FINAL

Tsawwassen First Nation Post-Season Fisheries Report, 2015

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ACRONYMS

The following acronyms 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
FOG	Fisheries Operational Guidelines
FSC	Food, Social, and Ceremonial
HD	Harvest Document(s)
IFMP	Integrated Fisheries Management Plan
JFC	Joint Fisheries Committee
JTC	Joint Technical Committee
LP	limited participation
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 2006), Harvest Documents (HD), Tsawwassen Fisheries Operational Guidelines (FOG; FOG 2009) 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 HD 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 2009−2014 Food, Social, and Ceremonial (FSC) and THA fisheries (Blakley et al. 2010, 2011, 2012, 2013, 2014, 2015). 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 (THA) 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 licences 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 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. The 2013 FOG document is accessible via the TOTC (Treaty Obligation Tracking Centre) website.[1]

2.2 Tsawwassen Annual Fishing Plan

Every year, TFN develops a Tsawwassen Annual Fishing Plan (TAFP) 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 2015, the effective date of the TAFP was 1 April 2015 and carries through to 31 March 2016. 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 and Chinook salmon were prepared in a separate document. Refer to Appendix A for the 2015 TAFPs.

[1] http://wss.marr.gov.bc.ca/PWA/TOTC/default.aspx (access and login required)

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 and Natural Resource Operations 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 2015 for the various species and fisheries (i.e., Sockeye salmon FSC, Crab FSC, Eulachon Ceremonial, 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 a 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, 2013–2015 catch calendars were not 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.

In order 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 similar to 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. Tsawwassen Natural Resource Department staff will follow-up with any fishers that did not comply with the reporting requirements.

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 2015 based on pre-, in-, and final in-season estimates. Tsawwassen First Nation's FSC salmon allocations for Chinook (*O. tshawytscha*), Sockeye, Pink, Coho (*O. kisutch*), and Chum salmon were 625, 15,226, 2,500, 500, and 2,576, respectively. The Chinook, Pink, Chum, and Coho salmon remained constant throughout the 2015 fishing season.

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. In 2015, the pre-season FSC Sockeye salmon allocation was determined to be 15,226 as set out in the TFA (Appendix J-2) and the FOG document (section 9.3.1; Table 9.1). However, in-season, the CTAC estimate changed considerably, reducing the final Sockeye salmon allocation to 2,920 (Appendix D).

For a comparison of TFN's 2015 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 and THA (commercial) salmon fishery openings for 2015, listed by week-ending date. The FSC directed Chinook salmon fisheries began the week ending 3 May and continued through to the week ending 6 September. TFN fishers did not participate in the first three Chinook fisheries that occurred from weeks ending 10–24 May (Table 3.2). The first FSC opening for Chinook salmon in July was a limited participation (LP) fishery with a maximum harvest of 5 fish (HD-LP-411). There were three FSC directed Chinook openings (HD-436, HD-439, and HD-444) which included incidental harvest of Sockeye salmon. The August and September FSC openings for Chinook

salmon (HD-449, HD-452, and HD-455) included harvest of Pink and Coho salmon. There were also two FSC salmon openings directed at Sockeye salmon with the incidental catch of Chinook salmon permitted (week endings 2 August and 9 August). Food, Social, and Ceremonial fisheries directed at Chum salmon with incidental harvest of Chinook, Coho, and Pink salmon began 11 October and ended 18 October.

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 a 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 to indicate 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. The overall FSC harvest of Sockeye salmon was estimated at 2,851; of this catch 81% (2,315) was harvested the week ending 9 August. Total FSC Chinook salmon harvest was reported at 598 with the peak (182 Chinook salmon) occurring during the week ending 6 September. The total Chum salmon harvest in the FSC fisheries was 2,654 and occurred just over one week (10−18 October). The two FSC Chum salmon openings recorded very close to equal harvests (1,340 and 1,308, respectively; Table 3.3). TFN staff closed down the last FSC Chum salmon fishery (HD-470), two hours early, when it was realized they were approaching the total FSC allocation.

There were no directed TFN FSC fishery openings for Coho and Pink salmon or Steelhead. However, 11 wild (unmarked) Coho salmon were kept because they were caught incidentally during the FSC Chum salmon fisheries (Table 3.3). Under the 2015 Tsawwassen FSC salmon licences, both “hatchery-marked” and wild (un-marked) Coho salmon were allowed to be retained. Twenty Pink salmon were incidentally caught during the Sockeye and Chinook salmon FSC openings (HD-445, HD-449, and HD-452). There were no Steelhead kept for food fish during any of the TFN FSC fishery openings (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 755 hours. The highest fishing effort (129 hours) was recorded the week ending 9 August during the second FSC Sockeye salmon opening (HD-445).

Table 3.4 summarizes Tsawwassen’s FSC salmon catch and effort for interviews only. To further clarify, Table 3.4 has been categorized by “interview” data versus “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 or 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 35% 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, Sockeye, Pink and Chum salmon, 47%, 55%, 30% and 21%, respectively), but not achieved for Coho (0%; Table 3.4). There were no directed fisheries for Coho

salmon so the encounter rate was very low; therefore, the 20% validation rate was not achieved. There was no recorded harvest of Steelhead so no validation percentage could be calculated.

Table 3.4 also compares the catch-per-effort (CPE) by species for interview data versus non-interviewed data. The average CPE for Chinook salmon was higher for the interview data (0.95 Chinook/h) than the non-interviewed data (0.52 Chinook/h). Similarly, the average Sockeye salmon CPE from interviewed fishers (4.66 Sockeye/h) was higher than that for non-interviewed fishers (2.23 Sockeye/h). The survey results for FSC Chum salmon fisheries were also similar to those of Sockeye and Chinook salmon. The average Chum salmon CPE for the interviewed fishers during the October Chum salmon fisheries (14.99 Chum/h, n=564) was slightly higher than that for non-interviewed fishers (13.93 Chum/h). The most likely reason for the higher catch rate for the 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 for Pink and Coho salmon and Steelhead 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 2015. Total release catch for sturgeon, Steelhead, Pink, Coho, Sockeye, Chinook, and Chum salmon were 42, 0, 4, 0, 31, 2, and 2, respectively. Over 71% (30) of the sturgeon releases were caught between the week endings 26 July–9 August during the directed Sockeye salmon FSC fisheries.

Table 3.6 further details Tsawwassen FSC releases of sturgeon by fishing location. There was a total of 42 sturgeon released from June to September, with the highest number (20) of sturgeon caught during the week ending 9 August in the Steveston-Pattullo location (T4; Stat Area 29-13).

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 27, 69, 2,480, and 489 for Chinook, Sockeye, Pink, and Coho salmon, respectively. No carry forward is proposed for above salmon species because Tsawwassen fishing efforts were less than that required to harvest the TFN allocations for all species.

For FSC Chum salmon, TFN harvested 78 more fish than their defined allocation of 2,576 fish (Table 3.7).

3.6 Recommendations

The following are recommendations for the 2016 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 2015, all directed FSC fisheries recorded over a 20% validation rate.
- Continue to improve coded wire tag (CWT) sampling protocol for Chinook and Coho salmon. No adipose-clipped Chinook or Coho salmon were recorded as harvested in 2015.
- 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., by 6 PM on Wednesday for TFN fisheries that typically start at 6 PM on Friday).

4 SALMON THA FISHERIES

4.1 Allocations

In 2015, Tsawwassen First Nation was authorized to sell 3,700 Pink and 9,714 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 licences issued to TFN for Sockeye salmon, in 2015.

4.2 Fishery Openings and Target Species

Tsawwassen First Nation was involved in two THA fisheries (HD-473 and HD-476) during the week ending 25 October (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 “wild” Coho salmon, Steelhead, and sturgeon, to the water alive and unharmed. The main gear type for the Chum salmon THA fisheries were drift nets.

TFN was only able to harvest 80% (7,792) of the 9,714 allocated during the two THA fishery openings (Table 4.1). Approximately, 99% (7,707) of the total harvest was sold to packers and the remaining 1% (85) of the Chum salmon were taken home (kept) by the individual TFN fishers (Table 4.1).

The Chum salmon allocation not harvested during the THA fishery (1,922) was transferred up-river to the Harrison Fisheries Authority (Sts'ailes and Scowlitz) and it was caught in its entirety (Table 4.1).

DFO issued no THA licences for Pink salmon. TFN's entire THA Pink salmon allocation (3,700) was transferred upriver to Chehalis First Nation. Chehalis First Nation harvested 95% (3,516) of the total Pink salmon allocated to TFN.

Catch from all of these THA fisheries were estimated using a Mandatory Landing Program in which fishers' catch were enumerated at landing sites throughout the fishing area.

4.3 Released Catch

Table 4.1 summarizes the number of fish reported as released from the THA fisheries. The only species recorded as released was 11 Coho salmon (Table 4.1).

4.4 Recommendations

The following are recommendations for the 2016 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.
- Improve the in-season reporting parameters of THA transfer fisheries. In 2015, summaries of the transfer fisheries occurred post-season.

5 CRAB FISHERIES

5.1 FSC Openings, Catch, and Effort

There were four licences issued for TFN FSC crab harvest which spanned the time period from 1 January to 31 December 2015, targeting Dungeness (*Metacarcinus magister*)[2], Graceful (*M. gracilis*)[3], 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 2015.

Table 5.2 summarizes the FSC crab catch and effort by licence. Overall, there were a total of 56,423 Dungeness crab kept, 45,721 Dungeness crab released, and 35 Red rock crabs released under the four licences. Approximately, 46% (25,972) of the total Dungeness crab were harvested under the HD-403 licence from April to June. However, HD-434 (July to September) recorded the highest amount of fishing effort 48,504 trap-days and caught 19,663 Dungeness crab. In contrast, fishers active during the January to March period (licence HD-400) harvested 5,945 Dungeness crab and reported 25,276 trap-days of fishing effort.

For another perspective, Table 5.3 breaks down the total Dungeness and Red rock crab harvest, releases and effort by month rather than licence. The month of May recorded the highest Dungeness crab harvest (11,005) and fishing effort (9,896 trap-days), whereas, October had the lowest recorded harvest (1,415). September and October were the only months where Red rock crabs (35) were harvested and subsequently released. Inclement weather probably played a factor for the low harvest in October

[2] *Metacarcinus magister*, formally *Cancer magister*, is accepted as the current taxonomic name for Dungeness Crab (Davie 2015b; Schram and Ng 2012).
[3] *Metacarcinus gracilis*, formally *Cancer gracilis*, is accepted as the current taxonomic name for Graceful Crab (Davie 2015a).

through December. Soft-shell crab would account for a high portion of the releases in March–May. Most of the releases in other months were crabs smaller than the minimum size limit.

