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TSAWWASSEN FIRST NATION

FINAL

**Tsawwassen First Nation
Post-Season Fisheries
Report, 2020**

April 2021

Tsawwassen First Nation Post-Season Fisheries Report, 2020

Final Report



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April 2021

ACKNOWLEDGMENTS

It is often forgotten that the final products depend ultimately on the diligence and dedication of the individuals who collect the data in the field. With this in mind, we would like to thank the following Tsawwassen First Nation Natural Resource Department staff for their contributions in conducting the field program: Kyle Flindt (Natural Resource Enforcement Officer), Brad Larsen, Liana Williams, and Peter Grann, all of whom worked with diligence and enthusiasm in conducting the interviews, on-water patrols, and processing of data that produced the primary data for the study. As well, we thank Mike Baird for his advice and guidance during the fishing season. We would also like to thank the many Tsawwassen First Nation fishers who provided their catch and effort information to Tsawwassen First Nation Natural Resource Department staff.

From Fisheries and Oceans Canada, we thank Terri Bonnet, Brian Matts, Matthew Parslow, Marisa Keefe, Brittany Jenewein, Karen Burnett, and Chris Wilmot for their assistance with the many tasks required to implement TFN fisheries and prepare this report. From the BC Ministry of Forest, Lands, Natural Resource Operations and Rural Development, we thank Colin Schwindt for facilitating communication with provincial government ministries.

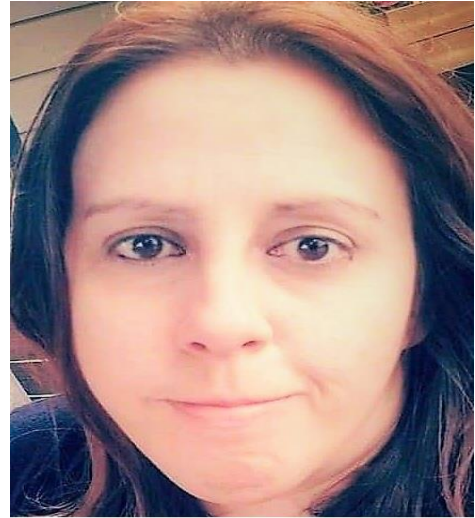


Photo (top to bottom; left to right): Liana Williams (TFN); Justus Mirembé (Environment Canada Wildlife Officer) and Kyle Flindt (TFN); Peter Grann, Brad Larsen, and Kyle Flindt (TFN); Krystal Lockert (TFN); Mike Baird (TFN); Brad Larsen (TFN).

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LIST OF ACRONYMS AND ABBREVIATIONS

The following acronyms and abbreviations are used in the TFN Annual Fishery reports:

BC	British Columbia
CCTAC	Canadian Commercial Total Allowable Catch
CPE	catch per effort
CTAC	Canadian Total Allowable Catch
CWT	coded wire tag
DFO	Fisheries and Oceans Canada
EO	Economic Opportunity
FLNRORD	[Ministry of] Forest, Lands, Natural Resource Operations and Rural Development
FOG	Fisheries Operational Guidelines
FSC	Food, Social, and Ceremonial
FSMB	Fraser Salmon Management Board
HD	Harvest Document(s)
IFMP	Integrated Fisheries Management Plan
IFR	Interior Fraser River
ITQ	Individual Transferable Quota
JFC	Joint Fisheries Committee
JTC	Joint Technical Committee
LAER	Low Abundance Exploitation Rate
LFWS	Lower Fraser White Sturgeon
LP	limited participation
SARA	<i>Species at Risk Act</i>
SSB	Spawning Stock Biomass
TAC	Total Allowable Catch
TAFP	Tsawwassen Annual Fishing Plan
TCC	Terminal Commercial Catch
TFA	Tsawwassen Final Agreement
TFN	Tsawwassen First Nation
THA	Tsawwassen Harvest Agreement
TNRD	Tsawwassen Natural Resource Department
TOTC	Treaty Obligation Tracking Centre

1 INTRODUCTION

1.1 Tsawwassen Final Agreement

Tsawwassen First Nation has the right to harvest for domestic purposes:

- a) Fish and aquatic plants in the Tsawwassen Fishing Area; and
- b) Intertidal bivalves in the Tsawwassen Intertidal Bivalve Fishing Area,

as outlined in the Tsawwassen Final Agreement (TFA; TFA 2007; Chapter 9). Starting on the Treaty Effective Date (3 April 2009), all Tsawwassen fisheries must be conducted in a manner that is consistent with the Tsawwassen Final Agreement, Tsawwassen Harvest Agreement (THA; THA 2009), Harvest Documents (HDs), Tsawwassen Fisheries Operational Guidelines (FOG; FOG 2013) document, Tsawwassen law, and applicable federal and provincial government laws. As indicated in the TFA, Tsawwassen fisheries must be conducted within the Tsawwassen Fishing Area or Tsawwassen Intertidal Bivalve Fishing Area (see Figure 1.1 and Figure 1.3) unless otherwise permitted in HDs or licences issued by Fisheries and Oceans Canada (DFO). Figure 1.2 identifies the boundaries of the Gulf Islands National Park Reserve territory of which some of the territory lies within Tsawwassen's Intertidal Bivalve Fishing Area (Figure 1.1).

1.2 Joint Fisheries Committee

On the Treaty Effective Date, a Joint Fisheries Committee (JFC) was formed to facilitate the planning and management of the Tsawwassen First Nation (TFN) fishing rights consistent with the content of the TFA (Chapter 9). The JFC consists of one representative from Canada, the Province, and Tsawwassen First Nation; although, additional individuals may participate in meetings to assist the designated representatives. The JFC will meet a minimum of twice yearly: first, to review the Tsawwassen Annual Fishing Plan (TAFP) and second, to conduct a post-season review of TFN's fisheries. The JFC will also discuss other relevant matters associated with the implementation of the TFA Fisheries Chapter. For a more detailed list of functions and responsibilities of the JFC, refer to the TFA (Chapter 9) or section 8 and Appendix C of the FOG document.

A further extension of the JFC is the Joint Technical Committee (JTC) which is formed and directed by the JFC. The JTC is responsible for technical fisheries issues as set out by the JFC. The JTC operates on a consensus basis, thus, if a matter cannot be resolved it is deferred to the JFC. For more detailed list of functions and responsibilities for the JTC, refer to the FOG document.

Tsawwassen First Nation has produced comprehensive post-season fisheries reports summarizing the details of the 2009–2019 Food, Social, and Ceremonial (FSC) and THA fisheries (Blakley et al. 2010–2020). The JTC and JFC have reviewed these reports and they are now publicly circulated.

1.3 Domestic Fisheries Allocations

Tsawwassen Domestic Allocations for Fish and Aquatic Plants are calculated using formulas described in the TFA (Appendix J-2). Information used to calculate the Tsawwassen FSC allocation for Sockeye salmon (*Oncorhynchus nerka*) is based on the Canadian Total Allowable Catch (CTAC). For example:

$$\text{TFN FSC Sockeye salmon allocation} = 1\% \times \text{CTAC for CTAC} < 500,000$$

Data collected throughout the fishing season may cause changes to the CTAC; thereby modifying the TFN allocation for Sockeye salmon. Any changes that may affect the FSC allocations are to be communicated to all parties involved through the JFC. Modifications to FSC allocations may occur pre-, in-, and final in-season for an individual species.

1.4 Tsawwassen Harvest Agreement and Commercial Allocation

The Tsawwassen Harvest Agreement came into effect on 3 April 2009 for the purposes of increasing the commercial fishing capacity of the TFN (TFA 2007; Chapter 9). Tsawwassen commercial allocation for salmon is described in Clause 11 of the THA. Each year, DFO will issue HDs for the Tsawwassen commercial allocation of Sockeye, Chum (*O. keta*), and Pink salmon (*O. gorbuscha*; odd years only). Tsawwassen's commercial allocations vary with the size of the Canadian Commercial Total Allowable Catch (CCTAC) for Sockeye and Pink salmon and the Terminal Commercial Catch (TCC) for Chum salmon.

In addition, the THA allows for the commercial harvesting of crab in Management Areas I and J (see Figure 1.4). Tsawwassen First Nation may not relinquish more than five commercial crab licences on an annual basis. Crab fishers must comply with the regulations and requirements set out in the THA and any licence issued by DFO.

2 FISHERIES MANAGEMENT

2.1 Fisheries Operational Guidelines

As indicated in the TFA, “the Tsawwassen Fisheries Operational Guidelines set out the operational principles, procedures, and guidelines to assist the Parties (TFN, Canada, and British Columbia) in implementing the Fisheries chapter of the TFA.” The FOG document (FOG 2013) describes current fisheries management goals and procedures for harvestable fish stocks that reside or migrate through the Tsawwassen Fishing Area. The goals and procedures outlined in the FOG document are essential for ensuring the TFA is being implemented properly. In addition, it should be acknowledged that these goals and procedures will evolve over time, and it will be the role of the JFC to review the FOG document as needed on an annual basis to incorporate any new information (e.g., updates on escapement targets, new fisheries management policies, stock trends) that may apply to TFN fisheries management. The 2009 FOG document was revised, and revisions were approved on 24 September 2013.

2.2 Tsawwassen Annual Fishing Plan

Every year, TFN develops a Tsawwassen Annual Fishing Plan that may be submitted for comment and feedback to the JTC before it is submitted to the JFC where it is reviewed to assist in the planning for Tsawwassen's fisheries and the issuance of HD. In 2020, the effective date of the TAFP was 1 April 2020 and carries through to 31 March 2021. Tsawwassen's Annual Fishing Plan provides the JTC and the JFC with proposed harvest plans and harvest expectations for each species (i.e., salmon, crab, bivalves, groundfish, and aquatic plants) based on pre-season forecasts. The TAFP also notifies the JTC and JFC of TFN's harvest levels, preferred harvest times, and fishing areas and methods for each species or species-group. Conservation measures for each species are also highlighted in the TAFP. Due to timing of the pre-season run size forecasts Eulachon (*Thaleichthys pacificus*), Chinook salmon (*O. tshawytscha*), Steelhead (*O. mykiss*) and White sturgeon (*Acipenser transmontanus*), and Marine Aquatic Plants were prepared in a separate document. Refer to Appendix A for the 2020 TAFPs.

2.3 Harvest Documents

Fisheries and Oceans Canada is responsible for issuing HD for all TFN fisheries for salmon, groundfish, intertidal bivalves, crab, and other marine fish species. The Parks Canada Agency is responsible for issuing HD for TFN bivalve fisheries occurring within national park intertidal areas. The BC Ministry of Agriculture is responsible for issuing HD for aquatic plants and the BC Ministry of Forest, Lands, Natural Resource Operations and Rural Development (FLNRORD) is responsible for issuing HD for, provincially managed species, where applicable. Tsawwassen HD will be consistent with what is outlined in the TFA and FOG document. Tsawwassen First Nation is obligated to inform TFN fishers prior to a fishery opening of their fishing rights and any provisions outlined in the HD. Appendix B provides examples of HD issued to TFN in 2020 for the various species and fisheries (i.e., Chinook salmon FSC, Crab FSC, Eulachon Ceremonial, Groundfish FSC, Aquatic plants FSC, Chum salmon THA). For further clarification of HD, refer to the TFA and FOG documents.

2.4 Catch Monitoring Procedures

As outlined in Appendix D of the FOG document: “the overall goal of the catch monitoring program is to ensure accurate information is gathered to aid all Parties in the management of the fishery and implementation of the TFA.”

In order to accurately estimate FSC salmon harvest for TFN, the following data must be collected:

1. Tsawwassen First Nation FSC salmon fishers are required to report their harvest and fishing effort information after a day's fishing to the Tsawwassen Natural Resource Department (TNRD). Reporting of catch and effort can be provided via phone or on-site interview conducted by a staff member of the TNRD staff (interviewers). Interviews will record catch (kept and released), effort (hours fished), and gear type (number and type of nets used) information on the “TFN Salmon Fisheries Interview Dataform” (see Appendix C). An attempt is made to contact active fishers via the phone after an FSC opening period (one or more consecutive days of fishing) to confirm complete catch and effort data.

2. Each TFN harvester will be required to maintain a daily fishing log using the “TFN Salmon Fisheries Log Dataform” (see Appendix C). It is mandatory for TFN fishers to submit salmon fishing logs after each FSC fishery, preferably at the landing site, to allow verification of the hailed catch. However, validation can also occur on-the-water or at a fishers’ residence. In previous years, catch calendars were also available to record the days when fishing occurred for each species of salmon; however, since 2013 catch calendars have not been produced due to budget constraints.
3. Tsawwassen Natural Resource Department staff will conduct random inspections of TFN FSC fishing vessels, during a fishery, to validate salmon catch. Counting a vessel’s catch or validation will either occur during an on-water interview or at landing site. The JTC proposed validation coverage be 20% or more for each fishery.
4. Within 24 hours of the close of a fishery, TNRD will provide a preliminary report to DFO that includes the number of vessels participating, the type of gear used, fishing effort (in hours), and the catch by species. Preliminary catch reports will be finalized within 48 hours of the close of a fishery.

To accurately estimate the crab and non-salmon FSC harvest for TFN, the following data must be collected:

1. Similar to the FSC salmon data collection requirements, TFN fishers are required to report any retention of FSC crab or non-salmon species. Catch and fishing effort can be reported directly to TNRD or by on-site interview conducted by a TNRD staff member. Interviewers will record catch and effort information for crab fishing on the “TFN Crab Fishing Interview Dataform” and other non-salmon species on the “TFN Other Fisheries Interview Dataform” (see Appendix C).
2. Tsawwassen First Nation fishers will be required to maintain daily fishing logs for crab fishing efforts using the “TFN Crab Fisheries Log Dataform” and all fishing efforts directed at other fish species should be recorded on the “TFN Other Fisheries Log Dataform” (see Appendix C). Tsawwassen Natural Resource Department staff will compare the logs to the on-water interviews for an accurate account of total catch and effort.
3. Food, Social, and Ceremonial fishing targeting crab and other non-salmon species will be validated like the salmon fisheries. To achieve the 20% validation coverage goal, validation will occur after a completed fishing trip, either at the landing site, on-the-water, or at the TNRD office when crabs are dropped off for distribution. Validation ensures accuracy of the information recorded on the daily fishing logs.
4. Within 72 hours of the end of each month, TNRD staff will provide a catch and effort report for FSC crab and other non-salmon species (i.e., groundfish). Tsawwassen Natural Resource Department staff will follow-up with any fishers that did not comply with the reporting requirements.

5. Tsawwassen First Nation fishers are required to identify and record harvested plants by group in the Tsawwassen First Nation Aquatic Plant Harvest Log (see Appendix C). Tsawwassen Natural Resource Department staff will submit the aggregate harvesting values to the Joint Fisheries Committee and to the Ministry of Forest, Lands, Natural Resource Operations and Rural Development at the conclusion of the Harvest Period defined in this Harvest document.

See Appendix D of the FOG document for further detailed information on TFN catch monitoring procedures.

3 SALMON FSC FISHERIES

3.1 Allocations

Table 3.1 summarizes TFN's FSC salmon fishery allocations for 2020 based on pre-, in-, and final in-season estimates. Tsawwassen First Nation's FSC salmon allocations for Chinook, Sockeye, Pink, Coho (*O. kisutch*), and Chum salmon were 625, 15,226, 2,500, 500, and 2,576, respectively. The Chinook, Chum, and Coho salmon allocations remained constant throughout the 2020 fishing season. Even year returns of Fraser Pink salmon are typically too small to warrant any direct harvest of these stocks; therefore, there was no FSC allocation for Pink salmon in 2020.

The allocation for Sockeye salmon is determined using an abundance-based formula that is driven by the CTAC. As indicated in the FOG document, when the CTAC is greater than or equal to 3 million Sockeye salmon, TFN's FSC allocation is fixed at 15,226 Sockeye salmon. However, based on escapement plan options outlined in the final 2020 Southern Salmon Integrated Fisheries Management Plan (IFMP) and the pre-season (50% probability) run size forecast, the CTAC was estimated to be below 3 million Sockeye salmon. Therefore, the expected harvest level for the 2020 TFN FSC Sockeye salmon fisheries would not reach the FSC maximum amount of 15,226 as set out in the TFA (Appendix J-2) and the FOG (2013) document (section 9.3.1; Table 9.1). In-season the run-size drastically changed, due to unexpectedly low numbers of Sockeye salmon returning to the Fraser River in 2020. DFO's update (emailed 15 July – Appendix D) indicated there was no TAC available because all Sockeye salmon management groups were tracking between (p25–50) and no fisheries were recommended. Sockeye salmon fisheries remained closed for the entire season.

For a comparison of TFN's 2020 salmon harvest to final in-season allocations, refer to section 3.5 (Overages and Underages).

3.2 Fishery Openings and Target Species

Table 3.2 summarizes TFN's FSC salmon fishery openings for 2020, listed by week-ending date. The FSC directed Chinook salmon fisheries began the week ending 28 June and continued through to the week ending 23 August (Table 3.2). Of the 5 directed FSC openings for Chinook salmon, there was one FSC directed Chinook opening which included incidental harvest of Chum, and hatchery-marked Coho salmon (HD-423). Food, Social, and Ceremonial fisheries directed at Chum salmon with

incidental harvest of Chinook and hatchery-marked Coho salmon began 24 October and ended 30 October.

There were no directed FSC fisheries for Sockeye, Pink, or Coho salmon in 2020.

Table 3.2 also includes a list of the THA salmon fishery openings. Further details on the THA salmon openings will be discussed in section 4.2.

3.3 Catch and Effort

Catch and effort for each salmon species was estimated from on-water and shore-based interviews by simply summing the catch and effort for all interviews. All fishers were contacted via phone after an FSC opening to confirm complete catch and effort data. This also allowed technicians to log catch and effort from fishers that were not encountered on the water. In addition, records were kept indicating those interviews for which the catch was verified by the interviewer.

The total reported FSC harvest and effort of each salmon species is shown in Table 3.3. Total FSC Chinook salmon harvest was reported at 604 with the peak (263 Chinook salmon) occurring during the week ending 16 August. The first two FSC fishery openings for Chinook salmon were limited participation (LP) fisheries (HD-LP-411 and HD-LP-412) which was limited to 15 Chinook in total. The total Chum salmon harvest in the FSC fisheries was 2,360 and occurred over 7 days (24–30 October; Table 3.3). The first two FSC openings recorded 72% of the harvest (1,688, Table 3.3).

There were no directed TFN FSC fishery openings for Sockeye salmon, Pink salmon, Coho salmon, or Steelhead. However, 43 Coho salmon (38 were adipose-clipped) were kept because they were caught incidentally during the FSC Chinook and Chum salmon fisheries (Table 3.3).

Table 3.3 shows fishing effort (defined as the number of hours that nets were in the water fishing) by week. Total fishing effort for the FSC salmon fishery openings was reported as 737 hours. The highest fishing effort (198 hours) was recorded the week ending 23 August during the last FSC Chinook salmon opening (HD-423).

Table 3.4 summarizes Tsawwassen's FSC salmon catch and effort for interviews only. Typically, Table 3.4 has been categorized by "interview" data versus "validated" interview data. However, 2020 there was no "interview" data just "validated" interview data. "Validated" interview data includes those interviews where every fish was individually "counted" either on the water or at the landing site. In some cases, this included watching a fisher remove the fish from the entire set. Similarly, "interview" data includes those interviews conducted on the water; however, it was not possible to count every fish (some partially counted) because the fisher's net was currently fishing, or the catch had been processed and stored in the hull. An interview would be classified as a "hail" if it was not conducted on the water nor landing site (i.e., via phone) and the fish were not observed at all. The JTC proposed that at least 20% of the salmon catch be "validated" or "counted" through interview process. Overall, the "validated" interviews represented 55% of the total fishing effort for salmon (Table 3.4). The percentages of validated interviews were broken down by species: the 20% goal was achieved for Chinook with 82%. Coho and Chum salmon were very close to target at 18% and 19%, respectively (Table 3.4). There was no recorded harvest of Sockeye salmon, Pink salmon or Steelhead so no validation percentage could be calculated.

Table 3.4 also compares the catch per effort (CPE) by species for “validated” interview data versus non-interviewed data. The average CPE for Chinook salmon was higher for the “validated” interview data (1.24 Chinook/h) than the non-interviewed data (0.32 Chinook/h). Similarly, the average Chum salmon CPE for the “validated” interviewed fishers during the October Chum salmon fisheries (17.27 Chum/h, n = 450) was higher than that for non-interviewed fishers (8.77 Chum/h). The most likely reason for the higher catch rates for the Chinook and Chum salmon “validated” interview data is that surveyors are more likely to encounter the best fishers because they tend to fish more than the other fishers.

Sample sizes Coho salmon CPE were too small to make any meaningful comparisons between the interview and non-interview data.

3.4 Released Catch

Table 3.5 summarizes the fish released from nets during the Tsawwassen FSC salmon fisheries in 2020. Total released catch was 25 for sturgeon, 7 for Chinook, 6 for Sockeye, and zero for Steelhead, flounder, Pink, Coho, and Chum salmon. Of the sturgeon releases, 13 (52%) were caught the week ending 12 July during the directed LP Chinook salmon FSC fishery.

Table 3.6 further details Tsawwassen FSC releases of sturgeon by fishing location. There was a total of 25 sturgeon released from June to August, with the highest number (13) of sturgeon caught in one location during the week ending 12 July in the Canoe Pass to Deas Island location (T3; Statistical Area 29-14).

3.5 Overages and Underages

It is expected that the number of salmon harvested in TFN fisheries will not precisely match the TFN allocations for each species each year. Therefore, the TFA (TFA 2007; Appendix J) outlines the calculation process if there is a difference between what was caught and what was allocated (termed “overages” and “underages”), by species.

An overage occurs when Tsawwassen harvest exceeds the defined Tsawwassen allocation whereas; an underage occurs when Tsawwassen harvests less than the defined Tsawwassen allocation. Underages can occur because another group harvested more, or because there was uncertainty in the management process for that species (e.g., late season increases in the Total Allowable Catch (TAC) or uncertainty regarding the amount of fishing time required to harvest the allocation). The amount of the overage or underage will be documented in a multi-year accounting process summarized in a table in this post-season report.

Table 3.7 summarizes the Tsawwassen FSC salmon catch, allocation, balance (overages and underages), and carry forward amounts for each salmon species. Tsawwassen harvested less than the defined allocation by 21, 457, and 216 for Chinook, Coho, and Chum salmon, respectively. No carry forward is proposed for these since Tsawwassen fishing efforts were less than that required to harvest the TFN allocation for these species.

There was no TAC available for Sockeye salmon because all management groups were tracking below forecast (p10 Early Summer, Summers, and Lates) and no fisheries were recommended. Sockeye salmon fisheries remained closed for the entire season thus no FSC allocation was calculated (Table 3.7).

3.6 Correspondence and Consultation

Region 2 Sturgeon Angling Regulations

Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) distributed an information notice on 15 January 2020 titled “Proposed Changes to the Region 2 Sturgeon Angling Regulations” (Appendix E). The intention of the notice was to request feedback on the proposed closure of the Region 2 Lower Fraser White Sturgeon (LFWS) recreational fishery from 1–30 June to meet the conservation needs of the species and minimize impacts to the resource user. TFN responded to this notice on 13 October 2020 (Appendix E). Tsawwassen First Nation supported the proposed closure but recommended that the time interval for the Region 2 LFWS fishery closure start 1 May until 15 July to reduce the impact on pre-spawn and spawning sturgeon. In January 2021, the proposed sturgeon time-area closure regulation was not supported by senior levels in the BC government and was not posted for further public consultation.

Request to Amend Tsawwassen First Nation Harvest Agreement

On 31 March 2020, TFN sent a letter to DFO Regional Director General, Rebecca Reid, requesting the amendment of the current THA for the purpose of transferring 4 purchased “Category A’ Area E (Salmon) gillnet licenses to ‘Category F’ Area E (Salmon) gillnet licences (Appendix E). The Regional Director General, Rebecca Reid, responded in writing and noted DFO is prepared to enter into negotiations and will attempt to reach an agreement on the amendment as stipulated in Clause 51 of the THA. To date, negotiations are continuing.

Retention of Mortally Wounded Steelhead and Sturgeon in the TFN FSC Fisheries

As part of the JTC TFN fishing plan review, the province requested that TFN prepare a written request to retain mortally wounded Steelhead and sturgeon that are caught as bycatch during the FSC fisheries. On 29 April 2020, TFN prepared a letter to the JFC validating their request and recommended that TFN Harvest Documents be updated to include the retention of FSC mortally wounded sturgeon and Steelhead (Appendix E). To date, TFN has not received a written reply to their request.

FSC Area Change Requests and Management Approaches in Area 29

On 16 July 2020, DFO sent a letter to TFN JFC which provided an update and sought feedback on requests by non-resident Fraser River First Nations to fish for Fraser River salmon species for FSC and treaty domestic purposes in Area 29 (Appendix E). DFO requested comments on their written approach for 2020 by 31 July 2020; however, comments on the ongoing issues set out in the letter were sought by 31 October 2020. As of the 6 October 2020 JFC meeting, TFN had not responded to the letter and DFO would follow-up with a second letter. TFN have been requested to respond to the follow-up letter.

Area E Salmon ITQ and TFN Harvest Agreement Fishing Plans for Chum salmon

On 5 October 2020, TFN sent a response letter to DFO in regard to 29 September JTC meeting discussion outlining the proposed Area E Salmon Individual Transferable Quota (ITQ) and TFN Harvest Agreement fishing plans for Chum salmon (Appendix E). DFO was considering that all commercial vessels fish together and requested TFN's feedback on this fishing plan. TFN's response letter outlined their concerns with the fishing plan and requested that their concerns be addressed at the 6 October 2020 JFC meeting (Appendix E). The final fishing plan allowed TFN Chum Economic Opportunity (EO) fishers to fish on 1 November 2020 prior to the Area E ITQ fishers. TFN did not request further economic access.

3.7 Recommendations

The following are recommendations for the 2021 FSC fishing season:

- Prior to the weekly planning calls for Fraser salmon fisheries, TFN and DFO representatives should continue to meet, via phone or otherwise to discuss:
 - Potential conservation issues;
 - Remaining allocation balances of all salmon species;
 - Potential projected TFN fishing effort;
 - Catch monitoring and enforcement strategies that will aid in formulating options for TFN fisheries with the ultimate goal of reaching the salmon allocations as set out in the TFN Final Agreement.
- Continue to improve the completeness of catch reporting by filing reports to DFO within 24 to 48 hours, as outlined in the HD and the TFN FOG.
- Continue to improve the landing validation program. Technicians should differentiate on their datasheets and the database if a harvest was counted, estimated, hailed, or not observed. Maintain the 20% sampling goal for all salmon fisheries. In 2020, the Chinook salmon FSC fishery was the only salmon fishery that recorded over a 20% validation rate.
- Continue to improve coded wire tag (CWT) sampling protocol for Chinook and Coho salmon. No adipose-clipped Chinook salmon were recorded as harvested in 2020.
- Fisheries and Oceans Canada should provide TFN with weekly updates to the TFN FSC allocations for Sockeye salmon at least two days before a potential TFN fishery where FSC Sockeye salmon could be harvested (i.e., Fraser River Panel meets Tuesdays and Fridays and the Fraser River Technical Committee meets Thursday afternoon).

4 SALMON THA FISHERIES

4.1 Allocations

In 2020, Tsawwassen First Nation was authorized to sell 5,481 Chum salmon during the commercial THA fisheries (Table 4.1). Like the FSC fisheries, the THA fisheries are subject to conservation needs and to agreed-upon monitoring, enforcement, and management regimes. There were no THA HDs issued to TFN for Sockeye or Pink salmon in 2020.

4.2 Fishery Openings and Target Species

Tsawwassen First Nation was involved in one ten-hour THA fishery (HD-442; driftnet) during the weekending 1 November (Table 3.2). These fisheries were directed at Chum salmon; however incidental harvest of hatchery-marked Coho salmon were also permitted. All efforts and attempts were made to return all non-target species, including Sockeye, Chinook, “wild” Coho salmon, Steelhead and sturgeon, to the water alive and unharmed. The main gear type for the ten-hour fishery was drift nets.

Total Chum salmon harvested during the THA fisheries was 1,719 (Table 4.1). One hundred percent of the total harvest was sold to packers. Tsawwassen First Nation harvested less than the defined allocation by 3,762 Chum salmon. The remaining uncaught allocation was not transferred upstream because it was too late in the fishing season.

Refer to section 4.4 for recommendations going forward.

4.3 Released Catch

Table 4.1 summarizes the number of fish reported as released from the THA fisheries. There were three species recorded as released: 17 sturgeon, 1 Sockeye salmon, and 3 wild Coho salmon. All efforts and attempts were made to return all non-target species to the water alive and unharmed.

4.4 Recommendations

The following are recommendations for the 2021 THA fisheries:

- Prior to the start of the THA fisheries, DFO, and TNRD staff should stress the importance of fishers recording all of the bycatch and released catch as well as identifying hatchery-marked Coho and Chinook salmon.

5 CRAB FISHERIES

5.1 FSC Openings, Catch, and Effort

There were four HDs issued for TFN FSC crab harvest which spanned the time period from 1 January to 31 December 2020, targeting Dungeness (*Metacarcinus magister*)¹, Graceful (*M. gracilis*)², and Red rock crab (*Cancer productus*) species (Table 5.1). However, TFN fishers only kept Dungeness crab, which were all harvested using traps. No crabs were harvested by TFN members using hand picking, dip net, or ring net methods in 2020.

Table 5.2 summarizes the FSC crab catch and effort by licence. Overall, there were a total of 48,523 Dungeness crab kept and 19,374 Dungeness crab released under the four HDs. Approximately 66% (32,185) of the total Dungeness crab were harvested under the HD-408 licence from April to June. However, HD-414 (July to September) recorded the highest amount of fishing 36,473 trap-days. In contrast, fishers active during the January to March period (HD-400) harvested 2,348 Dungeness crab and reported 21,177 trap-days of fishing effort.

For another perspective, Table 5.3 breaks down the total Dungeness, Red rock harvest, releases and effort by month rather than licence. The month of May recorded the highest Dungeness crab harvest (21,686), whereas January had the lowest recorded harvest (178). No Red rock or Graceful crabs were harvested in 2020. Soft-shell crab would account for a high portion of the releases in May–July. Most of the releases in other months were male crabs smaller than the minimum size limit or females.

The crab sampling plan outlines a sampling validation goal of 20% similar to salmon. In addition to comparing the Dungeness crab harvest by month, Table 5.3 summarizes the validation rate by month and fishery. An overall, validation rate of 30% was achieved for Dungeness crab.

Table 5.4 summarizes by month, the number of crab surveys conducted from January to December 2019. On average, the TFN Fisheries Department staff completed 318 vehicular surveys from January to December. Generally, TNRD staff conducted 1–3 crab patrols per day depending on the timing. The vehicular surveys involved driving along the Tsawwassen shoreline and confirming, by using binoculars, if crabbers were fishing. In addition, during the peak months of crab fishing (March–December) 22 on-water crab surveys were conducted.

In 2010, TFN Fisheries Department constructed a live tank which can hold crab until they are distributed to TFN members. In 2020, the live tank continued to be operational allowing for distribution of crab throughout the year. The live tank enabled TFN to hold more crab for longer so they could be distributed to members. Effective May 2013, the TFN Crab Distribution Policy was approved. This policy is intended to provide a framework for the distribution of FSC crab to eligible TFN members.

¹ *Metacarcinus magister*, formally *Cancer magister*, is accepted as the current taxonomic name for Dungeness Crab (Davie 2015b; Schram and Ng 2012).

² *Metacarcinus gracilis*, formally *Cancer gracilis*, is accepted as the current taxonomic name for Graceful Crab (Davie 2015a).

5.2 Commercial Openings, Catch, and Effort

In 2020, there were commercial crab openings in the Fraser River areas (Statistical Areas 28 and 29). The first opening occurred in Area I from 15 June to 30 November and the second opening occurred in Area J from 15 July to 30 November (Figure 1.4). The commercial crab openings ran concurrently with the FSC crab fisheries openings, which potentially limits the FSC TFN crab harvest because of the proximity of the commercial harvest and additional impact to the crab stocks. There are TFN FSC crab fishers who also commercially harvest crab. As a condition of the commercial licence, these fishers are required to submit their commercial harvest logs to the DFO Shellfish Data Unit at the Pacific Biological Station in Nanaimo on a monthly basis.

5.3 Recommendations

The following are recommendations for the 2021 FSC crab fishing season:

- Stress the importance to the FSC crab operators about limiting crab fishing to daylight hours only.
- Stress the importance to the FSC crab operators about marking crab traps. This may deter theft of traps since unmarked traps are deemed to be illegal gear and may be removed by people who find them.
- Stress the importance to the FSC crab operators of limiting their crab fishing efforts during the soft-shell period from April to mid-June (May to mid-July in Boundary Bay).
- Continue to document the distribution of the crabs for TFN members or other First Nation communities. Fisher distribution forms should be filled in monthly along with the logs and returned to the TNRD office.
- Continue to improve the completeness and timeliness of catch reporting to DFO.
- Continue to conduct on-water and vehicular surveys at regular interval (day and night time) during the FSC crab fishery to verify catch and effort reports.
- Continue to target 20% sampling validation goal similar to salmon as outlined in the crab sampling plan.
- An enforcement committee has been established to facilitate efforts to improve compliance with harvesting requirements for FSC crab fisheries as set out in the HD for these fisheries. The TFN Enforcement Committee should continue to meet regularly in 2021 and forward any pertinent issues to the JTC.

6 OTHER FISHERIES

6.1 Eulachon

The IFMP for Eulachon indicates: “Due to stock strength and conservation concerns, only limited Fraser River FSC fisheries for Eulachon will be considered on a case-by-case basis by Lower Fraser DFO area office for 2020.” The 2020 Tsawwassen Eulachon share (of estimated TAC) was approximately 772 lb. Two Eulachon ceremonial HDs were issued (week endings: 19 April and 26 April) and all were 36 hours or less in duration (Table 6.1). Table 6.2 indicates a total of 727.0 lb of Eulachon were harvested during the two ceremonial openings in April. The total combined fishing effort spanning the two Eulachon openings was just over 1.5 hours. Thirty-four whitefish were also caught and released as bycatch during the Eulachon fisheries (Table 6.2).

6.2 Recommendations

The following are recommendations for the 2021 FSC Eulachon fishing season:

- Due to the lack of stock assessment information for Eulachon, TFN initiated an Eulachon study in 2020 and is continuing into 2021. The migration timing, movement patterns and spawning habitat preferences of Fraser River Estuary Eulachon were assessed by live sampling adult Eulachon in the estuary, implanting acoustic tags in a sub-sample of fish throughout the spawning run, tracking fish movements using a combination of strategically placed stationary receivers and active mobile tracking, and identifying and characterizing spawning habitat. Field work will continue in 2021 starting in February.
- TFN staff would like to stress the importance of the Eulachon fishery as the current allocation does not meet TFN’s FSC needs.

6.3 Intertidal Bivalves

Intertidal bivalves may be harvested for FSC purposes in the Intertidal Bivalve Fishing Area by any designated TFN fishermen at the times and locations defined in the Tsawwassen HD. Additionally, where the Tsawwassen Intertidal Bivalve Fishing Area overlaps with a National Park Reserve, TFN fishermen are subject to terms and conditions developed following consultation with Parks Canada. While the JTC is continuing to work on an Intertidal Bivalve HD, no HD was requested in 2020 by TFN; therefore, no harvest of bivalves took place.

6.4 Shrimp and Prawns

Shrimp and prawns may be harvested for FSC purposes by TFN fishermen as outlined in a Tsawwassen HD. There was no recorded harvest of shrimp or prawns by TFN fishers in 2020 because no HD was requested.

6.5 Rockfish, Lingcod, Halibut, Dogfish, and Sole (Groundfish)

Rockfish, Lingcod, halibut, dogfish, and sole may be harvested for FSC purposes by TFN fishermen as defined in a Tsawwassen HD. There were four HDs issued for groundfish in 2020 (HD-407, HD-411, HD-415, and HD-431) starting 1 January 2020 using longline and rod and reel gear (Table 6.2). The groundfish fishery was limited to the harvest of halibut and an incidental harvest of sablefish, dogfish, Lingcod, flatfish, and rockfish.

Table 6.2 indicates that no effort or catch were recorded under any of the HDs. Tsawwassen First Nation fishers did not participate in groundfish fishery due to fisher availability.

6.6 Marine Aquatic Plants

The harvest of aquatic plants (including attached and detached kelps and seaweeds) within the Province of British Columbia is managed by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development and housed in the Aquaculture program. The authority for aquatic plant licencing decisions was transferred from Seafood Safety and Quality Unit of the BC Ministry of Agriculture in July 2018. An Aquatic Marine Plant HD was issued to TFN in 2020 (Tsawwassen-04) for the period 1 April 2020 to 31 March 2021. Harvest of marine aquatic plants was limited to the Tsawwassen Fishing Area. For the full list of aquatic marine plants harvestable for domestic purposes, see the Aquatic Marine Plant HD (Appendix B). As outlined in the Aquatic Marine Plant HD, TFN harvesters are required to identify harvested plants by group and record harvest on the TFN Aquatic Plant harvest log (Appendix C). Tsawwassen First Nation fishers did not participate in this fishery (zero effort and harvest were recorded).

7 MULTI-YEAR SUMMARY

7.1 FSC Salmon Harvest and Allocations

Table 7.1 summarizes the FSC salmon harvest, maximum allocations, and the final allocation balances for each year since 2009. Tsawwassen First Nation's allocation as outlined in the TFA differs from the maximum allocation as defined in Table 7.1 as the maximum TFN harvest for a particular salmon species in a given year including overages or underages.

Over this eight-year period, the total FSC harvest for Chinook salmon ranged from 86 to 995 (2016 and 2009, respectively). Tsawwassen First Nation's FSC Chinook salmon "maximum" allocation remained constant at 625, except in 2009 when DFO approved a "special circumstances" decision and increased the allocation to 900 fish. There were 95 Chinook salmon harvested above the permitted allocation for 2009. However, this was balanced off by the substantial underage in 2010, with no carry forward permitted in 2010 and 2011. Fisheries and Oceans Canada approved a portion of the total TFN Chinook salmon allocation not harvested in 2012 (125) as an underage to be carried forward due to DFO management uncertainty (Blakley et al. 2013; section 3.5). The majority of the carry-over was used in 2013 with a balance of 21 Chinook salmon to be included in the 2014 "maximum allocation" (Blakley et al. 2014; Table 7.1). Of the 646 Chinook salmon allocated to Tsawwassen in 2014, only 392 were

harvested. As well in 2014, TFN harvested 919 more Chum salmon than their defined allocation (2,576; Table 7.1). After detailed JTC and JFC discussions related to the issue of the TFN 2014 Chinook and Chum salmon fishery outcomes, DFO agreed with the proposal made by TFN to zero out the 2014 post-season TFN balances for both Chinook and Chum salmon (Blakley et al. 2015; section 3.5). In 2015, the only post-season balance that carried forward is the Chum salmon overage of 78 fish (Blakley et al. 2016; Table 7.1). The approved 2015 overage of 78 Chum salmon was paid back in 2016 with 81 less fish harvested from TFN's full allocation of 2,576.

For FSC Chinook salmon, TFN harvested 539 less fish than their defined allocation of 625 in 2016 (Table 3.7, Table 7.1). Tsawwassen First Nation sent a letter to DFO on 6 January and requested a Chinook salmon underage of 539 for 2016. Fisheries and Oceans Canada sent a response letter to TFN on 22 March (Blakley et al. 2017). Fisheries and Oceans Canada disagreed with TFN's underage request. Further discussion occurred at the 29 May 2017 JFC meeting held via conference call. JFC members concluded the requested Chinook salmon underage is not applied to future Chinook salmon allocations. JFC also discussed using selective gear (i.e., 8-inch gill net) to target Chinook salmon during times when there are co-migrating Sockeye salmon stocks.

In-season information indicated that the implementation of the Low Abundance Exploitation Rate (LAER) management approach was necessary for all Sockeye salmon run timing groups in 2017. Since there was no TAC available for Sockeye all directed FSC Sockeye salmon fisheries were halted and only incidental catch of Sockeye was permitted during the FSC Chinook salmon fisheries. No carry forward was proposed.

For FSC Chinook and Chum salmon, TFN harvested 68 and 30 more fish than their respective defined allocations (Table 3.7, Table 7.1) in 2017. No carry forward is anticipated with Chinook or Chum salmon due to the decrease availability of Sockeye salmon in 2017. In addition, this is the first year that TFN has been able to catch their full Chinook allocation since 2009.

In 2018, Tsawwassen harvested less than the defined FSC allocation by 312, 846, 461, and 70 for Chinook, Sockeye, Coho, and Chum salmon, respectively. No carry forward is proposed since Tsawwassen fishing efforts were less than that required to harvest the TFN allocation for these species.

In 2019, Tsawwassen harvested less than the defined FSC allocation by 14, 2,499, 488, and 67 for Chinook, Pink, Coho, and Chum salmon, respectively. No carry forward is proposed since Tsawwassen fishing efforts were less than that required to harvest the TFN allocation for these species.

In 2020, Tsawwassen harvested less than the defined FSC allocation by 21, 457, 216 for Chinook, Coho, and Chum salmon, respectively. No carry forward is proposed since Tsawwassen fishing efforts were less than that required to harvest the TFN allocation for these species.

Similar to 2017, there was no available TAC for Sockeye salmon in 2019 and 2020 because all management groups were tracking below forecast (p25–50). All directed FSC Sockeye salmon fisheries were halted, and no incidental catch of Sockeye was permitted during the FSC directed Chinook salmon fisheries. No carry forward was proposed. Refer to section 3.5 for the 2019 Chum salmon allocation change, previous to this Tsawwassen's Chum allocation has remained constant.

Since 2009, the total FSC harvest for Sockeye salmon ranged from 1 to 15,226 (2019 and 2010, respectively; Table 7.1). The Sockeye salmon FSC allocation varies depending on run size, averaging 6,120 over the last twelve years. Other salmon in the FSC fisheries harvested from 2009 to 2020 ranged from 1 to 84 (Pink salmon), 3 to 220 (Coho salmon), and 333 to 3,495 (Chum salmon). The allocations for Pink and Coho salmon remained constant over the twelve-year period, except on even year returns of Fraser Pink salmon when the run size is typically too small to warrant any directed harvest of these stocks.

7.2 FSC Crab Harvest

The total average FSC Dungeness crab harvest over the twelve-year period (2009–2020) was 42,825 and ranged from 20,327 in 2011 to 79,059 in 2016 (Table 7.2). The increase in crab catch over the years is due an increase in the number of active crab fishers from 5 to 24. The number of Dungeness crab released due to size, sex, or soft-shell has increased since 2009, averaging approximately 28,383 crabs per year. In addition, Red rock and Graceful crabs have also been caught during FSC fisheries, but have subsequently been released; except in 2010, when two Red rock crabs were recorded as kept.

7.3 THA Salmon Harvest

Table 7.3 compares the annual Tsawwassen Harvest Agreement catch and allocation from 2009 to 2020. Sockeye salmon THA fisheries occurred in 2010, 2011, 2014, and 2018 with the allocations ranging from 7,262 in 2011 to 97,981 in 2010. TFN did not harvest their full allocations in 2010, 2011, or 2014; however, in 2018 TFN harvested 3,773 more Sockeye salmon than allocated. No Sockeye salmon THA fishery occurred in 2019 and 2020 due to limited run size.

