



**April 2021**

**The Salmon Committee of the Pacific Marine Conservation Caucus submits the following to the 2020/21 North and South Coast salmon IFMPs.**

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## 1.0 Chinook

The MCC is increasingly concerned about the direction of DFO's Chinook management on the BC coast. This includes:

- A move to US style fisheries that rely on the production of hatchery marked Chinook in Mark Selective Fisheries.
- The fast tracking of MSF proposals by DFO and SFAB without adequate consultation with First Nations or other IHPC stakeholders,
- The prioritization and effort by DFO to implement MSF fisheries above other long outstanding Chinook concerns such as:
  - Need for low risk management when weak, data deficient or at-risk populations are present,
  - Lack of assessment on data deficient CUs and fishery impacts on such CUs, especially when these are earlier (non-fall) run timings on the south coast,
  - The failure to meet the Wild Salmon Policy principles 1, 2, 4 and 6 which aim to protect unique attributes of Chinook diversity, abundance, distribution, and run timing,
  - Ignoring the need to maintain/implement a low risk response to the 2018 Science Advice that identified wild Chinook populations (outside the upper Fraser) had declining productivity trends ranging from 15% -50%,
  - Failure to adequately address or account for IUU fisheries on early-timed Fraser, but entertaining increased pressure on these CUs through MSF,
  - Failure to address, or analyze, the effect of fishery removals within and outside of the Salish Sea limiting the abundance of preferred Chinook to SRKW,
  - Failure to incorporate 20% GSI and/or PBT sampling in all mixed stock recreational Chinook fisheries,
  - Failure to ensure the South Coast recreational Chinook fishery is compliant with the National Monitoring Policy. This is by the far the largest Commercial or Recreational fishery that impacts endangered and threatened species, yet the Department refuses to implement its own Policy to help guide its management.

These problems are perpetuated by management that focuses largely on hatchery indicator stocks and production for recreational fisheries. There are also concerns for early marine and off-shore competition with other salmon populations (hatchery and wild) in an increasingly food limited marine environment. The focus on hatchery production and management is undermining the monitoring and conservation of wild Chinook populations in BC and perpetuates a failure to recover the preferred prey base (including crucial components of run timing, size and age) for Southern Resident killer whales.

## 1.1 Mark Selective Fisheries on Chinook Salmon

The Department and SFAB have developed and used a Framework to deliver on their objective to implement Mark Selective Fisheries. We have several areas of concern regarding such fisheries. The development of the Framework did not incorporate First Nations or stakeholder input, presumably because it may have slowed the proponents ability to advance their objective. Additionally, the Framework primarily examined impacts on endangered Fraser Chinook, and generally neglects concern for data deficient or other threatened /endangered ECVI Chinook. If several of the proposed MSF considered impacts on ECVI endangered Chinook similar to the way they considered Fraser endangered Chinook; they would not have been recommended.

The Framework measures impacts by aggregating expected mortality of endangered Chinook over the entire year instead of examining within a given week or month, when the endangered population is expected to be present. This approach results in impacts that are averaged to appear much less than they actually are.

The Framework's attempt to examine certainty is not credible. In every proposal, it is shown there is insufficient information to make a definitive comment on certainty. The Framework cannot measure certainty except to argue there can be little. This is due to years of failing to collect the necessary data and to undertake the required monitoring. Making definitive statements on certainty is not credible.

Finally, the Framework attempts to estimate risk. But this is a biased assessment by proponents who desire to implement the MSF. The rankings did not involve anyone without a stake in seeing the proposals go forward.

The implementation of the Framework was no better than its design. The Department and SFAB did not incorporate First Nation or stakeholder input in the evaluation of each fishery. Instead, it released a completed evaluation for discussion using a framework developed to produce the results the proponents of MSF desired. It was effective because the framework was designed to produce the outcomes desired.

Avoiding direct input from First Nations and stakeholders in the implementation of the Framework avoided answering such questions as: how could such an evaluation be made without fishery independent indices of retained catch, releases, stock composition, compliance, or effort?

