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January 9<sup>th</sup>, 2018

To First Nations and Stakeholders,

Re: Planning Priorities for Development of Salmon 2018/2019 Integrated Fisheries Management Plans (IFMPs) for Northern and Southern British Columbia (BC)

This letter is intended to communicate the Department's key planning priorities for developing the 2018/2019 Northern and Southern BC Salmon IFMPs. Specifically, these key planning priorities reflect areas where potential fishery management changes are under consideration for the 2018 season. Further discussion with First Nations and advisory groups on these priority areas will be required during the consultation process to develop the 2018/19 salmon IFMPs and further details on specific changes will be identified in the draft IFMPs that will be released at the end of February. If you wish to provide feedback on these key areas or other areas where you seek to propose changes for the IFMPs, you are requested to provide feedback in writing by **February 5, 2018** to Ashley Dobko at [Ashley.Dobko@dfo-mpo.gc.ca](mailto:Ashley.Dobko@dfo-mpo.gc.ca). The Department intends to share all feedback received with First Nations and stakeholders during upcoming meetings to support development of the draft IFMPs.

Key planning priorities for the 2018 season include:

### **1. COSEWIC and SARA Process**

Five salmon and one anadromous trout species have been or will be assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). COSEWIC's submission of its species assessments to the Government of Canada, via its annual report, initiates the Species at Risk Act (SARA) listing process to inform the decision by Governor in Council (GiC) on whether or not to amend Schedule I of SARA (the "List" of Species at Risk under the Act). The GiC's decision is based on the recommendation of the Minister of Environment and Climate Change Canada vis-à-vis the Minister of Fisheries and Oceans. This recommendation is informed by an extensive process led by DFO which includes development of a Recovery Potential Assessment; potential management scenarios for if the species is, or is not listed; a Socioeconomic Analysis, and consultations with First Nations and Stakeholders. Expected timelines are outlined in the table below. More details on timelines and opportunities for engagement will be provided at a later date.

Salmon	COSEWIC Assessment	# of DUs*	COSEWIC Annual Report Date	Anticipated GiC Decision Date**
Sakinaw Sockeye	EN	1	Oct 2016	Oct 2019
Okanagan Chinook	EN	1	Oct 2017	Oct 2020
Interior Fraser Coho	TH	1	Oct 2017	Oct 2020
Fraser Sockeye	8 EN, 2 TH, 5 SC, 9 NAR	24	Oct 2018	Oct 2021
Interior Fraser Steelhead (Thompson & Chilcotin)	Assessment not yet performed***	1	Early 2018	TBC
Southern BC Chinook	Assessment not yet performed	27	Expected Oct 2019	Oct 2022

EN – Endangered

TH – Threatened

SC – Special Concern

NAR – Not at Risk

\*DU refers to “designatable unit” or population. DUs and Wild Salmon Policy Conservation Units are similar, and in most cases, the same

\*\* Timelines as per new 36 month timeline for complex aquatic species –

(<http://registrelep-sararegistry.gc.ca/default.asp?lang=En&n=367595D1-1>)

\*\*\*undergoing an Emergency Assessment, as per SARA S.28(1).

Further information on the SARA listing process can be found at:

<http://www.dfo-mpo.gc.ca/species-especies/publications/sara-lep/policy-politique/index-eng.html>

The Department continues to implement fishery management actions to reduce impacts on these populations. Additional fishery management actions to protect these populations may be considered in 2018; further details are outlined in the sections below.

## 2. Skeena River Sockeye

The 2018 return of Skeena River sockeye is expected to be poor based on poor contributions of age-5 sockeye from the lowest return on record in 2013; weak returns of age-4 sockeye from the 2014 brood year; and only modest age-3 jack returns in 2017. Return rates have become more uncertain in recent years, with greater variability among the Skeena stock components and brood year survival rates. The preliminary 2018 pre-season forecast abundance for a range of probability levels is identified below:

Model	2018 Forecasts for reference probabilities				
	10%	25%	50% (median)	75%	90%
5 year Average Model	3,827,453	2,266,863	1,388,639	850,655	503,812
Sibling Model	1,466,874	990,741	645,112	420,059	283,712

Source: S. Cox-Rogers and S. Carr-Harris, Preliminary 2018 Skeena Sockeye Forecast Memo, Nov. 14, 2017

Based on the pre-season sockeye forecast in 2017 season, the IFMP included a number of changes to address an expected poor return of Skeena sockeye. The Department accepted the recommendations from the Skeena First Nations Technical Committee and feedback from consultations to increase the management trigger for initiating First Nations Section 35(1) fisheries for Skeena River sockeye from a 400,000 to 600,000 total return to Canada and supported Skeena First Nations in their plans to start the season with a closure for sockeye directed fisheries. Further discussion will be required to identify the appropriate management actions for the coming season and considering the lessons learned from 2017.