Pink salmon THA fisheries occurred in 2011, 2013, and 2015 (odd years only) with allocations ranging from 3,700 in 2015 to 103,500 in 2013. No Pink salmon THA fisheries occurred in 2009, 2017, and 2019 due to limited run size. In 2015, the entire THA Pink harvest was obtained upstream as part of the allocation transfer fisheries (Table 7.3). TFN did not harvest their full Pink salmon allocation in 2011, 2013, and 2015.

Chum salmon THA fisheries occurred in nine of the last eleven years (2009, 2011, 2012, 2013, 2014, 2015, 2016, 2017, and 2020). No Chum salmon THA fisheries occurred in 2010, 2018, and 2019 due to limited run size. Allocations ranged from 12,029 in 2012 to 4,220 in 2011. TFN only harvested their full allocation of THA Chum salmon in three of the nine years that the fisheries occurred (2013, 2015, 2016). However, in 2012, 2013, and 2015 the remaining Chum salmon allocations were harvested upstream in the transfer fisheries (Table 7.3). In 2020, it was too late in the season to transfer the remaining allocation upstream.

7.4 Eulachon Harvest

The total average FSC Eulachon harvest over the eleven-year period (2009–2020) was 176 lb and ranged from 39.3 in 2011 to 727.0 in 2020 (Table 7.2). The Eulachon allocation is based on the maximum harvest level which has increased every year starting in 2009. Since 2015, the method used to calculate the maximum harvest level has involved using a percentage of the average of Fraser Eulachon egg and larval survey Spawning Stock Biomass (SSB) index for a 2 to 3 Eulachon generation time span (i.e., assuming typically 3 years = 1 generation) (DFO 2020).

8 REFERENCES

- Blakley, A.C., K.K. English, and L. Cassidy. 2010. Tsawwassen First Nation Post-Season Fisheries Report, 2009. Prepared by LGL Limited, Sidney, BC, and Tsawwassen Fisheries Department, Tsawwassen, BC.
- Blakley, A.C., K.K. English, and L. Cassidy. 2011. Tsawwassen First Nation Post-Season Fisheries Report, 2010. Prepared by LGL Limited, Sidney, BC, and Tsawwassen Fisheries Department, Tsawwassen, BC.
- Blakley, A.C., K.K. English, and L. Cassidy. 2012. Tsawwassen First Nation Post-Season Fisheries Report, 2011. Prepared by LGL Limited, Sidney, BC, and Tsawwassen Fisheries Department, Tsawwassen, BC.
- Blakley, A.C., K.K. English, and L. Cassidy. 2013. Tsawwassen First Nation Post-Season Fisheries Report, 2012. Prepared by LGL Limited, Sidney, BC, and Tsawwassen Fisheries Department, Tsawwassen, BC.
- Blakley, A.C., K.K. English, and L. Cassidy. 2014. Tsawwassen First Nation Post-Season Fisheries Report, 2013. Prepared by LGL Limited, Sidney, BC, and Tsawwassen Fisheries Department, Tsawwassen, BC.
- Blakley, A.C., K.K. English, and L. Cassidy. 2015. Tsawwassen First Nation Post-Season Fisheries Report, 2014. Prepared by LGL Limited, Sidney, BC, and Tsawwassen Fisheries Department, Tsawwassen, BC.
- Blakley, A.C., K.K. English, and L. Cassidy. 2016. Tsawwassen First Nation Post-Season Fisheries Report, 2015. Prepared by LGL Limited, Sidney, BC, and Tsawwassen Fisheries Department, Tsawwassen, BC.
- Blakley, A.C., K.K. English, and L. Cassidy. 2017. Tsawwassen First Nation Post-Season Fisheries Report, 2016. Prepared by LGL Limited, Sidney, BC, and Tsawwassen Fisheries Department, Tsawwassen, BC.
- Blakley, A.C., K.K. English, and L. Cassidy. 2018. Tsawwassen First Nation Post-Season Fisheries Report, 2017. Prepared by LGL Limited, Sidney, BC, and Tsawwassen Fisheries Department, Tsawwassen, BC.
- Blakley, A.C., K.K. English, and L. Cassidy. 2019. Tsawwassen First Nation Post-Season Fisheries Report, 2018. Prepared by LGL Limited, Sidney, BC, and Tsawwassen Fisheries Department, Tsawwassen, BC.
- Blakley, A.C., K.K. English, and K. Lockert. 2020. Tsawwassen First Nation Post-Season Fisheries Report, 2019. Prepared by LGL Limited, Sidney, BC, and Tsawwassen Fisheries Department, Tsawwassen, BC.
- Davie, P. 2015a. World Register of Marine Species: *Cancer gracilis* Dana, 1852. Available: www.marinespecies.org/aphia.php?p=taxdetails&id=452220 (accessed 31 July 2015).

- Davie, P. 2015b. World Register of Marine Species: *Cancer magister* Dana, 1852. Available: www.marinespecies.org/aphia.php?p=taxdetails&id=452271 (accessed 31 July 2015).
- DFO (Fisheries and Oceans Canada). 2020. Pacific Region Integrated Fisheries Management Plan, January 1–December 31, 2020, Eulachon, Fraser River. Available: <http://waves-vagues.dfo-mpo.gc.ca/Library/40851606.pdf> (accessed 7 April 2021).
- FOG. 2009. Tsawwassen Fisheries Operational Guidelines approved by Canada, British Columbia and the Tsawwassen First Nation on the Effective Date (3 April 2009). 57 p. plus appendices.
- FOG. 2013. Tsawwassen Fisheries Operational Guidelines approved by Canada, British Columbia and the Tsawwassen First Nation on the Effective Date (3 April 2009; updated 24 September 2013). 57 p. plus appendices.
- Schram, F.R., and P.K.L. Ng. 2012. What is Cancer? *Journal of Crustacean Biology* 32(4):665–672.
- TFA. 2007. Tsawwassen First Nation Final Agreement signed by Canada, British Columbia and the Tsawwassen First Nation in December 2007. 214 p. plus appendices.
- THA. 2009. Tsawwassen First Nation Harvest Agreement signed by Canada, British Columbia and the Tsawwassen First Nation in December 2009. 12 p.

TABLES

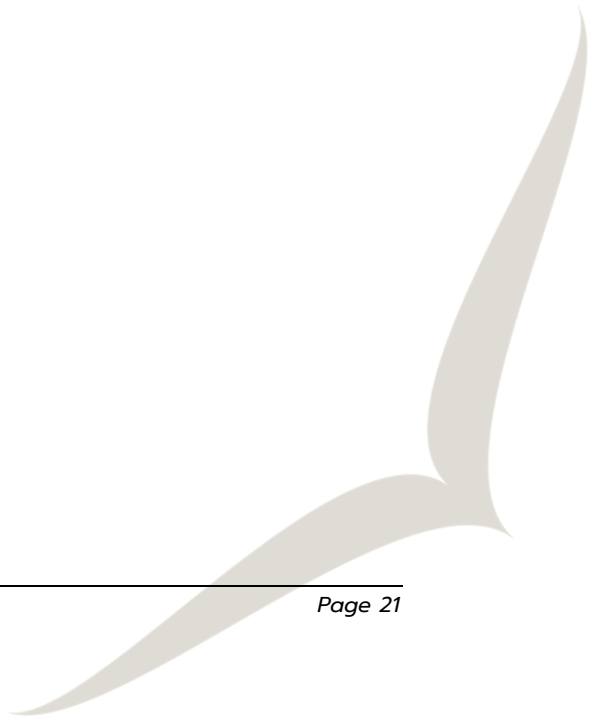


Table 3.1. Tsawwassen FSC salmon fishery allocations (in pieces), 2020.

Season	Chinook	Sockeye^{a,b,c}	Pink	Coho	Chum
Pre-season	625	< 15,226	N/A	500	2,576
In-season	625	-	N/A	500	2,576
Final in-season	625	-	N/A	500	2,576

^a See Appendix D for Fraser River Status Reports.

^b The final in-season based on update email from DFO and PSC sent 2 Sep 2020.

^c No TAC available because all management groups tracking below forecast (p25-50); therefore no fisheries were recommended.

Table 3.2. Tsawwassen FSC salmon fishery openings by date, gear type, and target species, 2020.

Weekend date	Licence #	Fishery type	Target species	Opening	Closing	Gear type(s)
				Date and time	Date and time	
28-Jun-20	LFA-20-HD-LP-411	FSC - Limited Participation	Chinook salmon ^a	27-Jun 18:00	28-Jun 18:00	Drift net, gillnet
12-Jul-20	LFA-20-HD-LP-412	FSC - Limited Participation	Chinook salmon ^a	11-Jul 08:00	12-Jul 08:00	Drift net, gillnet
09-Aug-20	LFA-20-HD-416	FSC - Communal	Chinook salmon	08-Aug 10:00	08-Aug 19:00	Drift net, set net, gillnet, anchored
16-Aug-20	LFA-20-HD-420	FSC - Communal	Chinook salmon	15-Aug 12:00	15-Aug 20:00	Drift net, set net, gillnet, anchored
16-Aug-20	LFA-20-HD-420	FSC - Communal	Chinook salmon	16-Aug 12:00	16-Aug 20:00	Drift net, set net, gillnet, anchored
23-Aug-20	LFA-20-HD-423	FSC - Communal	Chinook salmon with incidental harvest of hatchery-marked Coho and Chum salmon	22-Aug 13:00	23-Aug 21:00	Drift net, set net, gillnet, anchored
23-Aug-20	LFA-20-HD-423	FSC - Communal	Chinook salmon with incidental harvest of hatchery-marked Coho and Chum salmon	23-Aug 13:00	23-Aug 21:00	Drift net, set net, gillnet, anchored
25-Oct-20	LFA-20-HD-432-AMD01	FSC - Communal	Chum salmon with incidental harvest of hatchery-marked Coho and Chinook salmon	24-Oct 08:00	24-Oct 20:00	Drift net, set net, river
25-Oct-20	LFA-20-HD-432-AMD01	FSC - Communal	Chum salmon with incidental harvest of hatchery-marked Coho and Chinook salmon	24-Oct 08:00	24-Oct 23:59	Drift net, set net
25-Oct-20	LFA-20-HD-436	FSC - Communal	Chum salmon with incidental harvest of hatchery-marked Coho and Chinook salmon	25-Oct 08:00	25-Oct 20:00	Drift net, gillnet
25-Oct-20	LFA-20-HD-436	FSC - Communal	Chum salmon with incidental harvest of hatchery-marked Coho and Chinook salmon	25-Oct 00:01	25-Oct 20:00	Gillnet, set net, river
01-Nov-20	LFA-20-HD-438	FSC - Communal	Chum salmon with incidental harvest of hatchery-marked Coho and Chinook salmon	29-Oct 12:00	29-Oct 19:00	set net
01-Nov-20	LFA-20-HD-438	FSC - Communal	Chum salmon with incidental harvest of hatchery-marked Coho and Chinook salmon	29-Oct 12:00	30-Oct 12:00	Drift net, gillnet
01-Nov-20	LFA-20-HD-438	FSC - Communal	Chum salmon with incidental harvest of hatchery-marked Coho and Chinook salmon	30-Oct 07:00	30-Oct 12:00	Gillnet, set net, river
01-Nov-20	LFA-20-HD-442	Tsawwassen Harvest Agreement	Chum salmon with incidental harvest of hatchery-marked Coho salmon	01-Nov 00:01	01-Nov 20:00	Drift net, gillnet
01-Nov-20	LFA-20-HD-442	Tsawwassen Harvest Agreement	Chum salmon with incidental harvest of hatchery-marked Coho salmon	01-Nov 07:00	01-Nov 19:00	Gillnet, set net, river

^a HD-LP-411 and HD-LP-412 were limited to 6 and 9 Chinook salmon per licence, respectively.

Table 3.3. Summary of Tsawwassen FSC salmon catch and effort, 2020.

Weekend date	Licence #	Vessel (h)	Tsawwassen catch (kept)						
			Chinook	Adipose-clipped Chinook	Sockeye	Pink	Coho	Adipose-clipped Coho	Chum
28-Jun-20	LFA-20-HD-LP-411	1.92	6	0	0	0	0	0	0
12-Jul-20	LFA-20-HD-LP-412	6.09	9	0	0	0	0	0	0
09-Aug-20	LFA-20-HD-416	121.00	64	0	0	0	0	0	0
16-Aug-20	LFA-20-HD-420	192.75	263	0	0	0	0	0	1
23-Aug-20	LFA-20-HD-423	197.80	258	0	0	0	0	0	2
25-Oct-20	LFA-20-HD-432-AMD01	64.50	1	0	0	0	0	19	832
25-Oct-20	LFA-20-HD-436	63.00	0	0	0	0	0	19	856
01-Nov-20	LFA-20-HD-438	90.30	3	0	0	0	5	0	669
Totals		737.4	604	0	0	0	5	38	2,360
Maximum allocation			625		-	2,500		500	2,576
Remaining			21		-	2,500		457	216

Table 3.4. Summary of Tsawwassen FSC salmon catch and effort (vessel-hours) for interviews only and comparison of catch-per-effort estimates for fishers interviewed while fishing (interviewed) and those reporting after the fishery (non-interviewed).

Weekend date ^a	Licence #	Vessel (h)	Tsawwassen catch (kept)							
			Adipose-clipped				Adipose-clipped			
			Chinook	Chinook	Sockeye	Pink	Coho	Coho	Chum	Steelhead
28-Jun-20	LFA-20-HD-LP-411	1.9	6	0	0	0	0	0	0	0
12-Jul-20	LFA-20-HD-LP-412	6.1	9	0	0	0	0	0	0	0
09-Aug-20	LFA-20-HD-416	10.0	6	0	0	0	0	0	0	0
16-Aug-20	LFA-20-HD-420	183.3	250	0	0	0	0	0	1	0
23-Aug-20	LFA-20-HD-423	175.3	227	0	0	0	0	0	2	0
25-Oct-20	LFA-20-HD-432-AMD01	7.5	0	0	0	0	0	6	182	0
25-Oct-20	LFA-20-HD-436	9.5	0	0	0	0	0	1	167	0
01-Nov-20	LFA-20-HD-438	9.1	0	0	0	0	0	0	101	0
Total (validated interviews) ^b		402.6	498	0	0	0	0	7	453	0
Total (non-interviews)		334.8	106	0	0	0	5	31	1,907	0
Grand total		737.4	604	0	0	0	5	38	2,360	0
Total catch validated		55%	82%	N/A	N/A	N/A	0%	18%	19%	N/A
Catch-per-effort (CPE) for validated interview data										
Validated data only ^b			1.24	0.00	0.000	0.000	0.00	0.02	17.27	0.00
Non-validated data only			0.32	0.00	0.000	0.000	0.01	0.09	8.77	0.00

^a Chum salmon CPE calculated using October fisheries only.

^b Interviews where every fish was counted.

Table 3.5. Tsawwassen bycatch from the FSC salmon fisheries, 2020.

Weekend date	Licence #	Vessel (h)	Released ^a							
			Sturgeon	Steelhead	Flounder	Pink	Coho	Sockeye	Chinook	Chum
28-Jun-20	LFA-20-HD-LP-411	1.9	3	0	0	0	0	0	0	0
12-Jul-20	LFA-20-HD-LP-412	6.1	13	0	0	0	0	0	0	0
09-Aug-20	LFA-20-HD-416	121.0	6	0	0	0	0	6	0	0
16-Aug-20	LFA-20-HD-420	192.8	3	0	0	0	0	0	0	0
23-Aug-20	LFA-20-HD-423	197.8	0	0	0	0	0	0	0	0
25-Oct-20	LFA-20-HD-432-AMD01	64.5	0	0	0	0	2	1	0	0
25-Oct-20	LFA-20-HD-436	63.0	0	0	0	0	2	0	0	0
01-Nov-20	LFA-20-HD-438	90.3	0	0	0	0	2	0	0	0
Totals		737.4	25	0	0	0	6	7	0	0

^a All fish were released alive.

Table 3.6. Tsawwassen FSC releases of sturgeon (bycatch) by date and location, 2020.

Weekend date	Locations ^a					Totals
	T1	T2	T3	T4	T5	
28-Jun-20	-	-	2	1	-	3
12-Jul-20	-	-	13	-	-	13
09-Aug-20	-	-	3	3	-	6
16-Aug-20	-	-	-	3	-	3
23-Aug-20	-	-	-	-	-	0
25-Oct-20	-	-	-	-	-	0
01-Nov-20	-	-	-	-	-	0
Totals^b	0	0	18	7	0	25

^a T1 = Roberts Bank (29-6, 29-7), T2 = Sandheads (29-9, 29-10), T3 = Canoe Pass to Deas (29-14), T4 = Steveston-Pattullo (29-13), T5 = Pattullo-Port Mann (29-17), T6 = North Arm (29-12).

^b All sturgeon were released alive.

Table 3.7. Tsawwassen FSC salmon overages and underages based on 2020 allocation.

	Chinook ^a	Sockeye ^b	Pink	Coho ^a	Chum ^a
Annual allocations	625	-	N/A	500	2,576
Previous carry forward	-	-	-	-	-
Total allocation:	625	0	0	500	2,576
Total catch	604	0	0	43	2,360
Fish provided to TFN	-	-	-	-	-
Total catch:	604	0	0	43	2,360
Balance:	21	0	0	457	216
Carry forward:	-	-	-	-	-

^a Underage not carried forward due to limited Tsawwassen harvesting effort.

^b No TAC available because all management groups tracking below forecast (p25-50); therefore no fisheries were recommended.

Table 4.1. Tsawwassen First Nation Catch Summary for THA salmon fisheries 2020.

Weekend date	Licence #	Effort (h)	Kept					Sold			Total retained			Released						
			Chinook	Adipose-clipped Chinook	Sockeye	Adipose-clipped Coho	Chum	Sockeye	Chinook	Chum	Sockeye	Chinook	Chum	Sturgeon	Steelhead	Chinook	Sockeye	Pink	Coho	Chum
01-Nov-20	LFA-20-HD-442	137.5	0	0	0	0	0	0	0	1,719	0	0	1,719	17	0	0	1	0	3	0
Totals		137.5	0	0	0	0	0	0	0	1,719	0	0	1,719	17	0	0	1	0	3	0
Total TFN in-season allocation												5,481								
Total TFN harvest												1,719								
Remaining after TFN harvest												3,762								
Allocation transferred upstream												0								
Remaining after transfer												0								

Table 5.1. Tsawwassen FSC crab fishery openings by target species, date, and gear type, 2020.

Licence #	Fishery type	Target species ^a	Opening	Closing	Gear type(s)
			Date and time	Date and time	
LFA-20-HD-400	FSC - Communal	Crab	01-Jan 00:01	31-Mar 23:59	Handpicking, dip net, ring net, traps
LFA-20-HD-408	FSC - Communal	Crab	01-Apr 00:01	30-Jun 23:59	Handpicking, dip net, ring net, traps
LFA-20-HD-414	FSC - Communal	Crab	01-Jul 00:01	30-Sep 23:59	Handpicking, dip net, ring net, traps
LFA-20-HD-428	FSC - Communal	Crab	01-Oct 00:01	31-Dec 23:59	Handpicking, dip net, ring net, traps

^a Crab species include Dungeness, Graceful, and Red rock crabs.

Table 5.2. Tsawwassen FSC Dungeness and Red rock crab catch and effort by licence, 2020.

Licence #	Date	Dungeness crab		Red Rock crab		Effort (h)	Trap-days
		Kept	Released	Kept	Released		
LFA-20-HD-400	01 Jan - 31 Mar	2,348	2,150	0	0	14,542	21,177
LFA-20-HD-408	01 Apr - 30 Jun	32,185	9,413	0	0	20,720	35,593
LFA-20-HD-414	01 Jul - 30 Sep	10,057	5,392	0	0	21,360	36,473
LFA-20-HD-428	01 Oct - 31 Dec	3,933	2,419	0	0	18,795	31,046
Totals		48,523	19,374	0	0	75,417	124,289

Table 5.3. Tsawwassen FSC Dungeness and Red rock crab catch and effort by month, 2020.

Licence #	Month	Dungeness crab		Red rock crab		Effort (h)	Trap-days	Validated Dungeness crab	
		Kept	Released	Kept	Released			Kept ^a	% counted
LFA-20-HD-400	January	178	207	0	0	2,568	4,330	0	0
	February	712	653	0	0	7,774	9,347	113	16
	March	1,458	1,290	0	0	4,200	7,500	719	49
LFA-20-HD-408	April	2,103	1,628	0	0	3,288	6,850	488	23
	May	21,686	5,006	0	0	11,496	18,448	7,497	35
	June	8,396	2,779	0	0	5,936	10,295	1,570	19
LFA-20-HD-414	July	5,591	2,522	0	0	9,528	16,814	2,200	39
	August	2,201	1,420	0	0	5,304	8,009	499	23
	September	2,265	1,450	0	0	6,528	11,650	50	2
LFA-20-HD-428	October	1,780	706	0	0	8,307	11,203	545	31
	November	1,278	1,060	0	0	8,136	14,943	534	42
	December	875	653	0	0	2,352	4,900	259	30
Totals		48,523	19,374	0	0	75,417	124,289	14,474	30

^a The total number of validated crab kept were counted 100%.

Table 5.4. Summary of crab patrol surveys conducted in 2020.

Month	Survey type (# of days/month)	
	Vehicular ^a	On-water (boat) ^b
January	31	0
February	33	0
March	31	1
April	21	0
May	39	7
June	38	0
July	31	6
August	14	1
September	24	1
October	20	2
November	22	3
December	14	1
Totals	318	22

^a Includes 13 joint patrols with DFO from April to October.

^b Includes one joint patrol with ECCC (Environment and Climate Change Canada) in March and two joint patrols with COS (Conservation Officer Service) in July and November.

Table 6.1. Tsawwassen FSC Eulachon fishery openings by target species, date, and gear type, 2020.

Weekend date	Licence #	Fishery type	Target species	Daily opening	Daily closing	Gear type(s)
				Date and time	Date and time	
19-Apr-20	LFA-20-HD-LP-404	FSC - Communal	Eulachon	14-Apr 11:00	14-Apr 22:00	Drift net
19-Apr-20	LFA-20-HD-LP-404	FSC - Communal	Eulachon	15-Apr 10:00	15-Apr 22:00	Drift net
19-Apr-20	LFA-20-HD-LP-404	FSC - Communal	Eulachon	16-Apr 10:00	16-Apr 22:00	Drift net
26-Apr-20	LFA-20-HD-LP-408	FSC - Communal	Eulachon	22-Apr 10:00	22-Apr 22:00	Drift net

Table 6.2. Tsawwassen First Nation catch summary for ceremonial Eulachon fisheries, 2020.

Weekend date	Licence #	Effort (h)	Pounds ^a	Released					
				Sturgeon	Chubs	Suckers	Flounder	Eulachon	Other
19-Apr-20	LFA-20-HD-LP-404	1.32	660.0	0	0	0	0	0	34
26-Apr-20	LFA-20-HD-LP-408	0.25	67.0	0	0	0	0	0	0
Totals		1.57	727.0	0	0	0	0	0	34

^a Catch monitors weighed Eulachon on board vessel (13 pieces = 1 pound). Tsawwassen First Nation's estimated share of TAC was 772 lb.

^b Other released for HD-LP-44 = 34 whitefish.

Table 6.3. Tsawwassen FSC groundfish fishery openings by target species, date, and gear type, 2020.

Licence #	Fishery type	Target species ^a	Opening	Closing	Gear type(s)
			Date and time	Date and time	
LFA-20-HD-407	FSC - Communal	Halibut	01-Jan 9:00	31-Mar 23:59	Longline, rod and reel
LFA-20-HD-411	FSC - Communal	Halibut	21-Apr 9:00	30-Jun 23:59	Longline, rod and reel
LFA-20-HD-415	FSC - Communal	Halibut	01-Jul 0:01	30-Sep 23:59	Longline, rod and reel
LFA-20-HD-431	FSC - Communal	Halibut	01-Oct 0:01	31-Dec 23:59	Longline, rod and reel

^a Includes incidental catches of sablefish, dogfish, lingcod, flatfish, and rockfish.

Table 6.4. Tsawwassen First Nation catch summary for FSC groundfish fisheries, 2020.

Licence # ^a	Vessel (h)	Count of vessels	Tsawwassen catch (kept)							Released			
			Halibut	Dogfish	Lingcod	Flounder	Sturgeon	Sablefish	Shark	Sturgeon	Dogfish	Shark	Skate
LFA-20-HD-407	0.0	0	0	0	0	0	0	0	0	0	0	0	0
LFA-20-HD-411	0.0	0	0	0	0	0	0	0	0	0	0	0	0
LFA-20-HD-415	0.0	0	0	0	0	0	0	0	0	0	0	0	0
LFA-20-HD-431	0.0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	0.0	0	0	0	0	0	0	0	0	0	0	0	0

^a No effort or catch was recorded in 2020.

Table 7.1. Comparison of annual FSC salmon catch and allocation from 2009 to 2020.

Year ^a		Chinook ^{d,e,f}	Sockeye	Pink	Coho	Chum
2009	Total catch ^b	995	1,132	72	57	1,320
	Maximum allocation ^c	900	1,132	2,500	500	2,576
	Final allocation balance	-95	0	0	0	0
2010	Total catch ^g	338	15,226	2	3	2,019
	Maximum allocation	530	15,226	N/A	500	2,576
	Final allocation balance	0	0	0	0	0
2011	Total catch	583	9,995	84	43	2,414
	Maximum allocation	625	10,894	2,500	500	2,576
	Final allocation balance	0	0	0	0	0
2012	Total catch	440	6,649	2	22	2,577
	Maximum allocation	625	7,047	N/A	500	2,576
	Final allocation balance ^h	125	0	0	0	-1
2013	Total catch	729	5,120	74	220	2,574
	Maximum allocation	750	5,120	2,500	500	2,576
	Final allocation balance	21	0	0	0	0
2014	Total catch	392	14,878	3	159	3,495
	Maximum allocation	646	15,226	N/A	500	2,576
	Final allocation balance ⁱ	0	0	0	0	0
2015	Total catch	598	2,851	20	11	2,654
	Maximum allocation	625	2,920	2,500	500	2,576
	Final allocation balance ^j	0	0	0	0	-78
2016	Total catch	86	2,978	0	64	2,495
	Maximum allocation ^k	625	6,427	N/A	500	2,498
	Final allocation balance ^l	0	0	0	0	0
2017	Total catch	693	233	35	87	2,606
	Maximum allocation	625	No TAC	2,500	500	2,576
	Final allocation balance ^m	-68	0	0	0	-30
2018	Total catch	313	14,380	0	39	2,506
	Maximum allocation	625	15,226	N/A	500	2,576
	Final allocation balance	0	0	0	0	0
2019	Total catch	611	1	1	12	333
	Maximum allocation	625	No TAC	2,500	500	400
	Final allocation balance	0	0	0	0	0
2020	Total catch	604	0	0	43	2,360
	Maximum allocation	625	No TAC	N/A	500	2,576
	Final allocation balance	0	0	0	0	0

^a Majority of underages not carried forward due to limited Tsawwassen harvesting effort.

^b Fish caught on 25 Oct in HD-482 were harvested as by-catch in the EO Chum salmon fishery and taken home. The take home by-catch was classified by Fisheries and Oceans Canada as FSC harvest.

^c Maximum allocation is defined as the maximum TFN harvest for a particular salmon species in a given year including underages and overages.

^d DFO approved a "special circumstance" increase in the TFN Chinook salmon allocation to 900 fish for 2009.

^e Twenty percent of total allocation carried forward due to management uncertainty (2012 and 2013).

^f In 2014, maximum allocation includes 21 carryover from 2012.

^g Tsawwassen First Nation over harvested during the last THA fishery (9/10 Sep) due to a miscommunication between TFN and the seiner crew; the seiner continued fishing after the allocation had been reached. 1,946 Sockeye were transferred to "top-up" the FSC allocation (included in the Sockeye total).

^h In 2013, maximum allocation includes 125 carryover from 2012.

ⁱ The remaining Chinook salmon allocation from 2012 (21) plus 233 balance from 2014 was used to offset the 2014 Chum salmon overage of 919 and set the final balance for Chinook and Chum salmon to zero.

^j Seventy-eight Chum salmon overage.

^k Sockeye salmon allocation in this table reflects the inseason CTAC estimate prior to the last Sockeye salmon fishery. On 10 Aug, a revised allocation of 1,079 was calculated based on updated CTAC estimates; however, TFN had already exceeded this catch allocation so fishing was halted and subsequently there is no carry forward.

^l The 2015 overage of 78 Chum salmon was paid back in 2016 with 81 less Chum harvested from TFN's full allocation of 2,576.

^m No carry forward anticipated with Chinook and Chum salmon due to the decrease availability of Sockeye salmon in 2017. This is the first year since 2009 that TFN has been able to catch their full Chinook allocation.

Table 7.2. Comparison of annual FSC Dungeness and Red rock crab catch from 2009 to 2020.

Year	Dungeness crab		Red rock crab		Graceful crab	
	Kept	Released	Kept	Released	Kept	Released
2009	24,712	13,760	0	0	0	0
2010	21,558	11,775	2	23	0	0
2011	20,327	12,170	0	8	0	0
2012	24,441	14,350	0	2	0	0
2013	42,439	25,531	0	4	0	0
2014	41,563	19,829	0	5	0	0
2015	56,423	45,721	0	35	0	0
2016	79,059	62,540	0	26	0	0
2017	45,131	32,615	0	63	0	1
2018	52,569	38,956	0	4	0	0
2019	57,154	34,966	0	10	0	0
2020	48,523	19,374	0	0	0	0
Average	42,825	27,632	0	15	0	0

Table 7.3 Comparison of annual Tsawwassen Harvest Agreement (THA) fisheries catch and allocation from 2009 to 2020.^a

Year		Sockeye	Pink	Chum
2009	Total catch	-	-	3,416
	Allocation	-	-	8,113
2010 ^b	Total catch	98,315	-	-
	Allocation	97,981	-	-
2011	Total catch	5,337	45,098	2,243
	Allocation	7,262	64,780	4,220
2012 ^{c,d}	Total catch	-	-	11,832
	Allocation	-	-	12,029
2013 ^e	Total catch	-	103,146	8,998
	Allocation	-	103,500	8,998
2014	Total catch	79,574	-	4,967
	Allocation	75,581	-	7,508
2015 ^f	Total catch	-	3,516	9,714
	Allocation	-	3,700	9,714
2016	Total catch	-	-	13,672
	Allocation	-	-	10,780
2017	Total catch	-	-	4,815
	Allocation	-	-	7,694
2018	Total catch	37,368	-	-
	Allocation	33,595	-	-
2019 ^g	Total catch	-	-	-
	Allocation	-	-	-
2020	Total catch	-	-	1,719
	Allocation	-	-	5,481

^a By-catch totals not included in summary tables (see annual fisheries reports for details).

^b Due to miscommunication between TFN and seiner crew, the seiner continued fishing after the allocation was reached. Catch from the seine opening was distributed as follows: 40,156 TFN EO, 1,946 as TFN FSC, and 11,200 Sockeye salmon were shared with neighbouring First Nations' towards their FSC and EO harvests.

^c Missing landing slip in 2019 was found and an additional 381 Chum were sold as part of HD-475, thus the catch number will be different than previous reports.

^d 9,731 Chum salmon were harvested upstream (allocation transfer fisheries).

^e 3,064 Chum salmon and 87,418 Pink salmon were harvested upstream (allocation transfer fisheries).

^f 3,516 Pink salmon and 1,922 Chum salmon were harvested upstream (allocation transfer fisheries).

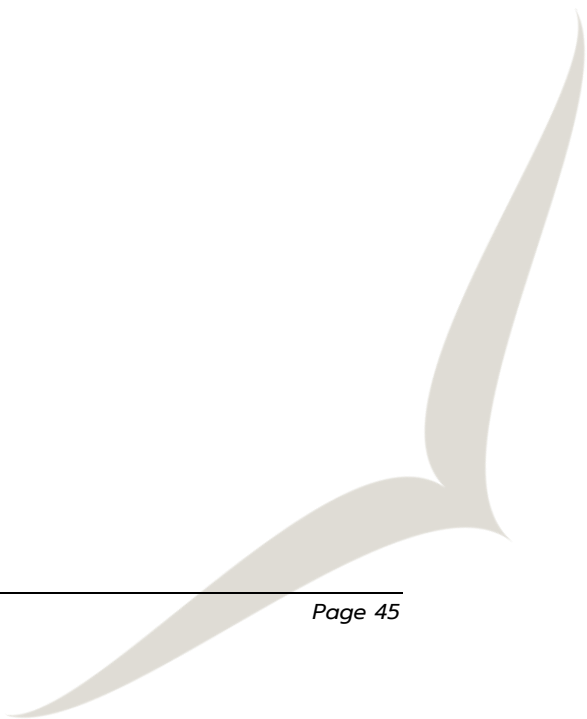
^g There were no THA HDs issued to TFN for Sockeye, Chum, nor Pink salmon in 2019.

Table 7.4 Comparison of annual Eulachon catch and allocation from 2009 to 2020.

Eulachon (lb)	2009	2010	2011	2012^a	2013	2014	2015	2016	2017	2018	2019	2020
Total catch	49.0	41.0	39.3	50.0	95.7	59.2	61.0	160.6	185.0	446.2	199.0	727.0
Allocation	50.0	50.0	50.0	50.0	100.0	100.0	217.0	288.0	485.0	518.0	700.0	772.0

^a Due to over harvest by upstream First Nations, Tsawwassen did not harvest their share of TAC. Eulachon was harvested by Katzie First Nation.

FIGURES



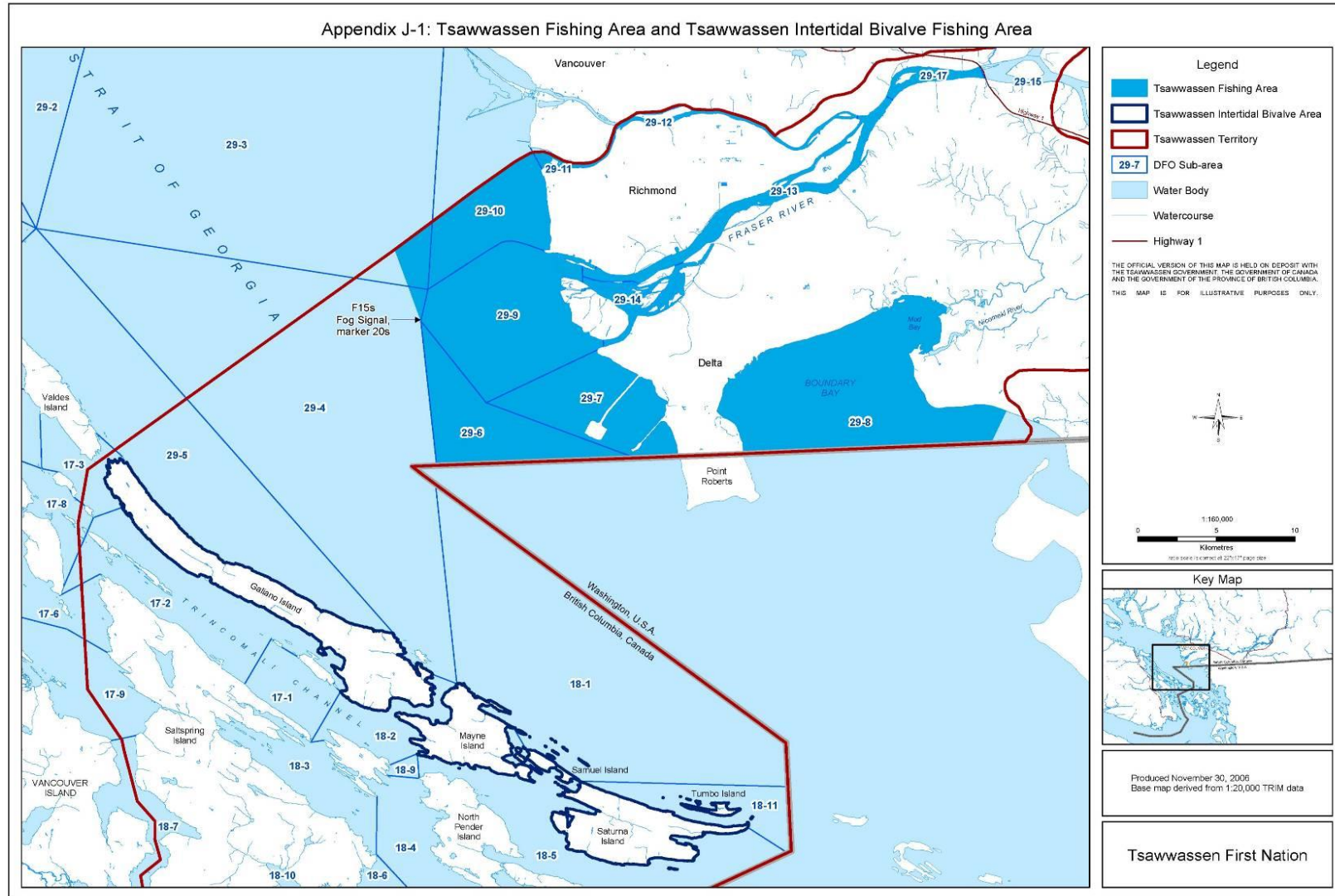


Figure 1.1. Tsawwassen Fishing Area and Tsawwassen Intertidal Bivalve Fishing Area.



Figure 1.2. Identification of Gulf Islands National Park Reserve of Canada.



Figure 1.3. Tsawwassen Fishing Area (enlarged map with location names).

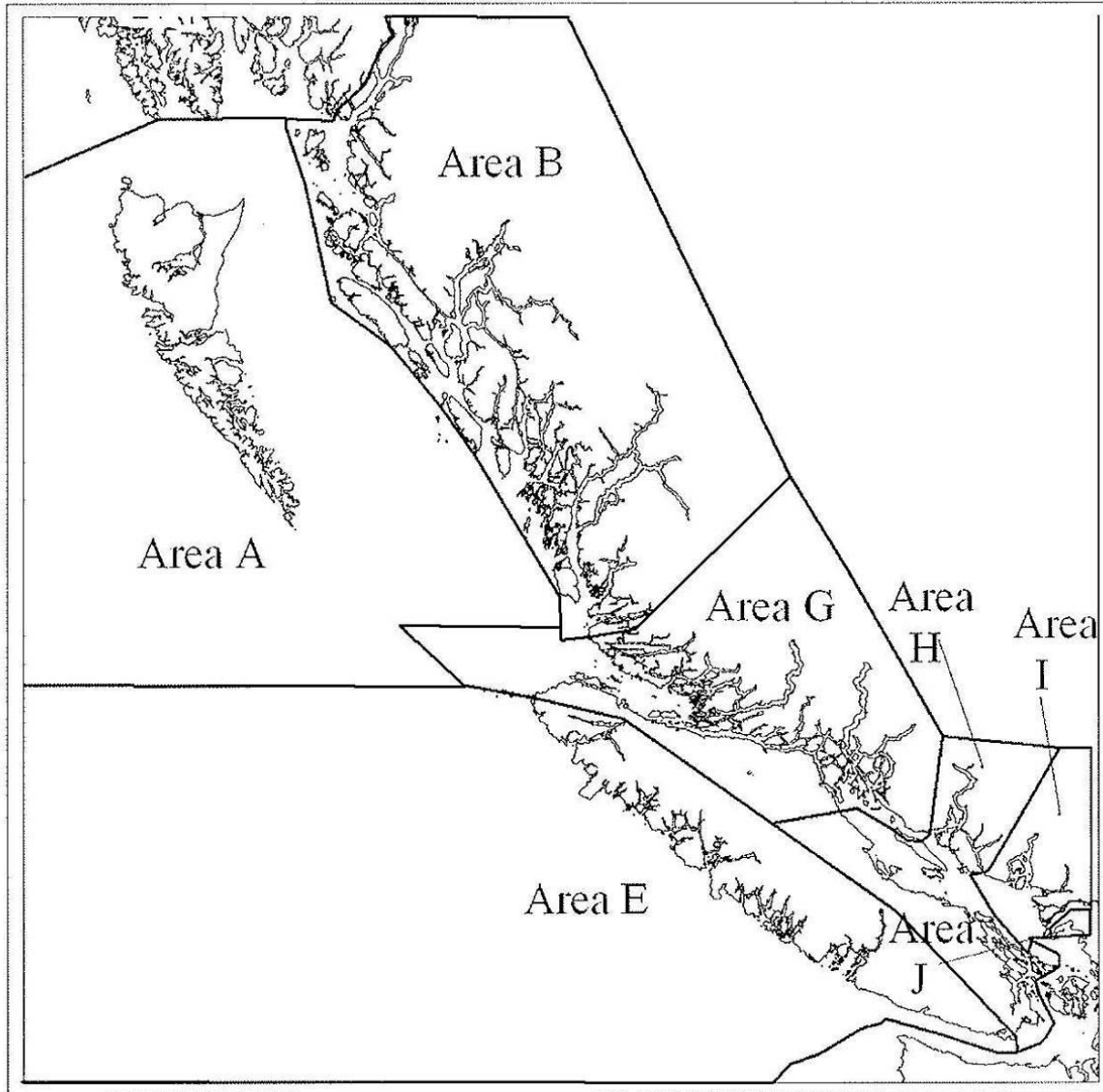
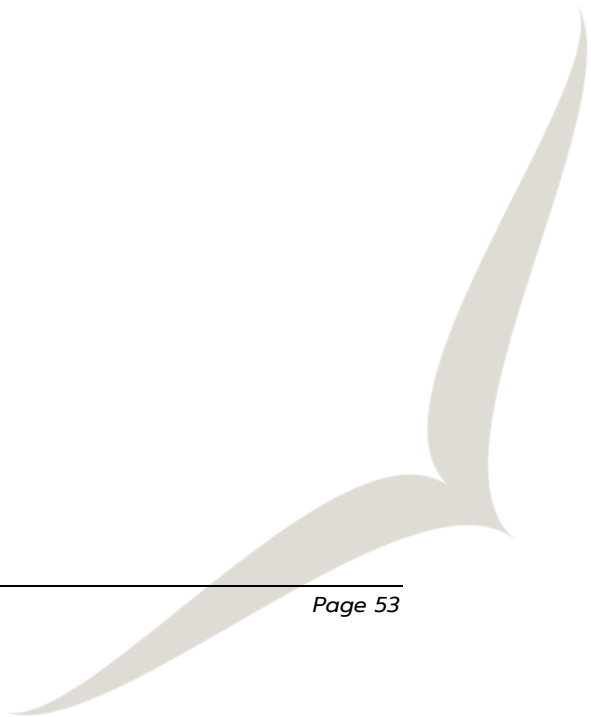
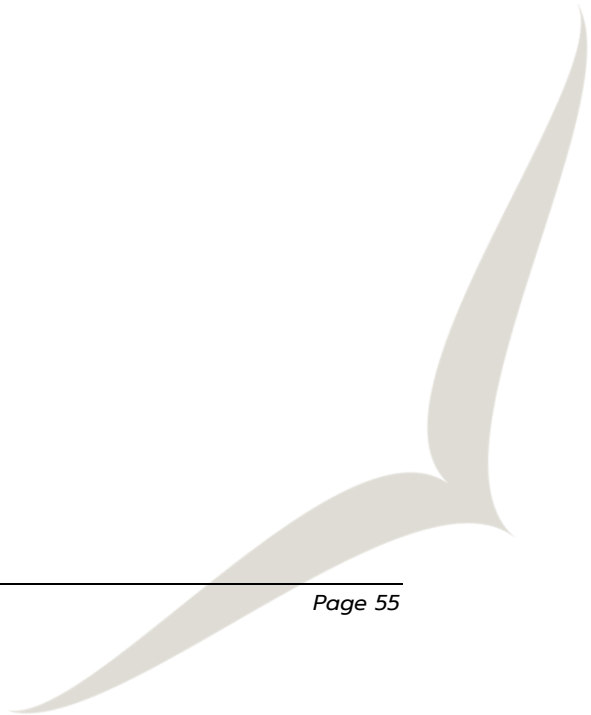


Figure 1.4. Map of Commercial Crab Management Areas.