As much as the proponents wanted to minimize impacts, and did their best to present results to show minimal harm, the cumulative impacts are not zero. The conclusions also assume perfect knowledge of stock composition, compliance with regs, catch and release reporting, low estimates of FRIM, and effort, these factors could easily be out by an order of magnitude, or more.

Proposal	4-2 Spr	5-2 Spr	5-2 Sum	Comments
Area 12	0	0	0	Very limited data
Area 13 (Bute/Ramsay Arm)	0	0.04	0.07	Very limited data
Area 14 Baynes	0	0	0	50% catch ECVI
Area 15 (Toba)	0.01	0	0.03	36% catch ECVI
Area 16	0	0	0	46% Catch ECVI
Area 17 N	0.03	0.02	0	18% Catch ECVI
Area 17-19 Gulf Is/Saanich	0	0	0	Limited GSI data
Area 19	0.03	0.03	0.03	Limited GSI data releases, effort likely to increase with retention
Area 20 Beecher Bay	0.23	0.55	0.35	
Area 20-1, 20-3-5	0.29	0.68	0.49	SRKW issues, poor data, likely increase with retention
Area 20-2	0.02	0.03	0.01	
Area 28-1-5	0.15	0.06	0.05	Very limited data, effort likely to increase with retention
<b>Totals</b>	<b>0.76%</b>	<b>1.41%</b>	<b>1.03%</b>	
2019 Rec Catch	58	340	609	
2019 Total Catch	182	458	2355	
Est Rec Catch in proposals	1	6	24	
<b>Increase in Rec Impacts over 2019</b>	<b>2.38%</b>	<b>1.90%</b>	<b>3.98%</b>	

DFO estimates are based on prop of catch (using CWT, DNA on retained only), FRIM rate of 20%, benefit of slot limit), assumptions that estimates of retained catch, releases, and compliance with regulations are accurate. All literature suggests that fisher dependent data is likely biased.

One problem is this data is aggregated over the year. If one looks at Area 13, for instance, it is a mixed stock fishery in June with 5-2 Stock proportion being 3X the average. If the impacts were estimated for the months when stocks of concern were present, the impacts would be higher.

And, as with most fishery analyses effort is a major driver of the estimates. If effort increases as a result of reg changes then so will the impact of the fishery. For instance, in Area 28 the stock composition of 5-3 in August is very high (50%) But the aggregate impact is estimated to only be .06% because stock proportions are aggregated and effort is low. But to be fair the number of samples are very low so conclusions are difficult to draw. But it doesn't stop the proponents when it biases the results in their favour

The analysis ignores impacts on endangered and threatened ECVI and WCVI pops.

The MCC cannot support the introduction of any Mark Selective Fisheries in 2021. If the Department is determined to introduce such fisheries over the objections of First Nations and others, they should abandon this process and insist that any introduction of MSF be accompanied by the monitoring requirements below that recognize the commercial nature of the recreational Chinook fishery. A formal process involving First Nations and stakeholders must be implemented for post-season evaluation. If DFO had put forward a process with credibility and integrity in the first place; we would not be in this position.

Monitoring requirements of any new South Coast MSF fisheries should be:

- Fishery independent estimates of effort,
- 20% CWT recovery as per PST commitments,
- 20% of releases sampled for GSI and/or PBT,
- 20% of retained catch sampled for GSI and/or PBT,

- 20% of daily effort independently monitored for compliance, catch, and release mortality,
- Introduction of logbooks and electronic reporting for all guided fishing trips with reports at the start and end of each day's fishing.

South Coast Guide/Outfitters are effectively commercial fishers personally gaining from the use of a public resource, and should be similarly accountable as the commercial fleet for their use of a public resource. Information gained on effort, released and retained catch from the Guide/Outfitter industry could be extrapolated across the fleet. Arguments that such requirements are too expensive or difficult are specious.