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 22% was achieved for Dungeness crab.

Table 5.4 summarizes by month, the number of crab surveys conducted from January to December 2015. On average, the TFN Fisheries Department staff completed 152 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 (February to October), 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 2015, 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, well in advance of larger events, such as Aboriginal Day or Elder Gatherings. 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.

5.2 Commercial Openings, Catch, and Effort

In 2015, 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. These fishers are required to report their catch directly to DFO managers on a monthly basis.

5.3 Recommendations

The following are recommendations for the 2016 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 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 2016 and forward any pertinent issues to the JTC.

6 OTHER FISHERIES

6.1 Eulachon

The Integrated Fisheries Management Plan (IFMP) for Eulachon (*Thaleichthys pacificus*) indicates: "Due to conservation concerns, only very limited Fraser ceremonial fisheries for Eulachon will be considered in 2015." The 2015 pre-season Eulachon allocation target for Tsawwassen First Nation was approximately 217 lb. Four Eulachon ceremonial licences were issued (11 April, 18 April, 26 April, and 1 May) and all were 6 hours or less in duration (Table 6.1). Table 6.2 indicates a total of 61 lb. of Eulachon were harvested during the three ceremonial openings in April and May. TFN fishers did not participate in HD-LP-407 that was issued for the week ending 26 April. The total combined fishing effort spanning the 3 Eulachon openings was just over 3 hours. Eighteen suckers, 2 flounder, and 65 Bullhead sculpins and/or herring were also caught and released as bycatch during the Eulachon fisheries (Table 6.2).

6.2 Recommendations

The following are recommendations for the 2016 FSC Eulachon fishing season:

- Due to the lack of stock assessment information for Eulachon, TFN is interested in either initiating or participating in an on-going study for Eulachon.
- 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 2015 by TFN; therefore, no harvest of bivalves took place. Tsawwassen First Nation is continuing their consultations with, the Hul'qumi'num Treaty Group and other First Nations to discuss terms and conditions governing the harvest of intertidal bivalves where the Tsawwassen Intertidal Bivalve Fishing Area overlaps the traditional territories for other First Nations.

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 2015 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 no HD licences requested for groundfish, and no TFN FSC harvest of these species occurred in 2015.

TFN submitted an initial groundfish proposal to DFO last spring (15 March 2015). The objective of the proposal is to demonstrate that long line and rod and reel gear can be used by Tsawwassen fishers within the Area 29 portion of Tsawwassen Territory to harvest FSC groundfish. The proposal has gone through several reviews and iterations and it is currently awaiting final approval.

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 Seafood Safety and Quality Unit of the BC Ministry of Agriculture. There is no recorded harvest of marine plants by TFN fishers in 2015 because no HD was requested.

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 seven year period, the total FSC harvest for Chinook salmon ranged from 338 to 995. Tsawwassen First Nation's FSC Chinook salmon "maximum" allocation remained constant at 625, except in 2009 when DFO approved a "special circumstances" 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. DFO 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 will carry forward is the Chum salmon overage of 78 fish (Table 7.1).

Since 2009, the total FSC harvest for Sockeye salmon ranged from 1,132 to 15,226 (2009 and 2010, respectively; Table 7.1). The Sockeye salmon FSC allocation varies depending on run size, averaging 8,224 over the last seven years. Other salmon in the FSC fisheries harvested from 2009 to 2015 ranged from 2 to 84 (Pink salmon), 3 to 220 (Coho salmon), and 1,320 to 3,495 (Chum salmon). The allocations for Pink, Coho, and Chum salmon remained constant over the seven-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 seven year period (2009–2015) was 33,066 and ranged from 20,327 in 2011 to 56,423 in 2015 (Table 7.2). The increase in crab catch over the years is due an increase in the number of active crab fishers from 6 to 12. The number of Dungeness crab released due to size, sex, or soft-shell has remained fairly consistent since 2009, averaging approximately 20,000 crabs per year. In addition, Red rock crabs have also been harvested for FSC purposes, but have subsequently been released; except in 2010, when two Red rock crabs were recorded as kept.

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THA. 2006. Tsawwassen First Nation Harvest Agreement signed by Canada, British Columbia and the Tsawwassen First Nation in December 2006. 12 p.

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TABLES

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Table 3.1 Tsawwassen FSC salmon fishery allocations (in pieces), 2015.

Season	Chinook	Sockeye[1,2]	Pink	Coho	Chum
Pre-season	625	15,226	2,500	500	2,576
In-season	625	4,013	2,500	500	2,576
Final in-season	625	2,920	2,500	500	2,576

[1] See Appendix D for Fraser River Status Reports.

[2] The final in-season Sockeye salmon allocation is based on the CTAC estimate.

Table 3.2. Tsawwassen FSC and THA salmon fishery openings by date, gear type, and target species, 2015.

Weekend date	Licence #	Fishery type	Target species	Opening Date and time	Closing Date and time	Gear type(s)
03-May-15	LFA-15-HD-409	FSC - Communal	Chinook salmon	02-May 12:00	03-May 12:00	Drift net, set net
10-May-15	LFA-15-HD-412	FSC - Communal	Chinook salmon	09-May 12:00	10-May 12:00	Drift net, set net
24-May-15	LFA-15-HD-414	FSC - Communal	Chinook salmon	23-May 12:00	24-May 12:00	Drift net, set net
07-Jun-15	LFA-15-HD-418	FSC - Communal	Chinook salmon	06-Jun 18:00	07-Jun 18:00	Drift net, set net
14-Jun-15	LFA-15-HD-421	FSC - Communal	Chinook salmon	13-Jun 12:00	14-Jun 12:00	Drift net, set net
21-Jun-15	LFA-15-HD-426	FSC - Communal	Chinook salmon	20-Jun 08:00	21-Jun 20:00	Drift net, set net
28-Jun-15	LFA-15-HD-429	FSC - Communal	Chinook salmon	27-Jun 08:00	28-Jun 20:00	Drift net, set net
26-Jul-15	LFA-15-HD-LP-411	FSC - Communal	Chinook salmon (limit of 5)	25-Jul 14:00	25-Jul 20:00	Drift net
02-Aug-15	LFA-15-HD-436	FSC - Communal	Chinook salmon with incidental harvest of Sockeye and Pink salmon	27-Jul 08:00	27-Jul 20:00	Drift net, set net
02-Aug-15	LFA-15-HD-436	FSC - Communal	Chinook salmon with incidental harvest of Sockeye and Pink salmon	28-Jul 08:00	28-Jul 20:00	Drift net, set net
02-Aug-15	LFA-15-HD-439	FSC - Communal	Chinook salmon with incidental harvest of Sockeye salmon	31-Jul 06:00	31-Jul 21:00	Drift net, set net
02-Aug-15	LFA-15-HD-440	FSC - Communal	Sockeye salmon and incidental harvest of Chinook salmon	01-Aug 10:00	01-Aug 22:00	Drift net, set net
09-Aug-15	LFA-15-HD-439	FSC - Communal	Chinook salmon with incidental harvest of Sockeye salmon	02-Aug 12:00	03-Aug 12:00	Drift net, set net
09-Aug-15	LFA-15-HD-445	FSC - Communal	Sockeye salmon and incidental harvest of Chinook salmon	08-Aug 08:00	08-Aug 20:00	Drift net, set net
16-Aug-15	LFA-15-HD-444	FSC - Communal	Chinook salmon with incidental harvest of Sockeye salmon	10-Aug 08:00	11-Aug 08:00	Drift net, set net
23-Aug-15	LFA-15-HD-449	FSC - Communal	Chinook salmon with incidental harvest of Pink and Coho salmon	22-Aug 07:00	22-Aug 19:00	Drift net, set net
23-Aug-15	LFA-15-HD-449	FSC - Communal	Chinook salmon with incidental harvest of Pink and Coho salmon	23-Aug 07:00	23-Aug 19:00	Drift net, set net
30-Aug-15	LFA-15-HD-452	FSC - Communal	Chinook salmon with incidental harvest of Pink and Coho salmon	29-Aug 08:00	29-Aug 20:00	Drift net, set net
30-Aug-15	LFA-15-HD-452	FSC - Communal	Chinook salmon with incidental harvest of Pink and Coho salmon	30-Aug 08:00	30-Aug 20:00	Drift net, set net
06-Sep-15	LFA-15-HD-455	FSC - Communal	Chinook salmon with incidental harvest of Pink and Coho salmon	05-Sep 07:00	05-Sep 19:00	Drift net, set net
06-Sep-15	LFA-15-HD-455	FSC - Communal	Chinook salmon with incidental harvest of Pink and Coho salmon	06-Sep 07:00	06-Sep 19:00	Drift net, set net
11-Oct-15	LFA-15-HD-468	FSC - Communal	Chum salmon and incidental harvest of Chinook, Pink, and Coho salmon	10-Oct 08:00	11-Oct 20:00	Drift net, set net
18-Oct-15	LFA-15-HD-470	FSC - Communal	Chum salmon and incidental harvest of Chinook, Pink, and Coho salmon	17-Oct 09:00	17-Oct 17:00	Drift net, set net
18-Oct-15	LFA-15-HD-470	FSC - Communal	Chum salmon and incidental harvest of Chinook, Pink, and Coho salmon	18-Oct 09:00	18-Oct 17:00	Drift net, set net
25-Oct-15	LFA-15-HD-473	Tsawwassen Harvest Agreement	Chum salmon and incidental harvest hatchery-marked Coho salmon	22-Oct 07:00	22-Oct 19:00	Drift net, set net
25-Oct-15	LFA-15-HD-476	Tsawwassen Harvest Agreement	Chum salmon and incidental harvest hatchery-marked Coho salmon	25-Oct 07:00	25-Oct 19:00	Drift net, set net

Table 3.3. Summary of Tsawwassen FSC salmon catch and effort, 2015.