APPENDICES



APPENDIX A
Tsawwassen Fishing Plans 2020





scəwəθən məsteyəx^w

TSAWWASSEN FIRST NATION

Fisheries Department FINAL

TSAWWASSEN ANNUAL FISHING PLAN EULACHON AND CHINOOK – FINAL JULY 2020

This fishing plan has been prepared by Tsawwassen First Nation (TFN) for submission to the Joint Fisheries Committee to assist in the planning for Tsawwassen fisheries to be conducted between 1 April 2020 and 31 March 2021. A list of TFN's designated fishers and their designation numbers is provided to Fisheries and Oceans Canada annually.

The following sections provide the proposed harvest plans and harvest expectations for Eulachon, Chinook Salmon, Steelhead, and sturgeon, based on pre-season run size forecasts, to ensure that the Department of Fisheries and Oceans (DFO) is aware of potential TFN's harvest levels and preferred harvest times, areas, and methods for each species or species group. However, the Tsawwassen Annual Fishing Plan (TAFP) is subject to identified and documented conservation concerns.

General

Tsawwassen fisheries will be conducted in a manner consistent with the Tsawwassen First Nation Final Agreement, Tsawwassen First Nation Harvest Agreement, Harvest Documents, Tsawwassen Fisheries Operational Guidelines (FOG) document, Tsawwassen Law, Federal Laws and British Columbia Law. As indicated in the Tsawwassen Final Agreement, Tsawwassen fisheries will be conducted within the Tsawwassen Fishing Area (TFA) or Tsawwassen Intertidal Bivalve Fishing Area, unless otherwise permitted in Harvest Documents or licences issued by DFO. The specific catch monitoring requirements and plans for each species are defined in the Tsawwassen FOG document. The following species-specific plans summarize the conservation issues and provide details on Tsawwassen proposed fishing times, gear and size restrictions for each species. Where conservation concerns have been identified licence conditions will identify those species that should be released alive and unharmed.

Eulachon

Conservation: The draft IFMP for Eulachon indicates that: “the decline of the species and limited or lack of recovery in river systems coast wide is an ongoing concern”. Maintaining harvest at low levels should increase the probability of rebuilding Fraser River Eulachon stocks. DFO continues to take an approach to managing the fishery that emphasizes conservation and sustainable use.

Fishery: An increased allocation of 10,538 lb of FSC harvest of Eulachon is proposed for First Nations in the lower Fraser River in 2020. Eulachon may be harvested for FSC purposes by specifically designated TFN fishers at the times and locations in a Tsawwassen Harvest Document. The Fraser River Eulachon IFMP for 1 January 2020 to 31 December 2020 limits the length of fishing time to 20-minute soak times (or as negotiated in season) to a maximum of 12 hours per day (or as negotiated in season).

Timing: From 15 March 2020 through mid-May 2020, TFN’s proposed Eulachon fishing should be permitted for time periods equivalent to that permitted for other First Nation’s fishing in the TFA and the weekly timing for these fisheries will be determined in consultations with DFO.

In addition, TFN proposes Eulachon fisheries for ceremonial purposes from 1 March through 31 March 2020, or similar timing equivalent to that permitted for other First Nation’s fishing in the TFA. The TFN 2021 Eulachon fishery will be covered by Fraser River Eulachon IFMP for 2021.

Gear: Each fisher may fish using one drift net up to a maximum soak time of 20 minutes. Drift nets shall be no more than 100 m in length and shall have a mesh size of no less than 25 mm and no greater than 50 mm.

Size: There are currently no size restrictions for FSC harvests of Eulachon.

Expectation: The expected harvest level for TFN in 2020 is 772 lb. TFN is willing to assist other Lower Fraser First Nations with their FSC Eulachon harvest.

Chinook Salmon

Conservation: In 2010, the Nicola Tribal Association identified some serious conservation concerns for “early-timed” Chinook salmon and requested that all Fraser First Nations “hold off on any fishing” for these stocks. Most “early-timed” Chinook salmon stocks are Spring 4₂ and Spring 5₂ fish. These concerns are still relevant in 2020. Spring 4₂, Spring 5₂, and Summer 5₂ Chinook salmon stocks have been classified as stocks of concern while the Summer 4₁ outlook is under review and Fall 4₁ Chinook salmon have been categorized as Category 2 (low abundance) (2020 Draft Southern Salmon IFMP). Similar to 2019, a suite of highly precautionary fishery restrictions will be implemented to provide a high degree of protection to at-risk Fraser Spring 4₂, Spring 5₂, and

Summer 5₂ Chinook salmon stocks returning in 2020. The management target is to reduce overall Canadian fishery mortalities on these populations to near 5%.

DFO plans to implement management measures for Fraser River Chinook conservation that were announced for the 2019 season pending a technical review of the 2019 fishery management measures and completion of consultation on possible adjustments to these management measures. In 2019, First Nations FSC fisheries were restricted to Chinook non-retention until 15 July with the exception of limited opportunities to harvest small numbers of Chinook for ceremonial purposes in the Fraser River until 15 July (2020 Draft Southern Salmon IFMP).

TFN Fishery: Chinook salmon may be harvested for FSC purposes by any designated TFN fisher at the times and locations defined in a Tsawwassen Harvest Document. TFN fishers and the TFN Fisheries Department will endeavor to minimize the encounter rate and harvest for non-target species (i.e., species without directed fishing effort during the Chinook salmon fishing periods).

Timing: From 1 April through 14 July 2020, TFN will put forward requests totaling up to 15 Chinook salmon, which will encompass planned ceremonial events (TFN first fish ceremony, graduation ceremony, Aboriginal Day, and funerals).

After 14 July, additional opportunities will be managed for their impacts on co-migrating stocks (Early Stuart Sockeye, Early Summer Sockeye, Spring and Summer 5₂ Chinook and late-run Sockeye) as well as taking into account in-season information including stock mix, environmental conditions, run size and run timing. TFN is proposing to conduct weekly 36-hour fisheries with the full TFN vessel fleet. These weekly fisheries will start on Friday at a time that will be determined in weekly consultations with DFO on the Wednesday prior. Minimal encounters with Early Stuart Sockeye are expected due to the change in drift net mesh size (minimum mesh size of 20 cm/8.0 in, a maximum length of 50 fathoms, and a maximum depth of 60 meshes. Discussions will occur with DFO prior to the start of the salmon fisheries.

From late July through to the end of August 2020, TFN's proposed Chinook salmon fishing plan is a minimum 48 hours per week or time equivalent to that permitted for other First Nation's fishing in the TFA. These weekly fisheries will start on Friday at a time that will be determined in weekly consultations with DFO on the Wednesday prior. If the Chinook salmon allocation has not been met by 31 August 2020, TFN will request further selective harvest opportunities for Chinook salmon into September prior to the start of the Interior Fraser River (IFR) Coho salmon window closure (8 September 2020). The options for selective harvest opportunities will be discussed at a later date. TFN understands that these additional Chinook salmon

¹ Timing for ceremonial fishing (1 April–14 July) which overlaps with the three-week Early Stuart closure dates (27 June–20 July).

harvest opportunities (post-Labour Day) will be dependent upon the Coho salmon exploitation rate and meeting conservation objectives.

From 1 March through 31 March 2021, TFN's proposed Chinook salmon fisheries for ceremonial purposes is a minimum of 12 hours per week or time equivalent to that permitted for other First Nation's fishing in the TFA; and these weekly fisheries will start on Friday or Saturday at a time that will be determined in weekly consultations with DFO on the Wednesday prior.

Gear: Approved selective fishing methods may be used during any fishing period, if identified on the harvest documents.

Drift nets with a minimum mesh size of 20 cm/8.0 in, a maximum length of 50 fathoms, and a maximum depth of 60 meshes will be used during directed Chinook salmon fisheries, as well as the Early Stuart Sockeye salmon migration period (approximately 27 June–27 July 2020) or during any other periods when there are conservation concerns for Fraser Sockeye stocks.

Size: No Chinook salmon less than 30 cm/12 in in nose-to-fork length will be harvested, other than as bycatch after all efforts have been made to release salmon unharmed have been taken.

Expectation: The expected harvest level for 2020 is 625 Chinook salmon. In 2019, no incidental harvest of Sockeye salmon was permitted during any of the Chinook-directed FSC fisheries and is likely to be the same for 2020. However, when Chinook salmon fisheries take place during Early Stuart migration TFN's desire is to retain Sockeye salmon up to their impact share. In addition, the Fraser Salmon Management Board (FSMB) is exploring retention options for by-catch species.

Sturgeon and Steelhead

Conservation: Conservation concerns have been identified for Fraser River White sturgeon and Steelhead in the TFA. TFN will be consulted on any updated conservation measures for Steelhead prior to the start of the salmon fisheries.

TFN Fishery: All live White sturgeon and Steelhead caught in TFN FSC fisheries will be immediately released. No TFN fisheries will target White sturgeon or Steelhead (wild or hatchery-marked) in 2020. Currently, harvest documents for FSC salmon read "All efforts and attempts shall be made to return all non-target species including Steelhead and sturgeon alive and unharmed. Steelhead and sturgeon must not be retained." However, in the event a White sturgeon or Steelhead caught in a TFN fishery is dead or a mortal wound is obvious, TFN's preference is to retain the fish as per the generally agreed upon practice for other Fraser River First Nation FSC fisheries (via letter – TFN action item 24 September JTC meeting). No bycatch of Steelhead or sturgeon would be retained in TFN commercial fisheries.

Timing: NA

Gear: NA

Size: NA

Marine Aquatic Plants

Conservation: No conservation concerns have been identified for marine aquatic plants in the TFA.

TFN Fishery: Tsawwassen members may harvest marine aquatic plants for FSC purposes (from the 9 classified groups) in the TFA as outlined in the harvest document.

Tsawwassen First Nation will submit an aquatic plant commercial harvesting application before the submission deadline (1 October 2020) for the 2021 commercial harvest season to the Ministry of Forest, Lands and Natural Resource Operations (FLNRO).

Timing: From 1 April 2020 through 31 March 2021, 24 hours per day, every day.

Gear: TFN members propose to use hand picking methods, using a sharp cutting instrument, to harvest marine aquatic plants for FSC purposes.

Expectation: In 2016–2019, BC Minister issued the Harvest Document without a harvest limit. The Province of BC will revisit the necessity of a harvest limit at some point in the future, should the need arise. The same exception will hold for 2020.

Note: Sockeye salmon, Pink salmon, Chum salmon, Coho salmon, crab, intertidal bivalves, shrimp, and prawns, and groundfish will be updated at a later date.



Fisheries Department FINAL

TSAWWASSEN ANNUAL FISHING PLAN – FINAL OCTOBER 2020

This fishing plan has been prepared by Tsawwassen First Nation (TFN) for submission to the Joint Fisheries Committee to assist in the planning for Tsawwassen fisheries to be conducted after the Effective Date (between 1 April 2020 and 31 March 2021). A list of TFN's designated fishers and their designation numbers is provided to Fisheries and Oceans Canada (DFO) annually.

The following sections provide the proposed harvest plans and harvest expectations for each salmon species, based on pre-season run size forecasts, to ensure that the DFO is aware of potential TFN's harvest levels and preferred harvest times, areas, and methods for each species or species group. However, the Tsawwassen Annual Fishing Plan (TAFP) is subject to identified and documented conservation concerns. *This document does not include sections related to Eulachon, Chinook salmon, Marine Plants, Steelhead, and sturgeon because they were previously finalized in a separate document.*

General

Tsawwassen fisheries will be conducted in a manner consistent with the Tsawwassen First Nation Final Agreement, Tsawwassen First Nation Harvest Agreement (THA), Harvest Documents (HD), Tsawwassen Fisheries Operational Guidelines (FOG) document, Tsawwassen Law, Federal Laws, and British Columbia Law. As indicated in the Tsawwassen Final Agreement, Tsawwassen fisheries will be conducted within the Tsawwassen Fishing Area (TFA) or Tsawwassen Intertidal Bivalve Fishing Area, unless otherwise permitted in HD or licences issued by DFO. The specific catch monitoring requirements and plans for each species are defined in the Tsawwassen FOG document. The following species-specific plans summarize the conservation issues and provide details on Tsawwassen proposed fishing times, gear, and size restrictions for each species. Where conservation concerns have been identified licence conditions will identify those species that should be released alive and unharmed.

Sockeye Salmon

Conservation¹: Conservation concerns are anticipated for several of the components of the 2020 Sockeye salmon return to the Fraser River: the Early Stuart stock, some Early Summer stocks, and some Late-run stocks (e.g., Quesnel, Cultus Lake stock). The status of weak stocks is not expected to improve in 2020 given recent trends. The majority of the 2020 return will likely be Summer run Sockeye, and there will likely be considerable overlap between the different Sockeye run timing. The cycle average return for 2020 is 3,603,000; the forecast for this year is 930,000. The average return for Fraser Sockeye at the p50 level. Recent Fraser Sockeye returns have generally been below the p50 forecast level.

The draft IFMP indicates that there will be a 4-week Early Stuart and early-timed Early Summer Sockeye salmon closure in Area 29 from 27 June until 27 July. For 2020, as in other recent years, there is concern regarding the return strength of the early-timed component of the Early Summer run, and a one-week extension to the Early Stuart closure window will be implemented to protect these stocks (until 27 July). The window closure dates may also change in-season depending on additional information on stock mix, environmental conditions, run size, run timing, etc. Depending on in-season information, this approach or other actions may be considered to support meeting management objectives for this stock group. If, however, the in-season information indicates above average run size, warranting directed fisheries on the Early Stuart stock, then TFN intends to fish.

From late July 2020 through mid-August 2020, most of the Sockeye salmon migrating through the TFN salmon fishing area are expected to be originating from the Summer and Early Summer stocks. After early to mid-August 2020, the Late-run stocks (including Cultus Lake) could begin to enter the Fraser River depending on the extent to which these fish delay in the lower Georgia Strait. The midpoint (p50) pre-season forecasts for the total return of Fraser Sockeye salmon in 2020 is 930,000 (13,000 Early Stuart, 206,900 Early Summers, 611,000 Summers, and 99,000 Lates). These estimates represent the 50% probability level for each timing group (i.e., there is a 50% probability that the run could be lower than these estimates).

TFN Fishery: Sockeye salmon may be harvested for FSC purposes by any designated TFN fishers at the times and locations defined in a Tsawwassen HD. Once the first in-season Canadian Commercial Total Allowable Catch has been determined for Fraser Sockeye salmon, TFN will be issued licences by DFO for the Tsawwassen commercial allocation for Fraser River Sockeye salmon, as defined in the TFN Harvest Agreement. TFN will work with DFO to determine the timing, location and other details related to TFN

¹ The run timing for the various Fraser Sockeye salmon stock timing groups are not final (based on the draft IFMP).

commercial harvest opportunities. TFN fishers and the TFN Fisheries Department will endeavor to minimize the encounter rate and harvest for non-target species (i.e., species without directed fishing effort during the Sockeye salmon fishing periods). A portion of the TFN FSC Sockeye salmon allocation may be retained to be taken as bycatch in TFN FSC fisheries conducted in August to harvest the TFN allocation for Chinook salmon.

Timing: If any inter-First Nation FSC sharing arrangement fisheries are permitted to target Early Stuart Sockeye salmon, TFN expects that its members will be provided an opportunity to harvest some Sockeye salmon during the period when Early Stuart Sockeye salmon are migrating through the TFA. These fisheries would typically start on Friday. The duration and timing of these fisheries will be determined in weekly consultations with DFO, typically on the Wednesday prior.

From 28 July through 5 August 2020, the TFN's proposed Sockeye salmon fishing is 48 hours per week, subject to conservation; and these weekly fisheries will start on Friday at a time that will be determined in weekly consultations with DFO on the Wednesday prior.

From 6 August through 7 September 2020, the TFN's proposed Sockeye salmon fishing is 48 hours per week (subject to conservation), if required to achieve the TFN Sockeye salmon allocation. These weekly fisheries will start on Friday or Saturday at a time that will be determined in weekly consultations with DFO on the Wednesday prior. Note the end dates for Sockeye salmon fisheries depend on the timing of Interior Fraser River (IFR) Coho window closures currently scheduled for 8 September to 9 October 2020.

Gear: Approved selective fishing methods may be used during any fishing period, if identified on the HD. Any selective harvest methods not already identified will be approved prior to fishing.

Drift nets with a minimum mesh size of 10 cm/4 in, to a maximum of 15 cm/5-7/8 in, a maximum length of 50 fathoms, and a maximum depth of 60 meshes may be used.

Size: No Sockeye salmon less than 30 cm/12 in in nose-fork length will be harvested, other than bycatch after all efforts have been made to release salmon unharmed have been taken. TFN's desire is to retain Early Stuart Sockeye salmon up to their impact share. In addition, the Fraser Salmon Management Board (FSMB) is exploring retention options for by-catch species.

Expectation: Based on escapement plan options outlined in the final IFMP and the pre-season (50% probability) run size forecast, the Canadian Total Allowable Catch (CTAC) is estimated to be below 3 million Sockeye salmon. Therefore, the expected harvest level for the 2020 TFN FSC Sockeye salmon fisheries will be will not reach the FSC maximum amount of 15,226. Pre-season Sockeye allocation to be determined closer to fishing period. TFN's commercial allocation for Sockeye salmon is 0.78% of the

Canadian Commercial Total Allowable Catch (CCTAC) of Fraser River Sockeye salmon. The harvest level for the 2020 TFN commercial Sockeye salmon fisheries will be determined as soon as the CCTAC has been defined for Fraser River Sockeye salmon. Both the TFN FSC and commercial allocations may change during the fishing season with changes in the returning abundance of Fraser River Sockeye salmon.

Pink Salmon

Conservation: Even year returns of Fraser River Pink salmon are typically too small to warrant any direct harvest of these stocks.

TFN Fishery: N/A

Timing: N/A

Gear: N/A

Size: N/A

Expectation: N/A

Chum Salmon

Conservation: Formal quantitative forecasts are not prepared for Fraser River Chum, but the qualitative Salmon Outlook for 2020 is “low”. Despite a relatively large brood return, the 2020 outlook is considered “low” due to the low Fraser River Chum returns observed since 2017, which reflected a coast-wide trend of low Chum returns. In addition, conservation concerns related to Interior Fraser Steelhead, Lower Fraser Coho salmon, and Interior Fraser Coho salmon could affect the timing and fishing methods permitted for commercial fisheries that target Fraser Chum salmon stocks. The IFMP defines the decision guidelines for fisheries that target Fraser River Chum salmon stocks. TFN recommends that no commercial fisheries be permitted to harvest Fraser Chum salmon until a TAC has been determined. The first in-season estimate of the return and terminal TAC for Fraser Chum salmon should be available mid-October 2020.

TFN Fishery: Chum salmon may be harvested for FSC purposes by any designated TFN fishers at the times and locations defined in a Tsawwassen HD. Once the first in-season Canadian Commercial Total Allowable Catch has been determined for Fraser Chum salmon, TFN will be issued a HD by DFO for the Tsawwassen commercial allocation for Fraser River Chum salmon, as defined in the TFN Harvest Agreement. TFN will work with DFO to determine the timing, location and other details related to TFN commercial harvest opportunities. TFN fishers and the TFN Natural Resource Department will endeavor to minimize the encounter rate for non-target species (e.g., Steelhead, sturgeon, Lower Fraser Coho salmon, Interior Fraser Coho salmon).

Timing:² From late October through 30 November 2020, based on the proposed IFR Coho salmon window closure (8 September–9 October) and IFR Steelhead closure (28 September–24 October). Starting 25 October, TFN proposes a 48-hour, drift gillnet, Chum salmon FSC fishery and thereafter, timing will be determined in consultation with DFO.

If TFN has a commercial Chum salmon allocation in 2020, TFN proposes to use their standard Chum salmon drift nets during similar time periods when Area E and other Fraser First Nations are permitted to conduct commercial fisheries that target Fraser Chum salmon (should they sign Economic Access Agreements with the Department) and to conduct an experimental selective fishery to harvest the portion of their commercial Chum salmon allocation that was not harvested using their standard Chum salmon drift nets. The timing for these commercial fisheries is expected to begin after the 42-day window closure (commercial gill net, purse seine, beach seine, and shallow seine fisheries and Fraser River recreational fisheries – 28 September–1 November). TFN proposes 48-hour drift gillnet, Economic Opportunity fisheries starting 2 November. All fishery time frames are estimates and final dates will be determined according to in-season migration timing information.

Gear: Previously approved selective fishing methods may be used during any fishing period, if identified in the HD.

Drift nets with a minimum mesh size of 15.8 cm/6-1/4 in, a maximum length of 50 fathoms, and a maximum depth of 60 meshes may be used during the period of approximately late October through 30 November 2020. Revival boxes will be present on vessels greater than thirty feet – representing about 19% of TFN’s fleet.

Size: No Chum salmon less than 30 cm/12 in in nose-fork length will be harvested other than as bycatch when a mortal wound is obvious.

Expectation: TFN Chum salmon allocation for FSC fisheries would be 2,576 Chum salmon assuming Terminal Surplus is greater than 100,000 in 2020.

TFN’s commercial allocation for Chum salmon is 3.27% of the Terminal Commercial Catch (TCC) of Fraser River Chum salmon.

Coho Salmon

Conservation: Conservation concerns have been identified for Interior Fraser Coho salmon and Lower Fraser Coho salmon. All Lower Fraser Coho and Interior Fraser Coho stocks are classified as a *stock of concern* for 2020. Therefore, regardless of the exploitation rate selected for the 2020 fishing season, First Nations fisheries both off the mouth of, and in, the Fraser River will likely continue be affected to some degree during IFR Coho

² Timing dates for FSC Chum salmon fisheries based on final salmon IFMP.

window closures and IFR Steelhead closures currently scheduled for 8 September to 24 October 2020.

TFN Fishery: Coho salmon may be harvested for FSC purposes, consistent with relevant provisions laid out in the IFMP, by any designated TFN fishers at the times and locations defined in a Tsawwassen HD. TFN fishers and the TFN Fisheries Department will endeavor to minimize the encounter rate for non-target species. As indicated in the Tsawwassen HD all efforts and attempts shall be made to return all non-target species, including Sockeye, wild Coho salmon, Steelhead and sturgeon, to the water alive and unharmed.

Timing:³ From approximately late October through 30 November 2020, TFN may harvest Coho salmon captured in their Chum salmon FSC fisheries up to a pre-determined maximum of 500 pieces (hatchery-marked). The Department will work with TFN to provide access to Coho salmon in times and areas with minimal impact on stocks of concern, and consistent with the overall 2020 IFR Coho salmon and Steelhead management approach.

Gear: Approved selective fishing methods may be used during any fishing period, if identified in the harvest documents.

Drift nets with a minimum mesh size of 15.8 cm/6-1/4 in, a maximum length of 50 fathoms, and a maximum depth of 60 meshes may be used during the period of early October through 30 November 2020.

Size: No Coho salmon less than 30 cm/12 in in nose-fork length will be harvested other than as bycatch when a mortal wound is obvious.

Expectation: As outlined in Appendix J-2 of the TFA, TFN's Coho salmon allocation for FSC fisheries will be **500 Coho salmon** (hatchery-marked) in 2019. The harvest may take place in the following manner:

- a. Incidentally in FSC fisheries that target other species; or
- b. Using selective harvesting techniques to capture specific Coho salmon stocks.

If, in the future, Fraser River wild Coho salmon stocks rebuild to levels that allow harvest for FSC purposes TFN expects DFO will permit TFN members to harvest the TFN Coho salmon allocation in a manner consistent with other Fraser First Nation FSC fisheries.

Crab

Conservation: The following conservation issues have been identified by DFO:

- There is a concern that undersized, female, and soft-shell crab are being removed through either illegal harvests or incidental mortality due to intensive fishing. Due

³ Timing dates for harvesting FSC Coho salmon are based on final salmon IFMP.

to increased injury and mortality, the capture and handling of undersized, female, and soft-shell crab is a conservation concern.

- Illegal crab trap gear continues to be a conservation concern. Crab traps having undersized, missing, or closed escape rings contribute to higher undersized, female, and soft-shell mortalities. If lost, these traps can continue to fish until they structurally deteriorate or become buried in the substrate.⁴
- All harvesters (Commercial, First Nation, and Recreational) should have the same minimum size limit for conservation of male crab.
- Commercial and recreational harvesters must release all females regardless of size. Tsawwassen First Nation crab harvesters will be required to release all female crabs. Mandatory release of female crabs will be included as a condition in the harvest document.
- Crab harvesting during “soft shell” periods is not authorized for commercial harvesters for conservation reasons. Crabs with soft shells are susceptible to significant mortality during the fishing and handling process required for release of female and undersized crabs. At this time First Nation harvesting for domestic purposes is allowed during the commercial closed period for soft shell (December to mid-June in Areas 28 and 29, and December to mid-July in Boundary Bay).
- It is recommended that TFN crab harvesters reduce fishing effort during the soft-shell period to reduce mortalities of undersized crabs. In Areas 28 and 29, the soft-shell or moulting period is from April to mid-June (May to mid-July in Boundary Bay).

TFN Fishery: Crab may be harvested for FSC purposes by any designated TFN fisher at the times and locations defined in a Tsawwassen Harvest Document. TFN fishers and the TFN Fisheries Department will endeavor to minimize the encounter rate and harvest for non-target species. TFN has communal commercial access to crab, however the commercial fishery is subject to separate licence conditions and is not discussed in this document.

Timing: From 1 April 2020 through 31 March 2021, 24 hours per day, every day.

Location: The fishing area listed in the harvest document is as follows: The waters of the Strait of Georgia bounded by a line commencing at 49° 11' 3.1524" N latitude and 123° 12' 26.08868" W longitude then to 49° 7' 48.216" N latitude and 123° 19' 50.4228" W longitude then to 49° 5' 15.6948" N latitude and 123° 18' 36.8958" W longitude then to 49° 0' 8.0028" N latitude and 123° 18' 5.1156" W longitude then to 49° 0' 7.5564" N latitude and 123° 5' 27.528" W longitude and the waters of Boundary Bay bounded by a line commencing at 49° 0' 7.5198" N latitude and 123° 2' 6.5898" W longitude then to

⁴ Integrated Fisheries Management Plan, Crab by Trap 2019.

49° 0' 7.5414" N latitude and 122° 49' 10.8552" W longitude then to 49° 1' 15.2256" N latitude and 122° 48' 20.7858" W longitude. Portions of DFO Management Subareas 29-6, 29-7, 29-8, 29-9, 29-10.

As noted in the Tsawwassen FOG document, crab buoys are not permitted in the portion of the TFA defined as the "Navigational No Float Zone". TFN fishers are permitted to fish for crab in this zone, but any buoys associated with crab traps must remain outside this zone.

Gear: Each TFN vessel may use up to a maximum of 50 traps to harvest crab for FSC purposes. The following requirements apply to all traps used to catch crabs:

- Biodegradable escapement mechanisms are required on each trap in the form of a rot cord (untreated cotton twine no greater than No. 120), rot panel or rot panel alternative. These mechanisms are designed to minimize the effects of ghost fishing by traps.
- All crab traps must be fitted with at least two escape holes (at least 105 mm in diameter) that are not more than 100 mm below the top of the frame.
- Unique plastic trap tags will be applied to each TFN each crab trap used in the FSC fishery to facilitate the identification of TFN traps and enforcement of fisheries regulations. Each harvester will also receive 10 extra tags in case they lose some of the 50 tags that can be fished per vessel. The trap tags will be replaced on a two-year basis.
- If a harvester loses 10 or more plastic trap tags, the harvester should contact the TFN Natural Resource Enforcement officer to obtain a replacement set of trap tags (marked specifically as replacement tags). The regular tags must be removed from the traps, returned to the TFN Natural Resource Enforcement officer, and replaced with the new replacement set.
- TFN will provide DFO will a list of the plastic trap tags numbers have been distributed to which harvesters, as well as the vessels designated to fish crab. The list will be updated as needed, for example when additional harvesters request crab tags, when new vessels enter the fishery, when harvesters received replacement tags, or when new tags are issued each year. Updated lists will be sent to DFO as they are updated or on a monthly basis.
- Traps set individually will attach a floating buoy legibly marked with Tsawwassen First Nation, participant's name and the identification number for the vessel used. Multiple traps set in a string will have a floating buoy legibly marked with Tsawwassen First Nation, participant's name and the identification number for the vessel used attached to both ends of each string. The floats must be large enough so that they will not go underwater with tide or current changes.

Size: The minimum size for Dungeness crab is 16.5 cm/6-1/2 in and for Red rock crab are 11.5 cm/4-1/2 in, both measured in a straight line across the widest part of the carapace, or shell. All crab less than the minimum size limit shall be immediately released to the area of capture.

Intertidal Bivalves

Conservation: No conservation concerns have been identified for intertidal bivalves in the Tsawwassen Intertidal Bivalve Fishing Area.

TFN Fishery: TFN currently does not have a harvest document for bivalves, but is working with Federal and Provincial government agencies, the Canadian Shellfish Sanitation Program (CSSP) and South Coast First Nations to establish harvesting locations within the Tsawwassen Intertidal Bivalve Harvest Area (Southern Gulf Islands). Once locations have been determined and South Coast First Nations have been contacted, intertidal bivalves may be harvested for FSC purposes by any designated TFN fishers at the times and locations defined in a Tsawwassen Harvest Document.

Timing: To be determined.

Location: As described in the Tsawwassen FOG document:

- Where the Tsawwassen Intertidal Bivalve Fishing Area overlaps with a National Park Reserve or a National Marine Conservation Area, terms and conditions governing harvest will be developed following consultations with Parks Canada.

Sanitary and Biotxin Closures:

- Collection of bivalves from areas in closed status for sanitary contamination under the Management of Contaminated Fisheries Regulations is not authorized. All clam harvesters are advised to check for both bivalve shellfish biotoxin (PSP/Redtide, ASP, DSP) sanitary (emergency, annual, seasonal) contamination closures, prior to any harvest or consumption. Information on in-season closures due to biotoxins and on annual sanitary (human and animal waste) contamination closures is available at local DFO offices, by calling the toll-free information line at 1-866-431-3474, or on the Internet at www.pac.dfo-mpo.gc.ca/psp.

Gear: TFN members propose to use typical hand pick harvesting techniques (shoves, rakes, and buckets) to harvest intertidal bivalves for FSC purposes.

Size: There are currently no size restrictions for FSC harvests of intertidal bivalves.

Shrimp and Prawns

Conservation: No conservation concerns have been identified for shrimp and prawns in the TFA.

TFN Fishery: TFN currently does not hold a harvest document for Shrimp and Prawns. Upon request by TFN, shrimp and prawns may be harvested for FSC purposes by any designated TFN

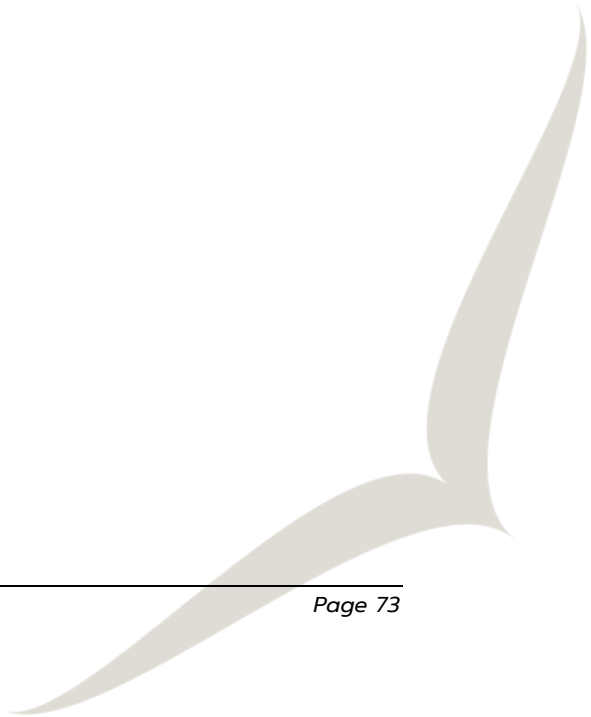
fishers at the times and locations defined in a Tsawwassen Harvest Document. TFN fishers and the TFN Fisheries Department will endeavor to minimize the encounter rate and harvest for non-target species.

- Timing:** From a date that is established in a Tsawwassen Harvest Document through 31 March 2022, 24 hours per day, every day.
- Location:** As noted in the Tsawwassen FOG document, buoys are not permitted in the portion of the TFA defined as the “Navigational No Float Zone”. As indicated for crab, when a harvest document for shrimp and prawns is issued, TFN fishers will be permitted to fish for shrimp and prawns in this zone, but buoys for their shrimp and prawn traps must remain outside this zone.
- Gear:** TFN fishers propose to use standard shrimp and prawn traps to harvest shrimp and prawns for FSC purposes. Number of traps will be determined.
- Size:** There are currently no size restrictions for FSC shrimp and prawn harvests.

Rockfish, Lingcod, Halibut, Dogfish, and Sole

- Conservation:** Monitoring and research programs have indicated that inshore rockfish stocks (Yelloweye, Quillback, Copper, China, and Tiger) and Lingcod in the Strait of Georgia are at low levels of abundance. The management objective for inshore rockfish species (which include Yelloweye, Quillback, Copper, China, and Tiger) is to continue conservation strategies that will ensure stock rebuilding over time. However, at this time, FSC fishing for rockfish and Lingcod will continue to be permitted. There are currently no conservation concerns for halibut, dogfish, or sole in the TFN fishing area.
- TFN Fishery:** Rockfish, lingcod, halibut, dogfish, sablefish, and flatfish may be harvested for FSC purposes by any designated TFN fishers at the times and locations defined in a Tsawwassen Harvest Document. TFN fishers and the Tsawwassen Natural Resource Department will endeavor to minimize the encounter rate and harvest for non-target species.
- Timing:** From 1 April 2020 through 31 March 2021, 24 hours per day, every day.
- Gear:** TFN members will use long line gear and rod and reel to harvest rockfish, Lingcod, halibut, dogfish, and sole for FSC purposes.
- Size:** There are currently no size restrictions for FSC harvests of rockfish, Lingcod, halibut, dogfish, and sole.
- Expectation:** Fisheries and Oceans Canada has been asked to provide information on the status of groundfish species found in the TFA and any closures for groundfish species in the TFA.

APPENDIX B
Examples of Harvest Documents





Licence Number: XHD 20 2020

File Number: LFA-20-HD 416/TSAWWASSEN

Valid From: 08-Aug-2020

Expiry Date: 08-Aug-2020

This licence and/or permit is issued under the authority of SECTION 4 OF THE ABORIGINAL COMMUNAL FISHING LICENCES REGULATIONS.

This licence and/or permit authorizes the person(s) listed below, subject to the following terms and conditions, to collect the species and quantity of fish identified below for: Food, Social, and Ceremonial purposes. Non-compliance with any condition of this licence and/or permit may result in the cancellation of this licence and/or permit.

Licence/Permit Activity Description:

HARVEST DOCUMENT FOR TSAWWASSEN FIRST NATION FOR SALMON

Whereas a final agreement with Tsawwassen First Nation is now in effect;

And whereas the final agreement describes a fishing right and provides for the issuance of harvest documents for the fishing right.

And whereas, under the final agreement, a harvest document may be, among other things, a licence or other document, or amendment thereto, issued by the Minister under Federal Law or Provincial Law in respect of the fishing right;

Now therefore, this harvest document is issued under the authority of section 7 of the Fisheries Act and section 4 of the Aboriginal Communal Fishing Licences Regulations.

This harvest document is issued to Tsawwassen First Nation in accordance with the final agreement and confers, subject to the Fisheries Act and regulations thereunder, the authority to fish for the following purposes: Food, Social and Ceremonial.

Period of Activity:

Subject to amendments to the conditions of this harvest document and subject to close times as may be varied by the Director General, Pacific Region, DFO in accordance with the Fishery (General) Regulations, species of fish set out in this harvest document may be harvested under this licence. Subject to closures and other terms and conditions of this licence, the authority to fish under this licence will expire on August 8, 2020 or earlier if DFO, after consultation with Tsawwassen First Nation has determined there is a conservation concern.

Licence Holder:

FIN: 108234

TSAWWASSEN FIRST NATION

Allowable Fishing Times:

Fishing periods defined for a species supersede all periods defined in this section.

Start: Saturday, August 8, 2020 at 10:00

End: Saturday, August 8, 2020 at 19:00

Species, Quantity of Fish, Area(s) and Gear:

Species: CHINOOK SALMON (*Oncorhynchus tshawytscha*)

Allowable Start: Saturday, August 8, 2020 at 10:00

Fishing End: Saturday, August 8, 2020 at 19:00

Times:

Gear: Gillnet, Drift

Gillnet, Set, Anchored

Licence Area: TSAWWASSEN TREATY FISHING AREA



Additional Information:

Additional Information:

Drift Nets on condition that:

- i. Nets do not exceed a maximum of 50 fathoms or 300 feet in length and a maximum depth of 60 meshes with a minimum mesh size of eight (8") inches with 3:1 hang ratio.
- ii. Each Participant fishes only one net.
- iii. Only one net is fished from any vessel.
- iv. Each net is attended at all times by the Participant who is fishing the net.
- v. No vessel fishing under the authority of this harvest document has on board, in a hung condition, any net that does not meet the conditions in (i) above, and vi. Spare nets on board a vessel actively fishing are kept in a stowed condition.

Set Nets on condition that:

- i. Nets do not exceed a maximum of 10 fathoms or 60 feet and a maximum depth of 60 meshes with a minimum mesh size of eight (8") inches with 3:1 hang ratio.
- ii. All Set Nets are identified by a floating buoy prominently displaying the Participant's designation number, and the Participant's designation number is the only number displayed on the buoy; and,
- iii. All Set Nets fished from poles have buoys attached to the end of the net farthest from the beach by means of a tag line of sufficient length to allow the buoys to be on the surface of the water and clearly visible for inspection at all times.

AREA: Fishing is permitted in the following area:

Those waters of the main arm of the Fraser River westerly of the power lines immediately downstream of the Port Mann Bridge, the waters of the North Arm of the Fraser River from the junction of the main arm downstream to the Arthur Laing Bridge, the waters of the Middle arm of the Fraser River, the waters of the Strait of Georgia bounded by a line commencing at 49° 11' 3.1524" N latitude and 123° 12' 26.08868" W longitude then to 49° 7' 48.216" N latitude and 123° 19' 50.4228" W longitude then to 49° 5' 15.6948" N latitude and 123° 18' 36.8958" W longitude then to 49° 0' 8.0028" N latitude and 123° 18' 5.1156" W longitude then to 49° 0' 7.5564" N latitude and 123° 5' 27.528" W longitude and the waters of Boundary Bay bounded by a line commencing at 49° 0' 7.5198" N latitude and 123° 2' 6.5898" W longitude then to 49° 0' 7.5414" N latitude and 122° 49' 10.8552" W longitude then to 49° 1' 15.2256" N latitude and 122° 48' 20.7858" W longitude. Portions of DFO Management Subareas 29-6, 29-7, 29-8, 29-9, 29-10, 29-11, 29-12, 29-13, 29-14, 29-17.

Terms and Conditions:**Definitions**

"Drift Net" means a gillnet free floating in the water, not attached in any manner to the shore, operated from a boat.

"DFO" means the Department of Fisheries and Oceans.

"Fishery" means fishing under the authority of this harvest document.

"Identification Number" in respect of a vessel means

(a) in the case of a registered commercial fishing vessel, the vessel registration number, and

(b) in the case of a vessel that is not a registered commercial fishing vessel, the number of the vessel identification decal issued by Tsawwassen First Nation.

"Observer" means an observer designated under section 39 of the Fishery (General) Regulations.

"Participant" means an individual carrying on fishing or any related activity, including transporting fish caught under the authority of this harvest document.

"Set Net" means a gillnet that is either tied to shore at one end and anchored in the river at the other end, or anchored



Licence Number: XHD 20 2020

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Valid From: 08-Aug-2020

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in the river at both ends, or tied to the shore at one end and tied to a net pole at the other end.

“TFN” means Tsawwassen First Nation

“TFD” means Tsawwassen Fishing Department located at 1926 Tsawwassen Drive, V4M 4G2 604-943-2112.

Species and Quantity

The Fishery is limited to a harvest of Chinook salmon.

All efforts and attempts shall be made to return all non-target species including Sockeye salmon, Steelhead and Sturgeon to the water alive and unharmed.

Sockeye salmon, Steelhead and Sturgeon must not be retained.

Use of Fish

Fish caught under this licence are for food, social and ceremonial purposes. Without prejudice to future agreements or regulations, sale of Fish caught under this licence is **not** permitted.

Designation of Individuals and Vessels

Tsawwassen First Nation may not designate individuals who are not Tsawwassen Members to harvest salmon. Where Tsawwassen First Nation designates an individual; a Tsawwassen fishing licence will be issued. An individual fishing under this harvest document must carry their Tsawwassen fishing licence at all times while participating in the Fishery or while transporting fish harvested in the Fishery and must present it to any DFO Fishery Officer, DFO Fishery Guardian or Aboriginal Fishery Officer upon request.

A vessel used in the Fishery must be identified by affixing a vessel identification decal issued by Tsawwassen First Nation. The decal must be affixed to the vessel so that the decal is legible and unobstructed when viewed from another vessel or from shore. Where the vessel is not a registered commercial vessel, the decal must be uniquely numbered. Where the vessel is a registered commercial vessel, the decal must not be numbered.

Prior to each fishing period, the Tsawwassen First Nation will provide to DFO a list of Tsawwassen First Nation members and vessels designated to fish under this Harvest Document and, in the case of a vessel, the vessel's Identity Number, and will immediately inform DFO of any changes to the list.

Catch Monitoring and Harvest Reporting

1.1 Participant and Interview Data

Participants are required to notify the TFD of their intentions to harvest fish prior to their participation in each fishing period and report their catch and fishing effort information to the TFD after completion of each fishing period. These notifications and reports can be provided by phone to the TFD or by interview to an on-duty member of the TFN catch monitoring crew. Interviewers will record Salmon catch and effort information on the “TFN Salmon Fisheries Interview Data Form”.

1.2 Daily Fishing Logs

Each Participant will maintain a daily fishing log using the “TFN Salmon Fisheries Log Data Form”. Upon completion of each fishing period, each Participant will submit logs to monitors at landing sites or directly to the TFD office.



Licence Number: XHD 20 2020

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Valid From: 08-Aug-2020

Expiry Date: 08-Aug-2020

1.3 Validation

TFN will conduct on-water catch monitoring surveys or TFN fisheries officer patrols at least once every day during fishing period and, will record vessels participating in the Fishery. TFN will compare these records with the list of vessels designated to fish under this harvest document, will observe catches and compare it with catch reported orally to the TFD or recorded in daily logs.

Catch per vessel data will be verified through a random and representative sampling of a percentage of vessel landings by TFN shore based monitors. Efforts should be made to provide a representative sample of the various vessel types, fishing locations and gear observed in the Fishery in these validation activities. During landing validation TFN monitors will interview the Participants to obtain hours fished, number and species of Salmon and other species retained and released and perform a count the vessel's catch. The percentage of vessels needing validation will vary dependent on the type of fishery and will be discussed at joint technical committee meetings or in season as needed but it is proposed that coverage should be in the range of 20%.

