and Utilities	\$ 24,000.00	\$ -	\$ -	\$ 24,000.00	\$ 42,000.00	\$ 66,000.00
53300	Facility Rentals	\$ 378,000.00	\$ -	\$ 6,300.00	\$ 384,300.00	\$ 21,000.00	\$ 405,300.00
	Total Facilities and Equipment Expenses	\$ 462,000.00	\$ 106,452.00	\$ 27,300.00	\$ 595,752.00	\$ 1,031,000.25	\$ 1,626,752.25
Other Expenses							
55000	Budget Contingency	\$ 35,000.00	\$ -	\$ -	\$ 35,000.00	\$ -	\$ 35,000.00
55200	Fund Cost Recovery (20 - 30)	\$ 687,808.50	\$ (250,446.00)	\$ (437,362.50)	\$ -	\$ -	\$ -
55201	Fund Cost Recovery (40)	\$ (703,204.70)	\$ -	\$ -	\$ (703,204.70)	\$ 703,204.70	\$ -
	Total Other Expenses	\$ 19,603.80	\$ (250,446.00)	\$ (437,362.50)	\$ (668,204.70)	\$ 703,204.70	\$ 35,000.00
	Total Expense	\$ 5,788,863.00	\$ 44,917.00	\$ 559,975.00	\$ 6,393,755.00	\$ 5,622,058.85	\$ 12,015,813.85
	Net Income (Loss)	\$ -	\$ -	\$ -	\$ -	\$ (31,963.85)	\$ (31,963.85)