			Tsawwassen catch (kept)						
Weekend date	Licence #	Vessel (h)	Chinook	Adipose-clipped Chinook	Sockeye	Pink	Coho	Adipose-clipped Coho	Chum
03-May-15	LFA-15-HD-409		No TFN fishers participated in this fishery						
10-May-15	LFA-15-HD-412		No TFN fishers participated in this fishery						
24-May-15	LFA-15-HD-414		No TFN fishers participated in this fishery						
07-Jun-15	LFA-15-HD-418	3.0	0	0	0	0	0	0	0
14-Jun-15	LFA-15-HD-421	6.5	1	0	0	0	0	0	0
21-Jun-15	LFA-15-HD-426	0.8	0	0	0	0	0	0	0
28-Jun-15	LFA-15-HD-429	9.9	8	0	0	0	0	0	0
26-Jul-15	LFA-15-HD-LP-411	5.0	5	0	0	0	0	0	0
02-Aug-15	LFA-15-HD-436	77.5	41	0	10	0	0	0	0
02-Aug-15	LFA-15-HD-439	8.5	3	0	2	0	0	0	0
02-Aug-15	LFA-15-HD-440	51.1	12	0	515	0	0	0	0
09-Aug-15	LFA-15-HD-439	4.0	0	0	0	0	0	0	0
09-Aug-15	LFA-15-HD-445	129.1	38	0	2,315	13	0	0	0
16-Aug-15	LFA-15-HD-444	36.5	16	0	9	0	0	0	0
23-Aug-15	LFA-15-HD-449	77.5	147	0	0	2	0	0	0
30-Aug-15	LFA-15-HD-452	84.3	129	0	0	5	0	0	4
06-Sep-15	LFA-15-HD-455	76.5	182	0	0	0	0	0	2
11-Oct-15	LFA-15-HD-468	88.7	13	0	0	0	4	0	1,340
18-Oct-15	LFA-15-HD-470	95.9	3	0	0	0	7	0	1,308
Totals		**754.8**	**598**	**0**	**2,851**	**20**	**11**	**0**	**2,654**

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).

			Tsawwassen catch (kept)							
Weekend date[1]	Licence #	Vessel (h)	Chinook	Adipose-clipped Chinook	Sockeye	Pink	Coho	Adipose-clipped Coho	Chum	Steelhead
03-May-15	LFA-15-HD-409	-	-	-	-	-	-	-	-	-
10-May-15	LFA-15-HD-412	-	-	-	-	-	-	-	-	-
24-May-15	LFA-15-HD-414	-	-	-	-	-	-	-	-	-
07-Jun-15	LFA-15-HD-418	0.0	0	0	0	0	0	0	0	0
14-Jun-15	LFA-15-HD-421	5.0	1	0	0	0	0	0	0	0
21-Jun-15	LFA-15-HD-426	0.8	0	0	0	0	0	0	0	0
28-Jun-15	LFA-15-HD-429	1.0	1	0	0	0	0	0	0	0
26-Jul-15	LFA-15-HD-LP-411	5.0	5	0	0	0	0	0	0	0
02-Aug-15	LFA-15-HD-436	52.5	37	0	10	0	0	0	0	0
02-Aug-15	LFA-15-HD-439	8.5	3	0	2	0	0	0	0	0
02-Aug-15	LFA-15-HD-440	43.6	7	0	457	0	0	0	0	0
09-Aug-15	LFA-15-HD-439	0.0	0	0	0	0	0	0	0	0
09-Aug-15	LFA-15-HD-445	97.2	24	0	1,764	5	0	0	0	0
16-Aug-15	LFA-15-HD-444	16.5	8	0	4	0	0	0	0	0
23-Aug-15	LFA-15-HD-449	66.0	115	0	0	2	0	0	0	0
30-Aug-15	LFA-15-HD-452	55.0	116	0	0	2	0	0	3	0
06-Sep-15	LFA-15-HD-455	50.7	132	0	0	0	0	0	2	0
11-Oct-15	LFA-15-HD-468	39.7	6	0	0	0	2	0	620	0
18-Oct-15	LFA-15-HD-470	38.5	0	0	0	0	0	0	553	0
Total (interviews)		480	455	0	2,237	9	2	0	1,178	0
Total (non-interviews)		275	143	0	614	11	9	0	1,476	0
Grand total		755	598	0	2,851	20	11	0	2,654	0
Total catch interviewed		64%	76%	0%	78%	45%	18%	0%	44%	N/A
Total catch counted (100%)		264	280	0	1,570	6	0	0	564	0
% of catch counted (100%)		35%	47%	0%	55%	30%	0%	0%	21%	N/A
Catch-per-effort (CPE) for all interview data										
Interview data only			0.95	0.00	4.66	0.02	0.00	0.00	14.99	0.00
Non-interview data only			0.52	0.00	2.23	0.04	0.03	0.00	13.93	0.00
Catch-per-effort (CPE) for validated interview data										
Validated data only			1.06	0.00	5.95	0.02	0.00	0.00	17.18	0.00

[1] Chum salmon CPE calculated using October fisheries only.

Table 3.5. Tsawwassen bycatch from the FSC salmon fisheries, 2015.

			Released						
Weekend date	Licence #	Vessel (h)	Sturgeon	Steelhead	Pink	Coho	Sockeye	Chinook	Chum
03-May-15	LFA-15-HD-409		No TFN fishers participated in this fishery						
10-May-15	LFA-15-HD-412		No TFN fishers participated in this fishery						
24-May-15	LFA-15-HD-414		No TFN fishers participated in this fishery						
07-Jun-15	LFA-15-HD-418	3.0	0	0	0	0	0	0	0
14-Jun-15	LFA-15-HD-421	6.5	1	0	0	0	0	0	0
21-Jun-15	LFA-15-HD-426	0.8	0	0	0	0	0	0	0
28-Jun-15	LFA-15-HD-429	9.9	3	0	0	0	0	0	0
26-Jul-15	LFA-15-HD-LP-411	5.0	0	0	0	0	1	0	0
02-Aug-15	LFA-15-HD-436	77.5	9	0	0	0	0	0	0
02-Aug-15	LFA-15-HD-439	8.5	0	0	0	0	0	0	0
02-Aug-15	LFA-15-HD-440	51.1	1	0	0	0	0	1	0
09-Aug-15	LFA-15-HD-439	4.0	0	0	0	0	0	0	0
09-Aug-15	LFA-15-HD-445	129.1	20	0	0	0	0	0	0
16-Aug-15	LFA-15-HD-444	36.5	2	0	0	0	0	0	0
23-Aug-15	LFA-15-HD-449	77.5	1	0	1	0	21	1	0
30-Aug-15	LFA-15-HD-452	84.3	4	0	1	0	8	0	1
06-Sep-15	LFA-15-HD-455	76.5	1	0	2	0	1	0	1
11-Oct-15	LFA-15-HD-468	88.7	0	0	0	0	0	0	0
18-Oct-15	LFA-15-HD-470	95.9	0	0	0	0	0	0	0
Totals		**754.8**	**42**	**0**	**4**	**0**	**31**	**2**	**2**

Table 3.6. Tsawwassen FSC releases of sturgeon (bycatch) by date and location, 2015.

Weekend date	Locations[1]					Totals
	T1	T2	T3	T4	T5	
03-May-15	-	-	-	-	-	0
10-May-15	-	-	-	-	-	0
24-May-15	-	-	-	-	-	0
07-Jun-15	-	-	-	-	-	0
14-Jun-15	-	-	-	1	-	1
21-Jun-15	-	-	-	-	-	0
28-Jun-15	-	-	-	3	-	3
26-Jul-15	-	-	-	-	-	0
02-Aug-15	-	-	-	1	9	10
09-Aug-15	-	-	-	20	-	20
16-Aug-15	-	-	-	1	1	2
23-Aug-15	-	-	-	1	-	1
30-Aug-15	-	-	-	1	3	4
06-Sep-15	-	-	-	1	-	1
11-Oct-15	-	-	-	-	-	-
18-Oct-15	-	-	-	-	-	-
Totals[2]	**0**	**0**	**0**	**29**	**13**	**42**

[1] 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).

[2] All sturgeon were released alive.

Table 3.7. Tsawwassen FSC salmon overages and underages based on 2015 allocation.

	Chinook	Sockeye[1]	Pink	Coho[1]	Chum[2]
Annual allocations	625	2,920	2,500	500	2,576
Previous carry forward	-	-	-	-	-
Total allocation:	625	2,920	2,500	500	2,576
Total catch	598	2,851	20	11	2,654
Fish provided to TFN	-	-	-	-	-
Total catch:	598	2,851	20	11	2,654
Balance:	27	69	2,480	489	-78
Carry forward:	-	-	-	-	-78

[1] Underage not carried forward due to limited Tsawwassen harvesting effort.

[2] 78 Chum salmon overage

Table 4.1. Tsawwassen Catch Summary for THA salmon fisheries, 2015.

			Kept							**Sold**				**Total retained**				**Released**						
Weekend date	Licence #	Effort (h)	Chinook	Adipose-clipped Chinook	Sockeye	Pink	Coho	Chum	Sockeye	Chinook	Chum	Pink	Sockeye	Chinook	Chum	Pink	Sturgeon	Steelhead	Chinook	Sockeye	Pink	Coho	Chum
25-Oct-15	LFA-15-HD-473	134.8	0	0	0	0	0	65	0	0	3,839	0	0	0	3,904	0	0	0	0	0	0	3	0
25-Oct-15	LFA-15-HD-476	103.6	0	0	0	0	0	20	0	0	3,868	0	0	0	3,888	0	0	0	0	0	0	8	0
Totals		**238.4**	**0**	**0**	**0**	**0**	**0**	**85**	**0**	**0**	**7,707**	**0**	**0**	**0**	**7,792**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**
Total TFN in-season allocation															**9,714**	**3,700**							
Total TFN harvest															**7,792**	**0**							
Remaining after TFN harvest															**1,922**	**3,700**							
Allocation transferred upstream															**1,922**	**3,700**							
Remaining after transfer															**0**	**184**							

Table 5.1. Tsawwassen FSC crab fishery openings by target species, date, and gear type, 2015.

Licence #	Fishery type	Target species[1]	Opening	Closing	Gear type(s)
			Date and time	Date and time	
LFA-15-HD-400	FSC - Communal	Crab	01-Jan 00:01	31-Mar 23:59	Handpicking, dip net, ring net, traps
LFA-15-HD-403	FSC - Communal	Crab	01-Apr 00:01	30-Jun 23:59	Handpicking, dip net, ring net, traps
LFA-15-HD-434	FSC - Communal	Crab	01-Jul 00:01	30-Sep 23:59	Handpicking, dip net, ring net, traps
LFA-15-HD-466	FSC - Communal	Crab	01-Oct 00:01	31-Dec 23:59	Handpicking, dip net, ring net, traps

[1] Crab species include Dungeness, Graceful, and Red rock crabs.