## 1.2 South coast Chinook

### Concerns for the proposed Area G spring troll fishery

Concerns for this fishery are two fold:

- 1) Estimates of mortality on early Fraser Chinook are based on catches from the inside Rec fishery from June only. There are no estimates for encounters and mortality for April and May when the fishery is proposed to be underway. Given the historical run timing of the spring 4.2 and 5.2 Chinook into the Lower Fraser, it is possible these fish could be present on WCVI at this time.
- 2) It is also possible that the abundance of early-timed migrating adult Chinook on the west coast of Vancouver Island in May - July is particularly important to SRKWs. Analysis and importance of fishing scenarios on the seasonal or annual Chinook prey availability for SRKWs has not been examined by DFO's Prey TWG. However, analysis led by DFO in 2011 (Velez - Espino et al.) found that eliminating marine harvest on Early Fraser/ Puget Sound runs reversed the declining population growth trend in SRKWs (i.e. from negative growth to positive growth) and cut the extinction risk in half. The improvement in body condition and the successful pregnancies in 2020/21 could be due to the increased abundance of Chinook in 2019 and 2020 within SRKW foraging grounds due to the closure of the Area G troll in 2019 and 2020 (and the corresponding reduction in competition, noise and disturbance from 1000 boat days during this time) and the delay and reductions in the Area F troll and Haida Gwaii AABM rec fishery that left tens of thousands of Chinook in the water.

DFO and the Prey TWG have not given proper consideration to the role of these fisheries, including undertaking analysis on the impact of age and growth overfishing

that occurs from the high harvest (an estimated 50% in each age class) of immature Chinook caught in the AABM commercial fisheries, and the corresponding impact that has on reducing the proportion of larger, older fish returning to terminal or near terminal areas, and the corresponding decline in fecundity and productivity in CUs.

## Harrison

The threatened Harrison Chinook CU has not achieved its PST escapement goal in 8 of the last 9 years. Under the 2019 PST negotiation, Canada agreed to reduce its exploitation rates on Harrison Chinook to 11% over a three-year average. To achieve this, and allow for FSC priorities as identified by the department, the summer WCVI troll should be capped at less than 2% Harrison Chinook and the recreational limit of 1/day, 2 in possession, and 10/ year should be put in place for Haida Gwaii and WCVI.

## Other south coast weak, data deficient, and threatened or endangered CUs

Consistent with the 2018 Science Advise on declining productivity, DFO's acknowledgement of stocks of concern and the need to improve abundance of preferred prey for SRKWs, continued reductions in recreational and commercial fisheries are required if escapement goals are to be met, FSC harvests prioritized, and Salish Sea abundance of preferred prey improved.

### 1.3 Skeena and north coast Chinook

Skeena: Management actions in recent years have not been enough to slow the decline of Skeena and many other North Coast Chinook CUs. Dramatic actions are required in 2021. The draft IFMP's proposed management actions (similar to those taken in 2018), including continued precautionary measures in commercial troll fisheries; as well as temporal and spatial closures, and quota reductions in the recreational fishery do not go far enough to meet DFO's stated objective of rebuilding Skeena Chinook (Section 6.5). Further, DFO does not provide details on what impact the proposed actions in the draft IFMP will have on Skeena and other depressed North Coast Chinook CUs. DFO needs to reduce domestic ER's for Skeena Chinook to below 5% to allow rebuilding under the current extremely low productivity conditions. As such, the MCC urges DFO to:

- *implement closures and management actions that detail how a 5% ER ceiling will be achieved on Skeena Chinook, and*
- *Undertake a postseason assessment of the success of these actions in achieving the 5% ceiling.*

Other North Coast fisheries: The issue of low productivity extends well beyond the Skeena. Many populations are at historic lows. This requires a more precautionary approach in all north and central coast fisheries with increased reductions in recreational and commercial fisheries if escapement goals are to be met and FSC harvests prioritized.