1.4 Reporting

Within 24 hours of the close of a fishing period, TFN will provide a preliminary catch report to DFO, including the names and the Vessel Identification Numbers that participated in the Fishery, the gear used, hours fished, status of the report (final or preliminary), number and species of Salmon and other species retained, and number and species of Salmon and other species released. Along with reported catch information, TFN will submit a report of validations conducted during the opening, including Vessel Identification Numbers, gear type, hours fished, number and species of Salmon and other species kept and number and species of Salmon and other species released. TFN will contact Participants who did not report after the Fishing period to determine whether they did participate, and if so, collect the requisite information. The preliminary catch report will be finalized within 48 hours of the close of the Fishing period.

Compliance with the Fisheries Act

Pursuant to subsection 22(6) of the Fishery (General) Regulations, compliance with the Fisheries Act and the regulations made under the Act is a condition of this licence.

Licence Issued: 07 August 2020

Licence Printed: 07 August 2020

Licence Issued By: BRIAN MATTS, Fisheries and Oceans Canada



Licence Number: XHD 1 2020

File Number: LFA-20-HD400/TSAWWASSEN

Valid From: 01-Jan-2020

Expiry Date: 31-Mar-2020

HARVEST DOCUMENT FOR TSAWWASSEN FIRST NATION FOR CRAB

Whereas a final agreement with Tsawwassen First Nation is now in effect;

And whereas the final agreement describes a fishing right and provides for the issuance of harvest documents for the fishing right.

And whereas, under the final agreement, a harvest document may be, among other things, a licence or other document, or amendment thereto, issued by the Minister under Federal Law or Provincial Law in respect of the fishing right;

Now therefore, this harvest document is issued under the authority of section 7 of the Fisheries Act and section 4 of the Aboriginal Communal Fishing Licences Regulations.

This harvest document is issued to Tsawwassen First Nation in accordance with the final agreement and confers, subject to the Fisheries Act and regulations thereunder, the authority to fish for the following purposes: Food, Social and Ceremonial.

Period of Activity:

Subject to amendments to the conditions of this harvest document and subject to close times as may be varied by the Director General, Pacific Region, DFO in accordance with the Fishery (General) Regulations, species of fish set out in this licence may be harvested under this licence. Subject to closures and other terms and conditions of this licence, the authority to fish under this licence will expire on March 31, 2020 or earlier if DFO, after consultation with the First Nation has determined that the maximum quantity has been reached.

Licence Holder:

FIN: 108234
1926 TSAWWASSEN DRIVE
TSAWWASSEN BC V4M 4G2

TSAWWASSEN FIRST NATION

Contact Number: 604-943-4199
Fax Number: 604-943-9226

Allowable Fishing Times:

Fishing periods defined for a species supersede all periods defined in this section.

Start: Wednesday, January 1, 2020 at 00:01

End: Tuesday, March 31, 2020 at 23:59

Individuals or groups assisting with the authorized activity:

Tsawwassen First Nation may not designate individuals who are not Tsawwassen Members to harvest crab.

Where Tsawwassen First Nation designates an individual, a Tsawwassen fishing licence will be issued. The Tsawwassen fishing licence must be carried at all times while participating in the Fishery or while transporting fish harvested in the Fishery and must be presented to any DFO Fishery Officer, DFO Fishery Guardian or Aboriginal Fishery Officer upon request.

A vessel used in the Fishery must be identified by affixing a vessel identification decal issued by Tsawwassen First Nation. The decal must be affixed to the vessel so that the decal is legible and unobstructed when viewed from another vessel or from shore. Where the vessel is not a registered commercial vessel, the decal must be uniquely numbered. Where the vessel is a registered commercial vessel, the decal must not be numbered.

Before the Fishery commences, Tsawwassen First Nation will provide to DFO a list of Tsawwassen First Nation members and vessels designated to fish under this Harvest Document and, in the case of a vessel, the vessel's Identity Number, and will immediately inform DFO of any changes to the list.



Species, Quantity of Fish, Area(s) and Gear:

Species: DUNGENESS CRAB (*Metacarcinus magister*); GRACEFUL CRAB (*Cancer gracilis*); RED ROCK CRAB (*Cancer productus*);

Gear: Hand Picking
Trap, Crab
Trap, Hoop or Ring Net
Dip Net

Licence Area: See Additional Description

Additional Descriptions:

Fishing is permitted in the following area(s):The waters of the Strait of Georgia bounded by a line commencing at 49° 11' 3.1524" N latitude and 123° 12' 26.08868" W longitude then to 49° 7' 48.216" N latitude and 123° 19' 50.4228" W longitude then to 49° 5' 15.6948" N latitude and 123° 18' 36.8958" W longitude then to 49° 0' 8.0028" N latitude and 123° 18' 5.1156" W longitude then to 49° 0' 7.5564" N latitude and 123° 5' 27.528" W longitude and the waters of Boundary Bay bounded by a line commencing at 49° 0' 7.5198" N latitude and 123° 2' 6.5898" W longitude then to 49° 0' 7.5414" N latitude and 122° 49' 10.8552" W longitude then to 49° 1' 15.2256" N latitude and 122° 48' 20.7858" W longitude. Portions of DFO Management Subareas 29-6, 29-7, 29-8, 29-9, 29-10.

Species and Quantity:

The Fishery is limited to a harvest of: Dungeness Crab, Graceful Crab and Red Rock Crab.

The minimum size for Dungeness Crab is 165 mm and for Red Rock Crab is 115 mm, both measured in a straight line across the widest part of the carapace, or shell.

All female crabs and crabs less than the minimum size limit shall be immediately released to the area of capture in a manner that causes least harm. No female or undersized crabs shall be retained.

Soft-Shell Periods: Fishers are reminded that there is increased mortality during the crab soft-shell periods and are encouraged to carry out their fishing activity, as much as possible, during other time periods. The legal-sized male crab soft-shell periods are April to mid-June in the Fraser River estuary and May to mid-July in Boundary Bay.

The following gear is permitted to be used:

Hand-picking, Dip Net, Ring Net, and Traps, on condition that:

(i) Traps set individually each have attached a floating buoy legibly marked with the name of the First Nation and Participant and with the Identification Number for the vessel used; and multiple traps set in a string have a floating buoy legibly marked with the name of the First Nation and Participant and with the Identification Number for the vessel used attached to both ends of each string. All submerged fishing gear must have a float of sufficient size such that it will not submerge with tidal or current change.

(ii) All buoy lines must be of a non-floating material so that the lines remain below the surface of the water while fishing, in order to minimize navigational hazards.

(iii) All crab traps must be fitted with at least one escape hole (ring) that is at least 100mm



in diameter and that is not more than 100 mm below the top of the frame.

(iv) All traps have a section in the top or side that has been secured by a length of untreated cotton twine no greater than No. 120. On deterioration this must produce a rectangular opening with a minimum size of 7 cm x 20 cm, or a square opening with a minimum size of 11 cm x 11 cm.

(v) A maximum of 50 traps may be fished per vessel.

(vi) Each trap shall have a plastic trap tag attached to it. Each fisherman is issued 50 trap tags and 10 extra trap tags (in case some traps are lost).

(vii) If a harvester loses 10 or more plastic trap tags, the harvester should contact the Tsawwassen fisheries department to obtain a replacement set of trap tags (marked specifically as replacement tags). The regular tags must be removed from the traps, returned to the Tsawwassen fisheries department, and replaced with the new replacement set.

(viii) Floating buoys must remain at all times outside of the Navigational No Float Zone shown on the map in Schedule A to this harvest document. Any floating buoys placed in the Navigational No Float Zone are subject to removal under authority of the Navigable Waters Protection Act.

Additional Information:

Commercial Fishing Vessels

Any commercial fishing vessels participating in the Tsawwassen FSC crab fishery must be available for inspection prior to engaging in the Area I or Area J commercial fisheries. No fish harvested under the authority of this licence may be on board a vessel engaged in commercial fishing operations. Commercial and FSC crab fishing trips must be conducted separately.

Terms and Conditions:

Definitions

"Commercial Fishing Gear" means power assisted gear commonly used in the commercial fishery including, but not limited to, hydraulic gurdies and trap haulers, powered drums, blocks or live rollers.

"Commercial Fishing Vessel" means a vessel that is registered according to the Pacific Fishery Regulations, 1993 and is used to fish for a species of fish which is authorized by a commercial fishing licence (including a "communal commercial fishing licence" issued under the Aboriginal Communal Fishing Licences Regulations). This does not include vessels without commercial fishing licences fishing for food, social and ceremonial ("FSC") purposes.

"DFO" means the Department of Fisheries and Oceans.

"First Nation" means the Tsawwassen First Nation.

"Fish" means those species of fish listed in Parts I & II of Schedule I of the Pacific Fishery Regulations, 1993, including herring spawn.

"Fishery" means fishing under the authority of this harvest document.



"Identification Number" in respect of a vessel means

- (a) in the case of a registered commercial fishing vessel, the vessel registration number, and
- (b) in the case of a vessel that is not a registered commercial fishing vessel, the number of the vessel identification decal issue by Tsawwassen First Nation.

"Management Area" means a management area as defined in the Pacific Fishery Management Area Regulations.

"Observer" means an observer designated under section 39 of the Fishery (General) Regulations.

"Participant" means an individual carrying on fishing or any related activity, including transporting fish, caught under the authority of this harvest document.

"Subarea" means a Subarea as defined in the Pacific Fishery Management Area Regulations.

"Vessel Master" means the individual embarked on the vessel and responsible for the operation of the vessel and the fishing activities carried out under authority of this licence.

Use of Fish

Fish caught under this licence are for food, social and ceremonial purposes. Without prejudice to future agreements or regulations, sale of Fish caught under this licence is **not** permitted.

Catch Monitoring and Harvest Reporting

Participants will notify the Tsawwassen fisheries department before they initiate fishing efforts and will report their catch and fishing effort information after each fishing trip. These notifications and reports may be reported directly to the Tsawwassen fishing department or by interview to an on-duty member of the Tsawwassen fisheries department catch monitoring crew. The Tsawwassen fisheries department will record catch and effort information on the "TFN Crab Fishery Interview Data Form".

Within 72 hours of the end of each month, Tsawwassen First Nation will provide DFO with a list of all Participants and vessels that participated in the Fishery and a preliminary estimate of the total catch by species for that month.

Each Participant will maintain a daily fishing log for crab fishing efforts using the "TFN Crab Fisheries Log Data Form".

Validation

Tsawwassen First Nation will conduct on-water catch monitoring surveys or Tsawwassen First Nation's fisheries officer patrols at random intervals during the Fishery and will record Fishery participants and observe catches for comparison with reported list of Fishery participants and the catch reported in daily logs. Tsawwassen First Nation will conduct interviews, after completed fishing trips of fishers to obtain data that to validate the information recorded in the harvest logs.

Reporting

Within 72 hours of the end of each month, Tsawwassen First Nation will provide to Karen Burnett, DFO Management Biologist (telephone: 604 666-4819, fax:604-666-7112) a summary table showing the number of Participants interviewed after a fishing trip, the catch and effort observed and the catch and effort reported directly to Tsawwassen fisheries department and recorded in the daily fishing logs.

Key Contacts for this Licence

Contact Information for Fisheries and Oceans Canada (DFO) staffed positions identified within this licence are provided



Licence Number: XHD 1 2020

File Number: LFA-20-HD400/TSAWWASSEN

Valid From: 01-Jan-2020

Expiry Date: 31-Mar-2020

below:

“DFO Resource Manager” Marisa Keefe, Phone: 604-666-6390, and Email: Marisa.Keefe@dfo-mpo.gc.ca.

“DFO Conservation and Protection Office - Steveston” Phone: 604-664-9250, Fax: 604-664-9255

“DFO Conservation and Protection Office - Langley” Phone: 604-607-4150, Fax: 604-607-4199

“DFO Management Biologist, Catch Monitoring” Karen Burnett, Phone: 604-666-4819,
Fax: 604-666-7112, and Email: Karen.Burnett@dfo-mpo.gc.ca.

Compliance with the Fisheries Act

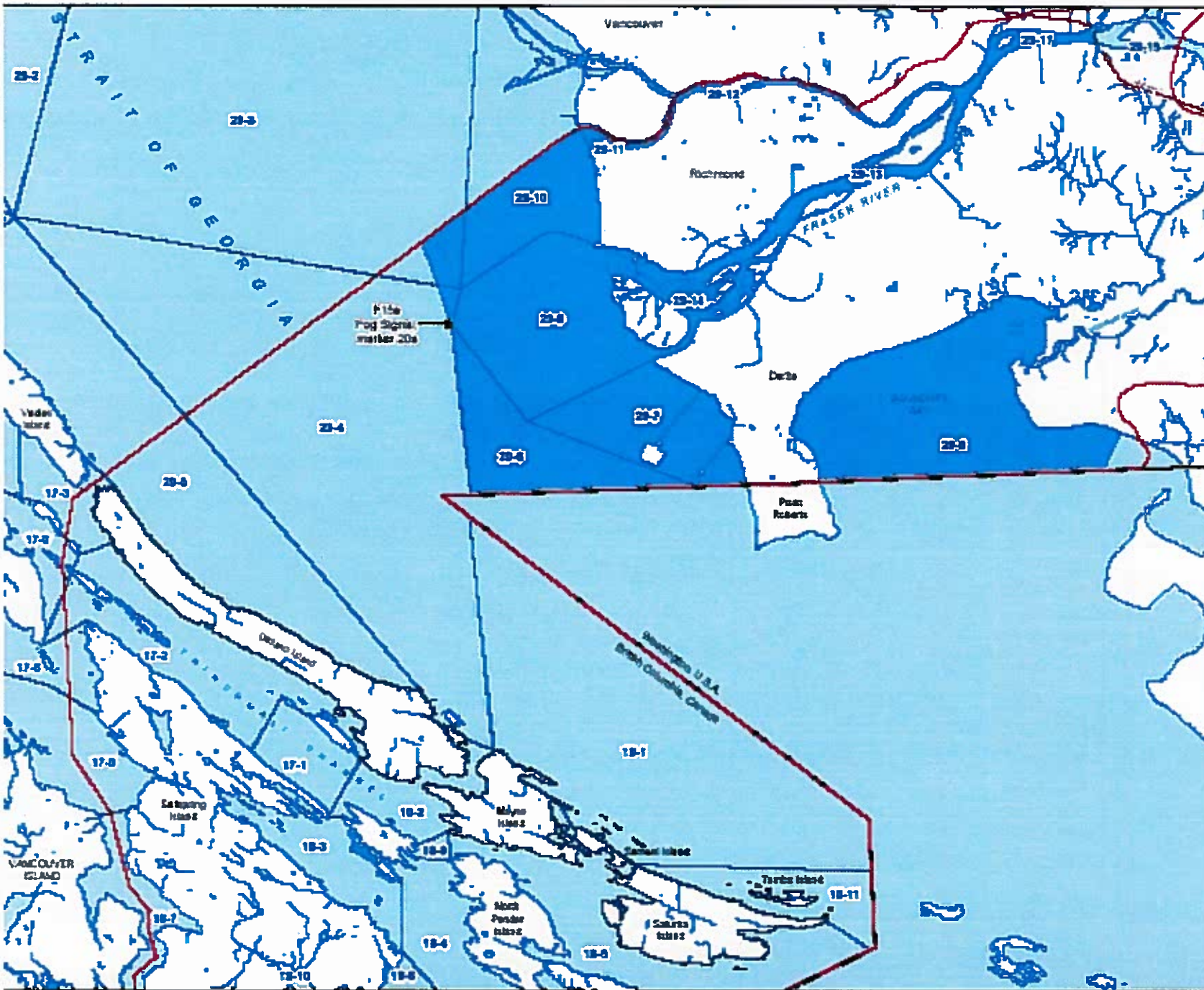
Pursuant to subsection 22(6) of the Fishery (General) Regulations, compliance with the Fisheries Act and the regulations made under the Act is a condition of this licence.

Licence Issued: 18 December 2019

Licence Printed: 18 December 2019

Licence Issued By: MARISA KEEFE, Fisheries and Oceans Canada

Appendix J-1: Tsawwassen Fishing Area and Tsawwassen Intertidal Bivalve Fishing Area

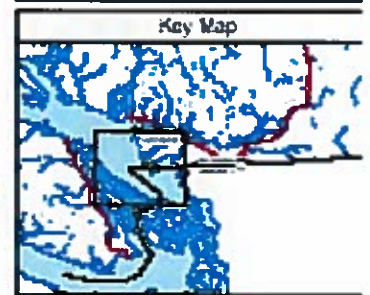


Legend

- Tsawwassen fishing Area
- Tsawwassen Intertidal Bivalve Area
- Tsawwassen Territory
- DFO Sub-area
- Water Body
- Watercourse
- Highway 1

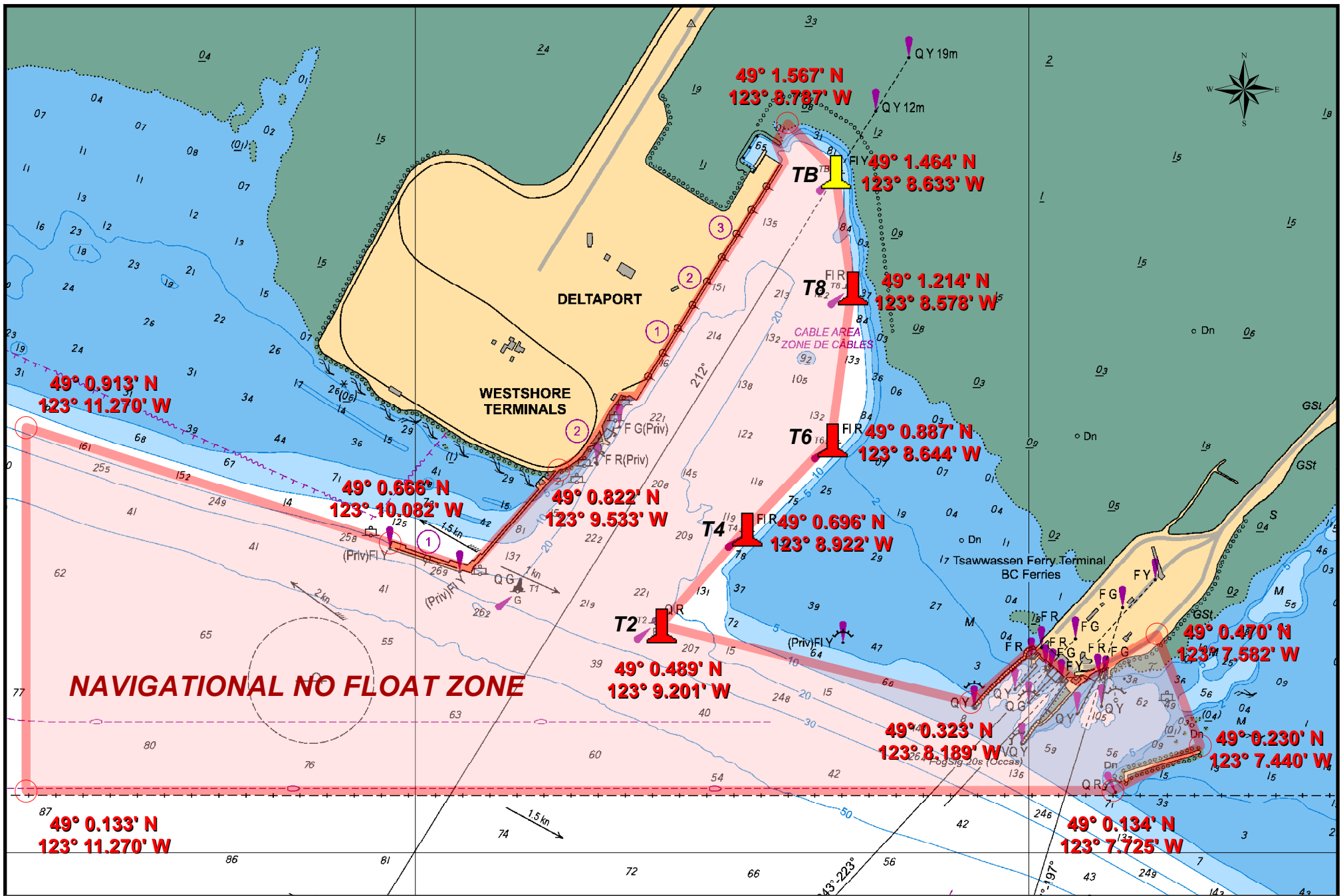
THE OFFICIAL VERSION OF THIS MAP IS HELD BY DFO/CFM AND THE TERRITORIES OF CANADA AND THE PROVINCES OF BRITISH COLUMBIA. THIS MAP IS FOR ILLUSTRATIVE PURPOSES ONLY.

0 5 10
Kilometers



Produced November 22, 2005
Data map derived from 1:25,000 TFSW data

Tsawwassen First Nation



PORT of vancouver

Fisheries and Oceans Canada / Pêches et Océans Canada

ROBERTS BANK
NAVIGATIONAL NO FLOAT ZONE
FIRST NATIONS

0 250 500 1,000 1,500 Meters
Mercator Projection, Latitude of True Scale at 49°
Scale 1:20,000

No Float Zone



Licence Number: XHD 9 2020

File Number: LFA-20-HD-LP 404/TSAWWASSEN

Valid From: 14-Apr-2020

Expiry Date: 16-Apr-2020

This licence and/or permit is issued under the authority of SECTION 4 OF THE ABORIGINAL COMMUNAL FISHING LICENCES REGULATIONS.

This licence and/or permit authorizes the person(s) listed below, subject to the following terms and conditions, to collect the species and quantity of fish identified below for: Food, Social, and Ceremonial purposes. Non-compliance with any condition of this licence and/or permit may result in the cancellation of this licence and/or permit.

Licence/Permit Activity Description:

HARVEST DOCUMENT FOR TSAWWASSEN FIRST NATION FOR EULACHON

Whereas a final agreement with Tsawwassen First Nation is now in effect;

And whereas the final agreement describes a fishing right and provides for the issuance of harvest documents for the fishing right.

And whereas, under the final agreement, a harvest document may be, among other things, a licence or other document, or amendment thereto, issued by the Minister under Federal Law or Provincial Law in respect of the fishing right;

Now therefore, this harvest document is issued under the authority of section 7 of the Fisheries Act and section 4 of the Aboriginal Communal Fishing Licences Regulations.

This harvest document is issued to Tsawwassen First Nation in accordance with the final agreement and confers, subject to the Fisheries Act and regulations thereunder, the authority to fish for the following purposes: Food, Social and Ceremonial.

Period of Activity:

Subject to amendments to the conditions of this harvest document and subject to close times as may be varied by the Director General, Pacific Region, DFO in accordance with the Fishery (General) Regulations, species of fish set out in this harvest document may be harvested under this licence. Subject to closures and other terms and conditions of this licence, the authority to fish under this licence will expire on April 16, 2020 or earlier if DFO, after consultation with Tsawwassen First Nation has determined there is a conservation concern.

Licence Holder:

FIN: 108234

TSAWWASSEN FIRST NATION

Allowable Fishing Times:

Fishing periods defined for a species supersede all periods defined in this section.

Date: Tuesday, April 14, 2020

Times: 11:00 - 22:00

Start Date: Wednesday, April 15, 2020

End Date: Thursday, April 16, 2020

Times: 10:00 - 22:00 daily

Individuals or groups assisting with the authorized activity:

TFN has designated the following individuals to participate in this fishery:

Skipper- Steven Stark M/V-'Sunshine Bay'

Skipper- Nathan Wilson M/V- skiff

Designations are personal and non-transferable. Participants who fish under this licence shall carry their Designation or



Licence Number: XHD 9 2020

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Valid From: 14-Apr-2020

Expiry Date: 16-Apr-2020

Band Card to establish their membership in the First Nation while participating in the Fishery and while transporting fish harvested in the Fishery and will present such documentation on request by any fishery officer or fishery guardian.

Species, Quantity of Fish, Area(s) and Gear:

Species: EULACHON (Thaleichthys pacificus)

Allowable Date: Tuesday, April 14, 2020

Fishing Times: 11:00 - 22:00

Times: Start Date: Wednesday, April 15, 2020

End Date: Thursday, April 16, 2020

Times: 10:00 - 22:00 daily

Gear: Gillnet, Drift

Licence Area: TSAWWASSEN TREATY FISHING AREA

To be 772 Pounds

Retained:

Additional Information:

Drift Nets on condition that:

- i. Each Participant may fish using one drift net.
- ii. Drift nets shall be no more than one hundred (100) metres in length and shall have a mesh size of no less than twenty-five (25) millimetres and no greater than fifty (50) millimetres.
- iii. This fishery will be monitored by TFN Enforcement staff.

AREA:

Drift fishing is permitted in the following area: Those waters of the main arm of the Fraser River westerly of the power lines immediately downstream of the Port Mann Bridge, the waters of the North Arm of the Fraser River from the junction of the main arm downstream to the Arthur Laing Bridge, the waters of the Middle arm of the Fraser River, the waters of the Strait of Georgia bounded by a line commencing at 49° 11' 3.1524" N latitude and 123° 12' 26.08868" W longitude then to 49° 7' 48.216" N latitude and 123° 19' 50.4228" W longitude then to 49° 5' 15.6948" N latitude and 123° 18' 36.8958" W longitude then to 49° 0' 8.0028" N latitude and 123° 18' 5.1156" W longitude then to 49° 0' 7.5564" N latitude and 123° 5' 27.528" W longitude and the waters of Boundary Bay bounded by a line commencing at 49° 0' 7.5198" N latitude and 123° 2' 6.5898" W longitude then to 49° 0' 7.5414" N latitude and 122° 49' 10.8552" W longitude then to 49° 1' 15.2256" N latitude and 122° 48' 20.7858" W longitude. Portions of DFO Management Sub-areas 29-6, 29-7, 29-8, 29-9, 29-10, 29-11, 29-12, 29-13, 29-14, 29-17.

Terms and Conditions:

Definitions

"Drift Net" means a gillnet free floating in the water, not attached in any manner to the shore, operated from a boat.

"DFO" means the Department of Fisheries and Oceans.

"Eulachon" means Thaleichthys pacificus

"Fishery" means fishing under the authority of this harvest document.

"Identification Number" in respect of a vessel means

(a) in the case of a registered commercial fishing vessel, the vessel registration number, and



Licence Number: XHD 9 2020

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Valid From: 14-Apr-2020

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(b) in the case of a vessel that is not a registered commercial fishing vessel, the number of the vessel identification decal issued by Tsawwassen First Nation.

“Observer” means an observer designated under section 39 of the Fishery (General) Regulations.

“Participant” means an individual carrying on fishing or any related activity, including transporting fish caught under the authority of this harvest document.

“TFN” means Tsawwassen First Nation

“TFD” means Tsawwassen Fishing Department located at 1926 Tsawwassen Drive, V4M 4G2 604-943-2112.

Species and Quantity

The Fishery is limited to the harvest of 772 lbs Eulachon (*Thaleichthys pacificus*).

All efforts and attempts shall be made to return all non-target species including Chinook salmon, Steelhead salmon and Sturgeon to the water alive and unharmed.

Chinook salmon, Steelhead salmon and Sturgeon must not be retained.

Use of Fish

Fish caught under this licence are for food, social and ceremonial purposes. Without prejudice to future agreements or regulations, sale of Fish caught under this licence is not permitted.

Designation of Individuals and Vessels

Tsawwassen First Nation may not designate individuals who are not Tsawwassen Members to harvest Eulachon.

Where Tsawwassen First Nation designates an individual; a Tsawwassen fishing licence will be issued. An individual fishing under this harvest document must carry their Tsawwassen fishing licence at all times while participating in the Fishery or while transporting fish harvested in the Fishery and must present it to any DFO Fishery Officer, DFO Fishery Guardian or Aboriginal Fishery Officer upon request.

A vessel used in the Fishery must be identified by affixing a vessel identification decal issued by Tsawwassen First Nation. The decal must be affixed to the vessel so that the decal is legible and unobstructed when viewed from another vessel or from shore. Where the vessel is not a registered commercial vessel, the decal must be uniquely numbered. Where the vessel is a registered commercial vessel, the decal must not be numbered.

Catch Monitoring and Harvest Reporting

1.0 Participant and Interview Data

Participants are required to notify the TFD of their intentions to harvest fish prior to their participation in each fishing period and report their catch and fishing effort information to the TFD after completion of each fishing period. These notifications and reports can be provided by phone to the TFD or by interview to an on-duty member of the TFN catch monitoring crew. Interviewers will record Eulachon catch and effort information on the “TFN Eulachon Fisheries Interview Data Form”.

1.1 Reporting

Within 24 hours of the close of a fishing period, TFN will provide a preliminary catch report to DFO, including the names and the Vessel Identification Numbers that participated in the Fishery, the gear used, hours fished, status of the report (final or preliminary), number of Eulachon retained, and the number of other species released. Along with reported catch information, The preliminary catch report will be finalized within 48 hours of the close of the Fishing period.



Licence Number: XHD 9 2020

File Number: LFA-20-HD-LP 404/TSAWWASSEN

Valid From: 14-Apr-2020

Expiry Date: 16-Apr-2020

Compliance with the Fisheries Act

Pursuant to subsection 22(6) of the Fishery (General) Regulations, compliance with the Fisheries Act and the regulations made under the Act is a condition of this licence.

Licence Issued: 14 April 2020

Licence Printed: 14 April 2020

Licence Issued By: BRIAN MATTS, Fisheries and Oceans Canada



Licence Number: XHD 2 2020

File Number: LFA-20-HD 407/TSAWWASSEN

Valid From: 01-Jan-2020

Expiry Date: 31-Mar-2020

This licence and/or permit is issued under the authority of SECTION 4 OF THE ABORIGINAL COMMUNAL FISHING LICENCES REGULATIONS.

This licence and/or permit authorizes the person(s) listed below, subject to the following terms and conditions, to collect the species and quantity of fish identified below for: Food, Social, and Ceremonial purposes. Non-compliance with any condition of this licence and/or permit may result in the cancellation of this licence and/or permit.

Licence/Permit Activity Description:

HARVEST DOCUMENT FOR TSAWWASSEN FIRST NATION FOR GROUND FISH

Whereas a final agreement with Tsawwassen First Nation is now in effect;

And whereas the final agreement describes a fishing right and provides for the issuance of harvest documents for the fishing right.

And whereas, under the final agreement, a harvest document may be, among other things, a licence or other document, or amendment thereto, issued by the Minister under Federal Law or Provincial Law in respect of the fishing right;

Now therefore, this harvest document is issued under the authority of section 7 of the Fisheries Act and section 4 of the Aboriginal Communal Fishing Licences Regulations.

This harvest document is issued to Tsawwassen First Nation in accordance with the final agreement and confers, subject to the Fisheries Act and regulations thereunder, the authority to fish for the following purposes: Food, Social and Ceremonial.

Period of Activity:

Subject to amendments to the conditions of this harvest document and subject to close times as may be varied by the Director General, Pacific Region, DFO in accordance with the Fishery (General) Regulations, species of fish set out in this licence may be harvested under this licence. Subject to closures and other terms and conditions of this licence, the authority to fish under this licence will expire on March 31, 2020 or earlier if DFO, after consultation with the First Nation has determined that the maximum quantity has been reached.

Licence Holder:

FIN: 108234

1926 TSAWWASSEN DRIVE

TSAWWASSEN BC V4M 4G2

TSAWWASSEN FIRST NATION

Contact Number: 604-943-4199

Fax Number: 604-943-9226

Allowable Fishing Times:

Fishing periods defined for a species supersede all periods defined in this section.

Start: Wednesday, January 1, 2020 at 09:00

End: Tuesday, March 31, 2020 at 23:59

Individuals or groups assisting with the authorized activity:

Tsawwassen First Nation may not designate individuals who are not Tsawwassen Members to harvest groundfish.

Where Tsawwassen First Nation designates an individual; a Tsawwassen fishing licence will be issued. The Tsawwassen fishing licence must be carried at all times while participating in the Fishery or while transporting fish harvested in the Fishery and must be presented to any DFO Fishery Officer, DFO Fishery Guardian or Aboriginal Fishery Officer upon request.



A vessel used in the Fishery must be identified by affixing a vessel identification decal issued by Tsawwassen First Nation. The decal must be affixed to the vessel so that the decal is legible and unobstructed when viewed from another vessel or from shore. Where the vessel is not a registered commercial vessel, the decal must be uniquely numbered. Where the vessel is a registered commercial vessel, the decal must not be numbered.

Before the Fishery commences, Tsawwassen First Nation will provide to DFO a list of Tsawwassen First Nation members and vessels designated to fish under this Harvest Document and, in the case of a vessel, the vessel's Identity Number, and will immediately inform DFO of any changes to the list.

Species, Quantity of Fish, Area(s) and Gear:

Species: PACIFIC HALIBUT (*Hippoglossus stenolepis*); SABLEFISH (*Anoplopoma fimbria*); DOGFISH SHARKS (*Squalidae*); LINGCOD (*Ophiodon elongatus*); FLATFISH; ROCKFISH;

Gear: Rod & Reel - Jigging
Longline (unspecified)

Licence Area: Tsawwassen First Nation fishing area in PFMA 29

Additional Descriptions: **The following gear is permitted to be used:**

1. Rod and Reel - Jigging

- Participants will notify the Tsawwassen fisheries department before they initiate fishing efforts and will record fishing effort and fish retained and released by species on the TFN monthly calendar. This calendar will be submitted to TFN at the end of each calendar month. These notifications and reports may be reported directly to the Tsawwassen fishing department or by interview to an on-duty member of the Tsawwassen fisheries department catch monitoring crew. The Tsawwassen fisheries department will record catch and effort information on the "TFN Other Fishery Interview Data Form".
- Each Participant will maintain a daily fishing log for groundfish fishing efforts using the "TFN Other Fisheries Log Data Form".

2. Longline Gear:

- Each vessel will be equipped with long lines from one to three miles (1.6-5km) long.
- The number of lines per vessel will not be limited; however, the number of hooks will not exceed 500/vessel.
- Each line will be baited then set and marked with floats, the lines will be checked at regular intervals.
- Prior to the fishery commencing the TFN will provide DFO with a list of TFN members and vessels (maximum 4 vessels) designated to fish under his Harvest Document and the vessels identity number. TFN will immediately inform DFO of any changes to the list.
- All members designated to fish will be informed that only one vessel is able to participate per day with a crew of up to four designated fishers.

Additional Information:



Licence Number: XHD 2 2020

File Number: LFA-20-HD 407/TSAWWASSEN

Valid From: 01-Jan-2020

Expiry Date: 31-Mar-2020

Fishing is permitted in the following area(s):

The waters of the Strait of Georgia bounded by a line commencing at 49°11' 3.1524" N latitude and 123° 12' 26.08868" W longitude then to 49° 7' 48.216" N latitude and 123°19' 50.4228" W longitude then to 49° 5' 15.6948" N latitude and 123° 18' 36.8958" W longitude then to 49° 0' 8.0028" N latitude and 123° 18' 5.1156" W longitude then to 49°0' 7.5564" N latitude and 123° 5' 27.528" W longitude and the waters of Boundary Bay bounded by a line commencing at 49 0' 7.519" N latitude and 123 2' 6.5898 W longitude then to 49 0' 7.5414 N latitude and 122 49' 10.8552" W longitude then to 49 1' 15.2256" N latitude and 122 48' 20.7858" W longitude. Portions of DFO Management Subareas 29-6, 29-7, 29-8, 29-9, 29-10.

Terms and Conditions:

Definitions

"DFO" means the Department of Fisheries and Oceans.

"First Nation" means the Tsawwassen First Nation.

"Fishery" means fishing under the authority of this harvest document.

"Identification Number" in respect of a vessel means:

- in the case of a registered commercial fishing vessel, the vessel registration number, and
- in the case of a vessel that is not a registered commercial fishing vessel, the number of the vessel identification decal issued by Tsawwassen First Nation.

"Longline" means a fishing technique that uses a longline, called the mainline, with baited hooks attached at intervals by means of branch lines called snoods (or gangions). A snood is a short length of line, attached to the main line by a clip or swivel, with the hook at the other end.

"Observer" means an observer designated under section 39 of the Fishery (General) regulations.

"Participant" means an individual carrying on fishing or any related activity, including transporting fish caught, under the authority of this harvest document.

"Rod and Reel - Jigging" means the practice of fishing with a jig, a type of fishing lure. Jigs are intended to create a jerky, vertical motion.

Species and Quantity

The Fishery is limited to the harvest of halibut, sablefish, dogfish, lingcod, flatfish, and rockfish.

All efforts and attempts shall be made to return all non-target species to the water alive and unharmed.

Use of Fish

Fish caught under this licence are for food, social and ceremonial purposes. Without prejudice to future agreements or regulations, sale of fish caught under this licence is **not** permitted.

Catch Monitoring and Harvest Reporting

Rod and Reel:

Participants will notify the Tsawwassen fisheries department before they initiate fishing efforts and will record fishing effort and fish retained and released by species on the TFN monthly calendar. This calendar will be submitted to TFN at the end of each calendar month. These notifications and reports may be reported directly to the Tsawwassen



Licence Number: XHD 2 2020

File Number: LFA-20-HD 407/TSAWWASSEN

Valid From: 01-Jan-2020

Expiry Date: 31-Mar-2020

fishing department or by interview to an on-duty member of the Tsawwassen fisheries department catch monitoring crew. The Tsawwassen fisheries department will record catch and effort information on the "TFN Other Fishery Interview Data Form".

Each Participant will maintain a daily fishing log for groundfish fishing efforts using the "TFN Other Fisheries Log Data Form".

Longline:

All vessels participating in this fishery will have a TFN monitor trained in groundfish identification onboard during all fishing activity. Participants will notify the Tsawwassen Fisheries Department (TFD) before they initiate fishing efforts to ensure an on-board monitor is present. Fishing times and locations will be provided to DFO prior to each fishing period so DFO monitoring or audits of fishing can occur.

The on-board TFN monitor will collect information on hours fished, location fished (PFMA subarea), number and species of groundfish and other species retained and released. The monitor will record this information on the "TFN Groundfish Fishery Interview Data Form".

Within 72 hours of the end of each month, Tsawwassen First Nation will provide to Karen Burnett (DFO Management Biologist : t 604-666-4819; fax 604-666-7112) a summary table showing the number of participants, catch and effort observed by and reported directly to the TFD staff (including patrol logs and daily fishing logs).

Compliance with the Fisheries Act

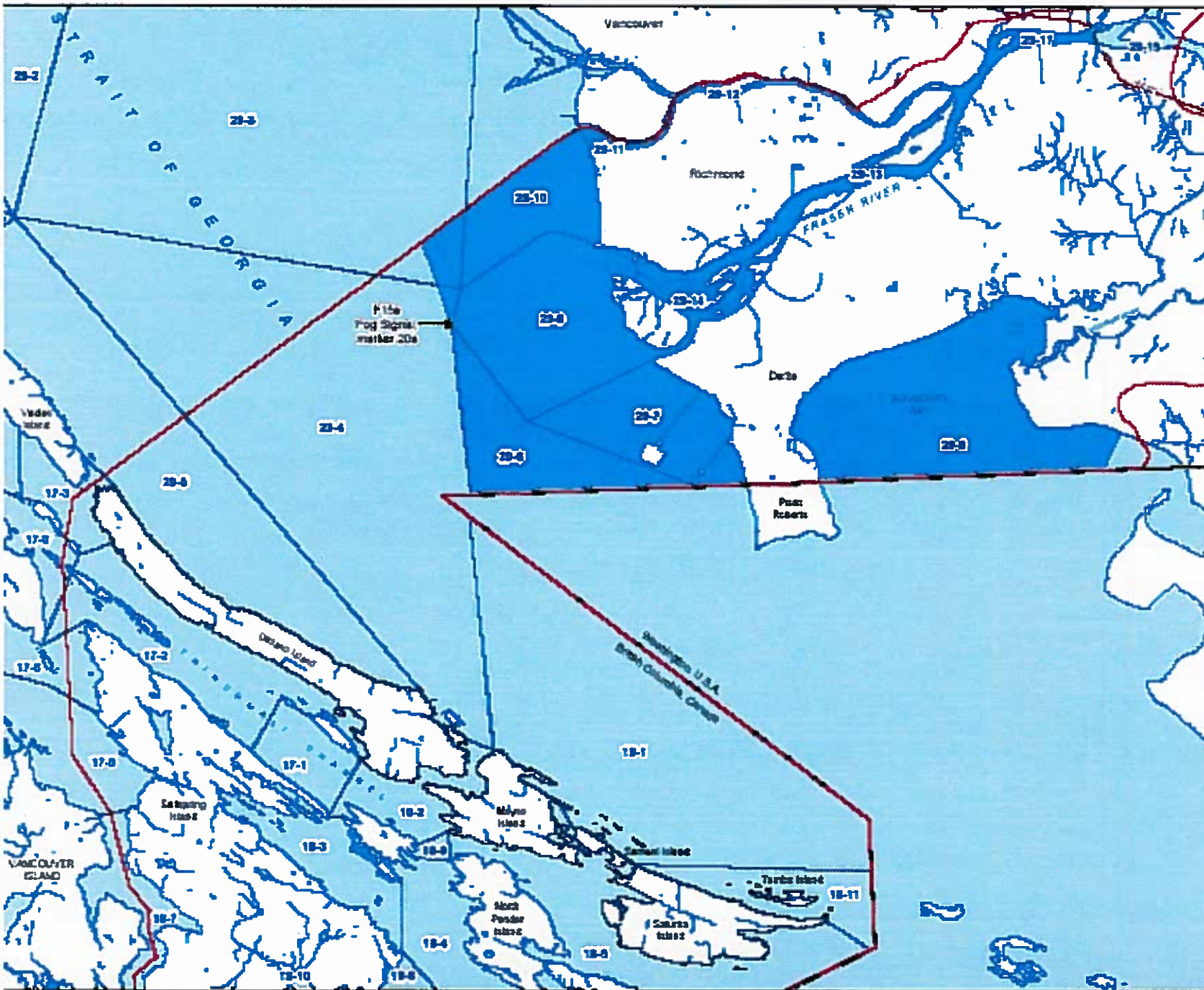
Pursuant to subsection 22(6) of the Fishery (General) Regulations, compliance with the Fisheries Act and the regulations made under the Act is a condition of this licence.

Licence Issued: 18 December 2019

Licence Printed: 18 December 2019

Licence Issued By: HONG TJHIE, Fisheries and Oceans Canada

Appendix J-1: Tsawwassen Fishing Area and Tsawwassen Intertidal Bivalve Fishing Area

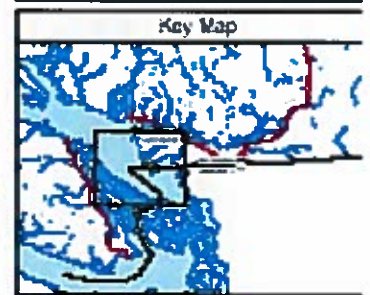


Legend

- Tsawwassen fishing Area
- Tsawwassen Intertidal Bivalve Area
- Tsawwassen Territory
- DFO Sub-area
- Water Body
- Watercourse
- Highway 1

THE OFFICIAL VERSION OF THIS MAP IS HELD BY DFO/CFR AND THE TERRITORIES OF CANADA AND THE PROVINCES OF BRITISH COLUMBIA. THIS MAP IS FOR ILLUSTRATIVE PURPOSES ONLY.

0 5 10
Kilometers



Produced November 22, 2005
 Data map derived from 1:25,000 TFSW data

Tsawwassen First Nation



Aquatic Plant Harvest Document for Tsawwassen First Nation

File No.: 20560-20-HD Tsawwassen
Harvest Document No.: Tsawwassen -05

Issued To: Attention: Hegus, Tsawwassen First Nation
Tsawwassen First Nation
1926 Tsawwassen Drive
Tsawwassen BC V4M 4G2

This Harvest Document is issued under the authority of Section 14 of the *Tsawwassen First Nation Final Agreement Act* and clauses 59 to 64 of Chapter 9 [Fisheries] of the *Tsawwassen First Nation Final Agreement*, for Aquatic Plant species managed by the Province of British Columbia. All terms used in this document have the same meaning as that contained in the *Tsawwassen First Nation Final Agreement* and applicable legislation.