Table 5.2. Tsawwassen FSC Dungeness and Red rock crab catch and effort by licence, 2015.

		Dungeness crab		Red rock crab			
Licence#	Date	Kept	Released	Kept	Released	Effort (h)	Trap-days
LFA-15-HD-400	1 Jan - 31 Mar	5,945	9,051	0	0	15,390	25,276
LFA-15-HD-403	1 Apr - 30 Jun	25,972	18,770	0	0	21,697	36,278
LFA-15-HD-434	1 Jul - 30 Sep	19,663	11,577	0	20	25,657	48,504
LFA-15-HD-466	1 Oct - 31 Dec	4,843	6,323	0	15	16,510	29,778
Totals		**56,423**	**45,721**	**0**	**35**	**79,254**	**139,835**

Table 5.3. Tsawwassen FSC Dungeness and Red rock crab catch and effort by month, 2015.

		Dungeness crab		Red rock crab				Validated Dungeness crab	
Licence #	Month	Kept	Released	Kept	Released	Effort (h)	Trap-days	Kept[1]	% counted
LFA-15-HD-400	January	1,982	1,858	0	0	6,096	11,885	400	20
	February	1,680	2,396	0	0	4,128	7,096	1,030	61
	March	2,283	4,797	0	0	5,166	6,295	959	42
LFA-15-HD-403	April	6,081	5,208	0	0	8,200	14,844	1,882	31
	May	11,005	9,457	0	0	5,646	9,896	1,906	17
	June	8,886	4,105	0	0	7,851	11,538	3,335	38
LFA-15-HD-434	July	7,576	3,103	0	0	7,209	13,075	633	8
	August	6,045	3,939	0	0	9,724	19,215	785	13
	September	6,042	4,535	0	20	8,724	16,214	873	14
LFA-15-HD-466	October	1,415	1,061	0	15	3,607	6,905	483	34
	November	1,751	3,026	0	0	7,361	11,742	101	6
	December	1,677	2,236	0	0	5,542	11,131	0	0
Totals		**56,423**	**45,721**	**0**	**35**	**79,254**	**139,835**	**12,387**	**22**

[1] The total number of validated crab kept were counted 100%.

Table 5.4. Summary of Crab Patrol Surveys conducted in 2015.

	Survey type (# of days/month)	
Month	Vehicular	On-water (Boat)
January	13	0
February	15	2
March	20	2
April	15	3
May	16	3
June	10	5
July	7	2
August	10	1
September	17	2
October	12	2
November	13	0
December	4	0
Totals	**152**	**22**

Table 6.1. Tsawwassen FSC Eulachon fishery openings by target species, date, and gear type, 2015.

Weekend date	Licence #	Fishery type	Target species	Opening Date and time	Closing Date and time	Gear type(s)
12-Apr-15	LFA-15-HD-LP-400	FSC - Communal	Eulachon	11-Apr 6:00	11-Apr 12:00	Drift net
19-Apr-15	LFA-15-HD-LP-404	FSC - Communal	Eulachon	18-Apr 12:00	18-Apr 18:00	Drift net
26-Apr-15	LFA-15-HD-LP-407	FSC - Communal	Eulachon	26-Apr 9:00	26-Apr 15:00	Drift net
03-May-15	LFA-15-HD-LP-409	FSC - Communal	Eulachon	01-May 12:00	01-May 18:00	Drift net

Table 6.2. Tsawwassen First Nation Catch Summary for Ceremonial Eulachon fisheries, 2015.

Weekend date	Licence #	Effort (h)	Kept	Released[2]					
			Pounds[1]	Sturgeon	Chubs	Suckers	Flounder	Eulachon	Other[3]
12-Apr-15	LFA-15-HD-LP-400	0.67	25.00	0	0	10	2	0	23
19-Apr-15	LFA-15-HD-LP-404	0.65	30.00	0	0	2	0	0	15
26-Apr-15	LFA-15-HD-LP-407	No TFN fishers participated in this fishery							
03-May-15	LFA-15-HD-LP-409	2.00	6.00	0	0	6	0	0	27
Totals		3.32	61.00	0	0	18	2	0	65

[1] Catch monitors weighed Eulachon on board vessel.

[2] All released fish species reported in pieces.

[3] Other species released equals 20 Bullhead sculpins and 3 herring for HD-LP-400; 15 Bullhead sculpins were released for HD-LP-404; and 27 Bullhead sculpins for HD-LP-409.

Table 7.1. Comparison of annual FSC salmon catch and allocation from 2009 to 2015.

Year[1]		Chinook[4,5,6]	Sockeye	Pink	Coho	Chum
2009	Total catch	995	1,132	72	57	1,320
	Maximum allocation[2]	900	1,132	2,500	500	2,576
	Final allocation balance	-95	0	0	0	0
2010	Total catch	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[3]	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[7]	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[8]	0	0	0	0	-78

[1] Majority of underages not carried forward due to limited Tsawwassen harvesting effort.

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

[3] DFO approved a "special circumstance" increase in the TFN Chinook salmon allocation to 900 fish for 2009.

[4] Twenty percent of total allocation carried forward due to management uncertainity.

[5] In 2013, maximum allocation includes 125 carry over from 2012.

[6] In 2014, maximum allocation includes 21 carry over from 2012.

[7] Fisheries and Oceans Canada accepted the remaining Chinook salmon allocation from 2012 (21) plus 233 balance from 2014 would discount the 2014 Chum salmon overage of 919.

[8] 78 Chum salmon overage

Table 7.2. Comparison of annual FSC Dungeness and Red rock crab catch from 2009 to 2015.

	Dungeness crab		Red rock crab	
Year	Kept	Released	Kept	Released
2009	24,712	13,760	0	0
2010	21,558	11,775	2	23
2011	20,327	12,170	0	8
2012	24,441	14,350	0	2
2013	42,439	25,531	0	4
2014	41,563	19,829	0	5
2015	56,423	45,721	0	35

FIGURES

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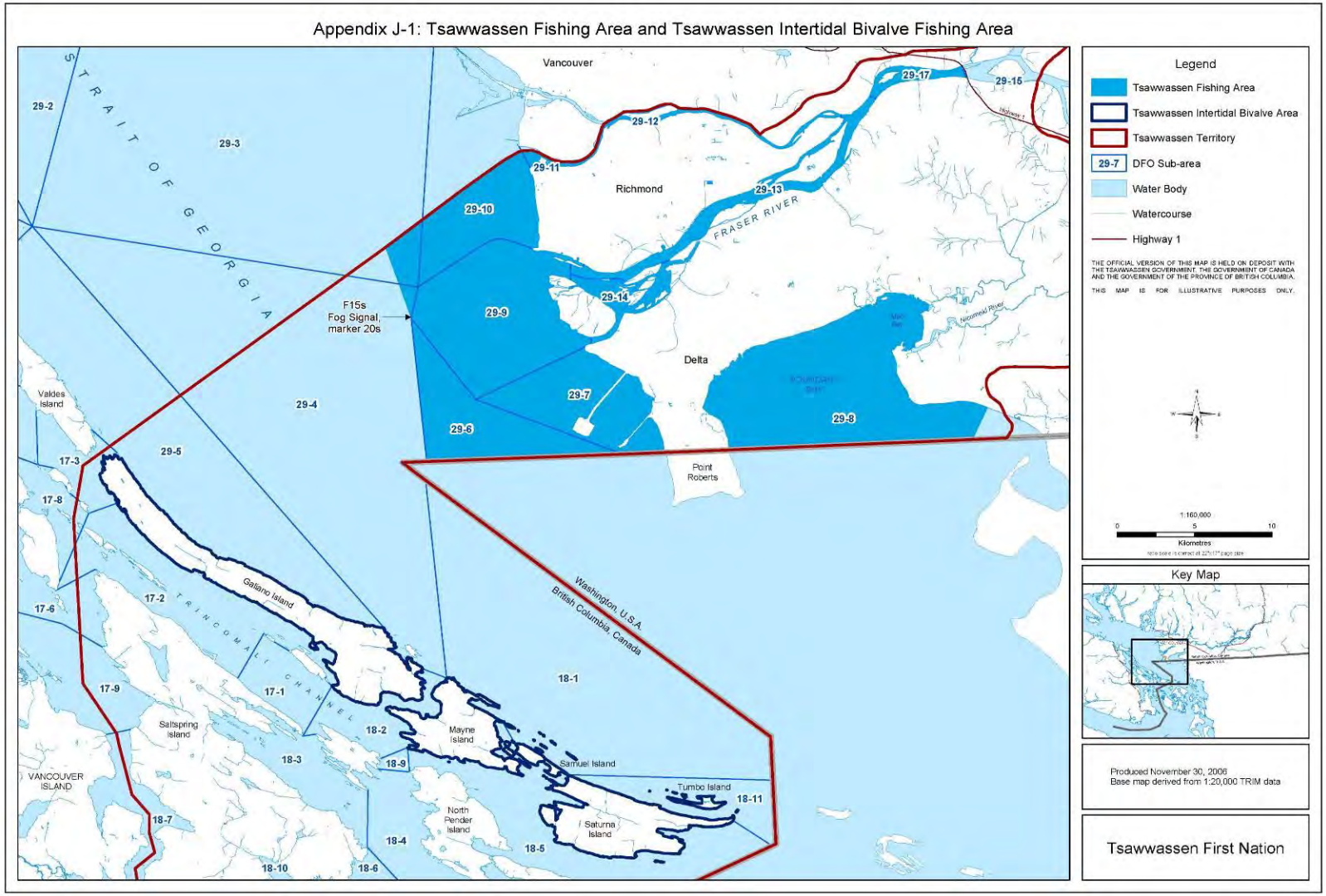

Figure 1.1. Tsawwassen Fishing Area and Tsawwassen Intertidal Bivalve Fishing Area.