#### 1.4 Coast-wide recommendations for Chinook fisheries

Because of the mixed stock, interception nature of most BC Chinook fisheries, recommendations are not specific to the north or south coast. To achieve the objectives identified, the MCC supports the following:

- *All North Coast recreational fisheries, including Haida Gwaii (Areas 1-6) should be reduced to a limit of Chinook to 1/day, 2 in possession, and 10/ year.*
- *Keeping the recreational limit of Chinook at 1/day, 2 in possession, and 10/ year on the Central Coast with a corresponding reduction of the number of slots on licences.*
- *FSC fisheries should not target Skeena Chinook if the return is estimated to be below 20,000.*
- *Reducing the recreational limit of Chinook to 1/day, 2 in possession, and 10/year in the AABM and ISBM marine recreational fisheries on the South Coast. These regulations on the South coast should begin in April in areas outside of the early Fraser Chinook non retention corridors, and begin in July/August in areas inside the early Fraser Chinook corridors when non-retention ends.*
- *No Area G WCVI spring troll fishery.*
- *No Area F troll fishery until mid August (when non-retention of Chinook ends).<sup>1</sup>*
- *Summer Area G WCVI troll should be capped at less than 2% Harrison Chinook.*
- *Terminal, known-stock fishing opportunities (example Area 23 on the south coast) can occur if, where, or when local abundance exists, after FSC priorities are met.*

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<sup>1</sup> If an assessment of coho abundance from fisheries north of the border, north coast recreational and spawner abundance surveys appears above average to meet escapement and rebuilding objectives, this could inform an opening of the Area F coho troll fishery later in the season.

- *Enhanced catch monitoring and compliance standards in the recreational fishery need to be implemented. This includes:*
  - *Fishery independent estimates of effort,*
  - *20% CWT recovery as per PST commitments,*
  - *20% of releases sampled for GSI and/or PBT,*
  - *20% of retained catch sampled for GSI and/or PBT,*
  - *20% of daily effort independently monitored for compliance, catch, and release mortality,*
  - *Introduction of logbooks and electronic reporting for all guided fishing trips that report at the start and end of each week's fishing.*

## 2.0 Coho

### 2.1 North coast coho

The recent low returns and low productivity of most north coast coho CUs since 2018 warrants significant management actions in 2021. The MCC supports the actions outlined in the draft IFMP under section 13.3, however no details have been provided on what actions will be taken in the NC troll fishery. At a minimum, similar actions as 2020 should be implemented in the commercial coho troll fishery (reduced by 50%), unless in-season abundance across the north coast areas and systems indicates above average returns. No action is outlined in the draft IFMP to reduce coho impacts in north coast marine recreational fisheries.

- *As such the MCC recommends that bag limits in areas 3 - 6 north coast marine recreational fisheries should be reduced to 2 Coho per day, 4 possession, and 10 /year unless in-season abundance indicates higher than average abundance.*

### 2.2 Central coast coho:

There are increasing concerns for coho productivity, survival and abundance on the central and north coast, as has been acknowledged by DFO. Given this, the MCC recommends:

- *The Area F troll fishery should not proceed unless assessment of coho (see footnote pg 7) demonstrates adequate abundance to fulfill rebuilding and ecosystem requirements.*
- *The recreational coho catch limits should be reduced to 2/day, 4 in possession and 10/year.*

### 2.3 Interior Fraser coho

There is no evidence that IFR Coho has departed from the low productivity regime that has persisted since the 1994 return year. Current productivity is still well below the relatively high productivity period of 1978-1993. Given this, the MCC recommends

- *that the domestic Exploitation Rate cap of 3% to 5% remains in place until a higher productivity period has been repeatedly demonstrated over two to three generations.*

### 3.0 Chum

#### 3.1 North coast Chum

All North Coast fisheries should be required to release chum, except those targeting enhanced US chum and enhanced Kitimat chum. These fisheries should be restricted to areas and times to minimize impacts of wild chum.

In order to meet DFO's objective outlined in section 6.4 (to rebuild weak wild chum stocks) Area 3, 4 and 6 pink seine fisheries and Area 3 and 4 sockeye gillnet fisheries should require enhanced monitoring and compliance measures to ensure chum are handled and released with least possible harm. Without enhanced monitoring (fisheries independent) it is impossible to enforce handling measures, and understand and manage impacts of these seine fisheries on wild chum bycatch. Consistent with the MCC's monitoring and compliance work in Area 6, enhanced monitoring requires cameras on board that ensure all discarded fish are returned to the water, with the least possible harm, within two minutes.