### **3. Nass and Skeena River Chinook**

Below average returns are expected for Nass chinook as well as summer and spring timed Skeena chinook. The 2018 return is highly uncertain after record low escapements in 2017 and generally low productivity among stream type stocks in the north-west. Declining trends in smaller Skeena CU's were evident after 2016. This low productivity was also observed in 2017 for more abundant CU's such as the Nass and large lake components of the Skeena watershed. As a result, additional management actions to protect returns of chinook returning to both the Nass and Skeena Rivers will likely be required in 2018. These measures will likely include a broader suite of management actions across north coast fisheries. In addition, given the potential for poor returns of Skeena River sockeye, discussion will be required to identify the appropriate management actions for the coming season considering the lessons learned from management actions that were implemented in 2017. In 2017, recreational fishing for salmon in the Skeena River watershed was closed, from June 15 to July 14 to provide First Nations food, social and ceremonial harvest opportunities given low forecast returns of Skeena sockeye; recreational fishing for chinook, coho and pink salmon re-opened on July 15. In addition, a number of additional management measures were implemented for Skeena chinook in the Skeena River main-stem and tributaries.

### **4. Southern Resident Killer Whales (SRKW)**

The Southern Resident Killer Whale (*Orcinus orca*) population was listed as Endangered under the *Species at Risk Act* (SARA) in 2003. Resident Killer Whale (RKW) populations in British Columbia are presently considered to be at risk because of their small population size, low reproductive rate, narrow prey selection, and the existence of a variety of anthropogenic threats that have the potential to prevent their recovery or to cause further declines. The SRKW population is small and declining, experiencing a decline of 3% per year between 1995 and 2001, and since then has shown little recovery, with 76 individuals in the wild as of 2017. Due to this small population size and low birth rate, threats affecting only a few individuals have the potential to impact their recovery. Even under the most optimistic scenario (human activities do not increase mortality or decrease reproduction), the species' low intrinsic growth rate means that the time frame for recovery will be more than one generation (25 years).

**General Approach to Recovery:** Key threats to recovery identified in the SARA [Recovery Strategy for Northern and Southern Resident Killer Whale \(\*Orcinus orca\*\) in Canada](#) (DFO 2008, 2011), include decreased availability and quality of prey, environmental contamination, and both physical and acoustic disturbance. This SARA recovery document describes these key threats and five broad strategies for recovery, while the complementary [Action Plan for Northern and Southern Resident Killer Whale \(\*Orcinus orca\*\) in Canada](#) (2017), identifies 98 recovery measures required to implement the broad strategies within a five year time frame.

The SARA RKW Recovery Strategy defined the population and distribution objective for the Northern and Southern Resident Killer Whale as:

*Ensure the long-term viability of Resident Killer Whale populations by achieving and maintaining demographic conditions that preserve their reproductive potential, genetic variation, and cultural continuity<sup>1</sup>.*

The SARA RKW Action Plan outlines measures that provide the best chance of achieving the population and distribution objectives for the species, including the measures to be taken to address the threats and monitor the recovery of the species. Measures to be taken are identified under the following broad strategies:

1. *Monitor and refine knowledge of Resident Killer Whale population and distribution in Canadian Pacific waters*
2. *Ensure that Resident Killer Whales have an adequate and accessible food supply to allow recovery*
3. *Ensure that disturbance from human activities does not prevent the recovery of Resident Killer Whales*
4. *Ensure that chemical and biological pollutants do not prevent the recovery of Resident Killer Whale populations*
5. *Protect critical habitat for Resident Killer Whales and identify additional areas for critical habitat designation and protection*

Many of the recovery measures identified in the RKW Action Plan have been ongoing for many years and/or are currently underway. The Department is currently working on an implementation plan for all identified recovery measures, including specific actions to abate the identified threats.

