CHAPTER 2:

Northern British Columbia and Southeastern Alaska

This Chapter shall apply to the period from 2019 through 2028, unless both Parties agree that amendments are required to this Chapter by January 2024 to support conservation of Nass and Skeena River sockeye salmon or avoid undue disruption of the pink salmon fishery in District 104. The Parties shall complete a review of the results of the implementation of this Chapter by the Commission postseason meeting in January 2022. The review shall identify management actions taken to support the conservation of Nass River and Skeena River sockeye, to evaluate the consistency of those actions with the obligations of this Chapter and outline, if feasible, the benefit of those actions for Nass River and Skeena River sockeye.

Subject to the availability of funds, the United States (U.S.) shall make \$1.1 million available on an annual basis to U.S. management agencies for the specific purposes identified in this Chapter.

The Parties agree that:

1. With respect to the Portland Canal chum salmon fishery, a Party shall not conduct net fisheries in Alaskan Section 1A and Canadian sub-areas 3-15 and 3-16 or conduct directed chum fisheries in Alaskan Section 1B north and east of Akeku Point or in Canadian sub-areas 3-11 and 3-13 unless the Parties approve these chum fisheries.

2. With respect to sockeye salmon, the Parties shall develop a coordinated approach to management that reflects their commitment to apply appropriate management measure for Nass River and Skeena River sockeye salmon.

3. The Parties shall maintain a joint Northern Boundary Technical Committee (the "Committee") that reports, unless the Parties otherwise decide, to the Northern Panel and the Commission. The Committee shall, *inter alia*:

(a) evaluate the effectiveness of management actions;

(b) identify and review the status of pink, chum, sockeye, and coho stocks;

(c) provide the most current information on the stocks' harvest rates and patterns, and develop a joint data base for assessments;

(d) devise analytical methods for the development of alternative regulatory and production strategies;

(e) identify information and research needs, including future monitoring programs for stock assessments; and

(f) for each season, make stock and fishery assessments and recommend to the Northern Panel conservation measures that are consistent with this Treaty.

4. Canada shall provide the Committee with pre-season run-size forecasts for Skeena River and Nass River sockeye salmon prior to the annual January post-season meeting of the Northern Panel, as well as updated weekly run-size estimates as in-season information becomes available. The Parties agree that the 50% probability (p50) of the run-size forecasts may be used to make management decisions regarding fishing plans for Canada and the U.S., respectively.

5. The Parties shall continue to exchange the data and information from the in-season management regime at both the Skeena Tyee test fishery and from the Nass River assessments to facilitate understanding of run-size estimation.

6. The U.S. shall¬:

(a) manage the Alaskan District 104 purse seine fishery prior to statistical week 31 to:

(i) achieve an annual catch share of Nass and Skeena sockeye of 2.45% of the Annual Allowable Harvest (AAH) of the Nass and Skeena sockeye stocks in that year. The methodology for AAH calculations is provided in the Appendix to this Chapter,

(ii) carry forward from year to year annual deviations from that annual catch share. Details of the procedure are outlined in the Appendix to this Chapter;

(b) manage the Alaskan District 101 drift gillnet fishery to:

(i) achieve an annual catch share of Nass sockeye of 13.8% of the AAH of the Nass sockeye stocks in that year. The methodology for AAH calculations is provided in the Appendix to this Chapter,

(ii) carry forward from year to year annual deviations from that annual catch share. Details of the procedure are outlined in the Appendix to this Chapter.

7. Based on run-size estimates for Nass River and Skeena River sockeye, the Parties shall undertake additional management actions prior to statistical week 31 in District 104 as follows:

(a) Skeena River

(i) The expected total run is below 900,000 sockeye salmon. At this level, there are no Canadian commercial marine harvests. The U.S. shall undertake measures to reduce the impact of the District 104 purse seine fishery, which may include delaying the start date and duration of the fishery.

(ii) The expected total run is below 600,000 sockeye salmon. At this level, there are no Canadian marine or in-river commercial harvests, with the exception of terminal fisheries adjacent to enhancement spawning channels. The U.S. shall undertake additional measures to

reduce the impact of the District 104 purse seine fishery, which may include delaying the start date and duration of the fishery, or reducing the fishing area.

(b) Nass River

(i) The expected total run is below 200,000 sockeye salmon. At this level, there are no Canadian commercial marine harvests. The U.S. shall undertake measures to reduce the impact of District 101 drift gillnet and District 104 purse seine fisheries, which may include delaying the start date and duration of these fisheries.