#### 3.2 Central coast chum

Salmon are in crisis on the Central Coast. They face compounding climate impacts, declining populations and a growing uncertainty of survival. 2019 and 2020 saw successively all-time low returns of chum, pink and sockeye to many Central Coast streams. 2021 is expected to be the same or slightly worse than 2020. MCC is concerned that this salmon crisis in the Central Coast is not being reflected in the IFMPs for the area.

Expectations for fishing opportunities held just 5 years ago need to be re-adjusted and reflected in this year's IFMP in order to match the current circumstances that confront salmon, and the many wildlife species (especially bears) and ecosystem processes that depend on adequate salmon abundance in rivers. Chum and pink escapements and conservation must be given priority. As such, it is urgent that DFO takes a more precautionary approach in the Central Coast than the 2021-22 IFMP indicates. MCC suggests these changes to the IFMP:

- Ensure adequate escapement of wild chum populations occurs prior to providing (sustainable) fisheries opportunities.
- Open-effort test fisheries as proposed should not be used at this time to assess run strength or to facilitate further fisheries openings. Given the mixed stock nature of test fishery locations and the significant uncertainty in predicting actual returns, MCC believes that such test fishing may lead to overharvest of weaker-than-expected returns and will also lead to preventable by-catch of stocks of concern and depressed wild stocks. If test fisheries are used, effort should be limited.
- Area 8 gillnet and seine fisheries for chum should not proceed unless there is adequate abundance of wild stocks to fulfill wildlife and rebuilding requirements. In this regard, the Area 8 gillnet should be managed in a similar way to Haida Gwaii, occurring only on identified surplus and meeting annual conservation objectives.
- Sub area 8-11, 8-15 and 8-10 are the only areas that should be considered as “approach waters” for chum salmon from Snootli Creek Hatchery. If there is not clear fishery-independent evidence of adequate wild chum abundance throughout Area 8 then seine and gillnet openings for chum in Area’s 8-1 thru 8-9, 8-13, 8-14 and 8-16 should not be considered, regardless of returns of enhanced chum to the Bella Coola system.

### 3.3 South coast chum

Summer run chum on the inside south coast had poor escapements in 2020 and remain below average. Poor returns of fall chum were also observed north and south of Campbell Rivers and many areas were well below target escapements. Declining productivity has been observed in the last 4 years in many south coast runs. Ongoing evidence from diet studies on Southern Resident killer whales continually identifies the importance of fall chum in their diets.

The MCC is increasingly opposed to risky mixed stock, interception fisheries as the abundance of weak, non-target, data deficient and endangered species and populations increases throughout the coast. The Johnstone Strait mixed stock interception chum fishery is one such fishery. As such, the MCC recommends:

- *termination of the Johnstone Strait mixed stock chum fishery, and*

- *fisheries be moved to terminal areas on known stocks where escapement can be monitored prior to openings and fisheries can be permitted when abundance exceeds wildlife objectives, goals for local rebuilding and escapement goals.*

## 4.0 Sockeye

### 4.1 Skeena and Nass sockeye

Uncertainty in forecasting in recent years should be taken into account and in season management should be precautionary to reflect this uncertainty.

The MCC supports the continuation of the FNs higher trigger (600,000) for FSC fisheries to ensure precautionary management given the recent low returns, high uncertainty and continued trends towards low ocean productivity. In the event of a late-season increase in sockeye abundance, commercial harvest should be managed to avoid high harvest rates on Kitwanga sockeye and impacts on depressed Skeena chum.

### 4.2 Fraser sockeye

DFO has presented two options for the management of Fraser sockeye in 2021. Neither option would produce a meaningful increase in spawning abundance relative to the brood year.

Further, neither option would result in any recovery of component populations in the Red or Amber zone, or see any appreciable recovery relative to either their cycle line average or brood year.

The MCC cannot support either option as neither is sufficiently precautionary considering the dire forecast for Fraser sockeye and the expected environmental conditions they will encounter, including at the Big Bar slide. Presenting such options considering the last two years saw the worst escapements on record, how rapidly some of the component populations are declining, and the forecast verges on the responsible.