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

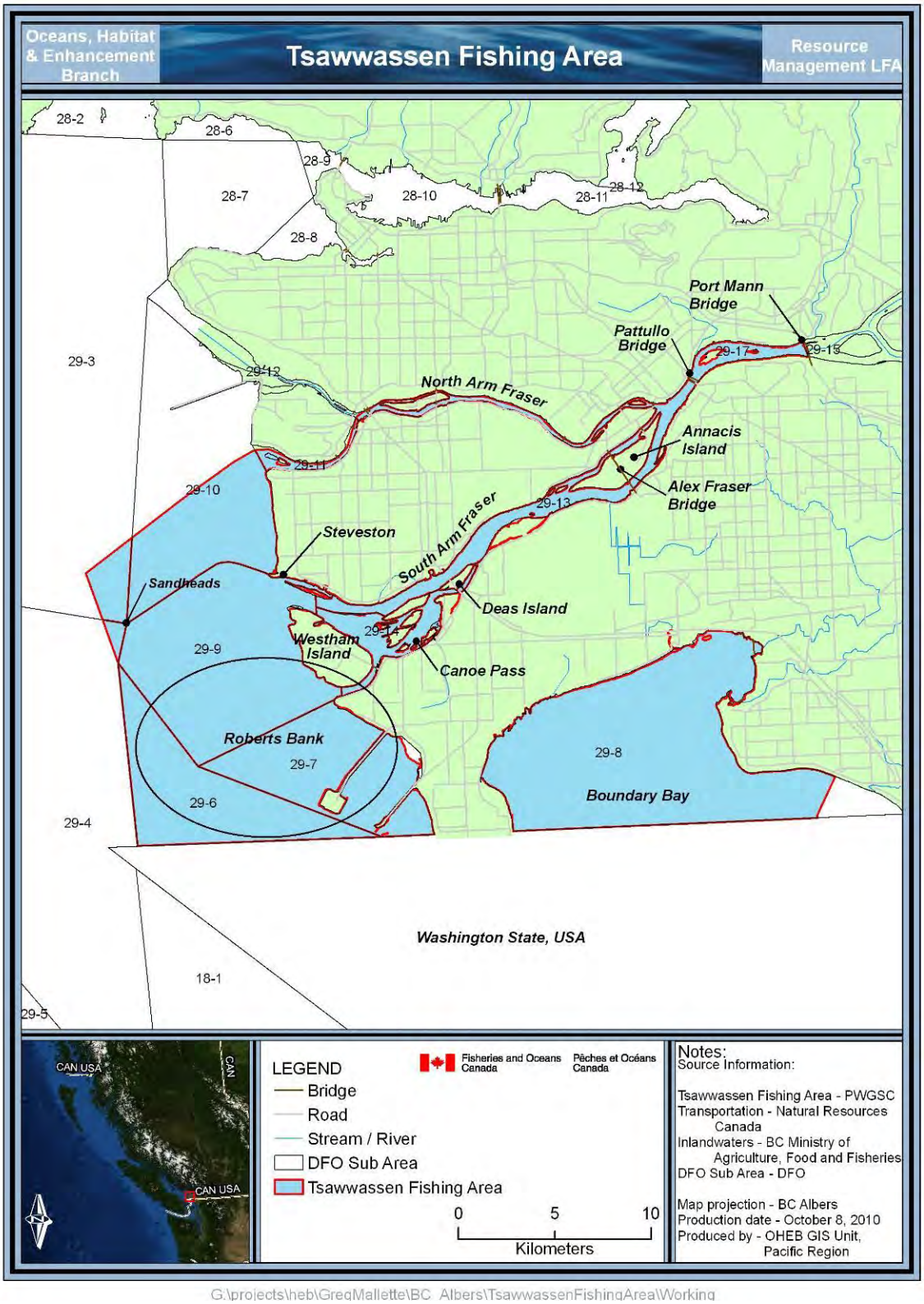

Figure 1.3. Tsawwassen Fishing Area (enlarged map with location names).

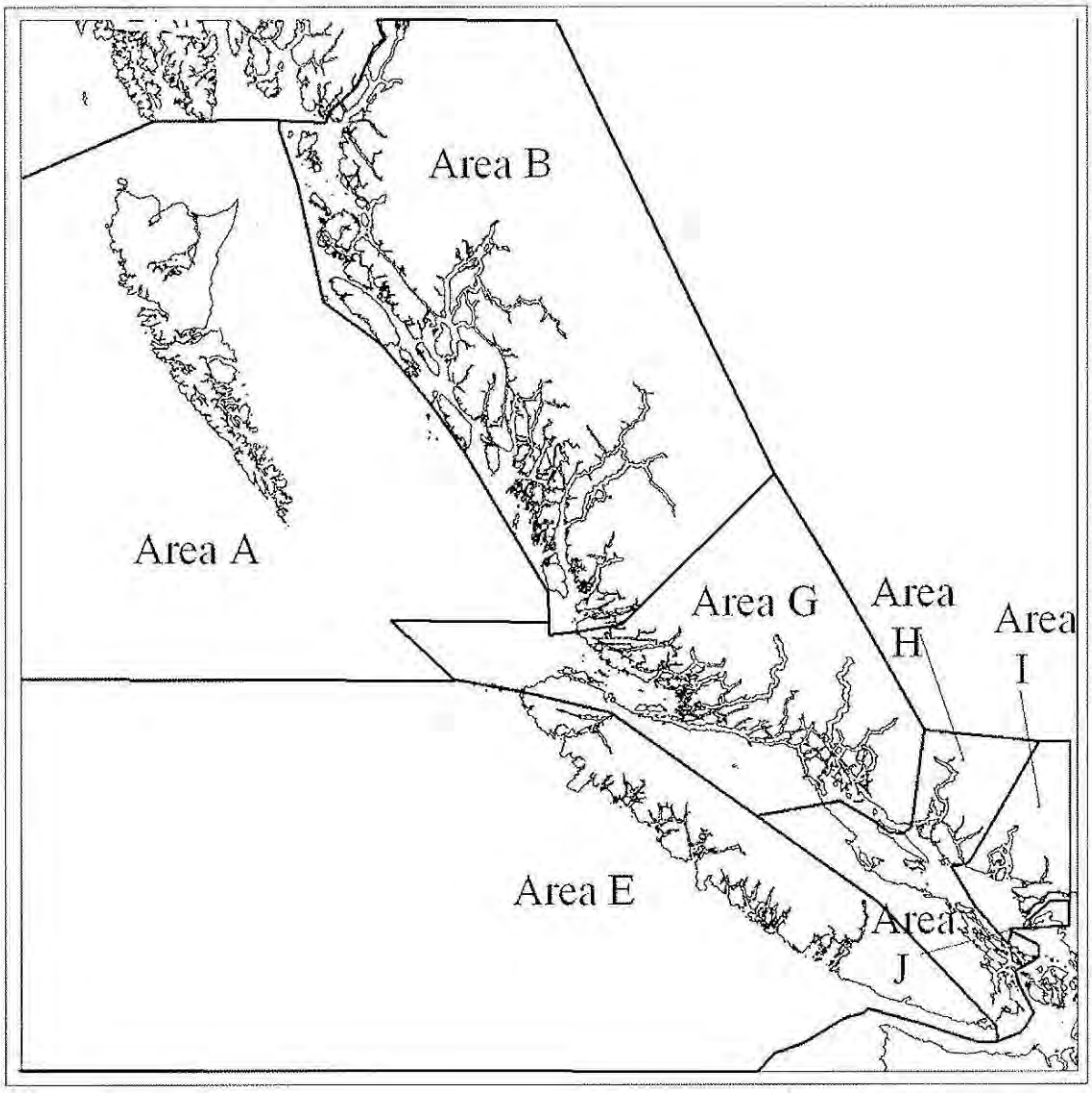

Figure 1.4. Map of Commercial Crab Management Areas.

APPENDICES

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APPENDIX A

Tsawwassen Fishing Plan 2015

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TSAWWASSEN FIRST NATION
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Fisheries Department

TSAWWASSEN ANNUAL FISHING PLAN EULACHON AND CHINOOK – Final April 2015

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 2015 and 31 March 2016). 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 each salmon species, 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.

Eulachon

Conservation: The Draft IFMP for Eulachon indicates that: "Due to stock strength and conservation concerns, only very limited Fraser River FSC fisheries for Eulachon will be considered on a case by case basis by Lower Fraser DFO area office for 2015".

Fishery: A small amount of FSC harvest of Eulachon is proposed for 2015. Eulachon may be harvested for FSC purposes by specifically designated TFN fishers at the times and locations in a Tsawwassen Harvest Document. The 2015 draft IFMP limits the length of fishing time to 6 hours per day.

Timing: From mid-April through mid-May 2015, 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 prior to April 1st.

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 2015 is 217 lbs. 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 4_2 and Spring 5_2 fish. These concerns are still relevant in 2015. In the 2015 Salmon Outlook, Spring 4_2, Spring 5_2 and Summer 5_2 Chinook salmon stocks have been classified as stocks of low abundance. The 2012–15 draft South Coast Salmon IFMP includes the management measures implemented in 2010–12 to conserve Fraser Spring 4_2 Chinook salmon returns. These management actions also provide some additional protection for the Fraser Spring 5_2 and Summer 5_2 Chinook salmon as their migration timing overlaps significantly. For Spring and Summer 5_2 Chinook salmon, the Department is currently planning to begin the season with zone 1 management actions. Updates of the predicted return for informational purposes are tentatively planned mid-June.

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 April 1st through June 15th of 2015, TFN will put forward requests for limited ceremonial fisheries for planned community events (e.g. the TFN first fish ceremony, graduation ceremony, funerals, weddings, Longhouse ceremonies, and the TFN Anniversary of the Treaty Effective Date, etc.) during this period.

TFN is concerned with DFO's plans to permit Chinook salmon harvests in marine recreational fisheries off southern Vancouver Island prior to June 15th. There is evidence that these fisheries have captured some early-timed Fraser Chinook salmon stocks.

Similar to 2014 fishing season and under a "Zone 1" management regime for Spring and Summer 5_2 Chinook, TFN will conduct two-8 hour Chinook salmon fisheries in May (first fishery beginning the week ending 17th May and second fishery starting the 24th of May). If a "Zone 1" management continues through to the end of June, TFN will conduct five-12 hour fisheries, from May 31st to June 28th. 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. Under this management regime there would be no directed Chinook salmon fisheries in July, based on Early Stuart Sockeye salmon conversation concerns.

If pre-season discussion results in no directed Chinook salmon fisheries in July, then TFN will propose an increase in early Chinook salmon FSC opportunities, starting as early as April.

However, if DFO manages the Chinook salmon fishery under a Zone 2 management regime (based on their decision mid-June , TFN's proposed Chinook salmon fishing plan is a minimum of 24 hours per week from June 16th to July 4rd and a minimum of 48 hours per week from July 5th to July 25th. These weekly fisheries will start on Friday at a time that will be determined in weekly consultations with DFO on the Wednesday prior.