**Proposed Critical Habitat Expansion:** During the summer and fall, Southern Residents are primarily found in the transboundary waters of Haro Strait, Boundary Pass, the eastern portion of the Juan de Fuca Strait, and southern portions of the Strait of Georgia. This area was identified as Critical Habitat, the habitat required for survival and recovery of the species, in the SARA RKW Recovery Strategy, and was protected via a Ministerial Order in 2009. Identification of Critical Habitat is informed by Science, and based on consistent and prolonged seasonal occupancy and use of the area by SRKW. Additional habitat of special importance for SRKW off southwestern Vancouver Island was identified by DFO Science in 2017, and is an extension of the existing identified Critical Habitat for SRKW. Work is underway to amend the Recovery Strategy to include this area as Critical Habitat, and subsequently protect it. Consultations will be undertaken for both the amendment and the Ministerial Order to protect this proposed Critical Habitat.

**Fisheries Management Measures to Support SRKW Recovery:** The seasonal distribution and movement patterns of Resident Killer Whales are strongly associated with the availability of their preferred prey, chinook salmon (*Oncorhynchus tshawytscha*), and secondarily, chum salmon (*O. keta*). During the summer and fall, the principal prey of SRKW appears to be chinook and chum salmon and throughout the Salish Sea, chinook salmon have experienced poor returns in recent years. There is little known about the winter and spring diet and winter distribution of the Southern Residents but recent and ongoing research will further our understanding and help further identify the principal threats facing the population.

For the 2018 salmon fishing season, the Department is considering additional fishery management actions to support increased chinook prey availability in key SRKW foraging areas within the SRKW

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<sup>1</sup> Culture refers to a body of information and behavioural traits that are transmitted within and between generations by social learning

Critical Habitat. Potential measures will be designed to provide an accessible food supply and to reduce physical and acoustic disturbance in key SRKW foraging areas. The Department intends to implement measures on a trial basis in 2018 with additional monitoring designed to assess the effectiveness of management actions with future adjustments as required. Further information on potential measures under consideration will be provided in a separate document in January or early February 2018. Consultations with First Nations and stakeholders to seek input on these potential measures will occur as part of meetings scheduled to discuss the salmon IFMPs and additional meetings are also being considered to permit time for discussion and input on possible management actions.

## 5. Fraser River Chinook

For Fraser River Spring 4<sub>2</sub>, Spring 5<sub>2</sub> and Summer 5<sub>2</sub> chinook, the 2018 Salmon Outlook for these populations continues to be identified as *stock of concern due to* continued overall very low abundance related to depressed parental escapements and continuing unfavorable marine survival conditions and low productivity. Management measures implemented in previous years are expected to remain in place for First Nations, recreational and commercial fisheries to protect these populations. In addition, a technical review of the available information is expected to provide an assessment of whether the Department's management approach in place since 2012 is achieving conservation and allocation objectives consistent with *An Allocation Policy for Pacific Salmon (1999)*, including obligations to provide for constitutionally protected aboriginal and treaty fisheries after conservation objectives. Technical work is on-going and results of the review (expected in Spring 2018) may result in further changes beginning considered in 2018.

For Summer 4<sub>1</sub> chinook, the 2018 Salmon Outlook has been decreased to the *low* category. While returns have increased dramatically since the 1980's and early 1990's, recent returns have fluctuated due to instability in smolt-adult survival rates and spawner abundance in 2017 declined to 60% of the parental brood. However, average spawner abundance over the last 4 years has averaged nearly 120,000. Directed fishing opportunities may occur on this stock group, provided that fisheries can be designed to limit impacts on co-migrating possible stocks of concern including: Spring 4<sub>2</sub> chinook, Spring/Summer 5<sub>2</sub> chinook, Fraser Fall 4<sub>1</sub> (Harrison) chinook, Fraser River sockeye, and Interior Fraser River coho.