- *The MCC recommends that there be no fishing, including LAERs, for Fraser sockeye in 2021, including test fishing.*

## 5.0 North and Central Coast pink salmon

North and central coast pink fisheries should be closed unless in season abundance indicates average or above average returns. When surpluses adequate to meet wildlife objectives, local rebuilding objectives and escapement goals are identified, the MCC supports limited effort fisheries to assess in-season abundance. For fisheries to proceed, fishery independent compliance must be in place in accordance with the work the MCC collaborated on in Area 6.

Vessels require cameras on board that ensure all discarded fish are returned to the water, with the least possible harm, within two minutes.

## 6.0 Additional issues

### 6.1 Area E ITQ or 'pooled' Chum fisheries

If Area E is authorized to fish under an ITQ or 'pooling' scheme where each fishing boat is allocated a specific share, then fishery independent catch reporting must be designed to thwart 'high-grading', where a boat might report only females, having discarded the less valuable males.

### 6.2 Catch Monitoring

#### **Fisheries Related Incidental Mortality (FRIM)**

Sections 7.3.4 title inappropriately confuses short-term mortality with FRIM, which speaks to long-term mortality associated with release and drop-out/offers. As the IFMP is DFO's formal document to communicate with First Nations, stakeholders, and the general public, such confusion is unacceptable. The short-term Post-Release Mortality Rates referred to in the title cannot - by definition - be used to access FRIMs. It is misleading and not supported by DFO's own science. It appears that instead of addressing the important issues associated with FRIM, DFO is choosing to characterize short-term mortality as FRIM, thus confusing the public and avoiding appropriately addressing FRIM in its fishing plans.

#### **Monitoring**

In Section 1.6.3 the IFMP states, *'Following multi-sectoral consultations, DFO released the national Fishery Monitoring Policy in 2019, replacing the regional "Strategic Framework for Fisheries Monitoring and Catch Reporting in the Pacific Fisheries" (2012).'* The Implementation Plan associated with the National Policy states, *'Fisheries are first prioritized for assessment through collaboration with Indigenous groups and Stakeholders.'*

But in the body of the IFMP the now replaced Strategic Framework is constantly referred to. For instance, on page 172 the Department says it is working with the SFAB to *'meet the objectives of the Strategic Framework for Fishery Monitoring and Catch Reporting in Pacific Fisheries, 2012'*

The Department should not be working with the SFAB to meet the objectives of a now replaced policy. But more importantly, the National Policy addresses a concern expressed year over year

by the MCC (and ignored by DFO) in this advisory process: that DFO work in collaboration with First Nations and stakeholders.

In continuing to work with the SFAB to put in place a now replaced policy, DFO managers are deliberately excluding First Nations and stakeholders as required by the national policy.

The draft IFMP must be amended and commit DFO to work with harvesters to implement the National Policy in collaboration with First Nations and stakeholders.

### 6.3 Coded Wire Tags

In Section 11.3.5 the draft IFMP carefully describes the CWT program including the requirement that the, *'minimum required sample rates in recreational fisheries are 20% of the estimated hatchery-marked catch to recover a minimum quantity of CWTs from indicator stocks.*

It leads the reader to believe that the solution to this - submission rates - has been successful in meeting this commitment when it has been anything but.

The draft IFMP should be honest, state that Canada is not meeting its commitment, and describe how it intends to address this shortcoming.

### 6.4 Illegal, Unreported, Unregulated (IUU) fishing in the Fraser River

Conservation and Protection identified significant levels of IUU fishing in the Fraser River during closures to protect endangered Chinook. The mortalities associated with retained catch and FRIM are not accounted for in estimating the total mortalities of these Chinook populations relative to the Minister's 5% total mortality objective.

The MCC strongly recommends that significant resources be invested in estimating effort in IUU fisheries in 2021. DFO should then use the CPUE in the limited FSC and Treaty fisheries allowed, and estimate the total mortalities (retained catch and FRIM) that may have occurred. This estimate should then be used in estimating total mortalities in all fisheries relative to the 5% objective.