(ii) The expected total run is below 180,000 sockeye salmon. At this level, there are no Canadian marine or in-river commercial harvests. The U.S. shall undertake measures to reduce the impact of District 101 drift gillnet and District 104 purse seine fisheries, which may include delaying the start date, reducing the duration, reducing the area, or implementing mesh restrictions (District 101 drift gillnet fishery only) for these fisheries.

8. With respect to pink salmon, Canada shall:

(a) manage the Canadian Area 3-1, 3-2, 3-3 and 3-4 net fishery to:

(i) achieve an annual catch share of 2.49% of the AAH of Alaskan Districts 101, 102 and 103 pink salmon in that year. The methodology for AAH calculations is provided in the Appendix to this Chapter,

(ii) carry forward from year to year annual deviations from that annual catch share. Details of the procedure are outlined in the Appendix to this Chapter;

(b) manage the Canadian Area 1 troll fishery to:

(i) achieve an annual catch share of 2.57% of the AAH of Alaskan Districts 101, 102 and 103 pink salmon in that year. The methodology for AAH calculations is provided in the Appendix to this Chapter,

(ii) carry forward from year to year annual deviations from that annual catch share. Details of the procedure are outlined in the Appendix to this Chapter.

9. In order to accomplish the objectives of this Chapter, each Party shall not initiate new intercepting fisheries, or conduct or redirect fisheries in a manner that intentionally increases interceptions.

10. Canada agrees to complete a comprehensive escapement goal analysis (prior to the 2023 fishing season) for Nass and Skeena river sockeye salmon that shall be peer-reviewed by an independent contractor and then submitted to the Committee and Northern Panel for further review.

11. The Northern Panel and the Committee shall co-develop the Terms of Reference for the (biological or MSY-based) escapement goal analysis and shall include a review of:

(a) long-term run-timing patterns;

- (b) short-term run-timing anomalies;
- (c) the potential influence of stock-specific abundance changes on perceived run timing shifts;
- (d) data limitations for modeling timing through the District 104 fishery; and
- (e) any other related information that could be relevant to management of Boundary Area fisheries.

12. The U.S. agrees to complete a harvest pattern analysis of the pink salmon fishery in District 104 salmon that shall be peer-reviewed by an independent contractor and then submitted to the Committee and the Northern Panel for further review.

13. The Northern Panel and the Committee shall co-develop the Terms of Reference for the harvest pattern analysis and shall include a review of:

- (a) the long-term changes in abundance of the various pink salmon stocks in the Boundary Area;
- (b) the changes in the timing, and location, of the pink salmon harvest in District 104;
- (c) the impact of pink salmon harvest in District 104 on Skeena River and Nass River sockeye; and
- (d) the efficacy of assessing pink salmon run timing through District 104 using available data.

14. The Committee shall review the sockeye run reconstruction model to provide recommendations to the Northern Panel, at or before the January 2022 Commission post-season meeting, regarding the creation of a simpler run reconstruction model using genetic data and to provide recommendations on any improvements to the program, if needed.

15. The Parties shall continue to collect sockeye salmon genetic samples from appropriate marine fisheries for use in the annual run reconstruction including Alaska Districts 101, 102, 103, and 104 purse seine and Districts 101 and 106 drift gillnet fisheries. The Parties shall also take sockeye salmon genetic samples in Canadian Area 3 and 4 gillnet and seine fisheries for use in the annual run reconstruction or other fisheries as jointly determined by the Parties.

Appendix to Annex IV, Chapter 2: Understanding on the Application of Annex IV, Chapter 2 (Northern British Columbia and Southeastern Alaska)

1. Annual Allowable Harvest ("AAH")

(a) Combined Nass and Skeena Sockeye AAH for Alaska District 104 Purse Seine Fishery

(i) The AAH each year shall be calculated as the combined total run of adult Nass and Skeena sockeye salmon in that year, less the combined Nass and Skeena escapement target of 1.1 million fish. If the actual Nass and Skeena spawning escapement for the season is below the target level, the actual spawning escapement shall be used in the AAH calculation.