Accordingly, this Harvest Document authorizes Tsawwassen First Nation to exercise their Tsawwassen Fishing Right to harvest Aquatic Plants for Domestic Purposes, in accordance with the following conditions:

Harvest Period: April 1, 2020 to March 31, 2021

Harvest Location: Tsawwassen Fishing Area

Harvestable Aquatic Plant Species:

- Group 1:** Giant kelp (*Macrocystis integrifolia*) / Bull kelp (*Nereocystis luetkeana*)
- Group 2:** Sugar kelp (*Saccharina* spp.) / Ribbon kelp (*Alaria* spp.) / Feather Boa kelp (*Egregia menziesii*) / *Eisenia arborea* / *Costaria costata* / *Agarum* spp. / Sea Cabbage (*Hedophyllum sessile*) / Three Ribbed kelp (*Cymathere triplicatei*) / *Pterygophora californica*
- Group 3:** *Gracilaria* spp. / *Gracilariopsis sjoestedtii* / *Gelidium* spp. / *Gymnogrongus* spp / *Ahnfeltia* spp. / Red Weed (*Agardhiella tenera*) / *Endocladia muricata* / *Gloiopeltis furcata*
- Group 4:** *Iridaea* spp. / Little Turkish Towel (*Gigartina* spp.)
- Group 5:** Rockweed (*Fucus* spp.) / *Sargassum muticum* / Chain Bladder (*Cystoseira geminata*)
- Group 6:** Nori (*Porphyra* spp.) / *Rhodomenia* spp. / Sea Lettuce (*Ulva* spp.) / Gut Weed (*Enteromorpha* spp.) / *Monostroma* spp.
- Group 7:** Eelgrass (*Zostera marina*) / Surfgrass (*Phyllospadix* spp.)
- Group 8:** Sea Asparagus (*Salicornia* spp.)
- Group 9:** Other marine plants not referenced above.

Monitoring & Reporting: As per the Tsawwassen Fisheries Operation Guidelines, and for greater clarity, Tsawwassen First Nation Harvesters are required to identify harvested plants by group in the Tsawwassen First Nation Aquatic Plant Harvest Log. Tsawwassen First Nation will submit the aggregate harvesting values to the Joint Fisheries Committee and CC. FLNRORD at the conclusion of the Harvest Period defined in this Harvest document.

These conditions may be amended in accordance with Paragraph 63 and 64 of the Fisheries Chapter of the *Tsawwassen First Nation Final Agreement*.

Issued By:



Lesley Fettes

Section Head, Aquaculture

Minister of Forests, Lands, Natural Resource Operations and Rural Development

Issue Date: March 12, 2020



Licence Number: XHD 28 2020

File Number: LFA-20-HD 442-TSAWWASSEN

Valid From: 01-Nov-2020

Expiry Date: 01-Nov-2020

This licence and/or permit is issued under the authority of SECTION 4 OF THE ABORIGINAL COMMUNAL FISHING LICENCES REGULATIONS.

This licence and/or permit authorizes the person(s) listed below, subject to the following terms and conditions, to collect the species and quantity of fish identified below for: Food, Social, and Ceremonial purposes. Non-compliance with any condition of this licence and/or permit may result in the cancellation of this licence and/or permit.

Licence/Permit Activity Description:

HARVEST DOCUMENT FOR TSAWWASSEN FIRST NATION FOR SALMON
COMMUNAL COMMERCIAL HARVEST DOCUMENT FOR CHUM SALMON

Whereas a final agreement with Tsawwassen First Nation is now in effect;

And whereas the final agreement describes a fishing right and provides for the issuance of harvest documents for the fishing right.

And whereas, under the final agreement, a harvest document may be, among other things, a licence or other document, or amendment thereto, issued by the Minister under Federal Law or Provincial Law in respect of the fishing right;

Now therefore, this harvest document is issued under the authority of section 7 of the Fisheries Act and section 4 of the Aboriginal Communal Fishing Licences Regulations.

This harvest document is issued to Tsawwassen First Nation in accordance with the final agreement and confers, subject to the Fisheries Act and regulations thereunder, the authority to fish for the following purposes: Food, Social and Ceremonial and economic opportunities.

Period of Activity:

Subject to amendments to the conditions of this harvest document and subject to close times as may be varied by the Director General, Pacific Region, DFO in accordance with the Fishery (General) Regulations, species of fish set out in this harvest document may be harvested under this licence. Subject to closures and other terms and conditions of this licence, the authority to fish under this licence will expire on Sunday, November 1, 2020 or earlier if DFO, after consultation with Tsawwassen First Nation has determined there is a conservation concern.

Licence Holder:

FIN: 108234

TSAWWASSEN FIRST NATION

Allowable Fishing Times:

Fishing periods defined for a species supersede all periods defined in this section.

Start: Sunday, November 1, 2020 at 00:01

End: Sunday, November 1, 2020 at 20:00

Details: Drift Nets

Start: Sunday, November 1, 2020 at 07:00

End: Sunday, November 1, 2020 at 19:00

Details: Set Nets

Species, Quantity of Fish, Area(s) and Gear:

Species: CHUM SALMON (*Oncorhynchus keta*)



Licence Number: XHD 28 2020

File Number: LFA-20-HD 442-TSAWWASSEN

Valid From: 01-Nov-2020

Expiry Date: 01-Nov-2020

Allowable Fishing Times: Start: Sunday, November 1, 2020 at 00:01
End: Sunday, November 1, 2020 at 20:00
Details: Drift Nets

Gear: Gillnet, Set, Anchored
Gillnet, Drift

Licence Area: BELOW PATULLO BRIDGE

Species: CHUM SALMON (*Oncorhynchus keta*)
Allowable Fishing Times: Start: Sunday, November 1, 2020 at 07:00
End: Sunday, November 1, 2020 at 19:00
Details: Set Nets

Gear: Gillnet, Set, River

Licence Area: BELOW PATULLO BRIDGE

Terms and Conditions:

Definitions

'DFO' means the Department of Fisheries and Oceans.

'Drift Net' means a gillnet free floating in the water, not attached in any manner to the shore, operated from a boat;

'Fishery' means fishing under the authority of this licence;

'Hatchery Marked Coho' means a coho salmon marked by the absence of the adipose fin and having a healed scar in place of that absent fin (an adipose fin consists of a small fleshy appendage without fin ray support, located dorsally between the rayed dorsal fin and caudal (tail) fin);

'Identification Number' in respect of a vessel means:

- (a) in the case of a registered commercial fishing vessel, the vessel registration number, and
- (b) in the case of a vessel that is not a registered commercial fishing vessel, the number of the vessel identification decal issued by Tsawwassen First Nation;

'Landing Site' means a site designated by DFO and the Monitoring and Enforcement Committee that has a monitor on duty during the Fishery. For this licence, **the landings sites are located at:**

- 1) Ladner Harbour
- 2) Shearer Seafoods- Annieville
- 3) packer vessel **M/V 'Western Mist'** at Captain's Cove

'Monitor' means an individual hired by the First Nation to carry out monitoring activities;

'Observer' means an observer designated under section 39 of the Fishery (General) Regulations;

'Participant' means an individual carrying on fishing or any related activity, including transporting fish caught under the authority of this licence;

'Set Net' means a gillnet that is either tied to shore at one end and anchored in the river at the other end, or anchored in the river at both ends, or tied to the shore at one end and tied to a net pole at the other end;



'TFN' means Tsawwassen First Nation;

'TFD' means Tsawwassen Fishing Department located at 1926 Tsawwassen Drive, V4M 4G2 604-943-2112; and,

'Wild Coho' means any coho salmon that has an adipose fin.

Species and Quantity

The Fishery is limited to a harvest of Chum salmon and hatchery marked Coho salmon.

All efforts and attempts shall be made to return all non-target species including Sockeye salmon, Chinook salmon, wild Coho salmon, Steelhead and Sturgeon to the water alive and unharmed.

Sockeye salmon, Chinook salmon, wild Coho salmon, Steelhead and Sturgeon must not be retained.

Use of Fish

Fish caught under this licence are for food, social and ceremonial purposes. Without prejudice to future agreements or regulations, **sale of chum salmon and hatchery marked coho salmon caught under this licence is permitted.**

Gear and Gear Identification

The following gear is permitted to be used:

Drift Nets on condition that:

- (i) Nets do not exceed a maximum of 100 fathoms or 600 feet in length and a maximum depth of 60 meshes with a minimum mesh size of 6 ¼ inches with a maximum 3:1 hang ratio.
- (ii) Each Participant fishes only one net.
- (iii) Only one net is fished from any vessel.
- (iv) Each net is attended at all times by the Participant who is fishing the net.
- (v) No vessel fishing under the authority of this licence may have on board any net that does not meet the conditions in (i) above.
- (vi) Spare nets on board a vessel actively fishing are kept in a stowed condition.

Set Nets on condition that:

- (i) Nets do not exceed a maximum of 10 fathoms or 60 feet and a maximum depth of 60 meshes with a minimum mesh size of 6 ¼ inches with a maximum 3:1 hang ratio.
- (ii) All Set Nets are identified by a floating buoy prominently displaying the Participant's designation number, and the Participant's designation number is the only number displayed on the buoy.
- (iii) All Set Nets fished from poles have buoys attached to the end of the net farthest from the beach by means of a tag line of sufficient length to allow the buoys to be on the surface of the water and clearly visible for inspection at all times.
- iv) During all fishing activity, each Set Net s **attended** by the fisher within 20 meters during the entire fishing activity and hot picked, to remove all viable non-target species including wild Coho salmon, Sockeye, Steelhead and Sturgeon, by the Participant who is fishing the net.



Licence Number: XHD 28 2020

File Number: LFA-20-HD 442-TSAWWASSEN

Valid From: 01-Nov-2020

Expiry Date: 01-Nov-2020

Area

Those waters of the main arm of the Fraser River westerly of the Patullo Bridge, the waters of the North Arm of the Fraser River from the junction of the main arm downstream to the Arthur Laing Bridge, the waters of the Middle arm of the Fraser River, the waters of the Strait of Georgia bounded by a line commencing at 49° 11' 3.1524" N latitude and 123° 12' 26.08868" W longitude then to 49° 7' 48.216" N latitude and 123° 19' 50.4228" W longitude then to 49° 5' 5.6948" N latitude and 123° 18' 36.8958" W longitude then to 49° 0' 8.0028" N latitude and 123° 18' 5.1156" W longitude then to 49° 0' 7.5564" N latitude and 123° 5' 27.528" W longitude and the waters of Boundary Bay bounded by a line commencing at 49° 0' 7.5198" N latitude and 123° 2' 6.5898" W longitude then to 49° 0' 7.5414" N latitude and 122° 49' 10.8552" W longitude then to 49° 1' 15.2256" N latitude and 122° 48' 20.7858" W longitude. Portions of DFO Management Sub-areas 29-6, 29-7, 29-8, 29-9, 29-10, 29-11, 29-12, 29-13 and 29-14.

Designation of Individuals and Vessels

Tsawwassen First Nation may not designate individuals who are not Tsawwassen Members to harvest salmon.

Where Tsawwassen First Nation designates an individual; a Tsawwassen fishing licence will be issued. An individual fishing under this harvest document must carry their Tsawwassen fishing licence at all times while participating in the Fishery or while transporting fish harvested in the Fishery and must present it to any DFO Fishery Officer, DFO Fishery Guardian or Aboriginal Fishery Officer upon request.

A vessel used in the Fishery must be identified by affixing a vessel identification decal issued by Tsawwassen First Nation. The decal must be affixed to the vessel so that the decal is legible and unobstructed when viewed from another vessel or from shore. Where the vessel is not a registered commercial vessel, the decal must be uniquely numbered. Where the vessel is a registered commercial vessel, the decal must not be numbered.

Prior to each fishing period, the Tsawwassen First Nation will provide to DFO a list of Tsawwassen First Nation members and vessels designated to fish under this Harvest Document and, in the case of a vessel, the vessel's Identity Number, and will immediately inform DFO of any changes to the list.

Revival Tank

When Fishing, where sale of Chum Salmon is authorized, all vessels greater than 30 feet in length shall be equipped with a revival tank, the purpose of which is to revive and hold those species of Fish, including Coho Salmon and Steelhead Salmon, which the vessel is prohibited from retaining. The revival tank shall meet the following specifications:

- (a) constructed of non-transparent material;
- (b) minimum inside dimensions of 90 cm x 40 cm x 40 cm;
- (c) equipped with a tight fitting lid; and
- (d) designed so as to receive a continuous flow of oxygenated seawater throughout the tank.

The revival tank must be operating at all times while Fishing and also when Fish are being held in the tank after Fishing is completed. While operating, the revival tank must be filled with water and there must be a constant exchange of oxygenated seawater throughout the tank.

The revival tank and equipment shall be kept clean and the tank shall be used for no other purpose than that set out above.



Licence Number: XHD 28 2020

File Number: LFA-20-HD 442-TSAWWASSEN

Valid From: 01-Nov-2020

Expiry Date: 01-Nov-2020

Landing Slips

All fish caught by a Participant under the authority of this licence must be inspected by an Observer, Monitor, DFO fishery officer, or Aboriginal Fisheries Officer at the Participant's Landing Site, and such person shall issue a landing slip ('Landing Slip') to the Participant. The Participant must obtain a Landing Slip each and every time that salmon caught under the authority of this Licence are landed. The Landing Slip will specify:

- the Landing Site;
- the date and time of landing;
- the Participant's name and designation number;
- the number of salmon landed for each species of salmon;
- the name and signature of the inspecting Observer, Monitor, DFO fishery officer, or Aboriginal Fisheries Officer ; and
- in the case of drift net fishing, the vessel name, commercial fishing vessel number or Ministry of Transport identification number.

Proof of Landing

Except where fishing or transporting salmon to a Landing Site, a Participant having possession of salmon caught under the authority of this Licence must carry a Landing Slip for the salmon. The Participant shall show Landing Slips to any DFO Fishery Officer, Aboriginal Fisheries Officer, Monitor or Observer upon request.

Transportation of Salmon

A Participant will transport all fish caught under the Communal Commercial Licence from the fishing site where, or the boat from which, the fish were caught immediately and directly to a Landing Site for inspection and counting by species within one hour after the closing time as set out by the Communal Commercial Licence. A Participant may identify to the First Nation a second Participant who may transport the salmon to the Landing Site. No Participant will be authorized to transport salmon on behalf of more than three Participants in addition to him/herself. A Participant must inform the First Nation of such arrangements at least forty-eight hours prior to the start of a Fishery opening. The First Nation will provide DFO and the Planning Committee with a list of Participants authorized to transport salmon on behalf of other Participants during normal office hours of 0800 hours to 1600 hours, Monday to Thursday and prior to 1300 hours on Friday, and not less than six hours before the start of the Fishery opening.

Monitoring, Reporting and Validation

Participant and Interview Data

Participants are required to notify the TFD of their intentions to harvest fish prior to their participation in each fishing period and report their catch and fishing effort information to the TFD after completion of each fishing period. These notifications and reports can be provided by phone to the TFD or by interview to an on-duty member of the TFN catch monitoring crew. Interviewers will record Salmon catch and effort information on the "TFN Salmon Fisheries Interview Data Form".

Daily Fishing Logs

Each Participant will maintain a daily fishing log using the "TFN Salmon Fisheries Log Data Form". Upon completion of each fishing period, each Participant will submit logs to monitors at landing sites or directly to the TFD office.

Validation

TFN will conduct on-water catch monitoring surveys or TFN fisheries officer patrols at least once every day during fishing period and, will record vessels participating in the Fishery. TFN will compare these records with the list of vessels designated to fish under this harvest document, will observe catches and compare it with catch reported orally to the TFD or recorded in daily logs.

Catch per vessel data will be verified through a random and representative sampling of a percentage of vessel landings by TFN shore based monitors. Efforts should be made to provide a representative sample of the various vessel types, fishing locations and gear observed in the Fishery in these validation activities. During landing validation TFN monitors will interview the Participants to obtain hours fished, number and species of Salmon and other species retained and released and perform a count the vessel's catch. The percentage of vessels needing validation will vary



Licence Number: XHD 28 2020

File Number: LFA-20-HD 442-TSAWWASSEN

Valid From: 01-Nov-2020

Expiry Date: 01-Nov-2020

dependent on the type of fishery and will be discussed at joint technical committee meetings or in season as needed but it is proposed that coverage should be in the range of 20%.

Reporting

Within 24 hours of the close of a fishing period, TFN will provide a preliminary catch report to DFO, including the names and the Vessel Identification Numbers that participated in the Fishery, the gear used, hours fished, status of the report (final or preliminary), number and species of Salmon and other species retained, and number and species of Salmon and other species released. Along with reported catch information, TFN will submit a report of validations conducted during the opening, including Vessel Identification Numbers, gear type, hours fished, number and species of Salmon and other species kept and number and species of Salmon and other species released. TFN will contact Participants who did not report after the Fishing period to determine whether they did participate, and if so, collect the requisite information. The preliminary catch report will be finalized within 48 hours of the close of the Fishing period.

Compliance with the Fisheries Act

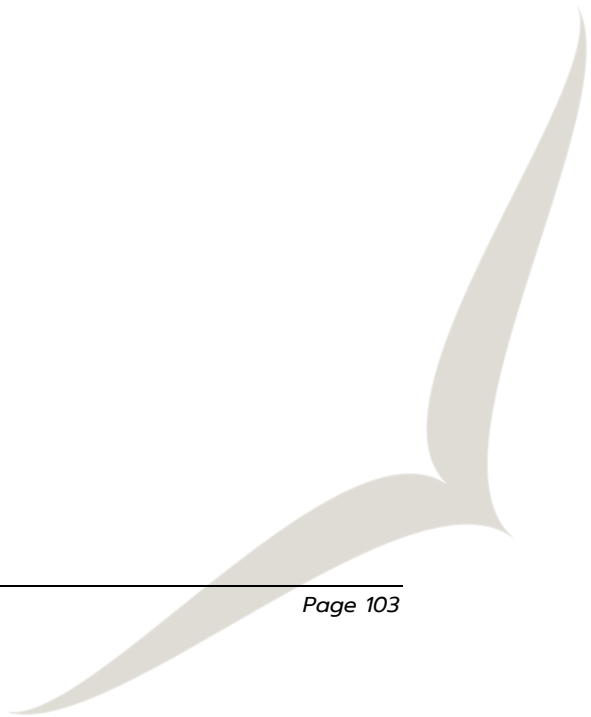
Pursuant to subsection 22(6) of the Fishery (General) Regulations, compliance with the Fisheries Act and the regulations made under the Act is a condition of this licence.

Licence Issued: 30 October 2020

Licence Printed: 30 October 2020

Licence Issued By: BRIAN MATTS, Fisheries and Oceans Canada

APPENDIX C Dataforms



TSAWWASSEN FIRST NATION - SALMON FISHERIES INTERVIEW DATA FORM

Monitor's Name : _____

SET NET / DRIFT NET
Put Set and Drift Net Catch on Separate Sheets Even
from the Same Fisher.

Date : _____ Sheet ID : _____

Site Location : _____

Fishing Area (Zone) : _____

#	Name of Fisher	No.	Fishing Area	Mesh Size	Count or Hail?	# Drifts	Interview Time		Net Set (Start of Fishing)		Net Picked (End of Fishing)		Fish Kept						Fish Released				Still Fish'n (Y/N)										
							Date	Time	Date	Time	Date	Time	Sock	Chin	Pink	Coho	Chum	Other	Sturg	FL	Sthd	Other											
1					C/H																												
2					C/H																												
3					C/H																												
4					C/H																												
5					C/H																												
6					C/H																												
7					C/H																												
8					C/H																												
9					C/H																												
10					C/H																												
11					C/H																												
12					C/H																												
13					C/H																												
14					C/H																												
15					C/H																												
16					C/H																												
17					C/H																												
Fishing Areas * T1 = Roberts Bank (29-6,29-7), T2 = Sandheads (29-9, 29-10), T3 = Canoe Pass to Deas (29-14), T4 = Steveston-Pattullo (29-13), T5 = Pattullo-Port Mann (29-17), T6 = North Arm (29-12).											TOTALS																						

Comments: _____

USE ONE DATA COLLECTION FORM FOR EACH SET NET FISHER OR FISHING GROUP.
 PLEASE REMEMBER TO TOTAL UP ALL OF THE CATCH, AND HOURS FISHED, ON EACH OF YOUR PAGES.

TSAWWASSEN FIRST NATION - SALMON FISHERIES LOG DATA FORM

Fisher Name/No. _____

Vessel Name/No: _____

Sheet ID : _____

#	Fishing Location	Location Code	Net Length (feet)	Mesh Size (inches)	# of drifts	Data Recorded		Net Set (Start of Fishing)		Net Picked (End of Fishing)		Fishing Effort Hours	Fish Kept						Fish Released (species & #)	Hailed in Y/N			
						Date	Time	Date	Time	Date	Time		Sock	Chin	Pink	Coho	Chum	Steelhd			Other		
	Canoe Pass	T3	300	4.5	3	Apr 4	2100	Apr 4	0900	Apr 4	2000	1.1		3						1 Surgeon	Y		
1																							
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							
16																							
Fishing Areas	* T1 = Roberts Bank (29-6,29-7), T2 = Sandheads (29-9, 29-10), T3 = Canoe Pass to Deas (29-14), T4 = Steveston-Pattullo (29-13), T5 = Pattullo-Port Mann (29-17), T6 = North Arm (29-12).										TOTALS												

Comments: _____

TSAWWASSEN FIRST NATION - CRAB FISHING INTERVIEW DATA FORM

Sheet ID: _____

Monitor's Name: _____

Location: _____

Date: _____

#	TFN FISHER		FISHING METHOD	STAT. AREA	HAULED		SOAK TIME	DEPTH	SPECIES	CATCH INFO.		Number of Traps Pulled	REMARKS OR COMMENTS
	NAME	No.	(GL/SL)	(Area-Sub)	Date	Time	Hours	Meters	(DU/RR)	Number Kept	Number Released		
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

Methods: GL = Ground Line, SL = Single Lines

Species: DU = Dungeness, RR = Red Rock, G = Graceful

TSAWWASSEN FIRST NATION - CRAB FISHING LOG DATA FORM

Sheet ID: _____

Fisher Name/No. _____

Vessel Name/No. _____

#	FISHING METHOD	STAT. AREA	HAULED		SOAK TIME	DEPTH	SPECIES	CATCH INFO.		Number of Traps Pulled	REMARKS OR COMMENTS
	(GL/SL)	(Area-Sub)	Date	Time	Hours	Feet	(DU/RR)	Number Kept	Number Released		
	SL	29-6	Apr 20	1800	48	50	DU	8	2	2	2 female crab released
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

Methods: GL = Ground Line, SL= Single Lines

Species: DU= Dungeness, RR=Red Rock, G=Graceful

TSAWWASSEN FIRST NATION - OTHER FISHERIES INTERVIEW DATA FORM

Sheet ID: _____

Monitor's Name: _____

Location: _____

Date: _____

#	TFN FISHER		SPECIES (Code)	FISHING METHOD (Code)	STAT. AREA (Area-Sub)	LANDING		FISHING TIME Hours	DEPTH Meters	CATCH INFO.		Units (Code)	Number of Traps Pulled	REMARKS OR COMMENTS
	NAME	No.				Date	Time			Number Kept	Number Released			
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														

Species: RF= Rockfish, LC = Lingcod, HB=Halibut, DF=Dogfish, C=Clams, O= Oysters, P=Prawns, S=Shrimp

Methods: HL= Hook & Line, LL=Long-line, HP= Hand pick, T=Trap

Units: P = Pieces, KG=kilograms, LB=pounds, B=5 gallon bucket

TSAWWASSEN FIRST NATION - OTHER FISHERIES LOG DATA FORM

Sheet ID: _____

Fisher Name/No. _____

Vessel Name/No. _____

#	SPECIES	FISHING METHOD	STAT. AREA	LANDING		FISHING TIME	DEPTH	CATCH INFO.		Units	Number of Traps Pulled	REMARKS OR COMMENTS
	(Name)	(Code)	(Area-Sub)	Date	Time	Hours	Meters	Number Kept	Number Released	(Code)		
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

Species: RF= Rockfish, LC = Lingcod, HB=Halibut, DF=Dogfish, FS=flounder/sole, C=Clams, O= Oysters, P=Prawns, S=Shrimp
 Methods: RR=Rod & Reel, LL=Long-line, HP= Hand pick, T=Trap
 Units: P = Pieces, KG=kilograms, LB=pounds, B=5 gallon bucket

Tsawwassen First Nation Aquatic Plant Harvest Log

Tsawwassen First Nation Harvester Number: Tsawwassen First Nation

Harvest Document #: Tssawwassen-05

Date Harvested (yyyy/mm/dd)	DFO Stat Area and Subarea	Specific Area Description	Species Harvested	Quantity Harvested (Kg wet weight)
1 April 2020 - 31 March 2021	N/A	TFA	N/A	Zero

Total Weight [Kilograms (Kg)] for this log sheet: Zero

I declare this harvest log to be correct and true to the best of my knowledge

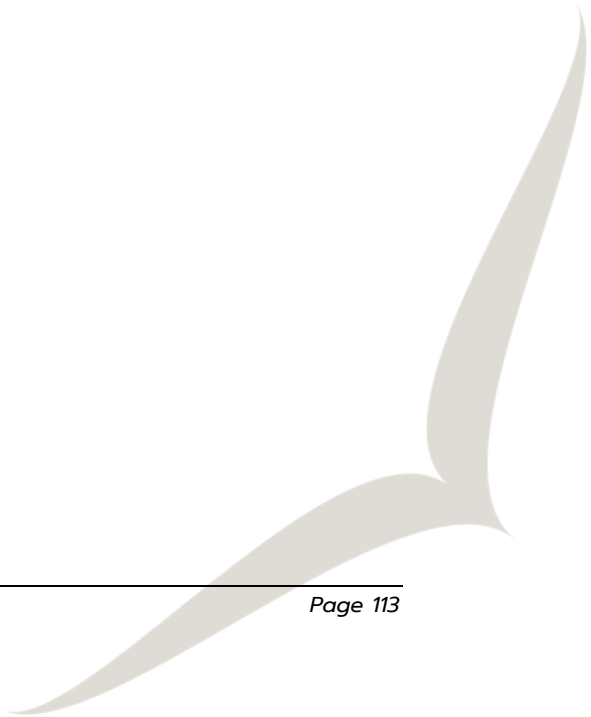
Signature of Harvester:  _____

Print Name: Krystal Lockert

Date: 2021-02-22

Return this form to:
Tsawwassen First Nation
1926 Tsawwassen Drive
Tsawwassen BC V4M 4G2

APPENDIX D
2020 Fraser River Sockeye and Chum In-season Status Reports



File: 71007

**DRAFT AGENDA
PACIFIC SALMON COMMISSION
FRASER RIVER PANEL
Friday July 10, 2020 at 11:00 am.
Via GTM
Meeting ID: 513-559-997**

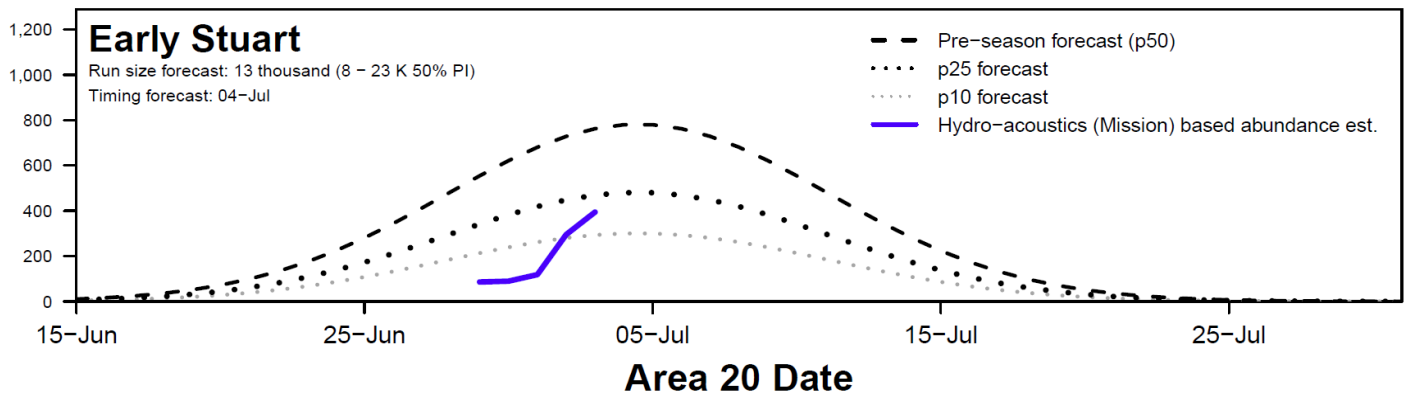
- 1) Roll Call (Panel and Tech members, others please email Julie, ehrmantraut@psc.org)
- 2) Agenda
- 3) Total catches, Escapements and accounted-to-date relative to pre-season forecasts and in-season adopted run sizes PSC Staff
- 4) In-season data flow for updating objectives PSC staff
 - a) Test fishing catches and acoustics
 - b) Stock proportions
 - c) Environmental conditions
 - d) Big Bar update DFO/PSC staff
 - e) Observations from the watershed DFO
- 5) Reports from other areas PSC staff/Panel
- 6) Other Business Panel
 - a) Final agreed Principles and Constraints
 - b) First Weekly Report (July 10, sent for review prior to meeting, confirm reviewers)
- 7) Next FRP Meeting, Tuesday July 14, 11:00 a.m. via Teleconference Panel
Next Technical Committee meeting, Thursday July 16, 1:30 p.m. via GoToMeeting TC

2020 Run status of Fraser sockeye and pink salmon

Date: Jul. 10, 2020

Week of: Jul. 5 - Jul. 11, 2020	Sockeye					Total Fraser
	Management Group					
	E.Stuart	E.Summer	Summer	Late		
Mission passage (inclds Pitt, Alouette, Coquitlam)	1,100	1,100	0	0		2,200
Catch downstream of Mission	0	0	0	0		0
Accounted Run To Date	1,100	1,100	0	0		2,200
Run size adopted in-season¹	na	na	na	na		na
Run size forecasted pre-season	13,000	218,000	611,000	99,000		941,000
Area 20 timing adopted in-season	na	na	na	na		na
Area 20 timing expected pre-season	4-Jul	24-Jul	31-Jul	6-Aug		30-Jul
Johnstone Str. Diversion Rate	Annual average to date					na
	Preseason forecast of annual rate:					35%

¹ Run sizes are usually not adopted until after the peak of the run has passed through marine test fishery areas in Juan de Fuca and Johnstone straits.



2020 Fraser Sockeye Test Fishing & Escapement Summary

Area/Gear Location From A20	Johnstone Strait				Fraser River		
	A12 GN	A29B GN	A29D GN	Whon CPUE	Mission Hydroacoustics		Hell's Gate
	Round Is (-2 days)	Cottonwood (+5 days)	Whonnock (+6 days)	Estimate (+6 days)	Estimate ¹ (+6 days)	Method ²	Estimates ³ (+10 days)
22-Jun							
23-Jun			0	0.00			
24-Jun			0	0.00			
25-Jun			0	0.00			
26-Jun			0	0.00			
27-Jun			0	0.00			
28-Jun			0	0.00			
29-Jun			0	0.00			
30-Jun			0	0.00			
1-Jul			0	0.00			
2-Jul			0	0.00			
3-Jul			0	0.00			
4-Jul			0	0.00			
5-Jul			0	0.00	300	A1+M	0
6-Jul			0	0.00	100	A1	0
7-Jul			0	0.00	200	A1+M	0
8-Jul		0	0	0.00	400	A1+M	0
9-Jul	3	0	4	0.39	1,100	A1+M	0
10-Jul							
11-Jul							

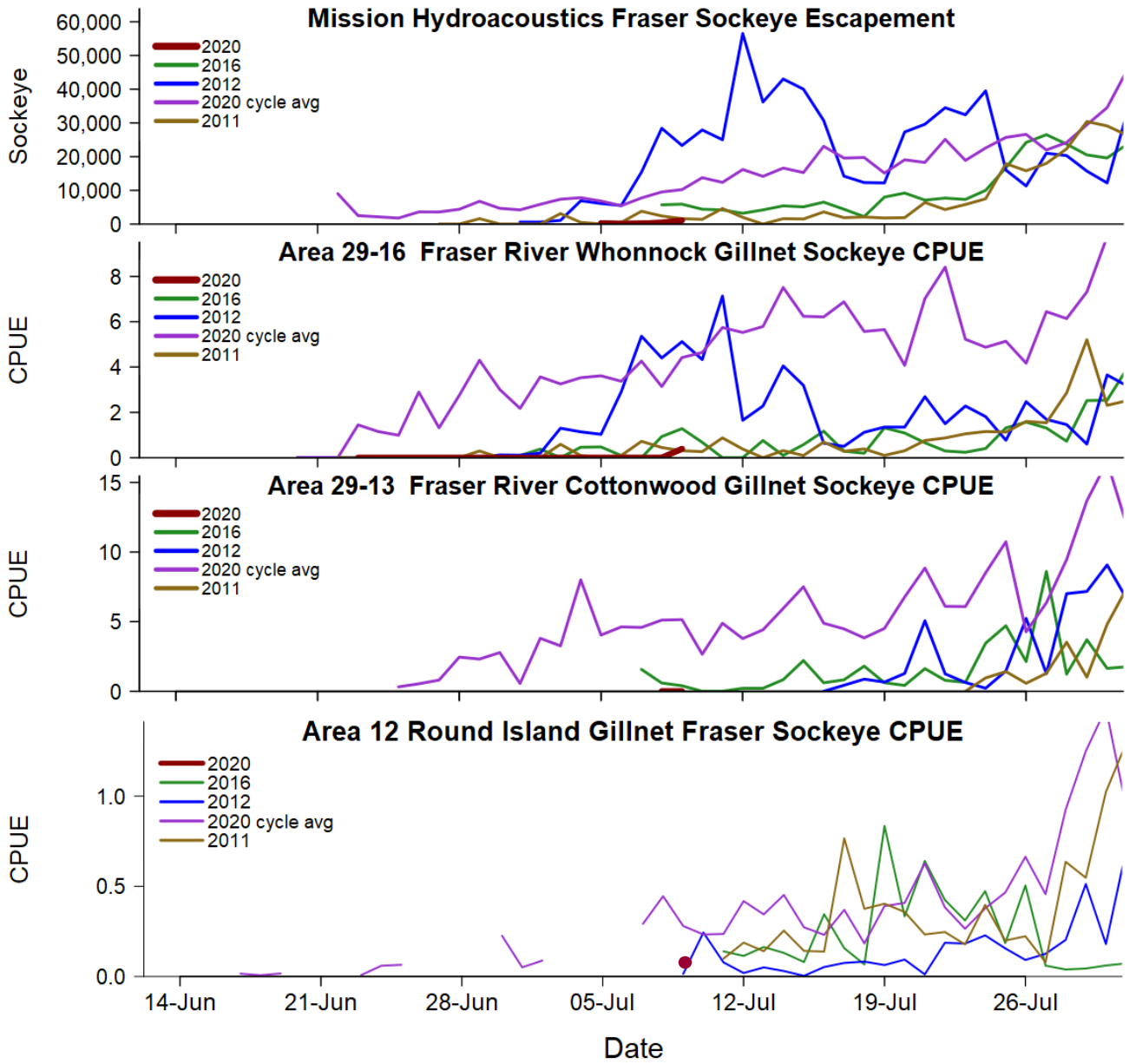
¹ Upstream escapement estimate - does not include Pitt

² Mission source:

A1+M = Left-bank ARIS (A1) + Mobile split-beam (M)

A1 = Left-bank ARIS (A1)

³ Daily Hell's Gate abundance estimate - actual daily count has been multiplied by 2



Right Bank Mission hydroacoustics site



Left Bank Mission hydroacoustics site



2020 Fraser River Sockeye Salmon Stock identification Review

Recent stock composition estimates for sockeye salmon

Fishing Area/Gear ¹ Sector ² Date Type ³ Sample Size (n) %Fraser							Fraser-only Stock Proportions by Reporting Group ⁴ (%)													Age (%)		
							Early Stuart	Early Summer				Summer					Late				Overall Stocks	
							Early Stuart	Chilli-wack	Pitt Alouette Coquit-lam	Nadina Bowron Gates Nahat-latch Taseko	Early Thompson	Early Summer sub-total	Harrison Wid-eon	Late Stuart Stellako	Chilko Ques-nel	Raft North Thompson	Summer sub-total	Birken-head Big Silver	Late Shuswap Portage	Weaver Cultus	Late sub-total	Age-4 ₂
Johnstone Strait & Queen Charlotte Strait																						
Juan de Fuca Strait & Washington & Other																						
In-river																						
AB gn	tf	Jul 9	Scales	4	100%	50%	25%		25%		50%					0%				0%	100%	

Notes for sockeye and pink tables:

¹ GU TR=29_1-6, BB GN=29_13 (Cottonwood), AB GN=29_16 (Whonnock), MI GN=Mission test fishery, QU GN=Qualark

² TF=sample from test fishery catch, CM=sample from commercial catch, C&S=ceremonial & subsistence catch, FSC=food, social, & ceremonial catch

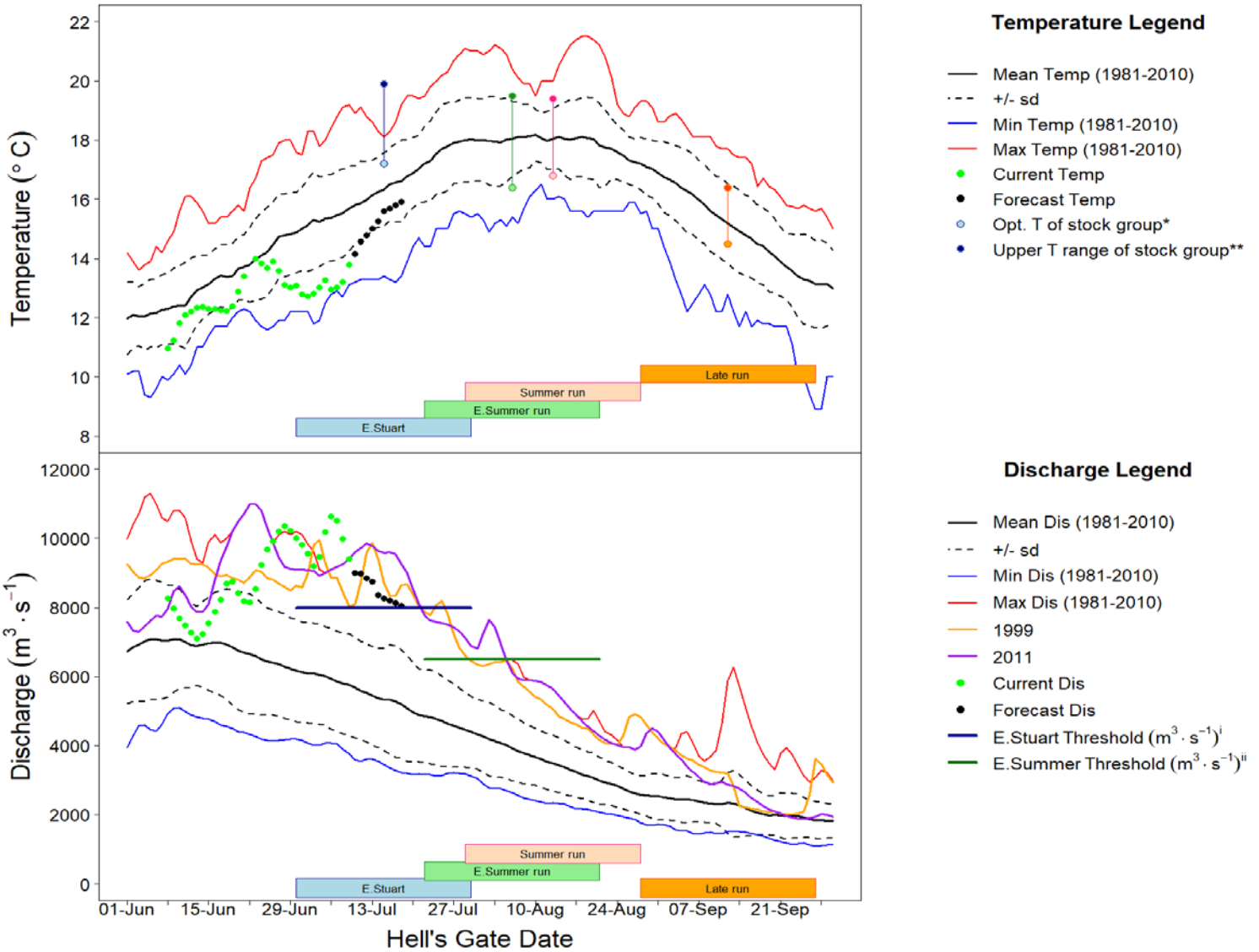
³ Predictions for sockeye are multinomial extrapolations of current year data to 5 days after the last observation; Predictions for pink salmon are projections of stock compositions based on historic and current data

⁴ Further information relating stock group descriptions to spawning ground locations and population definitions can be found at <http://www.psc.org/StockGroupDef/>

Results in grey text have been presented to the Panel previously

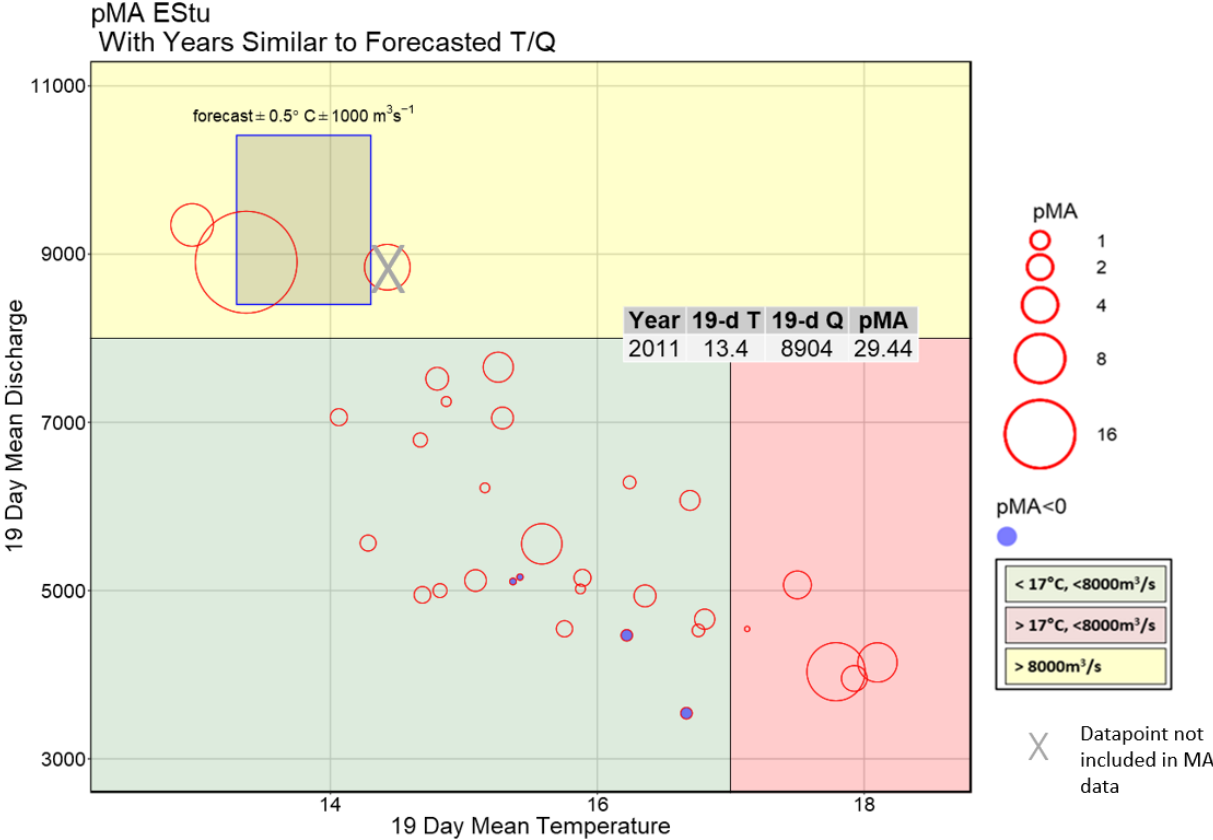
Observed Fraser River Temperature at Qualark for 09-Jul	13.8°C
Average (1981-2010) Historical Temperature on this day	15.7°C
Deviation from Average	-1.9°C
Forecast Temperature for 15-Jul-20	15.6°C
Air temperatures in Kamloops and Prince George are forecasted to be below average with moderate precipitation.	