For Harrison River chinook (Fraser Fall 4<sub>1</sub>), the 2018 Salmon Outlook is *low*. Current marine conditions and stock productivity appear unfavorable, and parental escapements have been below the lower end of the PST approved escapement goal range of 75,100 to 98,500 spawners for 5 of the last 6 years (2015 is the only year since 2012 that has met the escapement objective). The preliminary 2017 escapement estimate for Harrison Chinook is less than 30,000 – well below the target escapement goal range and also less than the  $S_{gen}$  for this system ( $S_{gen}$  is approximately 45,000 spawners). Additional fishery management actions including chinook non-retention in commercial and recreational fisheries are anticipated within the Fraser and/or Harrison Rivers and additional measures may be explored to increase terminal returns.

## 6. Interior Fraser River Steelhead

**Emergency Assessment:** Spawning escapement of Interior Fraser steelhead has been on a downward trend for many years, with recent years' escapements reaching the lowest on record. COSEWIC is currently undertaking an Emergency Assessment as per S.28(1) of SARA to assess whether there is an imminent threat to the species, for the purpose of an Emergency Listing as per S.29(1) of SARA. The assessment is anticipated to be completed in early 2018. After consultation with and consideration of relevant biological information provided by DFO, if the Minister of Environment and Climate Change Canada is of the opinion there is an imminent threat, (s)he must make a recommendation to GiC to list

the species on an emergency basis. Unlike a regular listing process, this recommendation does not include consideration of non-biological factors; however, such factors can be considered by GiC in the decision whether or not to list the species under Schedule I of SARA.

**Fisheries Management Measures to Support Recovery of Steelhead:** Representatives from DFO and the Province of BC are working to identify possible adjustments to the current Interior Fraser steelhead management approach for the 2018 season. Given ongoing declines in Interior Fraser steelhead escapement, a broad, comprehensive approach to the management of fisheries that impact this stock aggregate either directly or through incidental interception is required. Adjustments will be considered to fisheries occurring at those times and in those areas where Interior Fraser steelhead are likely to be present, based on our current understanding of the return migration timing of this stock aggregate. This includes fisheries in the marine approach areas, as well as those occurring within the Fraser River and tributaries.

During the upcoming consultations on the salmon Integrated Fisheries Management Plan for the 2018 season, DFO and the Province of BC will consult with First Nations and stakeholders to explore additional management actions to support steelhead conservation.

## **7. Fraser River Sockeye**

2018 is a dominant return year for Late run sockeye. A quantitative forecast of Fraser sockeye returns is expected in early 2018. While returns of sockeye on the 2010 and 2014 cycle lines were large, Fraser sockeye returns have been less than the forecast median (p50) over the last 3 cycles with the exception of 2010. As a result, planning will need to consider the potential for a range of potential returns, as well as, specific management measures for protecting and rebuilding conservation units of conservation concern.

Key considerations during consultations will include the use of a window closure to start the season, the escapement plan for Early Stuart, Early Summer, Summer and Late run aggregates and specific management measures for stocks of concern. The Department plans to identify 2 escapement plan options in the draft IFMP for consideration in 2018. Options are usually informed by the escapement plan implemented in the brood year (i.e. 2014) and modifications to account for annual considerations including forecast returns. The table below provides information on the fishery reference points implemented in previous years to inform planning.

For each management aggregate, the escapement plan also identifies a Low Abundance Exploitation Rate (LAER) for cases when there is zero or very low total allowable mortality for a timing group that allows for limited fisheries directed on co-migrating stocks or species. The LAERs have previously been set at 10% for Early Stuart, Early Summer and Summer run timing groups and 20 to 30% for Late run sockeye in past Adams dominant years. As an outcome of the Fraser River Sockeye Spawning Initiative (FRSSI) workshop in late January there may be additional LAER options to consider. In addition, further discussion will be required on the potential for additional terminal harvest opportunities for Fraser sockeye stocks that may return in abundance.

Table: Summary of Fraser River sockeye escapement plan / fishery reference points used in previous years.