(ii) The total run calculation includes the catches of Nass and Skeena sockeye salmon in the principal boundary area fisheries and the spawning escapements to the Nass and Skeena watersheds. This includes the catch of Nass and Skeena sockeye salmon in: Alaskan Districts 101, 102, 103, 104 and 106 net fisheries; Canadian Areas 1, 3, 4 and 5 net fisheries; and Canadian Nass and Skeena in-river fisheries. Catches in other boundary area fisheries may be included in the total run calculation as determined by the Committee.

(b) Nass Sockeye AAH for Alaska District 101 Drift Gillnet Fishery

(i) The AAH each year shall be calculated as the total run of adult Nass sockeye in that year less the escapement target of 0.2 million fish. If the actual Nass spawning escapement for the season is below the target level, the actual spawning escapement shall be used in the AAH calculation.

(ii) The total run calculation includes the catches of Nass sockeye salmon in the principal boundary area fisheries and the spawning escapement to the Nass watershed. This includes the catch of Nass sockeye salmon in: Alaskan Districts 101, 102, 103, 104 and 106 net fisheries; Canadian Areas 1, 3, 4, and 5 net fisheries; and Canadian Nass in-river fisheries. Catches in other boundary area fisheries may be included in the total run calculation as determined by the Committee.

(c) <u>Districts 101, 102 and 103 Pink Salmon AAH for Canadian Area 3(1-4) Net and Area 1 Troll</u> <u>Fisheries</u>

(i) The AAH each year shall be calculated as the total run of adult pink salmon to Alaskan Districts 101, 102 and 103 in that year, less the minimum escapement target of 10.75 million fish. If the actual escapement for the season is below the target level, the actual escapement shall be used in the AAH calculation.

(ii) The total pink salmon run to Alaskan Districts 101, 102 and 103 shall be calculated as the catch of Alaskan pink salmon in: Canadian Areas 1, 3, 4 and 5 net and troll fisheries; Alaskan Districts 101, 102, 103 and 104 net and troll fisheries; and in the escapements to Districts 101, 102 and 103.

2. Exchange of Management and Stock Assessment Information

(a) Pre-season

The Committee shall provide the pre-season estimates of the AAHs by May 1 of each year.

(b) In-season

The Parties shall exchange management and assessment information in-season. The exchange shall occur weekly (or more often, if required) and includes (but is not limited to) catch, catch per unit effort, escapement and run-size estimations.

(c) Post-season

The Committee shall determine the calculation of the allowable and actual harvests of salmon, as specified in this Chapter (prior to the annual January post-season meeting unless the Committee determines otherwise) using the agreed post-season accounting methods. These methods are expected to change as improved techniques or assessments become available. Any new jointly determined method shall be used in Committee post-season accounting. These new methods could include (but are not limited to) changes to escapement targets, stock identification methods and reconstruction models. Any new methods shall not be used to alter the AAH shares in this Chapter, or to recalculate previous years for which the accounting has been finalized.

3. Overage and underage provisions for paragraphs 6(a), 6(b), 8(a), and 8(b) of this Chapter (sockeye and pink salmon)

(a) The intent of the overage/underage provision is to provide an arrangement that makes the Parties accountable for catch shares but that offers flexibility in the Parties' management of fisheries subject to this Treaty.

(b) Although the management intent is to harvest salmon at the allowable percentage AAH, the Parties recognize that overages and underages may occur and that an accounting mechanism is required.

(c) The payback mechanism for each fishery shall be based on the number of fish and on the use of the accounting method referred to in paragraph 2(c) of this Appendix.

(d) After each season, the Committee shall determine the calculation of the allowable and actual harvests of salmon specified in this Chapter based on the post-season accounting method. If the actual harvest deviates from the annual allowable harvest that is stipulated in this Chapter, the amount of the deviation shall be added to any cumulative deviation.

(e) The management intent for each fishery shall be to return any overages to a neutral or negative balance as soon as possible. After five years of consecutive overages, the Party with a

cumulated overage shall provide the Northern Panel with specific management actions to eliminate the overage in that fishery.

4. Unless the Parties jointly decide otherwise, the accrual of underage is not intended to allow a Party to modify its fishing behaviour in any given year to harvest the total accrued underage. The Parties shall manage their fishing behaviour with the intent to harvest no more than 150% of their AAH in any season.

5. The Parties agree to review this Chapter a minimum of two years prior to its expiration with a view to renewing it. If such renewal is not successfully concluded before this Chapter expires, then the Parties shall carry forward the overages and underages described in this Appendix to the next Chapter period.