Observed Fraser River Discharge at Hope for 09-Jul	9407 m ³ ·s ⁻¹
Average (1981-2010) Historical Discharge on this day	5758 m ³ ·s ⁻¹
% above or below Historical Discharge	63%
Forecast Discharge for 15-Jul-20	8273 m ³ ·s ⁻¹



Run timing bars represent a 31 day spread of the run centered around the Hell's Gate date. Hell's gate timing is 5 days from Mission for Early Stuart and Late run; and 4 days from Mission for Early Summer and Summer run. ⁱpMA is the proportional increase to spawning escapement targets to help ensure targets are achieved. ⁱⁱ%DBE is %difference between estimates of potential spawning escapement and spawning escapement. *This is the optimum temp for aerobic swimming - T_{opt} (Eliason et al. (2011). Science 332: 109-112)**This is the upper range of the optimum temp for aerobic swimming - T_{pejus}. ⁱDischarge threshold of 8000cms for Early Stuart from Macdonald (2000). Can. Tech. Rep. Fish. Aquat. Sci. 2315: 120p. ⁱⁱDischarge threshold of 6500cms for Early Summer run from Macdonald et al. (2011). Trans. Am. Fish. Soc. 139: 768-782. 19 days of T & Q data are required to calculate a pMA - 15 days before the Hell's Gate Date and 3 days after. MA estimates can be calculated 4 days after the Area 20 date.

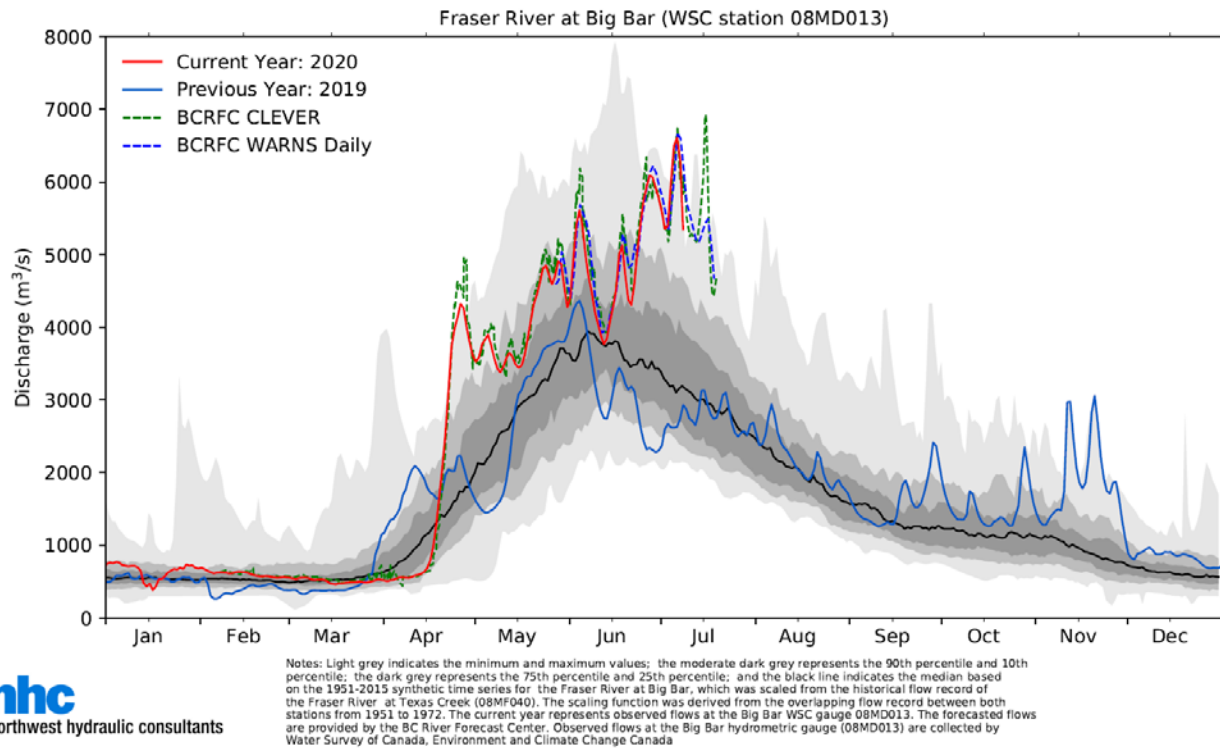
Early Stuart pMA Bubble Plot



Current Temperatures						
Upriver of Slide	Map #	09-Jul	Daily Mean	Historic Median	Deviation from Historical Median	Historic Year Range
<u>Fraser River Mainstem</u>						
	1	Fraser River @ Qualark	13.8	15.7	-1.9	1981-2010
	2	Fraser River @ Texas Creek	13.4	16.2	-2.8	2006-2019
	3	Fraser River @ Big Bar Creek	13.1	NA	NA	NA
▶	4	Fraser @ Marguerite	12.5	18.0	-5.5	2015-2019
▶	5	Upper Fraser @ Shelley	10.7	13.2	-2.5	1994-2019
<u>Fraser River Tributaries</u>						
	6	Thompson R. @ Ashcroft	12.3	15.3	-3.0	1995-2019
	7	South Thompson @ Chase	13.2	16.2	-3.0	1994-2019
	8	North Thompson @ McLure	11.6	13.1	-1.5	2006-2019
▶	9	Quesnel R. @ Quesnel	11.7	14.2	-2.5	2006-2019
▶	10	Nechako R. @ Isle Pierre	17.1	18.2	-1.1	2006-2019
▶	11	Stuart R. @ Ft. St. James	15.5	17.0	-1.5	2000-2019



Fraser River Discharge at Big Bar



Data for graph made available by  Environment and Climate Change Canada

Migration passage at Big Bar (July 7, 2020)

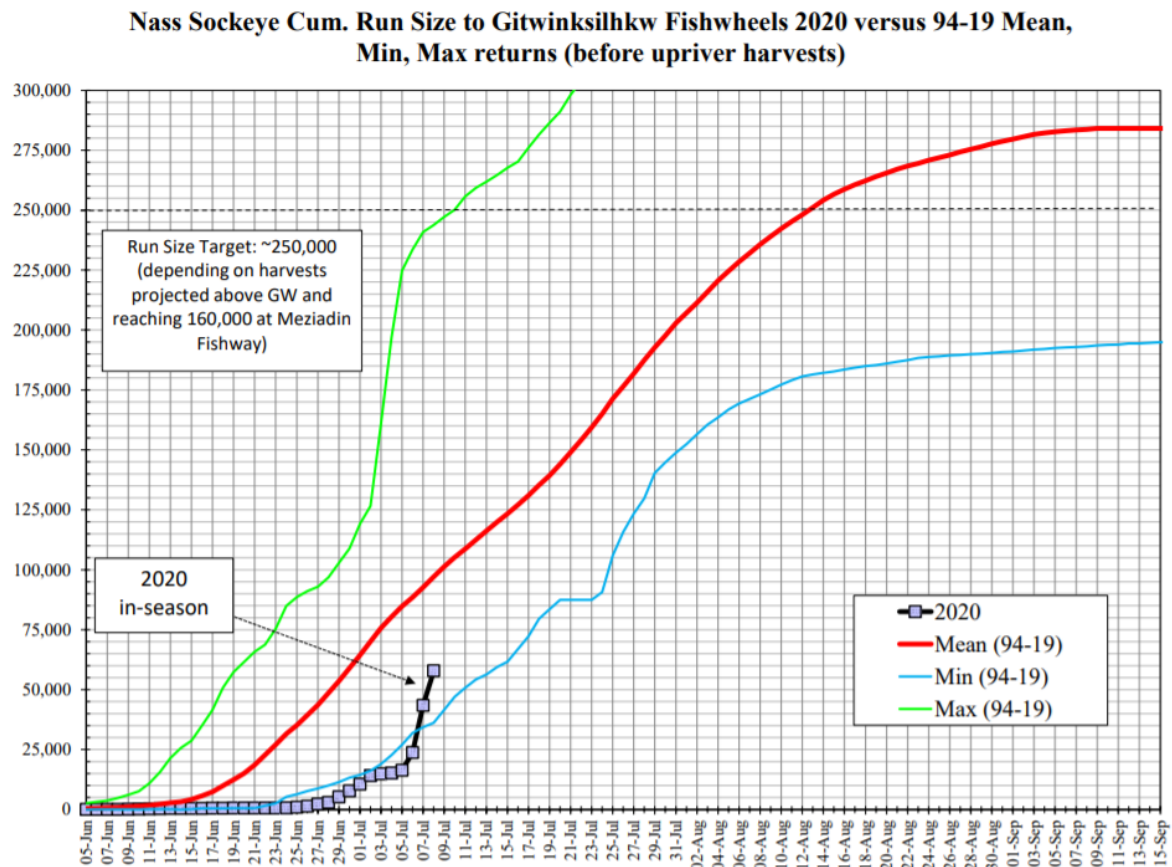
- 48 salmon have been radio-tagged.
- No radio-tagged fish have been detected above the Big Bar slide area.
- 36 salmon have naturally passed the slide.
- With the recent increase in discharge levels, salmon natural passage has currently ceased.
- Salmon counts at the Big Bar landslide site are available at <https://www.pac.dfo-mpo.gc.ca/pacific-smon-pacifique/big-bar-landslide-eboulement/smon-count-denombrement-eng.html>

Sockeye assessment updates from other areas

Nass

Source:

<ftp://ftp.lgl.com/Nass%20Stock%20Assessment%20Updates>



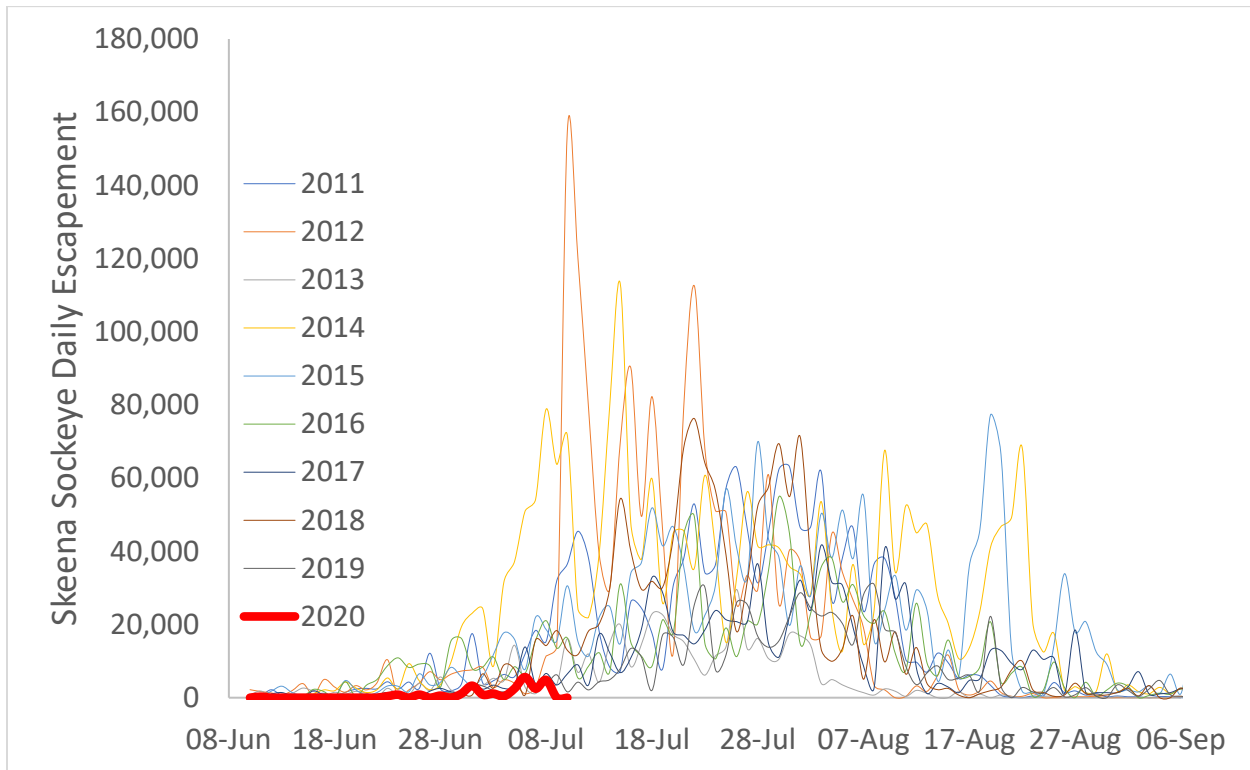
Assessment estimates and observations

- Preseason forecast: 386,000 (average total return to Canada is 550,000)
- Sockeye run size target: 230,000
- Net escapement target: 200,000
- In-season run size estimates (to the lower river fishwheel):
 - o Estimate to date (57,870) is tracking below the historical mean run size assessed at the fish wheel of 96,000 (1994 – 2019)
 - o Projected total run size estimate of 242,000 (164,000 – 319,000 +/- 2 SD) (based on regression on abundance to date vs. final run size)
 - o Projected total run size estimate of 171,000 (108,000 – 343,000 +/- 2SD) (assuming estimate to date is 34% of total run based on historical mean run timing)
- Number of fish caught in fishwheels to date is also well below the 20-year mean, and below 2019
- Dealing with high water levels this season; many days with zero counts throughout June

Skeena

Source:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/northcoast-cotenord/skeena/tyee-eng.html>



Assessment estimates and observations

- Pre-season forecast: 880,000
- Cumulative escapement to date: 25,038
- Still very early in the assessment program but currently tracking below historical average escapement to date of 133,300; (2011-2019)
- Babine fence counts not yet available

Barkley Sound (Somass)

Sources:

<https://www.roundtables.westcoastaquatic.ca/area-23-barkley-harvest>

<http://www.pacfish.ca/wcviweather/Content%20Pages/Sproat/CameraStream3.aspx>

DFO WCVI Salmon Stock Assessment (pers. comm.)

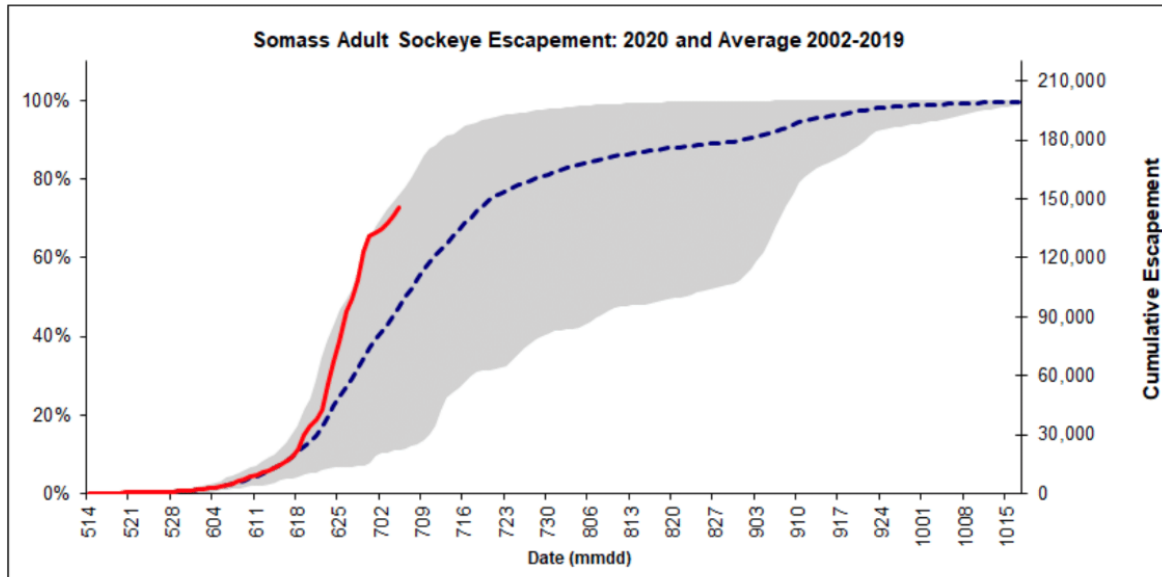


Figure 3. 2020 Somass sockeye escapement relative to average escapement timing. The dashed blue line shows the historical average escapement timing, and the shaded area shows the 90th percentile of the historical data. The total expected escapement of 200,000 is based on the in-season reforecast of 250,000 minus 20% allowable harvest.

Assessment estimates and observations

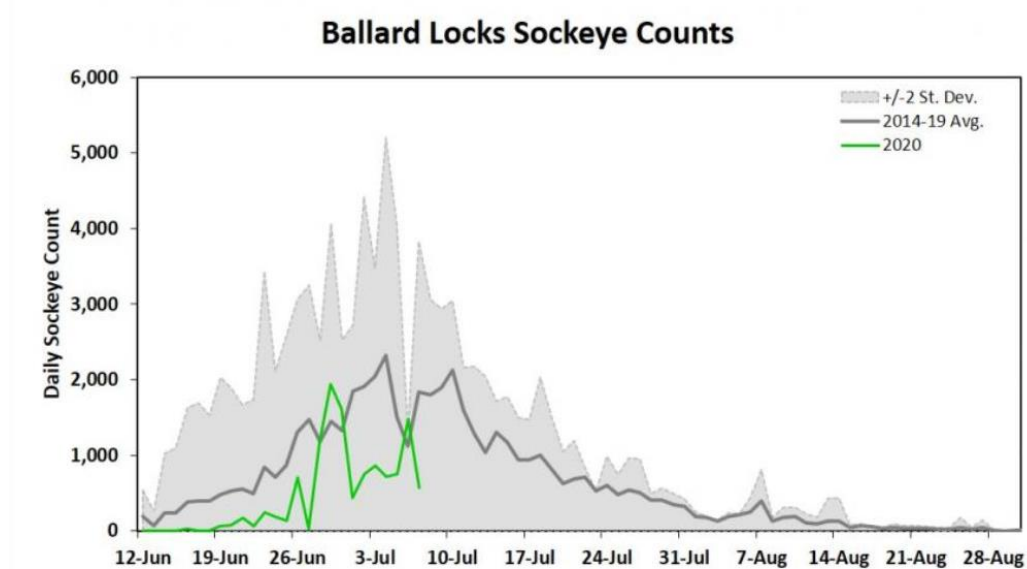
- Pre-season forecast: 168,788 (“critical zone”)
- July 9th reforecast: 280,000
- Estimated peak migration date: June 24 (same as “recent years” average)
- Sockeye are small (3.1lbs in most recent sample), lower proportion of females at Great Central
- Average age appears low but uncertain (based on length-based modelling as scale lab is not operating)

Lake Washington (Ballard Locks)

Sources:

https://extranet.psc.org/frptc/_layouts/15/WopiFrame.aspx?sourcedoc=/frptc/Documents%20202/FRP/2020/2020-02-19_Vancouver/Handouts/3c_Forecasts%20of%20Washington%20sockeye%20returns.pdf&action=default

<https://wdfw.wa.gov/fishing/reports/counts/lake-washington>



*2014-19 avg. line represents an average run of 53,420 sockeye

Assessment estimates and observations

- Forecast of 20,166 (poor relative to 10yr average)
- Passage to date is 12,041 (as of July 7)

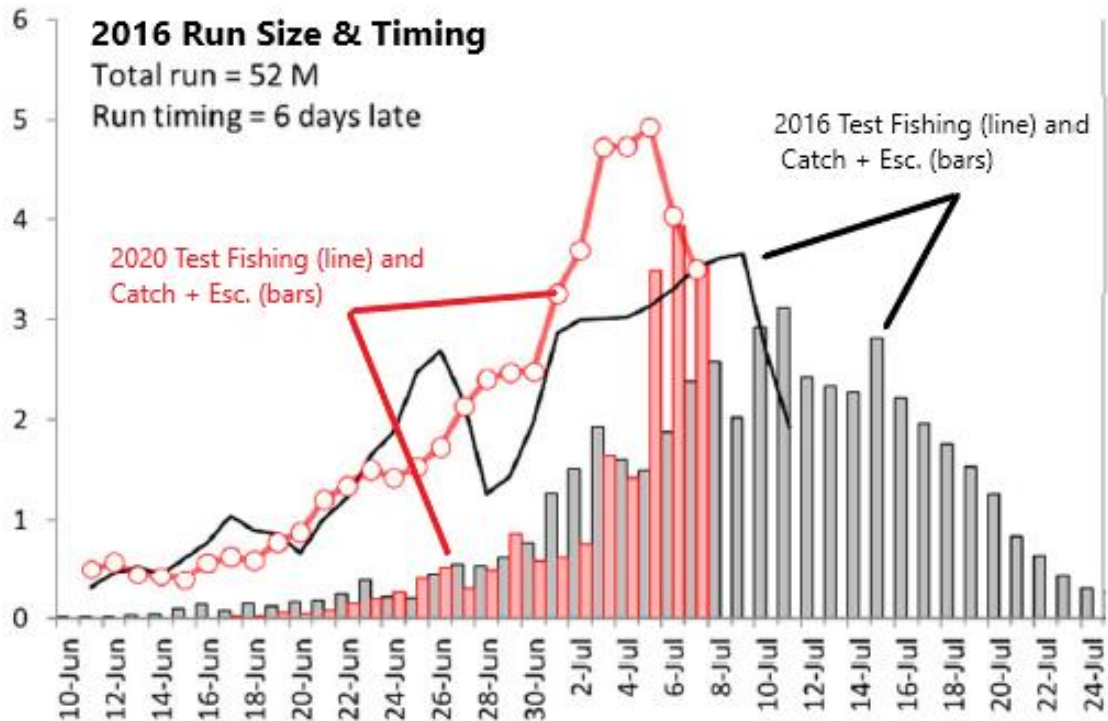
Bristol Bay

Sources:

<https://www.bbsri.org/port-moller-test-fishery>

<https://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareabristolbay.main>

Comparing 2020 to 2016



Assessment estimates and observations

- Pre-season forecast: 49 million
- Total run to date (July 8): 23,000,000
- Recent daily catches between 2.5 – 3 million
- Timing appears to be 5-6 days late
- Expecting a final run size > 50 million
- Overall Alaska harvest had been slow until recently due to late arrival and some poor returns to date (e.g. Copper River, Cook Inlet)

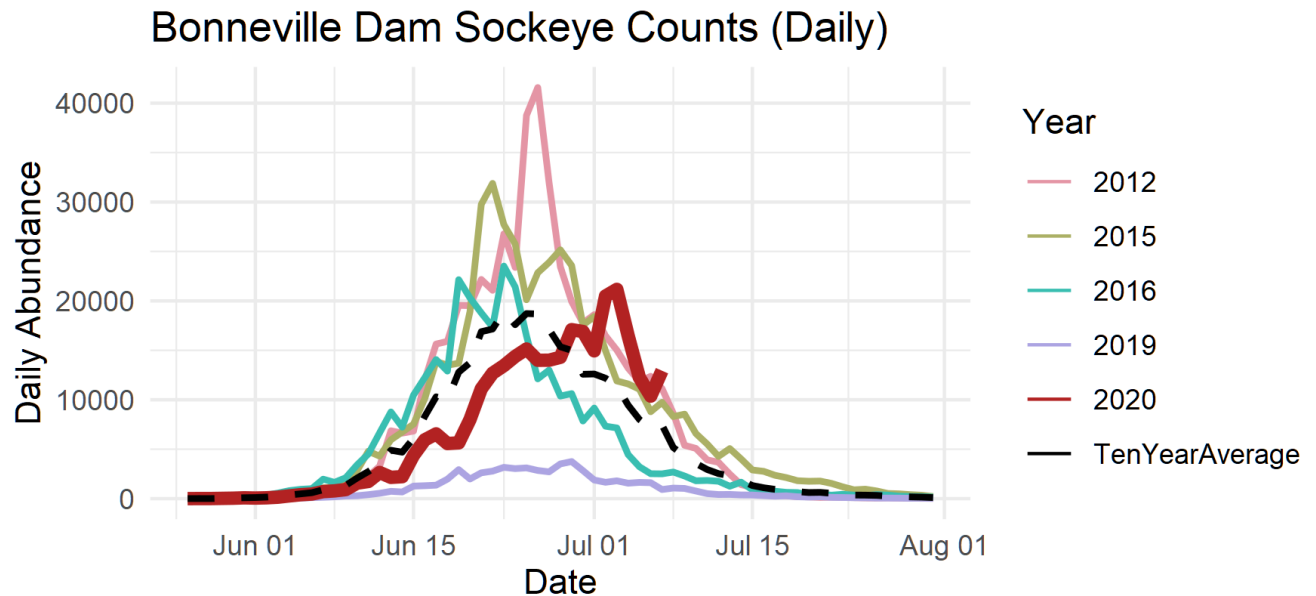
Columbia River (Bonneville Dam)

Sources:

<https://www.fpc.org/>

Jeff Fryer, CRITFC (pers. comm.)

https://extranet.psc.org/frptc/_layouts/15/WopiFrame.aspx?sourcedoc=/frptc/Documents%202020/FRP/2020/2020-02-19_Vancouver/Handouts/3c_Forecasts%20of%20Washington%20sockeye%20returns.pdf&action=default



Assessment estimates and observations

- Pre-season forecast: 246,300 (neutral relative to 10yr average)
- Passage past Bonneville Dam is 310,000 (to date as of July 8) surpasses the 10-year average of 278,000
- Run timing appears to be later than the 10-year average
- Migration conditions in Columbia & Okanogan are "best observed in recent decade"
- Sockeye are predominantly age 4₂ and are smaller than average
- Comprised of ~85% Okanogan, 7% Wenatchee, 9% Yakima (Yakima % likely to drop)
- Over 6 million American Shad over the Bonneville Dam

2020 Fraser River Panel Management Plan

Principles and Constraints

Agreed July ??, 2020

1. Fisheries and Oceans Canada (DFO) has provided the Panel with run-size forecasts for Fraser River sockeye salmon. It is broadly understood that the sockeye run-size forecasts are uncertain due to high variability in annual salmon productivity (e.g. the number of returning recruits per spawner, the number of returning recruits per out-migrating fry) and observation error in the associated data. The median forecast for the total Fraser sockeye return is 941,000 fish, and there is a one in four chance that the actual number of returning sockeye will be at or below 488,000 fish and there is a one in four chance that the actual number of returning sockeye will be at or larger than 1,913,000 fish. The median forecasts for the four different management groups are 13,000 Early Stuart, 218,000 Early Summer-run, 611,000 Summer-run, and 99,000 Late-run sockeye. Of note, the Chilko and Harrison stock groups represent 45% of the total Fraser sockeye return and 69% of the Summer-run return at the median forecast, further adding to the uncertainty. The median or 50% probability level forecast for Fraser River sockeye salmon was used for pre-season planning purposes. When sufficient information is available in-season, the Panel will update run size estimates of Fraser River sockeye salmon as appropriate.
2. The Panel's first priority is to attain spawning escapement goals by management group. A coordinated approach to management has been developed that reflects both Parties sharing the burden of conservation. As a result of the pre-season planning and with consideration of the current and expected adverse environmental conditions for fish survival and productivity, as well as the extremely low forecast and the lingering impact of the Big Bar landslide, neither Canada nor the US anticipates any available TAC at the median forecast.
3. TAC and international shares are calculated according to the 2020 revised Annex IV, Chapter 4, of the Pacific Salmon Treaty, which limits the United States harvest (in Washington State) to 16.5% of the international TAC of Fraser River sockeye salmon. For 2020, the Fraser River Panel agreed to pre-season Fraser River Aboriginal Exemptions as determined by the process outlined in paragraph 3d for the purposes of computing Fraser River sockeye TAC by management group. The Panel will implement low abundance exploitation rates (LAER) for a management group when the allowable harvest for that group, according to Total Allowable Mortality rules as defined in Canada's escapement plan, is less than the LAER, in order to allow access to available TAC for other co-migrating Fraser River sockeye salmon management groups or other salmon species. At the median forecasts, the LAERs are set at 10% for all management groups. If in-season run sizes increase to the p75 level or higher, the LAER for Late-run sockeye will be increased to 20%. LAER's are not intended to create directed harvest opportunities in mixed stock areas, do not contribute to International TAC's, and represent maximum allowable fishing-related impacts (including test fisheries and release mortalities). Calculated International TAC's that fall below the LAER amount will contribute to the International share.
4. At the median forecast, no directed harvest of sockeye is planned. At forecasted median abundance levels and given current escapement objectives, the Panel anticipates managing all management groups with a LAER approach.

Regulations

- i) If in-season abundance and environmental conditions are better than pre-season expectations, low impact fisheries would be expected to commence in mid-July in Panel Waters. The actual start dates and duration of fisheries will depend on in-season estimates of timing, abundance, diversion, and agreed management adjustments.
- ii) The Parties' conservation concerns for other species and stocks will be taken into account throughout the 2020 management season.

Fraser River Sockeye In-season Update – Friday, July 10, 2020

The below is a summary. If more specific details are required please refer to the attached Fraser Panel distribution for the call. If you have any questions or notice any errors in the summary please contact me jamie.scroggie@dfo-mpo.gc.ca so I can make adjustments.

Total In-season Catch and Escapement Accounted To-date

2020 Run status of Fraser sockeye and pink salmon

Date: Jul. 10, 2020

Week of: Jul. 5 - Jul. 11, 2020	Sockeye				Total Fraser
	Management Group				
	E.Stuart	E.Summer	Summer	Late	
Mission passage (incls Pitt, Alouette, Coquitlam)	1,100	1,100	0	0	2,200
Catch downstream of Mission	0	0	0	0	0
Accounted Run To Date	1,100	1,100	0	0	2,200
Run size adopted in-season ¹	na	na	na	na	na
Run size forecasted pre-season	13,000	218,000	611,000	99,000	941,000
Area 20 timing adopted in-season	na	na	na	na	na
Area 20 timing expected pre-season	4-Jul	24-Jul	31-Jul	6-Aug	30-Jul
Johnstone Str. Diversion Rate	Annual average to date				na
	Preseason forecast of annual rate:				35%

¹ Run sizes are usually not adopted until after the peak of the run has passed through marine test fishery areas in Juan de Fuca and Johnstone straits.

- Today is the first meeting of 2020 and there is very little information available at this time
- Total accounted to date is 2.2k Fraser sockeye of which 1.1k are Early Stuart and 1.1k are Early Summer
- Fraser discharge levels are well above average and similar to 2011, 2012, 2009. It is unknown at this point how migration timing will be affected.

In-season Data Flow

a) Acoustics

- **Qualark:** Daily hydroacoustic assessments of sockeye passage will start today.
- **Mission:** Daily hydroacoustic assessments of daily sockeye passage began July 5. Counts have been low but building. High water levels are affecting deployment of hydroacoustic equipment on each river bank.

b) Test fishing catch

- **Marine Area:** A12 Gn catch of 3 first day of operation. Area 20 Gn scheduled to begin tomorrow.
- **Fraser River:** Both Cottonwood and Whonnock are operational. 4 sockeye caught at Whonnock yesterday. Qualark Gn has been delayed due to high water but scheduled to begin tomorrow.

c) Stock Proportions

- **Fraser River:** None. Preliminary scale analysis (n=4) indicate Early Stuart and Early Summer stocks present.
- **Marine Area:** None

d) Environmental Conditions and Management Adjustments

- The temperature of the Fraser River at Qualark Creek on Jul 9 was 13.8°C, which is 1.9°C below average for this date.
- The Fraser River water discharge at Hope was 9407m³/s, which is approximately 63% above average for this date.
- Given high discharge it is anticipated that Early Stuart sockeye will have a difficult time migrating to the spawning grounds.
- *The PSC recommended no changes to management adjustments at today's meeting.*

e) Big Bar Rock Slide Update Jul 7

- 48 salmon have been radio tagged none of which have been detected upstream of the slide.
- At least 36 salmon have migrated naturally above the slide when water levels were lower than current levels. Currently migration is assumed to have ceased.

f) Observations Throughout the Watershed

- Currently water levels very high but dropping
- Very few observations to date but it appears that Chinook migration has slowed in many areas of the watershed.

Reports From Other Areas

- a) **Nass:** Return is tracking below historical mean but early
- b) **Skeena:** Return is tracking below historical mean but early
- c) **Barkley Sound:** Return tracking above the mean but below forecast. Sockeye appear small.
- d) **Ballard Locks and Baker Lake:** tracking below mean returns.
- e) **Bonneville Dam:** Return is similar to ten year average and above forecast
- f) **Bristol Bay:** Return is large and similar to brood year (~52M). Return appears to be 5-6 days late.

Assessments and Recommendations

a) Escapement Projections and Run Size Assessment

Current Fraser River Panel Adopted Values and Potential Harvest (Adopted Changes in Bold)

Management Group	In-season Run Size/ Forecast p50	Timing A20 50%date	Proportional Mngt. Adjust. ^a	Available Harvest ^b	Allowable Harvest ^c
Early	13,000	Jul 4	.69	0	1,300

Stuart					
Early Summer	218,000	Jul 24	.52	0	21,800
Summer	611,000	Jul 31	.16	0	61,100
Late	99,000	Aug 6	.41	0	9,900

^a Proportional Management Adjustment is multiplied by the escapement target to calculate the numerical management adjustment.

^b Available harvest after deductions. Harvest includes all catch in all fisheries in Canada the United States and test fisheries. TAC will be assessed in-season.

^c Allowable harvest in an LAER scenario. Allowable harvest is not a target and would be considered a maximum and includes test fishery catch and may include fishery induced mortalities.

b) Criteria for Fishing Decisions

- None

c) Fishery Recommendations

US Recommendations for Panel Waters:

- None

CA Recommendations for Panel Waters:

- None

d) Fishery Evaluation

- None

Other Business

- None

Next Meeting

- Next Panel meeting Tuesday July 14

File: 71007

**DRAFT AGENDA
PACIFIC SALMON COMMISSION
FRASER RIVER PANEL
Tuesday September 1, 2020 at 11:00 am.
Via GTM
Meeting ID: 513-559-997**

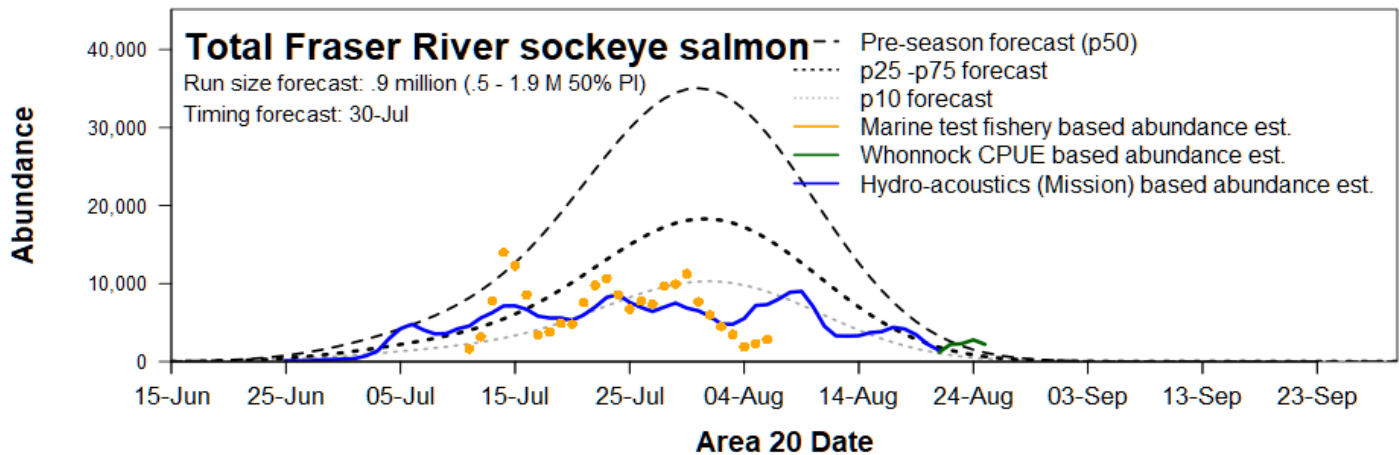
- 1) Roll Call (Panel and Tech members, others please email Julie, ehrmantraut@psc.org)
- 2) Webinar Etiquette: Please mute your phones unless asking a question and use the chat feature for questions only.
- 3) Agenda
- 4) Total catches, Escapements and accounted-to-date relative to pre-season forecasts and in-season adopted run sizes PSC Staff
- 5) In-season data flow for updating objectives PSC staff
 - a) Test fishing catches and acoustics
 - b) Comparison of Mission projected sockeye estimate vs. Qualark estimate
 - c) Stock proportions
 - d) Environmental conditions
 - e) Big Bar update DFO/PSC staff
 - f) Observations from the watershed DFO
- 6) Assessments and recommendations PSC Staff
- 7) Other Business Panel
 - a) Test fishing budget update
 - b) Regulatory Control Periods – early relinquishments?
 - c) Next in-season meeting? Distribution?
 - d) Weekly Report No.9?
- 8) Post season meeting: Sept 23, 2020; start time 8:30 Panel

2020 Run status of Fraser sockeye salmon

Date: Sep. 1, 2020

Week of: Aug. 30 - Sep. 5, 2020	Sockeye				
	Management Group				Total Fraser
	E.Stuart	E.Summer	Summer	Late	
Mission passage (inclds Pitt, Alouette, Coquitlam)	15,900	68,200	183,900	13,400	281,400
Catch downstream of Mission	100	1,100	2,500	100	3,800
Accounted Run To Date	16,000	69,300	186,400	13,500	285,200
Run size adopted in-season ¹	14,000	72,000	169,000	28,000	283,000
Run size forecasted pre-season	13,000	218,000	611,000	99,000	941,000
Area 20 timing adopted in-season	7/Jul	17/Jul	27/Jul	15/Aug	24/Jul
Area 20 timing expected pre-season	4/Jul	24/Jul	31/Jul	6/Aug	30/Jul
Johnstone Str. Diversion Rate	Annual average to date				25%
	Preseason forecast of annual rate:				35%

¹ Run sizes are usually not adopted until after the peak of the run has passed through marine test fishery areas in Juan de Fuca and Johnstone straits.



2020 Catch-to-date by fishery

ate: Sep. 1, 2020

Week of: Aug. 30 - Sep. 5, 2020		Sockeye	
		Total	Fraser
Canada		7,800	7,800
Commercial		0	0
	B Purse Seine	0	0
	D Gillnet	0	0
	E Gillnet	0	0
	G Troll	0	0
	H Troll	0	0
First Nations		7,750	7,750
Food, Social & Ceremonial (FSC)		7,750	7,750
	Marine	0	0
	Fraser R.	7,750	7,750
	Lower Fraser (LFA)	20	20
	BC Interior (BCI)	7,740	7,740
Economic Opportunity (EO) & Demonstration (Demo)		0	0
	Marine	0	0
	Fraser R.	0	0
	Lower Fraser (LFA)	0	0
	BC Interior (BCI)	0	0
Escapement Surplus to Spawning Requirements (ESSR)		0	0
Recreational		0	0
	Marine	0	0
	Fraser R.	0	0
Charter (Albion & A12 Chum test fishery)		50	50
United States		0	0
Commercial		0	0
Treaty Indian (TI)		0	0
	Areas 4B, 5, 6C	0	0
	Areas 6, 7, 7A	0	0
All Citizen (AC)		0	0
	Purse Seine (PS)	0	0
	Gillnet (GN)	0	0
	Reefnet (RN)	0	0
Treaty Indian Ceremonial & Subsistence (C&S)		0	0
	Areas 4B, 5, 6C	0	0
	Areas 6, 7, 7A	0	0
All Citizen Recreational		0	0
Alaska *		na	na
Panel-approved Test Fisheries		4,750	4,600
Panel Waters		2,770	2,690
	Canada	2,770	2,690
	U.S.	0	0
Non-Panel Waters**		1,980	1,910
Total		12,550	12,400
Catch Seaward of Mission ***		3,890	3,740
Catch Upstream of Mission		8,660	8,660

* Alaska data are processed post-season and so are unavailable in-season.