From July 26th through August 31st of 2015, 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 2015, TFN will request further harvest opportunities for Chinook salmon into September. TFN understands that these additional Chinook salmon harvest opportunities will be dependent upon the Coho salmon exploitation rate.

From March 1st 2016 through March 31st of 2016, 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 12cm/4.8 inches, a maximum length of 50 fathoms, and a maximum depth of 60 meshes may be used, except during period when larger mesh size is required to minimize the catch of Early Stuart or Late-run Sockeye salmon stocks (see below). Drift Nets with a minimum mesh size of 20cm/8.0 inches, a maximum length of 50 fathoms, and a maximum depth of 60 meshes may be used during the period when Early Stuart Sockeye salmon are migrating through the TFN fishing areas (approximately 24 June - 18 July 2015).

Size: No Chinook salmon with less than 30cm/12 inches in nose-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 2015 is 625 Chinook salmon.

Note: *Sockeye salmon, Pink salmon, Chum salmon, Coho salmon, crab, intertidal bivalves, shrimp and prawns, groundfish, sturgeon and steelhead, and marine aquatic plants will be updated at a later date.*

TSAWWASSEN ANNUAL FISHING PLAN (EXCLUDING EULACHON AND CHINOOK) – FINAL AUGUST 2015

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 2015 and 31 March 2016). 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 and Chinook salmon 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.

Sockeye Salmon

Conservation[1]: Conservation concerns are anticipated for several of the components of the 2015 Sockeye salmon return to the Fraser River: the Early Stuart stock, some Early Summer stocks, some the Late-run stocks (e.g. Cultus Lake stock). Final IFMP indicates that there will be an Early Stuart and early-timed Early Summer Sockeye salmon closure in Area 29 from June 28th until July 29th. The window closure will depend on inseason assessments. In some years when there has been concern regarding the return strength of the early timed component of the Early Summer run, a one week extension to the Early Stuart closure window has been implemented to protect these stocks. 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.

[1] The run timing for the various Fraser Sockeye salmon stock timing groups has yet to be determined.

From late July 2015 through mid-August 2015, most of the Sockeye salmon migrating through the TFN salmon fishing area are expected to be originating from the Summer-run stocks. After mid-August 2015, the Late-run stocks (including Cultus Lake) could begin to enter the Fraser River in significant numbers depending on the extent to which these fish delay in the lower Georgia Strait. The midpoint pre-season forecasts for the total return of Fraser Sockeye salmon in 2015 is 6,788,00 million (30,000 Early Stuart, 837,000 Early Summers, 4,675,000 Summers, and 1,236,000 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 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 29 July through 9 August 2015, 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 10 August through 31 August 2015 the TFN's proposed Sockeye salmon fishing is 24 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 approach taken for IFR Coho in 2015.

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

Drift nets with a minimum mesh size of 10 cm/4 inches, 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 inches in nose-fork length will be harvested, other than by catch after all efforts have been made to release salmon unharmed have been taken.

Expectation[2]: Based escapement plan options outlined in the IFMP and the pre-season (50% probability) run size forecast, the (Canadian Total Allowable Catch) CTAC is estimated to be slightly below 3 million Sockeye salmon. Therefore, the expected harvest level for the 2015 TFN FSC Sockeye salmon fisheries may not reach the FSC maximum amount of 15,226. 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 2015 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: Conservation concerns related to some Late-Summer Fraser Sockeye salmon stocks, 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 Pink salmon stocks. No conservation concerns have been raised for the 2015 Pink salmon stocks. The escapement strategy for Fraser Pink salmon continues to be based on an interim escapement goal of 6M Fraser River Pink salmon.

TFN Fishery: Pink salmon may be harvested for FSC purposes by designated TFN fishers at the times and locations defined in a Tsawwassen HD for fisheries that target Fraser Sockeye salmon. Once the first in-season Canadian Commercial Total Allowable Catch has been determined for Fraser Pink salmon, TFN will be issued licences by DFO for the Tsawwassen commercial allocation for Fraser River Pink 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 staff will endeavor to minimize the encounter rate and harvest for non-target species (i.e. Steelhead, sturgeon, Lower Fraser Coho salmon, and Interior Fraser Coho salmon).

Timing: TFN harvests of Pink Salmon for FSC purposes will occur during Sockeye salmon FSC fisheries as defined above. TFN commercial harvest of Fraser Pink Salmon will occur between 1 August to 30 September depending on the run timing, harvesting methods, and conservation concerns for other species. The precise timing for these fisheries will be determined in weekly consultations with DFO during this period.

Gear: As defined above for Sockeye salmon, drift nets with a minimum mesh size of 10 cm/4 inches, a maximum length of 50 fathoms, and a maximum depth of 60 meshes may be used.

[2] CTAC and TFN's FSC allocation is based on pre-season estimates and will continue to change in-season.

It is anticipated that beach seines or other approved selective fishing methods will be required to harvest the Tsawwassen commercial allocation for Fraser Pink salmon to minimize the impact on non-target species.

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

Expectation: Based on the pre-season (50% probability) run size forecast, the expected FSC harvest for 2015 is up to 2,500 Pink salmon as incidental catch in the TFN Sockeye salmon fisheries. TFN's commercial allocation for Pink salmon is 0.78% of the CCTAC of Fraser River Pink salmon. The harvest level for the 2015 TFN commercial Pink salmon fisheries will be determined as soon as the CCTAC has been defined for Fraser River Pink salmon. The TFN commercial allocations may change during the fishing season with changes in the returning abundance of Fraser River Pink salmon.

Chum Salmon

Conservation: Conservation concerns related to 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. TFN has been informed of conservation concerns affecting the 2015 Chum salmon return to the Fraser River. 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.

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 and harvest for non-target species (e.g. Steelhead, sturgeon, Lower Fraser Coho salmon, Interior Fraser Coho salmon).

Timing: From 9 October through 30 November 2015 and depending on the outcome of IFR Coho salmon discussions, TFN's proposed Chum salmon fishery is 24 hours for the first week and 48 hours per week thereafter, 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.

If TFN has a commercial Chum salmon allocation in 2015, 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 be in late October or early November (after 24 October).

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 ¼ inches, a maximum length of 50 fathoms, and a maximum depth of 60 meshes may be used during the period of approximately 9 October through 30 November 2015. 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 inches in nose-fork length will be harvested other than as by catch 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 2015.

TFN's commercial allocation for Chum salmon is 3.27% of the Terminal Commercial Catch (TCC) of Fraser River Chum salmon. The TCC will be determined in-season (mid-October). The TFN commercial allocations may change during the fishing season with changes in the returning abundance of Fraser River Chum salmon.

Coho Salmon

Conservation: Conservation concerns have been identified for Interior Fraser Coho salmon and Lower Fraser Coho salmon. For 2015, the status of southern BC stocks ranges from low to near target. Most adults returning in 2015 are from the 2012 brood year that smolted in 2014. Ocean indicators suggest conditions affecting early marine survival deteriorated in 2014. Therefore, a decline in abundance relative to recent years is expected in 2015. Therefore, regardless of the exploitation rate selected for the 2015 fishing season, First Nations fisheries both off the mouth of, and in, the Fraser River will likely continue be affected to some degree from early September until mid-October.

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 and harvest for non-target species (e.g. sturgeon and Steelhead).

Timing: From approximately 9 October through 30 November 2015, TFN may harvest Coho salmon captured in their Chum salmon FSC fisheries up to a pre-determined maximum of 500 pieces. 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 2015 IFR Coho salmon 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 ¼ inches, a maximum length of 50 fathoms, and a maximum depth of 60 meshes may be used during the period of 9 October through 30 November 2015.

Size: No Coho salmon less than 30 cm/12 inches in nose-fork length will be harvested other than as by-catch 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 or unmarked) in 2015 and will be harvested:

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

If other Fraser River First Nations are permitted to harvest unmarked Coho salmon in non-selective fisheries within the Fraser River, TFN expects the DFO will permit TFN members to harvest a portion of the TFN Coho salmon allocation in non-selective 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 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.[3]

- 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. First Nation fishers are encouraged to release all female crabs caught in FSC fisheries in Pacific Region Management Areas 28 & 29.

- 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).

[3] Integrated Fisheries Management Plan, Crab by trap 2015

- 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 2015 through 31 March 2016, 24 hours per day, every day.

Location: 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, 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 "zap strap" 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.

Size: The minimum size for Dungeness crab is 16.5 cm/6.5 inches and for Red Rock Crab are 11.5 cm/4.5 inches, 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 Biotoxin 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 2016, 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, and Sole 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 2015 through 31 March 2016, 24 hours per day, every day.

Gear: TFN members propose to use rod and reel gear and long line gear (proposal submitted to DFO) 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. In March 2015, TFN submitted a proposal to DFO to harvest 10,000 lbs. of halibut which would include secondary species such as sablefish, dogfish, lingcod, flatfish, and rockfish. TFN and DFO are currently in consultation; however, at this time no harvest documents have been issued.

Sturgeon and Steelhead

Conservation: Conservation concerns have been identified for Fraser River White Sturgeon and Steelhead in the TFA.

TFN Fishery: All live White Sturgeon and Steelhead caught in TFN fisheries will be immediately released. No TFN fisheries will target White Sturgeon or Steelhead in 2015. In the event that a White Sturgeon or Steelhead caught in a TFN fishery is dead or a mortal wound is obvious, that fish may be retained by a TFN fisher for FSC purposes, as per the generally agreed upon practice for other Fraser River First Nation FSC fisheries. No Steelhead or sturgeon may 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 in the TFA.

Timing: From 1 April 2015 through 31 March 2016, 24 hours per day, every day.

Gear: TFN members propose to use hand picking methods to harvest marine aquatic plants for FSC purposes.

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APPENDIX B
Examples of Harvest Documents

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Fisheries and Oceans Canada | Pêches et Océans Canada

Licence Number: XFSC 300 2015 - Amendment 1
File Number: LFA-15-HD 440/TSAWWASSEN
Valid From: 01-Aug-2015
Expiry Date: 01-Aug-2015

This licence is issued under the authority of SECTION 4 OF THE ABORIGINAL COMMUNAL FISHING LICENCES REGULATIONS, and SECTION 7 OF THE FISHERIES ACT.

This licence is not intended to define an Aboriginal right to fish or its scope; however, for the fishing season, it is intended to provide a mechanism, for reasons of proper management and control of the fisheries and conservation and protection of fish, for requiring compliance with the provisions of this licence.