Mgmt Unit	Early Stuart		Early Summer <sup>a</sup>		Summer <sup>a</sup>		Late <sup>a</sup>	
	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper
2007	108,000	270,000	120,000	300,000	600,000	1,500,000	400,000	1,000,000
2008	108,000	270,000	120,000	300,000	520,000	1,300,000	400,000	1,000,000
2009	156,000	390,000	120,000	300,000	520,000	1,300,000	400,000	1,000,000
2010	156,000	390,000	200,000	500,000	1,000,000	2,500,000	1,200,000	3,000,000
2011	108,000	270,000	120,000	300,000	520,000	1,300,000	400,000	1,000,000
2012	52,000	130,000	100,000	250,000	640,000	1,600,000	300,000	750,000
2013	108,000	270,000	100,000	250,000	1,250,000	3,125,000	300,000	750,000
2014	108,000	270,000	180,000	450,000	1,020,000	2,550,000	1,100,000	2,750,000
2015	108,000	270,000	100,000	250,000	1,000,000	2,500,000	300,000	750,000
2016	108,000	270,000	100,000	250,000	640,000	1,600,000	300,000	750,000
2017	108,000	270,000	100,000	250,000	1,250,000	3,125,000	300,000	750,000

Notes:

- a) For Early Summers, Summers, and Lates, the fishery reference points are scaled up annually to account for the expected contribution of unforecasted miscellaneous stocks in the MU.
- b) A separate management objective is identified for Cultus Lake sockeye in the salmon IFMP and includes an exploitation rate constraint that limits harvest of Late run sockeye.
- c) Beginning in 2010, the maximum allowable exploitation rate for Cultus sockeye was permitted to increase above 20% if conditions were expected to permit continued rebuilding of the population based on inseason information on returns of Late run sockeye and potential numbers of effective spawners.

## 8. Interior Fraser Coho

For 2018, based on persistent, on-going low productivity for Interior Fraser River coho, the Department plans to maintain a precautionary approach to management of southern BC fisheries with management

measures in place similar to those in place prior to 2014. As a result, fisheries impacts will be limited to incidental, by-catch or release mortalities in most areas and in recent years this was expected to result in a 3-5% Canadian domestic exploitation rate.

As part of the *Pacific Salmon Treaty* (PST) re-negotiation, general agreement on renewal of Chapter 5 (Coho salmon) has been reached between Canada and the U.S. For southern Coho, the key elements of the agreement-in-principle are as follows:

- Maintain the regime outlined in the current agreement until Canada has finished work on a status-based management approach for Canadian Management Units (MUs) in the PST. The status-determination work will involve establishing reference points for moving amongst Low – Medium – High status (for purposes of annual fishery planning), and the allowable sustainable exploitation rates at each status level.
- Until Canada completes this work, bilateral (Canada-U.S.) management will be driven by the status of Interior Fraser Coho (IFR), and based on a “Low” status level. Canada has committed to completing the work for Canadian MUs by the end of 2018. Further information on consultations planned for this work will be communicated later in January 2018.

This work will not affect the management of the 2018 season.

#### **9. Commercial Salmon Allocation Framework (CSAF) Demonstration Fisheries**

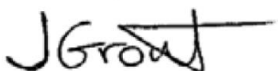
As part of implementing changes to the Commercial Salmon Allocation Framework (CSAF), the Department is continuing to work with First Nations Salmon Coordinating Committee (SCC) and the Commercial Salmon Advisory Board (CSAB) representatives to develop CSAF demonstration fisheries proposals to provide increased flexibility for harvesters to fish their commercial salmon shares. CSAF demonstration fishery proposals are assessed through an Evaluation Framework which outline Department objectives and were developed with support from the SCC and CSAB. The Department is requesting any new or existing demonstration fishery proposals be submitted by proponents to [Cynthia.Johnston@dfo-mpo.gc.ca](mailto:Cynthia.Johnston@dfo-mpo.gc.ca) **no later than February 5<sup>th</sup>, 2017**. As in previous years, this is to ensure sufficient time for the Department to evaluate the proposals and provide an opportunity for feedback and discussion through the draft IFMP consultation process. Demonstration fishery proposals that are not submitted by this deadline will not be considered for the 2018 season.

Drafts of the Northern and Southern IFMPs are planned for release for review and comment on the last week of February, 2018.

If you have any comments or concerns about the IFMP process for the coming year, please contact Ashley Dobko at [Ashley.Dobko@dfo-mpo.gc.ca](mailto:Ashley.Dobko@dfo-mpo.gc.ca).

Yours sincerely,

Jeff Grout



Regional Resource Manager, Salmon