** Includes Qualark

*** All catches in marine areas and in the Fraser River downstream of Mission.

2020 Fraser Sockeye Test Fishing & Escapement Summary

Area/Gear Location From A20	Fraser River					
	A29D GN Whonnock (+6 days)	Whon CPUE Estimate (+6 days)	Qualark		Mission Hydroacoustics	
			GN Catch (+8 days)	Estimate ¹	Estimate ² (+6 days)	Method ³
11-Aug	3	0.28	25	6,780	7,100	A1+S1+M+A2
12-Aug	4	0.36	27	4,377	7,900	A1+S1+M+A2
13-Aug	7	0.58	32	5,755	6,400	A1+S1+M+A2
14-Aug	11	0.98	17	5,585	9,300	A1+S1+M+A2
15-Aug	11	0.99	18	4,146	10,700	A1+S1+M+A2
16-Aug	6	0.55	34	7,342	6,900	A1+S1+M+A2
17-Aug	0	0.00	29	8,829	3,500	A1+S1+M+A2
18-Aug	2	0.19	25	6,971	3,100	A1+S1+M+A2
19-Aug	0	0.00	32	5,875	3,200	A1+S1+M+A2
20-Aug	1	0.09	8	2,481	3,500	A1+S1+M+A2
21-Aug	0	0.00	16	3,416	3,300	A1+S1+M+A2
22-Aug	4	0.33	3	1,395	4,400	A1+S1+M+A2
23-Aug	3	0.29	14	2,587	3,800	A1+S1+M+A2
24-Aug	2	0.19	6	1,613	4,900	A1+S1+M+A2
25-Aug	0	0.00	5	1,545	3,800	A1+S1+M+A2
26-Aug	1	0.07	6	1,971	1,700	A1+S1+M+A2
27-Aug	1	0.08	8	2,756	1,200	CPUE-Wh
28-Aug	1	0.09	4	2,325	1,400	CPUE-Wh
29-Aug	3	0.24	3	982	3,900	CPUE-Wh
30-Aug	1	0.09	5	1,736	1,500	CPUE-Wh
31-Aug	2	0.18			2,900	CPUE-Wh
1-Sep						

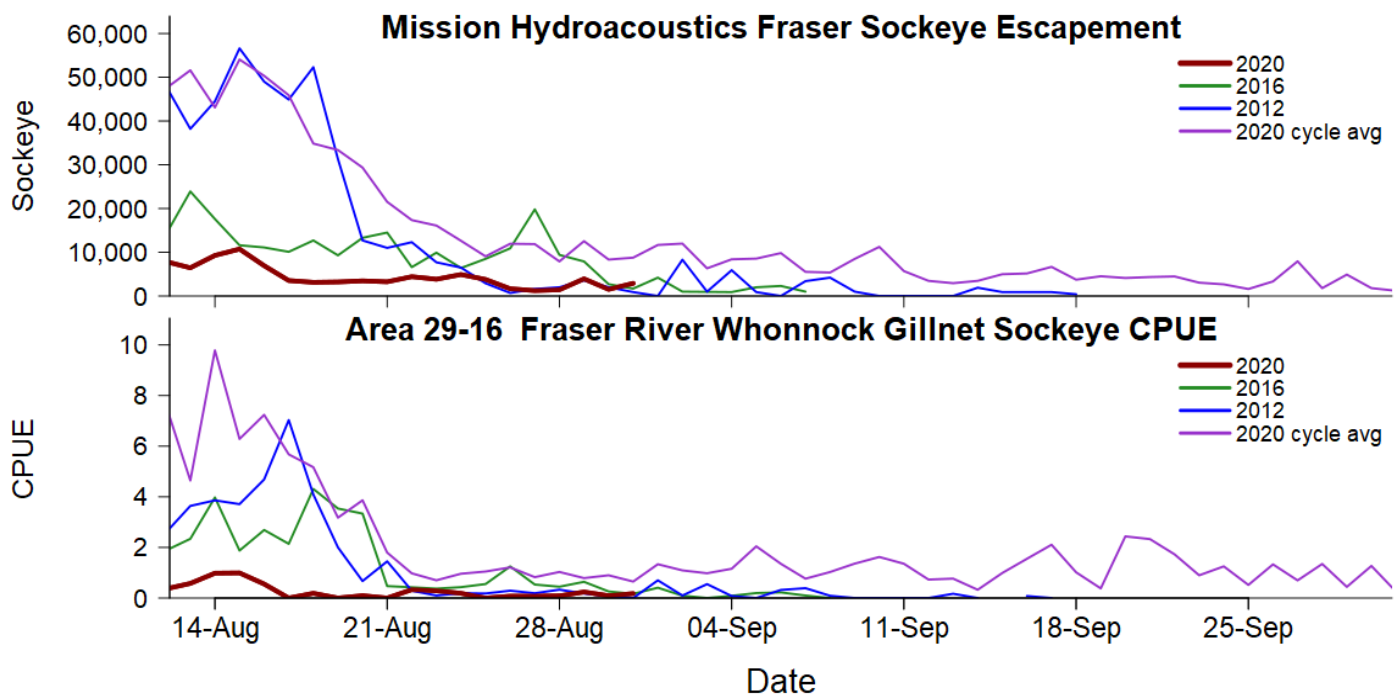
¹ Qualark escapement estimate - does not include Chilliwack, Pitt, Harrison, Birkenhead, Big Silver, Weaver, or Cultus

² Mission escapement estimate - does not include Pitt

³ Mission source:

A1+S1+M+A2 = Left-bank ARIS (A1) + Left-bank split-beam (S1) + Mobile split-beam (M) + Right-bank ARIS (A2)

CPUE-Wh = Whonnock CPUE × Expansion Line



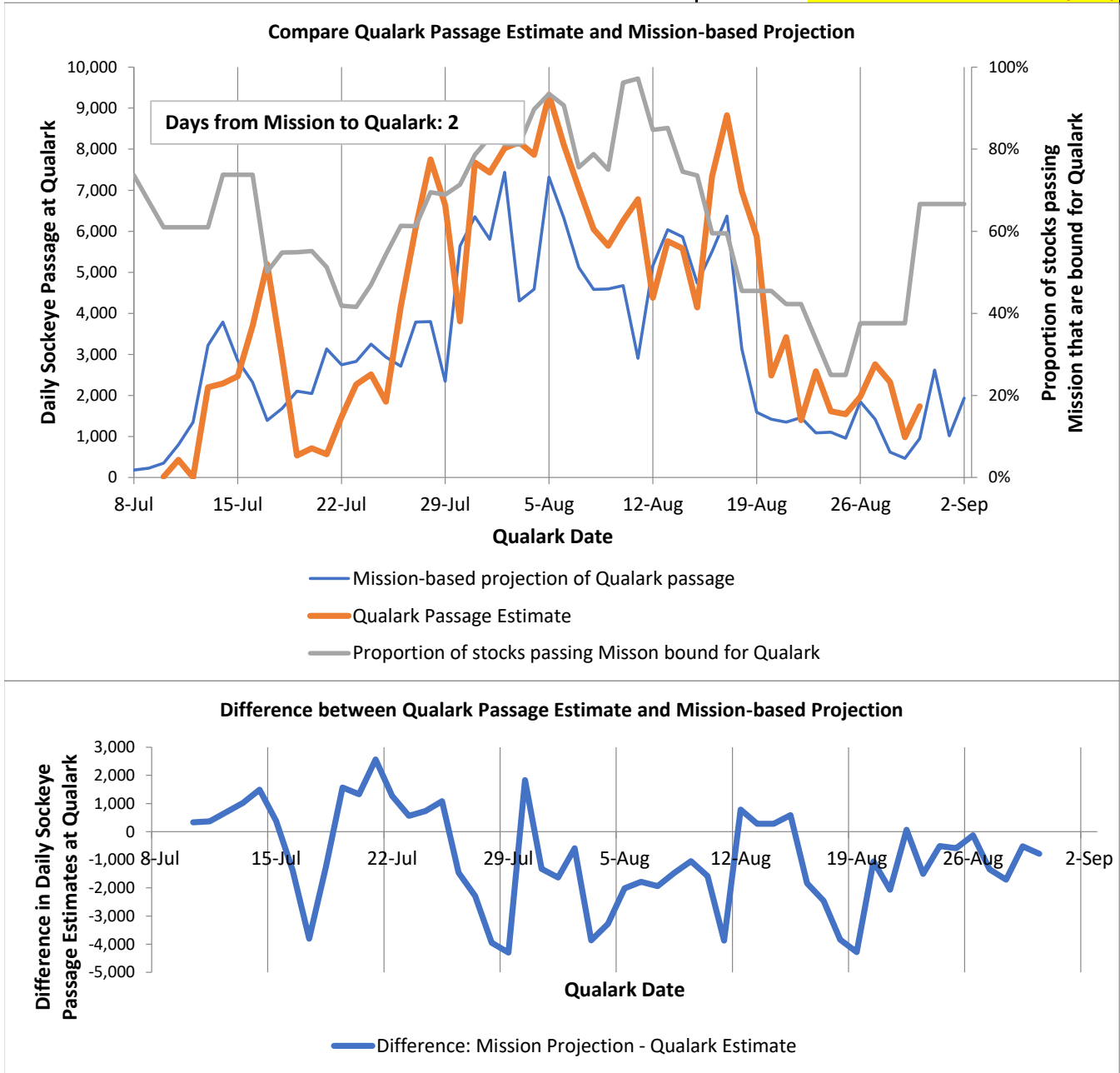
Fraser Sockeye: Qualark Passage Estimate and Mission-based Projection

Year: **2020**

Date: 1/Sep/20

Time: 9:30 AM

	All Days	Common Days
Mission projection	176,113	170,139
Qualark estimate	217,638	217,638
Difference		-47,499
%Difference		(28%)



2020 Fraser River Sockeye Salmon Stock identification Review

Recent stock composition estimates for sockeye salmon

Fishing						Fraser-only Stock Proportions by Reporting Group ⁴ (%)													Age (%)		
						Early Stuart	Early Summer					Summer					Late			Overall Stocks	
						Early Stuart	Chilli-wack	Coquit-lam	Nadina Bowron Pitt Gates Alouette Nahat-latch Taseko	Early Thompson	Early Summer sub-total	Harrison Widgeon	Late Stuart Stellako	Chilko Quesnel	Raft North Thompson	Summer sub-total	Birken-head Big Silver	Late Shuswap Portage	Weaver Cultus	Late sub-total	Age-4 ₂
Johnstone Strait & Queen Charlotte Strait																					
Juan de Fuca Strait & Washington & Other																					
In-river																					
AB gn	tf	Aug24-27	DNA	8	100%	0%															
AB gn	tf	Aug28-30	DNA	6	100%	0%															
Qualark GN	tf	Aug26-27	DNA	14	100%	0%															
Qualark GN	tf	Aug28-30	DNA	10	90%	0%															

Next Stock ID Samples IAGAP*:

Whonnock TF: Tuesday distribution samples thru Sept 6

Qualark TF: Tuesday distribution samples thru Sept 6

*** If all goes as planned**

Notes for sockeye and pink tables:

¹ GU TR=29_1-6, BB GN=29_13 (Cottonwood), AB GN=29_16 (Whonnock), MI GN=Mission test fishery, QU GN=Qualark

² TF=sample from test fishery catch, CM=sample from commercial catch, C&S=ceremonial & subsistence catch, FSC=food, social, & ceremonial catch

³ Whonnock DNA samples include non-assessment sets

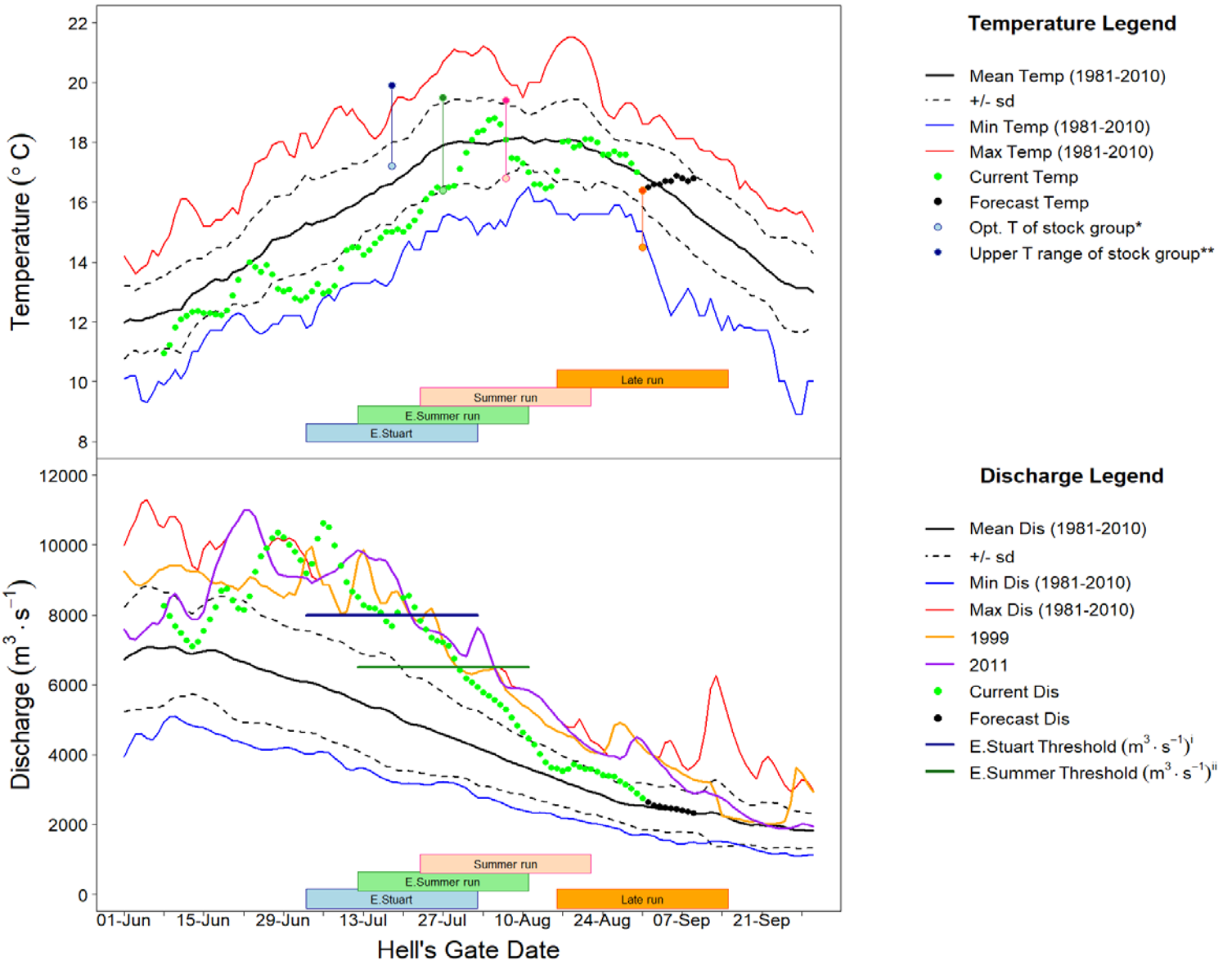
⁴ Further information relating stock group descriptions to spawning ground locations and population definitions can be found at

<http://www.psc.org/StockGroupDef/>

Results in grey text have been presented to the Panel previously

Observed Fraser River Temperature at Qualark for 31-Aug	16.4°C
Average (1981-2010) Historical Temperature on this day	16.9°C
Deviation from Average	-0.5°C
Forecast Temperature for 06-Sep-20	16.9°C

Observed Fraser River Discharge at Hope for 31-Aug	2757 m ³ ·s ⁻¹
Average (1981-2010) Historical Discharge on this day	2534 m ³ ·s ⁻¹
% above or below Historical Discharge	9%
Forecast Discharge for 06-Sep-20	2437 m ³ ·s ⁻¹

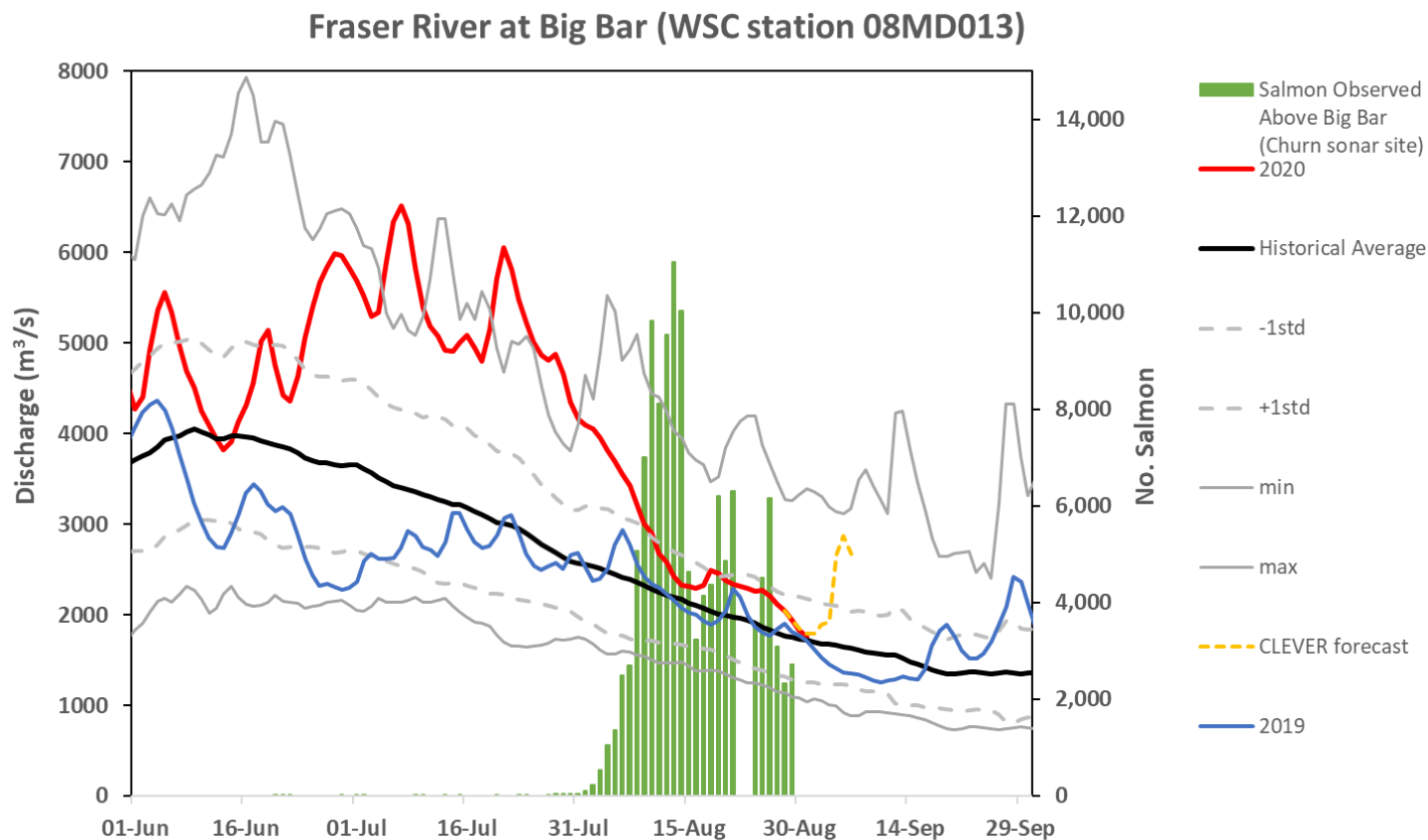


Run timing bars represent a 31 day spread of the run centered around the Hell's Gate date. Hell's gate timing is 5 days from Mission for Early Stuart and Late run; and 4 days from Mission for Early Summer and Summer run. ⁱpMA is the proportional increase to spawning escapement targets to help ensure targets are achieved. ⁱⁱ%DBE is %difference between estimates of potential spawning escapement and spawning escapement. *This is the optimum temp for aerobic swimming - T_{opt} (Eliason et al. (2011). Science 332: 109-112)**This is the upper range of the optimum temp for aerobic swimming - T_{pejus}. ⁱDischarge threshold of 8000cms for Early Stuart from Macdonald (2000). Can. Tech. Rep. Fish. Aquat. Sci. 2315: 120p. ⁱⁱDischarge threshold of 6500cms for Early Summer run from Macdonald et al. (2011). Trans. Am. Fish. Soc. 139: 768-782. 19 days of T & Q data are required to calculate a pMA - 15 days before the Hell's Gate Date and 3 days after. MA estimates can be calculated 4 days after the Area 20 date.

Current Temperatures						
Upriver of Slide	Map #	30-Aug	Daily Mean	Historic Median	Deviation from Historical Median	Historic Year Range
<u>Fraser River Mainstem</u>						
	1	Fraser River @ Qualark	17.0	18.0	-1.0	1981-2010
	2	Fraser River @ Texas Creek	15.3	18.3	-3.0	2006-2019
	3	Fraser River @ Big Bar Creek	NA	NA		NA
▶	4	Fraser @ Marguerite	14.2	18.3	-4.1	2015-2019
▶	5	Upper Fraser @ Shelley	11.8	15.5	-3.7	1994-2019
<u>Fraser River Tributaries</u>						
	6	Thompson R. @ Ashcroft	17.1	18.6	-1.5	1995-2019
	7	South Thompson @ Chase	18.1	19.6	-1.5	1994-2019
	8	North Thompson @ McLure	15.1	15.6	-0.5	2006-2019
▶	9	Quesnel R. @ Quesnel	14.2	17.3	-3.1	2006-2019
▶	10	Nechako R. @ Isle Pierre	15.5	19.0	-3.5	2006-2019
▶	11	Stuart R. @ Ft. St. James	14.5	18.6	-4.1	2000-2019



Fraser River Discharge at Big Bar



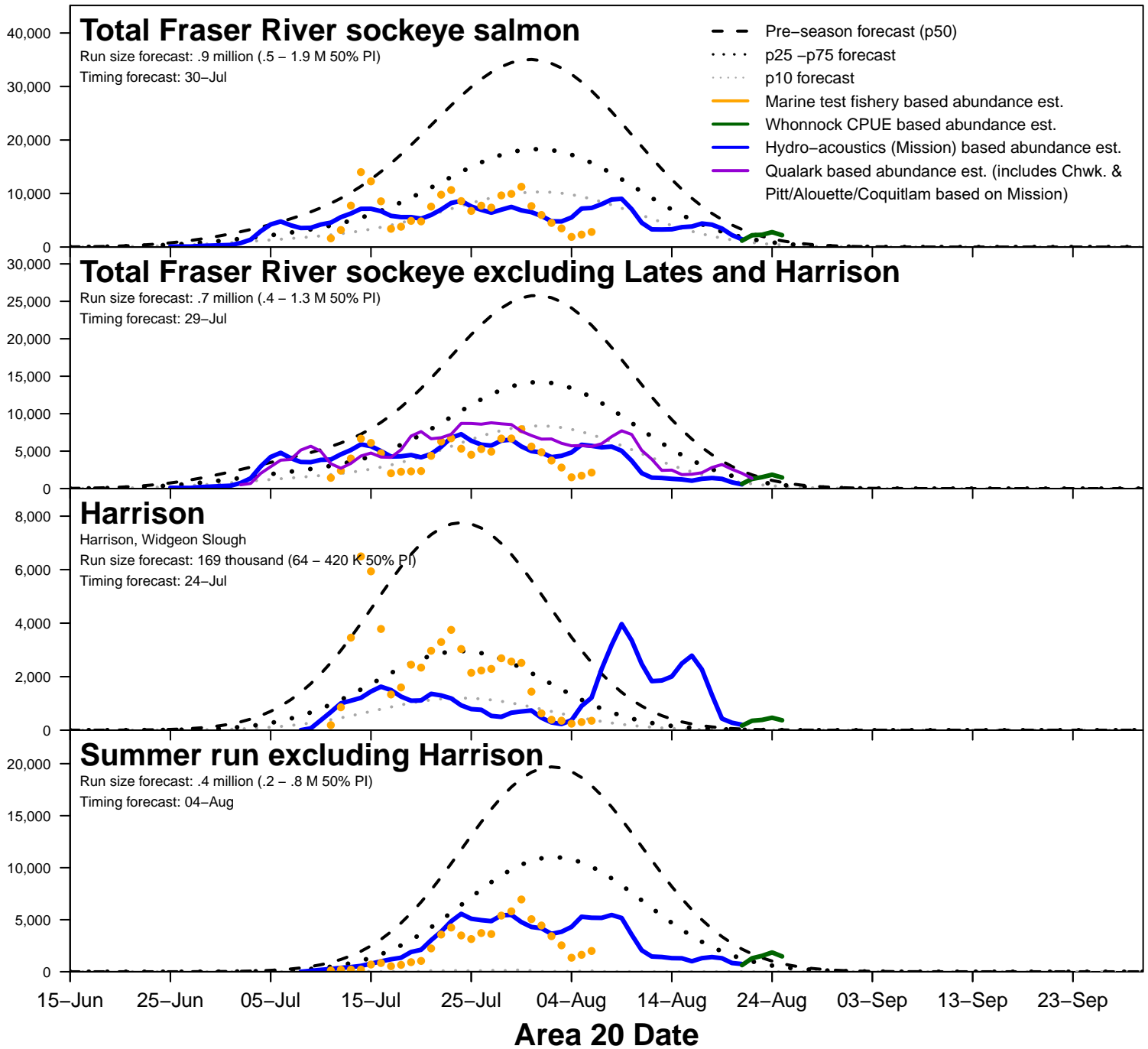
Data made available by:  Environment and Climate Change Canada and  northwest hydraulic consultants

Migration passage at Big Bar

Information provided by Mike Hawkshaw, DFO

- The majority of fish arriving at Big Bar are now sockeye with the occasional Chinook.
- Fish continue to migrate past the slide naturally.
- 125,576 salmon have been counted at the Churn Creek sonar site (~40 km upstream of the slide). (Counts not yet available for August 22, 23, 30, 31)
- 8,266 salmon have been transported by the Whooshh, but Whooshh transport has slowed down.
- An additional Whooshh tube has been installed that releases salmon 120 metres further upstream.
- 523 salmon have been radio-tagged below the slide.
- At the Cultus lab, 400,000 Early Stuart eggs and 20,000 Bowron eggs have been collected.

2020 Fraser River sockeye salmon daily migration



2020 Fraser River run size and timing estimates

Preseason forecasts, inseason estimates, and official estimates of run size and associated timing

	Run Size					Method	Run size components				Run Timing ¹					
	Inseason Adopted	Preseason Forecast	Inseason estimate	Inseason 80% PIs ²			Catch + Escapement	6-day Projection ³	Seaward Abundance	Migration Delay	Inseason Adopted	Preseason Forecast	Inseason estimate	Inseason 80% PIs ²		Method
				10% PI	90% PI									10% PI	90% PI	
Total Fraser sockeye	283,000	941,000	287,000	286,000	288,000	Sum	286,000	1,000	0	0		30-Jul				
Early Stuart Run	14,000	13,000	16,000	16,000	16,000	Recon	16,000	0	0	0	07-Jul	04-Jul	06-Jul	06-Jul	Recon	
Early Summer Run	72,000	218,000	69,000	69,000	69,000	Sum	69,000	0	0	0	17-Jul	24-Jul	15-Jul	15-Jul	Recon	
Chilliwack		57,000	25,000	25,000	25,000	Recon	25,000	0	0	0		10-Jul	13-Jul	13-Jul	Recon	
Pitt/Nadina Group ⁴		139,000	41,000	41,000	41,000	Recon	41,000	0	0	0		27-Jul	16-Jul	16-Jul	Recon	
Early Thompson ⁵		22,000	3,000	3,000	3,000	Recon	3,000	0	0	0		28-Jul	27-Jul	27-Jul	Recon	
Summer Run	169,000	611,000	188,000	187,000	189,000	Sum	187,000	1,000	0	0	27-Jul	31-Jul	28-Jul	28-Jul	Recon	
Harrison / Widgeon		169,000	58,000	58,000	58,000	Recon	58,000	0	0	0		24-Jul	21-Jul	15-Jul	26-Jul	Marine Recon
Late Stuart / Stellako		128,000	55,000	55,000	55,000	Recon(2)	55,000	0	0	0		30-Jul	29-Jul	29-Jul	29-Jul	Recon
Chilko/Quesnel/Raft/NT		314,000	75,000	74,000	76,000	Recon(2)	74,000	1,000	0	0		04-Aug	03-Aug	03-Aug	03-Aug	Recon
Late Run	28,000	99,000	14,000	14,000	14,000	Sum	14,000	0	0	0	15-Aug	06-Aug	02-Aug	09-Jul	09-Jul	Weight
Birkenhead Group		96,000	9,000	9,000	9,000	Recon	9,000	0	0	0		06-Aug	04-Aug	04-Aug	04-Aug	Recon
L.Shuswap / Weaver Gr.		3,000	5,000	5,000	5,000	Recon	5,000	0	0	0		07-Aug	30-Jul			Recon

¹ Run timing refers to the date when 50% of the run migrated past the Area 20 reference point.

² 80% Probability Interval: there exists an 80% chance that the true abundance lies within this interval

³ Normally based on test fishery data. Based on Model if Method = Recon(2).

⁴ Pitt / Alouette / Coquitlam / Nadina / Bowron / Gates / Nahatlatch / Taseko

⁵ Early South Thompson / North Barriere.

Methods for run size & timing estimation

Recon	Catch + escapement + 6-day test fish projection + model seaward projection
Recon(2)	Catch + escapement + model projections
Sum	Sum of individual groups
Weight	Weighted average of individual groups
Marine Recon	Reconstruction of CPUE-based marine abundances

2020 Test Fishing Program Expense and Revenue Summary

	Total estimated expense to date ¹	Total revenue to-date ²	Estimated YTD balance	Estimated Expenses to end of season	Estimated Deficit at end of season ³
FRP Approved Test Fishing Programs	\$530,600	\$138,300	\$392,300	\$567,900	\$429,600

¹ Estimated expenses to-date have not been reconciled against actual month-end financial statements and do not project additional year-end test fishing programs expenses. (VMN maintenance etc.)

² Revenues are not final, are based on estimates, and do not include post-season price adjustments.

³ Estimated deficit at end of season does not account for potential revenue from future catches.

Fraser River Panel Regulatory Control Periods for 2020

Canada

Area/Gear	Period Closed Unless Opened by the FRP
	(Extend from a Sunday through a Saturday, both dates inclusive)
20-1, 3 and 4 net	June 28 - September 5
20-1, 3 and 4 troll	June 28 - September 5
17, 18 net	June 28 - October 3
18-1, 4 and 11 troll	June 28 - October 3
29 net	June 28 - October 10
29 troll	June 28 - October 10

United States

Note: the periods of regulatory control are the same for Treaty Indian and All Citizen Fisheries

Area/Gear	Period Closed Unless Opened by the FRP
	(Extend from a Sunday through a Saturday, both dates inclusive)
4B, 5, 6C drift gillnet or purse seine	June 28 - September 5
6, 6A, 7 and 7A net	June 28 - September 12
7A net lying westerly of a straight line drawn from the low water range marker in Boundary Bay on the International Boundary through the east tip of Point Roberts in the State of Washington to the East Point Light on Saturna Island in the Province of British Columbia	September 13 - October 3

Fraser River Sockeye In-season Update – Tuesday, September 1, 2020

The below is a summary. If more specific details are required please refer to the attached Fraser Panel distribution for the call. If you have any questions or notice any errors in the summary please contact me jamie.scroggie@dfo-mpo.gc.ca so I can make adjustments.

Total In-season Catch and Escapement Accounted To-date

2020 Run status of Fraser sockeye salmon

Date: Sep. 1, 2020

Week of: Aug. 30 - Sep. 5, 2020	Sockeye				
	Management Group				Total Fraser
	E.Stuart	E.Summer	Summer	Late	
Mission passage (incls Pitt, Alouette, Coquitlam)	15,900	68,200	183,900	13,400	281,400
Catch downstream of Mission	100	1,100	2,500	100	3,800
Accounted Run To Date	16,000	69,300	186,400	13,500	285,200
Run size adopted in-season ¹	14,000	72,000	169,000	28,000	283,000
Run size forecasted pre-season	13,000	218,000	611,000	99,000	941,000
Area 20 timing adopted in-season	7/Jul	17/Jul	27/Jul	15/Aug	24/Jul
Area 20 timing expected pre-season	4/Jul	24/Jul	31/Jul	6/Aug	30/Jul
Johnstone Str. Diversion Rate	Annual average to date				25%
	Preseason forecast of annual rate:				35%

¹ Run sizes are usually not adopted until after the peak of the run has passed through marine test fishery areas in Juan de Fuca and Johnstone straits.

- Total accounted to date is 285.2k Fraser sockeye of which 16.0k are Early Stuart, 69.3k, Early Summer, 186.4k are Summer run and 13.5k are Late run
- Mission is no longer in operation. The Whonnock test fishery is now being used to estimate daily sockeye passage.

In-season Data Flow

a) Acoustics

- **Qualark:** Daily passage estimates are now dropping but are variable, ~1-2k last 3 days.
- **Mission:** Daily passage estimates at Mission increased slightly, ~2-4k last 3 days.

b) Test fishing catch

- Catches at Whonnock and Qualark are winding down to very low numbers.

c) Stock Proportions

- Stock Id proportions in-river are dominated by Summer run with Late Run increasing.

d) Environmental Conditions and Management Adjustments

- The temperature of the Fraser River at Qualark Creek on Aug 31 was 16.4°C, which is 0.5°C below average for this date.
- The Fraser River water discharge at Hope was 2757 m³/s, which is approximately 9% above average for this date.

e) Big Bar Rock Slide Update

- The majority of fish arriving at Big Bar are now sockeye with the occasional Chinook.
- Fish continue to migrate past the slide naturally.
- 125,576 salmon have been counted at the Churn Creek sonar site (~40 km upstream of the slide). (Counts not yet available for August 22, 23, 30, 31)
- 8,266 salmon have been transported by the Whooshh, but Whooshh transport has slowed down.
- An additional Whooshh tube has been installed that releases salmon 120 metres further upstream.
- 523 salmon have been radio-tagged below the slide.
- At the Cultus lab, 400,000 Early Stuart eggs and 20,000 Bowron eggs have been collected.

f) Observations Throughout the Watershed

- Qualark test fishery catch was inspected for condition. The prevalence of condition issues increased to around 30% which is higher than normal. It could be related to late timing of some stocks but also Chinook non retention fisheries.
- Very few sick fish are being observed in small tributaries in the Mid Fraser River.
- Early Stuart: Small numbers of sockeye continue to have been observed in a few locations. High water levels are preventing crews from conducting traditional surveys.
- Early Summer: 883 Sockeye through the Scotch Creek fence. Over 28k sockeye have been observed in the Upper Chilliwack and are in the peak of spawn. No sockeye have been observed in nadina channel/river but ~15k have been counted at the stellako ARIS system. Many of these will be Nadina.
- Summer: 2.6k past the Chilko Didson, nothing has been reported in assessment areas near the spawning grounds as of yet.
- Lates: 34 Cultus sockeye have been observed through Sweltzer fence, 97 Birkenhead counted past the sonar site.

Reports From Other Areas

- None

Assessments and Recommendations

a) Escapement Projections and Run Size Assessment

- Whonnock test fishery projections are tracking Mission escapements currently. Projecting fewer fish than current daily passage estimates so likely some upside to some estimates.
- *The PSC will recommended the following run size and timing estimates:*
 - *Early Stuart: 16,000 with July 6 A20 timing,*

- *Early Summer: 69,000 with July 15 A20 timing,*
- *Summer: 191,000 with July 28 A20 timing*
- *Late: 14,000 with Aug 17 A20 timing*
- *The Fraser Panel adopted all the PSC recommendations with the exception of the Early Summer run size. Given observations on the spawning grounds for Chilliwack it was thought there could be some upside to the return of this group therefore the Panel chose to stay at the current run size of 72,000.*
- There is no TAC expected in 2020.

Current Fraser River Panel Adopted Values and Potential Harvest (Adopted Changes in Bold)

Management Group	In-season Run Size/ Forecast p50	Timing A20 50% date	Proportional Mngt. Adjust. ^a	Available Harvest ^b	Allowable Harvest ^c
Early Stuart	16,000	Jul 6	.69	0	1,600
Early Summer	72,000	Jul 15	.52	0	7,200
Summer	191,000	Jul 28	.16	0	19,100
Late	14,000	Aug 17	.41	0	1,400

^a Proportional Management Adjustment is multiplied by the escapement target to calculate the numerical management adjustment.

^b Available harvest after deductions. Harvest includes all catch from available TAC in all fisheries in Canada the United States. TAC will be assessed in-season.

^c Allowable harvest in an LAER scenario. Allowable harvest in a no TAC scenario is not a target and would be considered a maximum and includes catch in all fisheries in Canada and the United States and may include fishery induced mortalities. Most harvest in a LAER scenario is incidental harvest in fisheries directed at more abundant stocks or species.

b) Criteria for Fishing Decisions

- None

c) Fishery Recommendations

US Recommendations for Panel Waters:

- None

CA Recommendations for Panel Waters:

- None

d) Fishery Evaluation

- None

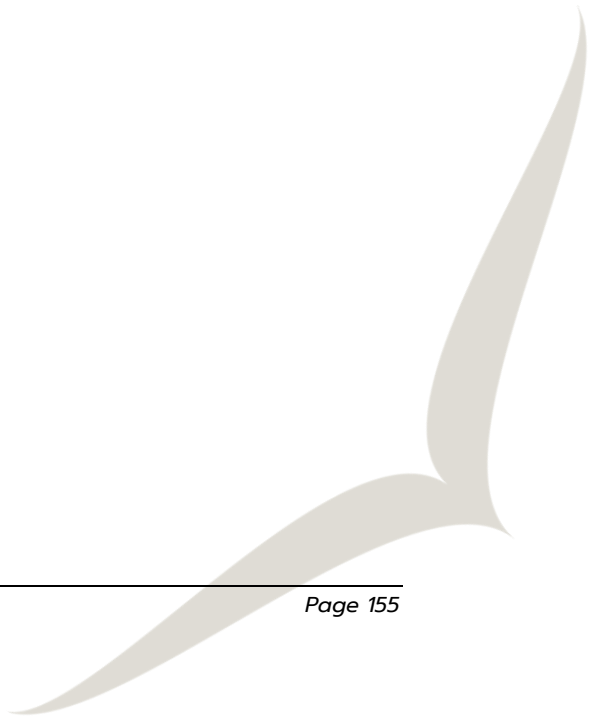
Other Business

- Relinquishment dates were discussed and agreed to as outlined in the distribution.
- Discussion around future test fishery programs in low return years will be discussed post season.

Next Meeting

- In-season Panel meetings are complete for the season. A distribution will be sent out on Friday. The next Panel meeting will be the post season meeting on September 23rd 8:30 am.

APPENDIX E
Correspondence





January 15, 2020

INFORMATION NOTICE

Re: Proposed Changes to the Region 2 Sturgeon Angling Regulations

Introduction

The purpose of this notice is to inform the angling community and other interested parties about proposed changes to the South Coast Region's (Region 2) White Sturgeon angling regulations. Currently, the catch-and-release Lower Fraser White Sturgeon (LFWS) fishery is open year-round with regulated, conservation-based, angling closures limited to a few select high-use spawning areas near Chilliwack (i.e., Herrling, Jespersion's and Seabird Island north side channels) from May 15 to July 31. In order to promote a healthy sturgeon population and maintain this world-class fishery, the Province is considering regulation options to reduce angling impacts to spawning sturgeon. Specifically, we are proposing an expansion of the time-area closure.

Throughout this current year (2020) the Province will consult on a proposed closure of the Region 2 LFWS fishery from **June 1 to June 30**. Any regulation change(s) would become effective April 1, 2021.

This time-area sturgeon fishing closure is proposed to include both tidal and non-tidal portions of Region 2 including all tributaries and side channels. The proposed regulation change would also replace the voluntary closure areas (VCA's) located upstream from the Harrison River; however, the extended closure of the Herrling, Jespersion's and Seabird Island north side-channels from May 15 to July 31 would remain. The tidal portion of the Fraser River are under the management direction of Fisheries and Oceans Canada (DFO) and a time-area closure within this area would require a mirror order by DFO. The Province intends to consult with DFO and tidal anglers throughout 2020.

Rational

White Sturgeon are listed as threatened under COSEWIC, and the lower Fraser River population is currently under review for listing under the Species and Risk Act (SARA). The purpose of this proposed regulation is to provide protection to adult spawning LFWS that would be handled and potentially harmed in the recreational fishery, as well as to protect

sturgeon eggs and larvae which are on or between gravel and cobble substrates. Recent spawning, sidescan sonar and telemetry surveys indicate that spawning activity in the lower Fraser River generally peaks between June 1 and June 30, coinciding with Spring freshet, and spawning fish congregate into small areas making them vulnerable to angling-induced stress. A mirror closure of the tidal portion of the Fraser River would protect migrating fish and prevent large shifts in angler distribution (i.e., non-tidal anglers migrating into tidal areas) which would likely impact angler satisfaction.

This specific change is proposed as an attempt to balance the conservation needs of the species, minimize impacts to the fishery, and ensure regulations are clear and consistent.

Consultation

Angling regulation changes are typically proposed every two years (even years; e.g., 2020). Engagement and consultation occurs throughout the year of proposal with new regulations published in the following year's Freshwater Fishing Regulations Synopsis (e.g., April 2021). As with all proposed regulations, we encourage our stakeholders and interested parties to provide feedback on proposed changes including edits, changes, or alternate proposals that meet the conservation needs of the species and minimize impacts to resource users. For this proposed regulation change we intend to offer opportunities for stakeholders to learn more through public forums, if desired, in addition to annual angling advisory meetings.

Information for public forums will be posted at the below weblink when available. Interested parties can also request further information from the Region 2 Senior Aquatic Biologist, Colin Schwindt at Colin.Schwindt@gov.bc.ca

<https://www2.gov.bc.ca/gov/content/sports-culture/recreation/fishing-hunting/fishing/fishingregulations>



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TSAWWASSEN FIRST NATION

13 October 2020

Colin Schwindt

Region 2 Senior Aquatic Biologist

Ministry of Forest, Lands, Natural Resource Operations and Rural Development

Colin.Schwindt@gov.bc.ca

RE: Proposed Changes to Region 2 Sturgeon Angling Regulations

We write to in response to the 15 January 2020 information notice regarding the *Proposed Changes to the Region 2 Sturgeon Angling Regulations* which requested feedback on the proposed 1 June to 30 June Region 2 LFWS (Lower Fraser White Sturgeon) fishery closure.

TFN supports the proposed closure, but the time interval for the Region 2 LFWS fishery closure should be from 1 May to 15 July to reduce the impact on pre-spawn and spawning Sturgeon.

Acoustic telemetry data shows the highest residency in spawning areas for adult Sturgeon occurs in May and June (Golder 2019). All the confirmed Sturgeon spawning areas are in the gravel reaches, upstream of the Mission Bridge, so it is unlikely closing the river below Mission will have any notable benefit to pre-spawn or spawning Sturgeon. However, closing the entire river for recreational fishing from early May to mid-July would help reduce the redistribution of fishing effort to the Lower Fraser River. Especially, during a time when many Sturgeon migrate to feed on eulachon and other species that are abundant in the lower river and estuary starting in early Spring. This is also notably an important time (May–mid July) for Sturgeon feeding and growing, following the winter when feeding and growth is greatly reduced.

Furthermore, the amount of recreational fishing effort is typically low during from May-July period because of the Spring freshet and the fishery closures to protect Fraser Chinook salmon stocks migrating through the Lower Fraser River; therefore, the impact of LWFS fishery closure from 1 May to 15 July should be relatively low compared to other times in the year.

We thank you for the opportunity to provide feedback and look forward to updates or further engagement on this matter.

Sincerely,

Krystal Lockert

Manager of Natural Resources

Tsawwassen First Nation



March 31st, 2020

VIA E-MAIL

rebecca.reid@dfo-mpo.gc.ca

Regional Director General
Pacific Region
Suite 200-401 Burrard St
Vancouver, British Columbia
V6C 3S4

Dear Rebecca Reid

REQUEST TO AMEND TSAWWASSEN FIRST NATION HARVEST AGREEMENT

Tsawwassen First Nation is formally requesting the amendment of the current Harvest Agreement for the purpose of transferring four purchased 'Category A' Area E (Salmon) Gillnet licenses to 'Category F' Area E (Salmon) Gillnet licenses. As per Provision 50 of the Tsawwassen First Nation Harvest Agreement, a Party may give notice in writing to the other Parties that it wishes to amend this agreement.

The current document identifies Economic Opportunity fisheries for salmon and Commercial Communal crab license opportunities however we are not interested in rolling these licenses into the Economic Opportunity fishery TAC. We are currently interested in creating a new section of the agreement that would allow a transfer from 'Category A' to 'Category F', separate from EO fisheries.

Prior discussions were conducted between TFN Policy & Inter-Governmental Affairs, TFN Natural Resources and the DFO Licensing Division on the issue, and during such discussions DFO Licensing had not identified any complications over adding these gillnet opportunities to an amended Harvest Agreement.

In the license category's current state, we have found it difficult to offer these licenses to the community as communal opportunities as they are vessel-based. The current format as is limits Tsawwassen Government's management abilities over these opportunities as the license must be maintained by the vessel owner via their National Online Licensing System account. If payments are not made by the vessel owner, license opportunities that TFN had purchased can easily fall into auto-retirement, which has nearly happened on one occasion. If the tabs were transferred to a Communal Commercial category,

Tsawwassen Government would have more administrative control over the licenses on its own NOL account.

The licenses also lose length if the next vessel to take on the opportunity is smaller than the last, and the length cannot be regained. This has hindered Tsawwassen's ability to treat these tabs as communal opportunities on a rotational basis. We also face the issue of losing one of our opportunities as one of our Area E licenses doubles as a stacked Area D license. As the Agreement limits our Economic Opportunity and Commercial Communal fishery activities to the TFA, we seemingly have limited options regarding fishery area selections.