This licence is subject to the *Fisheries Act* and regulations thereunder, and confers the authority to fish under the following conditions: Food, Social, and Ceremonial purposes.

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 Saturday, August 1, 2015 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 1, 2015 at 10:00 **End:** Saturday, August 1, 2015 at 22:00
Details:

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

Species: SOCKEYE SALMON (Oncorhynchus nerka)
Allowable Fishing Times:
Start: Saturday, August 1, 2015 at 10:00
End: Saturday, August 1, 2015 at 22:00
Details:

Licence Number: XFSC 300 2015 - Amendment 1
File Number: LFA-15-HD 440/TSAWWASSEN
Valid From: 01-Aug-2015
Expiry Date: 01-Aug-2015

Gear: Net, Drift
Net, Set

Licence Area: Lower Fraser

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 maximum mesh size of 5 7/8" and 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 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 mesheswith a maximum mesh size of 5 7/8" and 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, 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 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.
“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 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 the harvest of Sockeye salmon and incidental harvest of Chinook salmon.

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

Steelhead and Sturgeon must not be retained.

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 presented 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 commercal vessel, the decal must be uniquely numbered. Where the vessel is a registered commercal 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.

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

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.

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.

Issued by: Brian Matts, Resource Manager - Lower Fraser Area Date
Fisheries and Oceans Canada

Replaced due to For Licence Amendment Purposes Only

Licence Issued: 30 July 2015

Licence Printed: 30 July 2015

Fisheries and Oceans Canada | Pêches et Océans Canada

Licence Number: XFSC 64 2015
File Number: LFA-15-HD 403/TSAWWASSEN
Valid From: 01-Apr-2015
Expiry Date: 30-Jun-2015

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 Tuesday, June 30, 2015 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, April 1, 2015 at 00:01 **End:** Tuesday, June 30, 2015 at 23:59
Details:

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 (Cancer magister)
Allowable Fishing Times:	Start: Wednesday, April 1, 2015 at 00:01 End: Tuesday, June 30, 2015 at 23:59 Details:
Gear:	Hand Picking Net, Ring Trap, Crab
Licence Area:	Lower Fraser: See Additional Description

Species:	GRACEFUL CRAB (Cancer gracilis)
Allowable Fishing Times:	Start: Wednesday, April 1, 2015 at 00:01 End: Tuesday, June 30, 2015 at 23:59 Details:
Gear:	Hand Picking Net, Ring Trap, Crab
Licence Area:	See Additional Description

Species:	RED ROCK CRAB (Cancer productus)
Allowable Fishing Times:	Start: Wednesday, April 1, 2015 at 00:01 End: Tuesday, June 30, 2015 at 23:59 Details:
Gear:	Hand Picking Net, Ring Trap, Crab
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"
Wlongitude 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.

Species and Quantity:

The Fishery is limited to a harvest of: Dungeness Crab, Graceful Crab and Red
RockCrab. 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. Allcrab less than the minimum size limit shall be immediately released to the area
of capture. Fishers are encourgaged to immediately release all female crabs to the area
of capturein a manner that causes least harm.

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 thename of the First Nation and
Participant and with the Identification Number for thevessel used; and multiple traps set
in a string have a floating buoy legibly marked nameof the First Nation and Participant
and with the Identification Number for the vesselused attached to both ends of each
string.(ii) All buoy lines must be of a non-floating material so that the lines remain below
thesurface 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 ofuntreated cotton
twine no greater than No. 120. On deterioration this must produce arectangular opening
with a minimum size of 7 cm x 20 cm, or a square opening with aminimum 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 50trap tags

and 10 extra
trap tags (in case some traps are lost).All submerged fishing gear must have a float of
sufficient size such that it will notsubmerge with tidal or current change.Floating buoys
must remain at all times outside of the Navigational No Float Zoneshown on the map in
Schedule A to this harvest document. Any floating buoys placedin the Navigational No
Float Zone are subject to removal under authority of the Navigable Waters Protection
Act.

Additional Information:

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 crab soft-shell periods are April to mid-June in the Fraser River estuary and May to mid-July in Boundary Bay.

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 commercial fishery.
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

“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
(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.

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 interviewers, 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 the DFO Management Biologist (telephone: 604 666-6608, 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.

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.

31 March 2015

Issued by: Brian Matts, Resource Manager - Lower Fraser Area
Fisheries and Oceans Canada
Date

Licence Issued: 31 March 2015

Licence Printed: 31 March 2015

Fisheries and Oceans Canada | Pêches et Océans Canada

Licence Number: XFSC 109 2015
File Number: LFA-15-HD-LP 409/TSAWWASSEN
Valid From: 01-May-2015
Expiry Date: 01-May-2015

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 Friday, May 1, 2015 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: Friday, May 1, 2015 at 12:00 **End:** Friday, May 1, 2015 at 18:00
Details:

Individuals or groups assisting with the authorized activity:

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

Ralph Heart - herring skiff

Designations are personal and non-transferable. Participants who fish under this licence shall carry their Designation or 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 Fishing Times:
Start: Friday, May 1, 2015 at 12:00
End: Friday, May 1, 2015 at 18:00
Details:

Licence Number: XFSC 109 2015
File Number: LFA-15-HD-LP 409/TSAWWASSEN
Valid From: 01-May-2015
Expiry Date: 01-May-2015

Gear:	Gill Net
Licence Area:	Lower Fraser: Watershed: Fraser River
To be Retained:	140.5 Pounds

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. Soak times of 20 minutes or less.
iv. An monitor/observer will be on board during all fishing activity.

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
(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 140.5 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.

Subject to closures and other terms and conditions of this licence, the authority to fish under this licence will expire on May 1, 2015 or earlier if DFO, after consultation with the First Nation has determined that the maximum quantity has

been reached.

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 presented 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 commercal vessel, the decal must be uniquely numbered. Where the vessel is a registered commercal 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.

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.

Issued by: Brian Matts, Resource Manager - Lower Fraser Area Date
Fisheries and Oceans Canada

Licence Number: XFSC 109 2015
File Number: LFA-15-HD-LP 409/TSAWWASSEN
Valid From: 01-May-2015
Expiry Date: 01-May-2015

Licence Issued: 28 April 2015

Licence Printed: 28 April 2015

Fisheries and Oceans Canada | Pêches et Océans Canada

Licence Number: XFSC 478 2015
File Number: LFA-15-HD 476-TSAWWASSEN
Valid From: 25-Oct-2015
Expiry Date: 25-Oct-2015

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, October 25, 2015 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:	Sunday, October 25, 2015
Times:	07:00 - 19:00
Details:	

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

Species:	CHUM SALMON (Oncorhynchus keta)
Allowable Fishing Times:	Date: Sunday, October 25, 2015 Times: 07:00 - 19:00 Details:
Gear:	Gill Net Net, Set
Licence Area:	Lower Fraser

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) Steveston Auction Dock
2) Wellington Point
3) packer vessel **M/V 'Dilligence'**

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

'Monitoring and Enforcement Committee' means a joint technical committee consisting of three (3) DFO representatives and four (4) representatives of the First Nations (two each from Musqueam and Tsawwassen);

'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 a 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 salmon and sturgeon, to the water alive and unharmed.

Chinook salmon, wild coho salmon, sockeye 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 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 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.
(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.

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.

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 presented 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 commercal vessel, the decal must be uniquely numbered. Where the vessel is a registered commercal 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.

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 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.

Issued by: Brian Matts, Resource Manager - Lower Fraser Area
Fisheries and Oceans Canada

Date

Licence Issued: 23 October 2015

Licence Printed: 23 October 2015

APPENDIX C
Dataforms

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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
							Date	Time	Date	Time	Date	Time	Sock	Chin	Pink	Coho	Chum	Other	Sturg	FL	Sthd	Other	(Y/N)
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	Fish Kept							Fish Released	Hailed in
						Date	Time	Date	Time	Date	Time	Hours	Sock	Chin	Pink	Coho	Chum	Steelhd	Other	(species & #)	Y/N
	Canoe Pass	T3	300	4.5	3	Apr. 4	2100	Apr. 4	0900	Apr. 4	2000	11		3						1 Sturgeon	Y
1																					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
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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:

AN EXAMPLE OF THE INFORMATION TO RECORD IS PROVIDED IN THE FIRST SHADED LINE. PLEASE RECORD YOUR DATA BY DAY OR BY SET.

Filename: 2010_TFN Catch Data_31May2010.xls

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	FISHING METHOD	STAT. AREA	LANDING		FISHING TIME	DEPTH	CATCH INFO.		Units	Number of Traps Pulled	REMARKS OR COMMENTS
	NAME	No.	(Code)	(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														
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

APPENDIX D

2015 Fraser River Sockeye In-season Status Report

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File: 71007

DRAFT AGENDA
PACIFIC SALMON COMMISSION
FRASER RIVER PANEL
Friday, September 11, 2015 at 11:00 am.
Via Teleconference
1-888-299-2873 CANADA
1-888-585-9008 United States
Conference Room 902-802-337

1) Roll Call (Panel and Tech members, others pls email Clare Rochfort (Rochfort@psc.org) and Agenda

2) Total catches, Escapements and accounted-to-date relative to pre-season forecasts and in-season adopted run sizes — PSC Staff

3) In-season data flow for updating objectives — PSC staff
   a) Sockeye test fishing catches and Mission acoustics
   b) Pink salmon test fishing catches
   c) Stock proportions

4) Assessments and recommendations
   a) Run size assessments
   b) Projected Sockeye encounter rates using test fishery data

5) Current status of fisheries including any fishery recommendations — Panel

6) Staff evaluation of fishery recommendations — Staff

7) Other Business
   a) News Release — Staff/Panel
   b) Upstream report — DFO/Jamie
   c) PSC staff secret revealed!!!! — Staff
   d) Closing remarks — Staff/Panel