We are requesting that these licenses be transferred to a Communal Commercial category, and at the same time we would like to regain any lost length from our original time of purchase to ensure that these tabs can be utilized by our community members for generations to come.

We are also interested in potentially adding two more crab license opportunities into our three remaining slots of the Agreement. However, one of these licenses falls outside of the areas identified within the Agreement. This would limit our ability to fish other commercial areas within Tsawwassen Traditional Territory as the current agreement is limited to the crab license management sections of the Tsawwassen Fishing Area (Area I and Area J). This presents a similar issue to the one we have currently with the Area D gillnet license.

We look forward to your response within the coming weeks, and we also look forward to working with you on this matter in order to benefit our community with viable and more manageable Economic Opportunities.

hay čx^w qə,

Chief Ken Baird (swannəset)
Signed on behalf of Executive Council of Tsawwassen First Nation

Cc: Braden Smith, CAO , Tsawwassen First Nation.
Tsawwassen First Nation Executive Council
Krystal Lockert, Manager of Natural Resources, Tsawwassen First Nation



Fisheries and Oceans
Canada

Regional Director General
Pacific Region
Suite 200 – 401 Burrard Street
Vancouver, British Columbia
V6C 3S4

Pêches et Océans
Canada

Directrice générale régionale
Région du Pacifique
Pièce 200 – 401 rue Burrard
Vancouver C.-B.
V6C 3S4

GCCMS #2020-509-00031

Chief Ken Baird
Tsawwassen First Nation
c/o klockert@tsawwassenfirstnation.com

Dear Chief Baird:

Thank you for your correspondence of April 2, 2020, regarding proposed amendments to Tsawwassen First Nation's Harvest Agreement (TFN HA).

Fisheries and Oceans Canada (DFO) has reviewed your request as per Clause 50 of the TFN HA which states that "at any time, a Party may give notice in writing to the other Parties that it wishes to amend this Agreement". DFO discussed your interests and concerns at the May 7 Joint Fisheries Committee and are prepared to enter into negotiations and "and attempt to reach agreement on the amendment" as stipulated in Clause 51 of the TFN HA.

As such, the department has identified Terri Bonnet as the federal representative to lead the negotiations process on behalf of Canada. We look forward to beginning these discussions and hearing who will be the lead from Tsawwassen First Nation. I appreciate the opportunity to respond to your interests and concerns.

Yours sincerely,

Rebecca Reid
Regional Director General
Pacific Region

Cc

David Didluck- Regional Director, Reconciliation and Partnerships
Terri Bonnet-Area Director, Fraser and Interior Area
Angela Stadel – Senior Negotiator, Aboriginal Negotiations Division
Brian Matts-Resource Manager, Fraser and Interior Area



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TSAWWASSEN FIRST NATION

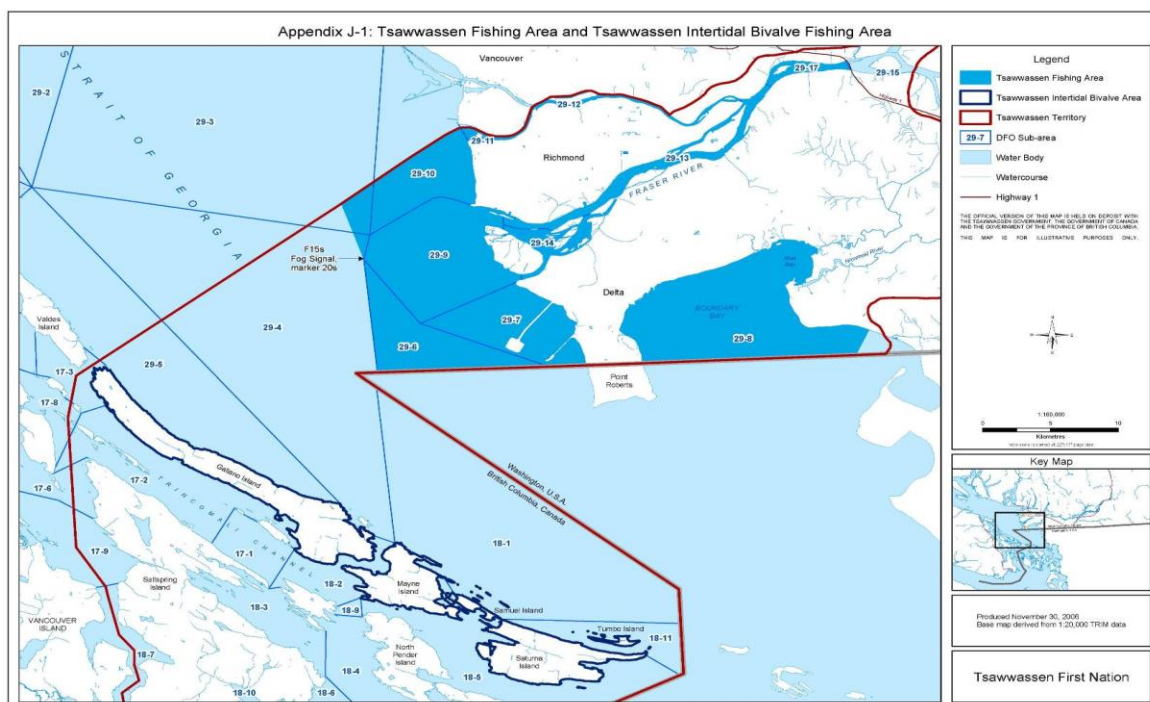
29 April 2020

Joint Fisheries Committee
Fisheries and Oceans Canada | Government of Canada
Ministry of Forests, Lands, Natural Resource Operations and Rural Development (South Coast)
| Province of British Columbia

RE: Retention of mortally wounded Steelhead and Sturgeon in the Food, Social and Ceremonial Fisheries

Tsawwassen First Nation (TFN) writes to request the retention of mortally wounded Steelhead and Sturgeon that are caught as bycatch during the Food, Social and Ceremonial (FSC) fisheries. Directed fisheries for Steelhead and Sturgeon are not permitted within the Tsawwassen Fishing Area (TFA; see Figure 1). If these species are caught as bycatch, they are currently being released as outlined in TFN's harvest agreement.

Figure 1. Map of Tsawwassen First Nation Fishing Area.



TFN members have always been very accomplished fishers, with salmon and sturgeon the mainstays of our traditional diet. That is still the case today even with the increased urbanization within the territory. In fact, because of the urbanization of TFN’s territory, fish is one of the only renewable resources they have access to and as such, it is of vital importance to our community. While TFN understands the need to release all live steelhead and sturgeon bycatch; discarding dead fish is culturally considered wasteful.

TFN has demonstrated that our FSC fisheries are highly selective because in 11 years of annual reporting (Blakley et al. 2009-2019) very few Steelhead have been caught (range 0-4/year; Table 1). Nine of the thirteen Steelhead caught (69%) were caught during the FSC Chum fishery (Table 1). In the future, Steelhead bycatch should be reduced with the IFR Steelhead closure extended to the end of October.

Table 1. Tsawwassen bycatch of Sturgeon and Steelhead in FSC fisheries.

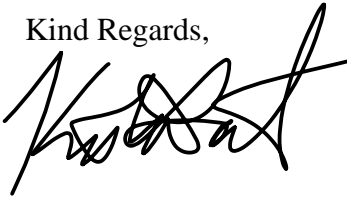
Year	Sturgeon	Steelhead
2009	78	0
2010	72	0
2011	33	1
2012	24	0
2013	40	2
2014	76	3
2015	42	0
2016	18	0
2017	55	4
2018	63	3
2019	11	0
Average	47	1

As compared to Steelhead, a higher amount of Sturgeon have been caught annually as bycatch with an average harvest of 47 (Table 1). However, since 2015 TFN’s annual reports have recorded that all Sturgeon caught in the FSC fisheries have been released alive. Prior to 2015, the status of released fish was not recorded.

It should be noted that at least 20% of TFN’s catch data is required to be validated (i.e. counted) through an interview process. In 2019, the “validated” interviews represented 72% of the total fishing effort for salmon. The data above indicates that TFN’s encounters with Steelhead is very limited. In addition, recent records indicate that all Sturgeon are released alive with negligible injuries. For the most part, this is due to type of gear that is used to catch the fish (drift gillnet) and the overall handling of the fish.

In conclusion, Tsawwassen First Nation would like DFO and the Province to reconsider and update the Harvest Documents to indicate that mortally wounded Sturgeon and Steelhead could be retained as food fish.

Kind Regards,

A handwritten signature in black ink, appearing to read 'Krystal Lockert', written in a cursive style.

Krystal Lockert

Manager, Natural Resources
Tsawwassen First Nation



Fisheries and Oceans
Canada

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V6C 3S4

Pêches et Océans
Canada

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Pièce 200 – 401 rue Burrard
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V6C 3S4

Your file *Votre référence*
Our file *Notre référence*
2020-530-00009

Date: July 16th, 2020

To: Tsawwassen First Nation Joint Fisheries Committee

Via E-mail

Subject: Food, Social and Ceremonial Area Change Requests and Management Approaches in the Lower Fraser River – Area 29 – Summer 2020 Planning Consultation

We are writing to provide an update and seek your views on requests by First Nations not resident near the Fraser River to fish for Fraser River salmon species for food, social and ceremonial (FSC) and treaty domestic purposes, both in-river and in the marine approach areas of Pacific Fisheries Management Area 29. This letter addresses the ongoing requests of the Squamish, Snuneymuxw, and Cowichan Nation Alliance (Cowichan Tribes, Halalt, Penelakut, Stz'uminus) as well as the more recent requests from the Maa-nulth and Tla'amin Treaty First Nations.

The 2020 outlook for Fraser Sockeye is extremely poor. While it is highly unlikely that Fraser Sockeye returns will be sufficient to permit directed Sockeye FSC fisheries to take place, Department of Fisheries and Oceans (DFO) nevertheless has a duty to consult on these requests, in the event that abundance in-season exceeds expectations, and in preparation for fisheries planning in future years, particularly on more abundant returns anticipated in 2022. **Your comments on the interim approach for 2020 are sought by July 31, 2020 however comments on the ongoing issues set out in this letter are sought by October 31, 2020.**

1. Ongoing Requests for Permanent Licence Changes to Include Area 29

As you may recall, six First Nations, including Squamish, Snuneymuxw, and Cowichan Nation Alliance Members (Cowichan Tribes, Halalt, Penelakut, Stz'uminus) have for a number of years sought to fish in Area 29 for FSC purposes, an area outside of their regular FSC licenses. These groups assert Aboriginal and/or Douglas treaty rights to harvest fish in areas including Area 29 and seek accommodation of those rights through

permanent license amendments as summarized in the table below. Please refer to Appendix 1 for a map of Area 29.

First Nation	Current Licence Area	Requested Sub-Areas Sought	Species Access Sought
Squamish	28-2 to 28-4 ¹	29-2, 29-3, 29-4, 29-6, 29-7, 29-9, 29-10, 29-11, 29-12, 29-13, 29-14, 29-17 ²	Fraser Sockeye
Snuneymuxw	17-10, 17-11, 17-12, 17-13, 17-14, 17-15, 17-16, 17-17, 17-21, 17-4	29-9, 29-13, 29-14, 29-15, 29-16, 29-17 and those portions of the Fraser River up to Hope, BC	Fraser salmon stocks
Cowichan Tribes	18-1, 18-10, 18-11, 18-2, 18-3, 18-4, 18-5, 18-6, 18-7, 18-8, 18-9, 29-10, 29-3, 29-4, 29-5, 29-6, 29-7, 29-9	29-9, 29-14 and a portion of sub-area 29-13 downstream of a line drawn due north and due south from the eastern most point of Annacis Island to the Cowichan Nation Alliance bands' permanent fishing areas	All species of salmon and non-salmon species
Halalt First Nation	17-1, 17-17, 17-2, 17-3, 17-4, 17-5, 17-6, 17-7, 17-8, 17-9, 29-5	29-9, 29-14 and a portion of sub-area 29-13 downstream of a line drawn due north and due south from the eastern most point of Annacis Island to the Cowichan Nation Alliance bands' permanent fishing areas	All species of salmon and non-salmon species
Penelakut Tribe	17-1, 17-17, 17-2, 17-3, 17-4, 17-5, 17-6, 17-7, 17-8, 17-9, 29-10, 29-3, 29-4, 29-5, 29-6, 29-7, 29-9	29-9, 29-14 and a portion of sub-area 29-13 downstream of a line drawn due north and due south from the eastern most point of Annacis Island to the Cowichan Nation Alliance bands' permanent fishing areas	All species of salmon and non-salmon species
Stz'uminus First Nation	17-1, 17-17, 17-2, 17-3, 17-4, 17-5, 17-6, 17-7, 17-8, 17-9, 29-5	29-9, 29-14 and a portion of sub-area 29-13 downstream of a line drawn due north and due south from the eastern most point of Annacis Island to the Cowichan	All species of salmon and non-salmon species

¹ Those waters of Howe Sound and Burrard Inlet bounded inside and northerly of a line from Gower Point to the most southerly point of Popham Island, thence to the most westerly point of Worlcombe Island, thence to Cape Roger Curtis on Bowen Island, thence following the southerly shoreline to Point Cowan, thence to Point Atkinson, thence to Point Grey and in the waters of the Squamish River.

² Areas identified in 2015 correspondence. DFO understands Squamish is currently reviewing their request and the access sought may be subject to change.

		Nation Alliance bands' permanent fishing areas	
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Note that these requests **do not include any increases in allocation** for any salmon species; rather these First Nations seek to fish existing allocation amounts in areas not already in their permanent licenses.

Since at least 2014, DFO has sought to engage with First Nations who have Fraser Sockeye allocations, to seek perspectives on how these FSC area changes requests might impact their ability to harvest their FSC allocations. In addition to annual correspondence, discussions have taken place with individual First Nations and aggregate organizations at a bilateral level, and in various Tier 2 settings, including First Nations Forum for Conservation and Harvest Planning and dedicated focus groups (2015-2016). Generally speaking, during those consultations, the Department received the following feedback:

- The Requests would negatively impact and infringe the Aboriginal and treaty rights of resident First Nations to fish in their traditional territories; specifically, Fraser First Nations have expressed concerns about time and space impacts resulting from additional effort for in-river fisheries, should resident Nations' access be limited by reduction, timing or duration of openings, for example. Groups have expressed the view that this would make it more difficult for them to catch their FSC allocations.
- Fraser First Nations are not supportive of expanded Area 29 access unless Fraser First Nations are granted priority access for their FSC fisheries in years of low return and requesting groups seek permission prior to engaging in fishing in the Lower Fraser.
- Concerns regarding the management and enforcement of Fraser River fisheries stemming from additional entrants, and overall fishing pressure.
- Emphasis on the importance of Tier 1 discussions and protocols among First Nations.

In 2015, DFO communicated an interim approach (“2015 Interim Approach”) that permitted the issuance of amendments to the annual communal licenses of some requesting groups to provide an **opportunity for in-river access to a portion of their allocations of Fraser Sockeye, for FSC purposes, in the Lower Fraser River**, subject to the following conservation and manageability requirements:

- There is available Canadian TAC for the management unit of Fraser Sockeye that would be expected to be present during the proposed fishery;
- The area for the amendment is those waters of the Fraser River downstream from a line drawn due north and due south from the QR marker on the easterly point of Kirkland Island, to a line from Garry Point to the northwest tip of Reifel Island. This includes all of sub-area 29-14, and portion of Subareas 29-9 and 29-13;
- Fishing plans will be similar to Lower Fraser First Nations such as short-duration openings and limited participation (i.e., a few hours to a maximum of 24-48

hours, to be determined in-season) and must consider the other multiple fisheries that must be coordinated in the Lower Fraser, as well as allowing passage of fish to the multiple up-river FSC fisheries and spawning areas;

- Licence conditions will be similar to Lower Fraser First Nations and be consistent with the conservation and management requirements of various stocks present during the proposed fishery (provisions regarding by-catch, gear and timing restrictions, monitoring etc.) as identified through consultations by DFO with your First Nation and other Fraser First Nations in the area; and
- DFO is provided with a fishing plan that meets certain operational requirements.

DFO applied the 2015 Interim Approach for 2016, 2017, 2018 and 2019. Due to poor returns, there was limited fishing activity in 2015 and no fishing activity in 2016 and 2017 under this approach. In 2018, the requesting Vancouver Island First Nations were provided opportunities but not all were able to implement fisheries. In 2019 there were no directed Fraser Sockeye fishing opportunities licensed under this Interim Approach due to extremely poor returns.

As you may be aware, the Fraser Sockeye forecast for 2020 suggests very weak returns with a low possibility of Sockeye-directed fisheries (see Appendix 2):

- The 2020 forecast return at p50 is expected to be low (< 1M), similar to 2016 return, and below the cycle line median
- Early Stuart and Late Run spawners are projected to be well below cycle average over entire forecast range; as a result, directed harvest opportunities are unlikely
- Summer Run is forecast to dominate the returns -> 65% of total forecast at p50 (Chilko (27%), Harrison (18%), Stellako (10%)) (Some stocks within the aggregates projected to be low)
- For Early Summer and Summer Runs, directed harvest opportunities are unlikely except at perhaps p75 or above. The majority of production for Early Summers is anticipated to come from lower river stocks.
- There will likely be additional constraints due to management actions for other species (e.g. Southern BC Chinook, Southern Resident Killer Whale, Interior Fraser River Coho, and Interior Fraser River Steelhead)
- In addition there remains ongoing uncertainty regarding the Big Bar rock slide, river discharge over the season, and passage to spawning grounds above the slide, which may require additional management measures.
- For First Nation FSC fisheries, should there be sufficient returns to allow for some limited Sockeye harvest, a sharing plan may be required to enable a fair distribution of impacts between marine and Fraser River First Nations. When FSC fisheries are prosecuted using the Low Abundance Exploitation Rate (LAER), the proportionate license amounts by area (South Coast, Lower Fraser, Middle/ Upper Fraser) are generally used to guide low impact fisheries for other species or stocks.

While at this time it seems unlikely that directed FSC fisheries on Fraser Sockeye will be possible, in the event that Fraser Sockeye returns are sufficient to support FSC fisheries,

DFO’s intention at this time is to **continue to rely on the 2015 Interim Approach subject to conservation and manageability requirements**. We will, however, continue to invite and assess any new information that First Nations wish to provide around Area 29 FSC fisheries access. **Please advise by July 31, 2020 if there are new considerations you wish to bring to the attention of the Department ahead of the 2020 season, which stem from the proposal to apply the 2015 “Interim Approach”**.

2. Requests from Tla’amin and Maa-nulth Treaty First Nations for Area 29 Access

DFO has in recent years received requests from Tla’amin and Maa-nulth to fish their existing treaty Fraser Sockeye allocations outside of the Domestic Fishing Areas identified in their respective Final Agreements. The requests, as well as the Fraser Sockeye allocations, are summarized in the following table:

First Nation	Domestic Fishing Area (PFMA)	Additional Areas Sought	Fraser Sockeye Allocation
Tla’amin	14-12, 14-13, 14-3, 14-6, 15-1, 15-2, 15-3, 15-4, 15-5, 16-1, 16-18, 16-19, 16-2, 16-20, 16-21, 16-22	Marine areas of Area 29 - subareas 29-3 to 29-7, 29-9 and 29-10, depending on gear type.	Chapter 9, Schedule 1, paragraph 12: In any year, the Tla’amin Fish Allocation for Sockeye salmon is: a. A number of Fraser River Sockeye salmon equal to: <ul style="list-style-type: none"> i. When the CTAC for Fraser River Sockeye salmon is less than or equal to 2.0 million, 0.5% of the CTAC for Fraser River Sockeye salmon; or ii. When the CTAC for Fraser River Sockeye salmon is greater than 2.0 million and less than or equal to 6.5 million, 10,000 Fraser River Sockeye salmon plus 0.1% of that portion of the CTAC for Fraser River Sockeye salmon that is greater than 2.0 million and less than or equal to 6.5 million; or iii. When the CTAC for Fraser River Sockeye salmon is greater than 6.5 million, 14,500 Fraser River Sockeye salmon plus 0.048% of that portion of the CTAC for Fraser River Sockeye salmon that is greater than 6.5 million...”
Maa-nulth	121-1, 121-2, 121-3, 123-1, 123-2, 123-3, 123-4, 123-5, 123-6, 123-7, 123-8, 123-9, 124-1, 126-1, 126-2, 126-3, 126-4, 21-0, 23-10, 23-11, 23-2, 23-3, 23-4, 23-5, 23-6,	Marine areas 29-3 to 29-7, 29-10 and that portion of 29-9 seaward of a line from Gary Point to the northwest tip of Reifel Island, depending on gear type. Requests to date have been by seine.	Chapter 10, Schedule 5, paragraph 2(b) “Each year, the Maa-nulth Fish Allocation for Sockeye salmon is... (b) an amount of Fraser river Sockeye salmon equal to 0.13366% of the Fraser River Sockeye Salmon Canadian Total Allowable Catch”

	23-7, 23-8, 23-9, 26-1, 26-10, 26-11, 26-2, 26-3, 26-4, 26-5, 26-6, 26-7, 26-8, 26-9		
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In November 2018, DFO broadly distributed the “Framework for Changes to FSC Fisheries Allocations” (Appendix 3), which sets out the principles, considerations and approach used when reviewing and responding to various FSC requests, including area changes. The Framework is applied in conjunction with relevant DFO policies, guidelines, regulations, and legislation around the management of fisheries. The document does not provide process or guidance around proposals to amend licences enabling fishing outside a Treaty Domestic area. However many of the same considerations would likely apply in assessing the requests made by the Tla’amin and Maa-nulth. DFO is considering these requests in view of its treaty commitments and respecting the processes provided for in the Final Agreements. In the interim, however, DFO anticipates that the following considerations will continue to apply in considering these requests:

- Conservation concerns
- Potential impacts to other Indigenous groups (gathered through consultation)
- Public health/ safety or other valid legislative objectives
- Community needs
- Manageability of the request
- History of fishing in the area/ previous communal license area
- Applicable policies
- Protocol arrangements

In addition, Area 29 access requests have significant operational complexity due to:

- The biology and diversity of Fraser Sockeye stocks and run timing
- Conservation concerns with co-migrating salmon species and bycatch
- The number of Indigenous groups who are already licensed to fish in this area and the need to separate fisheries in time, location, etc.
- Increased effort resulting in cumulative negative impacts on stocks
- The need to plan the fishery so as to provide allocations to all First Nations with Fraser Sockeye FSC allocations further upstream, as downstream/ marine fisheries create “holes” in the availability of Fraser Sockeye further upstream.

DFO is seeking your First Nation’s views on potential adverse impacts of possible licensing decisions that would allow these Treaty groups to fish for their existing Fraser Sockeye allocations within the marine areas of Area 29 as outlined above.

Next Steps

The Department continues to strongly encourage First Nations to work collaboratively among themselves around issues of FSC access with respectful communication and the development of protocols between Nations.

DFO recognizes that the issue of additional FSC access in Area 29 is an ongoing area of concern. In addition, we understand that uncertainty this year around FSC access generally, food security issues associated with COVID-19, uncertainties around management measures for Southern BC Chinook and Interior Fraser steelhead, and the efficacy of efforts to mitigate Big Bar, are creating significant concerns for all First Nations who rely on Fraser salmon stocks. Our intention in sending this correspondence is to restart a conversation not only for this year, but to work together towards a solution responsive to the needs of all groups over the longer term.

DFO recognizes the obstacles to consultation that the current COVID-19 crisis presents and that that in-person meetings will not be possible for some time. We are working with Indigenous groups to determine the preferred mode of engagement—whether phone, email, Webex or conference call—and confirm that flexibility around deadlines will be considered upon request. With this in mind, we are **seeking your feedback on the approach for 2020 by July 31, 2020, and welcome input on the broader issues outlined in this letter by October 31, 2020** .

Please respond to your respective Aboriginal Affairs Advisor:

- Fraser Interior: Linda Stevens (Linda.Stevens@dfo-mpo.gc.ca)
- Lower Fraser: Sheldon Evers (Sheldon.Evers@dfo-mpo.gc.ca)
- South Coast ECVI: Kent Spencer (Kent.Spencer@dfo-mpo.gc.ca)
- South Coast WCVI: Kevin Conley (Kevin.Conley@dfo-mpo.gc.ca)

also copying Heather Owens, A/Regional Manager – Salmon Management (Heather.Owens@dfo-mpo.gc.ca) on your response.

Thank you for your continued and engagement on this matter.

Yours sincerely,

Terri Bonnet
Area Director,
Fraser Interior

Jennifer Nener
Director, Salmon
Management and Client
Services

Linda Higgins
Area Director
South Coast

cc:

Andy Thomson, Regional Director, Fisheries Management
David Didluck, Regional Director, Reconciliation and Partnerships

Encls.

Appendix 1: Pacific Fishery Management Area 29



Appendix 2: 2020 Fraser Sockeye Forecast

Run timing group Stocks	Forecast Model ^a	Probability that Return will be at/or Below Specified Run Size				
		10%	25%	50%	75%	90%
Early Stuart	<i>Ricker(Pi)4/Sibling5</i>	5,000	8,000	13,000	23,000	33,000
Early Summer		72,000	116,000	218,000	469,000	1,098,000
<i>(total excluding miscellaneous)</i>		64,000	93,000	145,000	249,000	435,000
Bowron	<i>Ricker(Pi)</i>	500	900	2,000	3,000	8,000
Upper Barriere (Fennell)	<i>Power4/Sibling5</i>	3,000	5,000	8,000	14,000	25,000
Gates	<i>Larkin4/Sibling5</i>	6,000	9,000	15,000	28,000	47,000
Nadina	<i>PowerJuvFRDpeak4</i> <i>/Sibling5</i>	26,000	42,000	72,000	133,000	245,000
Pitt	<i>Larkin4/Sibling5</i>	27,000	32,000	41,000	57,000	83,000
Scotch	<i>Larkin</i>	1,000	2,000	4,000	8,000	16,000
Seymour	<i>Larkin</i>	800	2,000	3,000	6,000	11,000
Misc (EShu) ^b	<i>R/S</i>	1,000	3,000	7,000	13,000	22,000
Misc (Taseko) ^c	<i>R/S</i>	200	500	900	2,000	2,000
Misc (Chilliwack)	<i>Ricker</i>	5,000	16,000	57,000	191,000	611,000
Misc (Nahatlatch) ^d	<i>R/S</i>	2,000	4,000	8,000	14,000	28,000
Summer		169,000	311,000	611,000	1,231,000	2,376,000
<i>(total excluding miscellaneous)</i>		161,000	290,000	572,000	1,148,000	2,192,000
Chilko	<i>Larkin4/Sibling5</i>	94,000	152,000	256,000	439,000	722,000
Late Stuart	<i>RickerFRDMn4/Sibling5</i>	6,000	14,000	35,000	83,000	178,000
Quesnel	<i>Ricker(Ei)4/Sibling5</i>	800	1,000	2,000	4,000	7,000
Stellako	<i>Larkin4/Sibling5</i>	29,000	50,000	93,000	171,000	308,000
Harrison ^e	<i>Ricker(Ei)Even3</i> <i>/Sibling4</i>	26,000	64,000	168,000	419,000	924,000
Raft ^e	<i>Ricker(PDO)4/Sibling5</i>	5,000	9,000	18,000	32,000	53,000
Misc (N. Thomp. Tribes) ^{e & f}	<i>R/S</i>	500	1,000	2,000	5,000	11,000
Misc (N. Thomp River) ^{e & f}	<i>R/S</i>	8,000	20,000	36,000	77,000	171,000
Misc (Widgeon) ^g	<i>R/S</i>	90	300	700	1,000	2,000
Late		28,000	53,000	99,000	190,000	374,000
<i>(total excluding miscellaneous)</i>		24,000	40,000	71,000	138,000	280,000
Cultus	<i>PowerJuv(Pi)4/Sibling5</i>	500	700	1,000	2,000	4,000
Late Shuswap	<i>RickerCyc4/Sibling5</i>	200	300	600	1,000	2,000
Portage	<i>Larkin</i>	80	200	400	800	2,000
Weaver	<i>Ricker(PDO)4/Sibling5</i>	400	600	1,000	3,000	6,000
Birkenhead	<i>Ricker(Ei)4/Sibling5</i>	23,000	38,000	68,000	131,000	266,000
Misc Harrison/Lillooet ^g	<i>R/S</i>	4,000	13,000	28,000	52,000	94,000
TOTAL SOCKEYE SALMON		274,000	488,000	941,000	1,913,000	3,881,000
<i>(TOTAL excluding miscellaneous)</i>		254,000	431,000	801,000	1,558,000	2,940,000

- See Table 4 for model descriptions
- Misc. Early Shuswap uses Scotch & Seymour R/EFS
- Misc. Taseko uses Chilko R/EFS
- Misc. Nahatlatch uses Early summer-run stocks R/EFS
- Raft, Harrison, Misc. North Thompson stocks moved to Summer run-timing group
- Misc. North Thompson stocks use Raft & Fennel R/EFS
- Misc. Late Run stocks (Harrison Lake down-stream migrants including Big Silver, Cogburn, etc.), and river-type Widgeon use

Appendix 3: Framework For Changes to FSC Fisheries Allocations

1. PURPOSE

The following document outlines the considerations the Department of Fisheries and Oceans (DFO) views as important when managing Food, Social and Ceremonial (FSC) fisheries, and provides a framework on which changes to FSC Fisheries Allocations are assessed.

In the *Sparrow* decision, the Supreme Court of Canada (SCC) found that the Musqueam First Nation has an Aboriginal Right to fish for food, social and ceremonial (FSC) purposes, and this right takes priority, after conservation, over other uses of the resource. In addition to supporting good governance, sound policy, and effective decision-making, Canada has a statutory, contractual and common law obligation to consult with Aboriginal groups when fishing rights might be affected. In part due to response to the SCC decision in *Sparrow*, DFO launched the Aboriginal Fisheries Strategy (AFS) in 1992. Under the AFS harvest opportunities are developed through consultation with First Nations communities, and then authorized via a Communal Licence issued by the Minister of Fisheries and Oceans. As such, the purpose of this framework is to outline the Department of Fisheries and Oceans (DFO) principles, considerations and approach used when reviewing and responding to plans from Indigenous groups to:

- Fish for FSC purposes in areas not previously authorized under a communal licence;
- Change their FSC access or allocations;
- Change types of gear used to fish for FSC purposes;
- Fish for FSC species that may not have been previously harvested under a communal licence;
- Change previous protocols with another Nation(s);
- Approve commercial or recreational fisheries closures to facilitate access to fish for FSC purposes (temporary or permanent).

When an Indigenous group makes any of the above requests, DFO views it as important to both demonstrate our commitment to providing FSC access and to ensure that we discuss the request with the Indigenous group in order to understand the request from the Indigenous group's perspective.

2. SCOPE

This Framework aims to provide increased clarity and transparency regarding the principles, considerations and approach applied prior to the Minister of Fisheries and Oceans issuing licences under the *Aboriginal Communal Fishing Licences Regulations* to Indigenous groups to fish for FSC

purposes. This Framework is to be read in conjunction with relevant DFO policies¹, guidelines², regulations³, and legislation⁴ respecting the management of fisheries.

DFO is in the process of developing a Consultation Strategy to engage Indigenous groups on fisheries access and allocation issues, including FSC.

DFO is interested in hearing views from BC Indigenous groups on how the consultation process could be structured, and exploring the best timing to advance a consultation process on fisheries allocations. DFO looks forward to feedback on this.

In the meantime, this framework reflects DFO's current approach. DFO will likely review this Framework as part of a future consultation process on fisheries access and allocations.

3. PRINCIPLES

DFO's work is guided by the principle that all relations with Indigenous peoples need to be based on the recognition and implementation of their right to self-determination, including the inherent right of self-government; and that DFO recognizes that the honour of the Crown guides the conduct of the Crown in all of its dealings with Indigenous peoples. DFO's working relationship with an Indigenous group to implement a FSC fishery and respond to an allocation proposal are guided by:

- The *Fisheries Act* provides the Minister of Fisheries and Oceans Canada with the legislative authority for the proper management and control of fisheries, the conservation and protection of fish, and regulation of the fishery.
- Conservation is the first priority in all allocation decisions.
- After conservation needs are met, Indigenous groups' food, social and ceremonial (FSC) requirements have first priority in allocation decisions.
- Decisions regarding FSC fisheries should take into account the FSC access of other Indigenous groups on the same stock/species, FSC access for other stocks/species or fisheries in the same region, and minimize overlaps with other First Nations communities' communal licences.
- Access for FSC is an opportunity to harvest, and is not a guarantee of a specific allocation.
- FSC Fisheries are guided by Integrated Fisheries Management Plans.

4. CONSIDERATIONS

The following is a list of some of the considerations that guide DFO when evaluating proposals to change existing Food, Social and Ceremonial (FSC) Fisheries allocations. Other unique considerations may influence the review of the proposal in addition to those proposed below.

¹ *Policy for the Management of Aboriginal Fishing (1993)*, *Allocation Policy for Salmon (1999)*, *Canada's Policy for Conservation of Wild Pacific Salmon (2005)*, etc.

² Guidelines Respecting the Issuance of Licences under the Aboriginal Communal Fishing Licences Regulations (ACFLR) (2002), ESSR Operational Guidelines (2002), etc.

³ *Fishery (General) Regulations*, *Pacific Aquaculture Regulations*, *Pacific Fishery Management Area Regulations*, *Pacific Fishery Regulations*, etc.

⁴ *Oceans Act*, *Species at Risk Act*, *Financial Administration Act*, *Coastal Fisheries Protection Act*, *Canadian Environmental Assessment Act*, etc.

Considerations	Questions and considerations to guide the evaluation	Potential Sources of Information <i>(Information could be provided by DFO or the Indigenous group making the proposal. Information may not be available for each consideration or question).</i>
Community Needs for FSC Fish	<ul style="list-style-type: none"> • What are your community's needs, and how the proposed fishing plan will assist in meeting them? • Are there barriers to accessing FSC Fish, and if so, what are they? • Does your community have a reasonable allocation for FSC purposes? • Are there other practices, customs, and traditions that are relevant in determining your food, social, and ceremonial needs (e.g. social and/or cultural importance of the species, and fishing method)? • Is your community seeking to harvest a fish species that has not been harvested before or recently? 	<ul style="list-style-type: none"> • Community food needs • Reliable catch and effort information - e.g. Catch per unit effort (CPUE) info, catch data, etc. • Community fishing plan • Current access and allocations from communal licences and/or AFS comprehensive fisheries agreement • Relevant information related to fishing practices (current and/or pre-contact) • Information about fishing methods and social or ceremonial needs (e.g. social and/or cultural importance of the species, and fishing method) • Consideration of other fish stocks in the area (all species)
Conservation Concerns	<ul style="list-style-type: none"> • Is there a conservation concern (with target or non-target species) within the proposed area? • How are concerns about conservation defined (in terms of terminal return, harvest rate, exploitation rate, etc.)? • Will approving/not approving the fishing proposal result in a conservation issue as defined? 	<ul style="list-style-type: none"> • Stock assessment where available and relevant, Aboriginal Fisheries Strategy, and/or Guardian/science branch information for all species within the communal licence area (closures, fish availability, conservation concerns, environmental impacts) • The Integrated Fisheries Management Plan (IFMP) or other planning or management decisions rules • Indigenous traditional knowledge/ Traditional Ecological Knowledge
Manageability of the resource	<ul style="list-style-type: none"> • How could the fishery be managed with the proposed access? • What factors affect the fishing success of Indigenous groups in other fisheries in the same geographic area? • Can you share an appropriate Catch Monitoring and reporting 	<ul style="list-style-type: none"> • Management plans or harvest decision rules • Consistency with relevant policies, regulations and/or legislation • Collaborative compliance and enforcement strategies • Catch Monitoring and Reporting Frameworks

Considerations	Questions and considerations to guide the evaluation	Potential Sources of Information <i>(Information could be provided by DFO or the Indigenous group making the proposal. Information may not be available for each consideration or question).</i>
	framework/strategy for this fishery (e.g. catch report, AHMS database report)?	
Public Health and/or Public Safety Concerns or other valid legislative objectives	<ul style="list-style-type: none"> • Is there a public health (e.g. shellfish closure) and/or public safety concern (e.g. navigational restriction) associated with the fishing plan? • Have the appropriate agencies been notified, and approved the fishery where relevant? 	<ul style="list-style-type: none"> • Agencies that may be relevant: Health Canada(e.g. Water quality), BC Center for Disease Control (BCCDC), Canadian Food Inspection Agency (CFIA), and/or Environment and Climate Change Canada (e.g. emergency closures resulting in fish contamination) • Closures identified in an IFMP or through Fisheries Notices
Potential impacts to other Indigenous Groups (Duty to Consult)	<ul style="list-style-type: none"> • Could this affect the fishing or other Indigenous groups? If so, what effect(s) might it have? 	<ul style="list-style-type: none"> • Issues raised in consultation with other Indigenous groups with potential or established rights in the area, and who may be adversely impacted by the change in access⁵ • Joint recommendations from Indigenous groups (e.g. result of First Nation to First Nation meetings and decisions on fisheries access and allocations) • Participation in Treaty and/or Reconciliation process • Statement of Intent (SOI) area(s) • Current allocation of existing species (<i>all species</i>) for Indigenous groups in same area

⁵ As part of DFO's duty to consult, DFO may share information with Indigenous groups who could be impacted by the proposal. Conversely, DFO may share feedback from groups who might be impacted by the proposed access change to those who submitted the proposal.

DFO considers the following criteria when evaluating fisheries closures proposals:

Considerations	Questions to guide the evaluation	Potential Sources of Information
<i>FOR FSC AREA PROPOSALS ONLY</i>	<ul style="list-style-type: none"> • Do you have documentation of previous fisheries licences in this area? • Is there any other information relevant to the proposed plan that you would like to provide? • Could you harvest the species of interest in the proposed area? • Can you provide an overview of your community's history of fishing in the area? 	<ul style="list-style-type: none"> • Statement of Intent (SOI) area(s) • Potential impacts to other Indigenous groups' FSC fisheries access • Communal licence Area • Information such as oral history, records, pictures, maps, protocol arrangements with other First Nations, description of fishing gear (e.g. type and size) and scale (either currently, temporarily, or continuously from pre-contact)
<i>FOR RECREATIONAL & COMMERCIAL CLOSURES ONLY</i>	<ul style="list-style-type: none"> • What is the proposed closure (area, expected harvestable amount)? • Why is the community not able to harvest fish? • Has the Catch per unit of effort (CPUE) changed? • How will this closure remove a barrier to FSC access? • Is your community involved with the commercial fishery for a species that would be affected by the closure? 	<ul style="list-style-type: none"> • Describe the relevant area and associated abundance information if available • Input from DFO-led consultation process with groups involved in commercial or recreational fisheries that would be affected by the proposed change. This may consist of a letter or meeting.

5. APPROACH FOR RESPONDING TO CHANGES TO FOOD, SOCIAL, AND CEREMONIAL ALLOCATIONS

DFO recognizes the significance of fisheries resources to Indigenous groups, and is committed to a responsive and respectful process to make decisions on changes to FSC fishing plans. The following steps outline the process DFO follows:

1. A Chief or other authorized representative of an Indigenous group submits a FSC access change proposal to DFO.
2. Upon receiving the plan, DFO will acknowledge it received it, and will begin a review.
3. DFO and the Indigenous group, who submitted the proposal, will meet to allow both sides to articulate and understand what is important to them in shaping it, and ensure that the next steps, and timelines are clearly understood, and based on service standards.

4. DFO and the Indigenous group will coordinate the exchange of information between the parties, and ensure any relevant and available information and documentation is submitted. Examples of what could be important to include in the proposal are listed above, such as an understanding of current FSC needs, a rationale for additional FSC or area change, recent catch data, etc.
5. DFO consults with other potentially impacted Indigenous groups (e.g. via meetings, letters, etc.).
6. DFO will take into account the information collected, both internally and from other sources, and review and evaluate the proposal based on the previously described considerations. The Indigenous group may undertake the same process.
7. Depending on the implications of the proposal, and the outcome of the review and evaluation, additional engagement with DFO, the Indigenous group who made the proposal and/or other Indigenous groups in the area may need to occur at this point.
DFO will review each consideration as to whether it supports the proposal, is neutral, does not support the proposal or is not applicable. DFO will make a decision that reflects the overall evaluation in the framework above and taking into consideration the indicators and criteria of greatest importance to the proposal.
8. DFO will notify the Indigenous group of the decision.



scəwəθən məsteyəx^w

TSAWWASSEN FIRST NATION

5 October 2020

Terri Bonnet
Area Director, Lower Fraser Area
Fisheries and Oceans Canada | Government of Canada
Terri.bonnet@dfo-mpo.gc.ca

RE: Proposed 2020 Area E Salmon ITQ and TFN Harvest Agreement Fishing Plans for Chum Salmon

We write to in response to the 29 September 2020 JTC discussion regarding the *Proposed 2020 Area E Salmon ITQ and TFN Harvest Agreement (HA) Fishing Plans for Chum salmon*.

We understand that DFO is considering allowing all commercial vessels to fish together starting 2 November 2020 and has requested TFN's feedback regarding this fishing plan. In this letter we articulate TFN's specific concerns regarding the proposal (refer to Tsawwassen Harvest Agreement Provision #45).

As you are aware, the Tsawwassen First Nation has constitutionally protected Treaty Rights to fish domestically within the Tsawwassen First Nation's Fishing Area (TFA). This must be taken into consideration when proposing fishing plans within the TFA or outside the TFA to the extent such plans could affect the Tsawwassen First Nation.

With respect to the specific fishing plans being considered we have the following concerns:

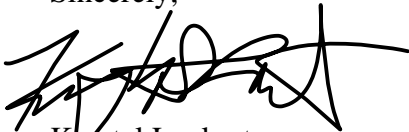
1. In 2020/2021 CSAF submission, circulated at the 18 June 2020 TFN JTC meeting, the proposed Area E ITQ fishing plans were to be posted in a timely manner to ensure the most up to date information was available. At the same meeting, DFO (Dean Allan) indicated that when a solid fishing plan was drafted it would be shared with TFN so they would have plenty of time for further internal discussion. The lack of detailed and timely consultation is completely unacceptable to the Tsawwassen First Nation.
2. If the proposed fishing plan proceeds, the Area E ITQ salmon fishery will likely have a major impact on the Chum available to harvest in the TFN HA fishery. However, if the TFN HA fishery is permitted to start (on 2 November) ahead of the Area E ITQ salmon fishery the harvest from the THA fishery should not impact the Area E ITQ fishery catch because TFN HA fishery is considerably smaller.
3. At the 29 September 2020 TFN JTC meeting, DFO indicated approximately 100 Area E ITQ salmon vessels may participate in the upcoming Chum salmon fishery. TFN is concerned for the

safety of their smaller gillnet vessels amongst the numerous, larger sized Area E ITQ salmon boats.

4. TFN's enforcement patrols would also be affected (i.e. slower and less interaction with fishers) if they had to navigate through increased vessel traffic.
5. Lastly, both the TFN HA and Area E ITQ salmon fisheries have mandatory catch validation requirements, which will include dockside and designated packer landings. TFN is concerned about the availability of landing stations for the two fisheries.

In conclusion, Tsawwassen First Nation has significant concerns with respect to the proposed fishing plans; particularly, because we have not been able to commercially harvest Chum salmon since 2017 due to conservation. Tsawwassen First Nation is entitled to be meaningfully consulted before DFO makes decisions that may affect our Treaty Rights and recommend that these issues be addressed at the next JFC meeting scheduled for 6 October 2020.

Sincerely,



Krystal Lockert
Manager of Natural Resources
Tsawwassen First Nation