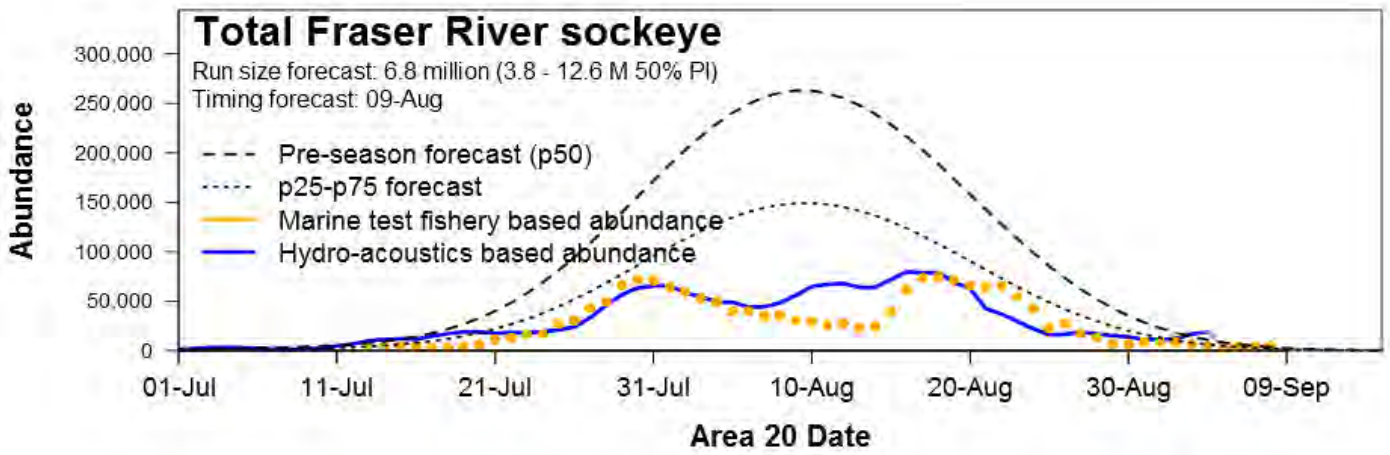
8) Next Meeting — Panel

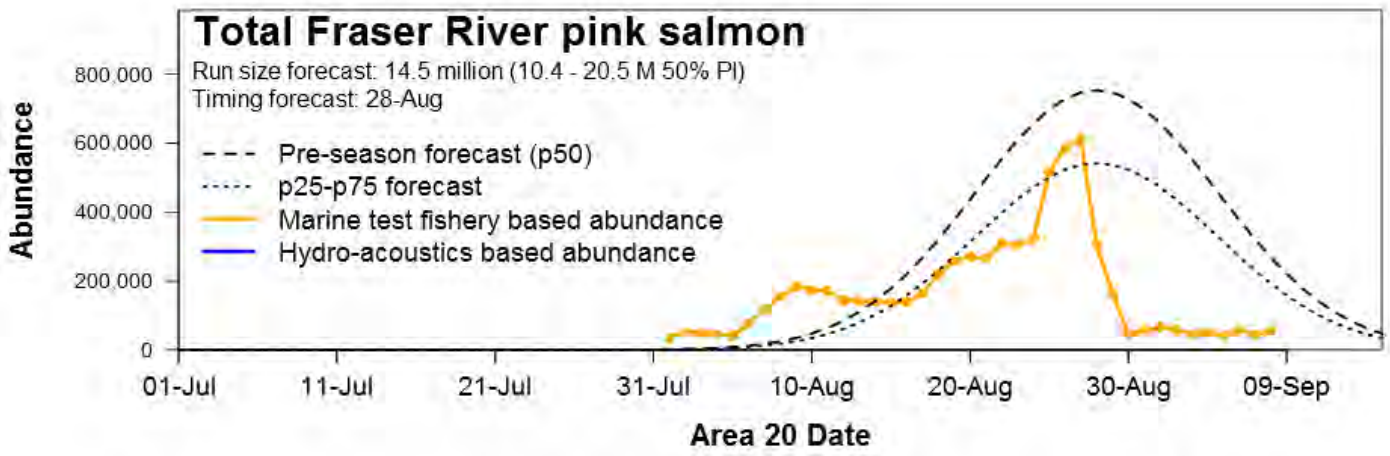
2015 Run status of Fraser sockeye and pink salmon

Date: Sep. 11, 2015

Week of: Sep. 6 - Sep. 12, 2015	Sockeye					Pink
	Management Group				Total	Total
	E.Stuart	E.Summer	Summer	Late	Fraser	Fraser
Mission passage (incld Pitt, Alouette, Coquitlam)	31,900	348,100	1,398,700	140,700	1,919,400	4,255,600
Catch downstream of Mission	200	24,300	123,600	7,100	155,200	371,800
Accounted run-to-date [1]	32,100	372,400	1,522,300	147,800	2,074,600	4,627,400
Run size adopted in-season [1]	**32,000**	**400,000**	**1,500,000**	**200,000**	**2,132,000**	**6,200,000**
Run size forecasted pre-season	16,000	837,000	4,675,000	1,236,000	6,764,000	14,455,000
Area 20 timing adopted in-season	**6-Jul**	**31-Jul**	**10-Aug**	**21-Aug**		**22-Aug**
Area 20 timing expected pre-season	8-Jul	1-Aug	7-Aug	17-Aug		28-Aug
Johnstone Str. Diversion Rate				In-season 5-day Average	99%	91%
				Preseason forecast of annual rate:	95%	56%

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.





2015 Catch-to-date by fishery

Date: Sep. 11, 2015

Week of: Sep. 6 - Sep. 12, 2015	Sockeye		Pink	
	Total	Fraser	Total	Fraser
Canada	**165,900**	**164,600**	**17,300**	**4,100**
Commercial	**0**	**0**	**0**	**0**
B Purse Seine	0	0	0	0
D Gillnet	0	0	0	0
E Gillnet	0	0	0	0
F Troll	0	0	0	0
G Troll	0	0	0	0
H Troll	0	0	0	0
First Nations	**165,300**	**164,100**	**17,200**	**4,100**
Food, Social & Ceremonial (FSC)	165,300	164,100	17,200	4,100
Marine	41,000	39,900	15,500	2,300
Fraser R.	124,200	124,200	1,700	1,700
Lower Fraser (LFA)	60,100	60,100	900	900
BC Interior (BCI)	64,200	64,200	800	800
Economic Opportunity (EO) & Demonstration (Demo)	0	0	0	0
Fraser R.	0	0	0	0
Lower Fraser (LFA)	0	0	0	0
BC Interior (BCI)	0	0	0	0
Escapement Surplus to Spawning Requirements (ESSR)	**0**	**0**	**0**	**0**
Recreational	**100**	**0**	**0**	**0**
Marine	100	0	0	0
Fraser R. *	0	0	0	0
Charter (Albion gillnet test fishery)	**500**	**500**	**0**	**0**
United States	**47,300**	**46,100**	**662,300**	**322,000**
Commercial	**45,200**	**44,100**	**640,100**	**319,300**
Treaty Indian (TI)	34,000	33,100	389,100	175,100
Areas 4B, 5, 6C	900	800	1,800	500
Areas 6, 7, 7A	33,000	32,300	387,300	174,500
All Citizen (AC)	11,300	11,000	251,000	144,200
Purse Seine (PS)	6,600	6,400	213,000	123,400
Gillnet (GN)	1,900	1,800	900	300
Reefnet (RN)	2,800	2,800	37,100	20,600
Treaty Indian Ceremonial & Subsistence (C&S)	**2,000**	**2,000**	**22,200**	**2,700**
Areas 4B, 5, 6C	0	0	0	0
Areas 6, 7, 7A	2,000	2,000	22,200	2,700
All Citizen Recreational	**0**	**0**	**0**	**0**
Alaska **	**na**	**na**	**na**	**na**
Panel-approved Test Fisheries	**41,500**	**37,700**	**122,000**	**47,500**
Panel Waters	**19,700**	**16,800**	**80,100**	**37,500**
Canada	15,100	12,200	49,100	24,800
U.S.	4,700	4,600	30,900	12,700
Non-Panel Waters	**21,800**	**21,000**	**41,900**	**9,900**
Total	**254,700**	**248,400**	**801,500**	**373,500**
Catch Seaward of Mission ***	161,500	155,300	799,800	371,800
Catch Upstream of Mission	93,200	93,200	1,800	1,800

** Recent LFA Recreational catches may be projected based on a scalar applied to Mission Escapement.*

*** Alaska catch is processed post-season and so is unavailable in-season.*

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

2015 Status of Fraser sockeye and pink salmon runs relative to Panel objectives

Date: Sep. 11, 2015

Week of: Sep. 6 - Sep. 12, 2015

Projected escapement to spawning areas relative to targets		Sockeye					Pink
		Management Group				Total	Total
		E.Stuart	E.Summer	Summer	Late	Fraser	Fraser
Pre-season or **Adopted In-season** run size	1	**32,000**	**400,000**	**1,500,000**	**200,000**	2,132,000	**6,200,000**
Catch to date		800	44,300	195,500	7,800	248,400	373,500
Run size - Catch to date		**31,200**	**355,700**	**1,304,500**	**192,200**	**1,883,600**	**5,826,500**
Pre-season or **Adopted In-season** Propor. Mgmt. Adj. (pMA)		4.18	1.00	0.17	0.95		na
Implied %Difference-between-estimates (%DBEs)	2	-81%	-50%	-15%	-49%		na
Predicted DBE [(Run-Catch)*%DBE]		**-25,200**	**-177,800**	**-189,500**	**-93,600**	**-486,100**	**0**
Projected esc. to spn. areas from adopted run size	3	6,000	177,800	1,114,900	98,600	1,397,300	5,826,500
Spawning escapement target	4	32,000	160,000	1,448,000	200,000	1,840,000	5,383,200
Potential deviation from target		**-26,000**	**17,800**	**-333,100**	**-101,400**	**-442,700**	**443,300**

1 In-season adopted run sizes are shown in bold font. 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.

2 DBEs are calculated from pMA values using the formula: DBE=(1/(1+pMA))-1

3 Projected escapement to spawning areas: Run size - Catch to date + Predicted DBE).

4 Spawning escapement target based on adopted run size and Canada's spawning escapement plan.

Available harvest and Exploitation rate		Sockeye					Pink
		Management Group				Total	Total
		E.Stuart	E.Summer	Summer	Late	Fraser	Fraser
Available harvest [run - (Spn. esc. target + MA)]	1	0	80,000	0	0	80,000	816,800
Available Exploitation Rate		*0%*	*20%*	*0%*	*0%*	*4%*	*13%*
Catch to Date		800	44,300	195,500	7,800	248,400	373,500
Exploitation rate (catch / run size)		***3%***	***11%***	***13%***	***4%***	***12%***	***6%***

*1 MA = Spawning escapement target * pMA.*

2015 Fraser Sockeye Test Fishing & Escapement Summary

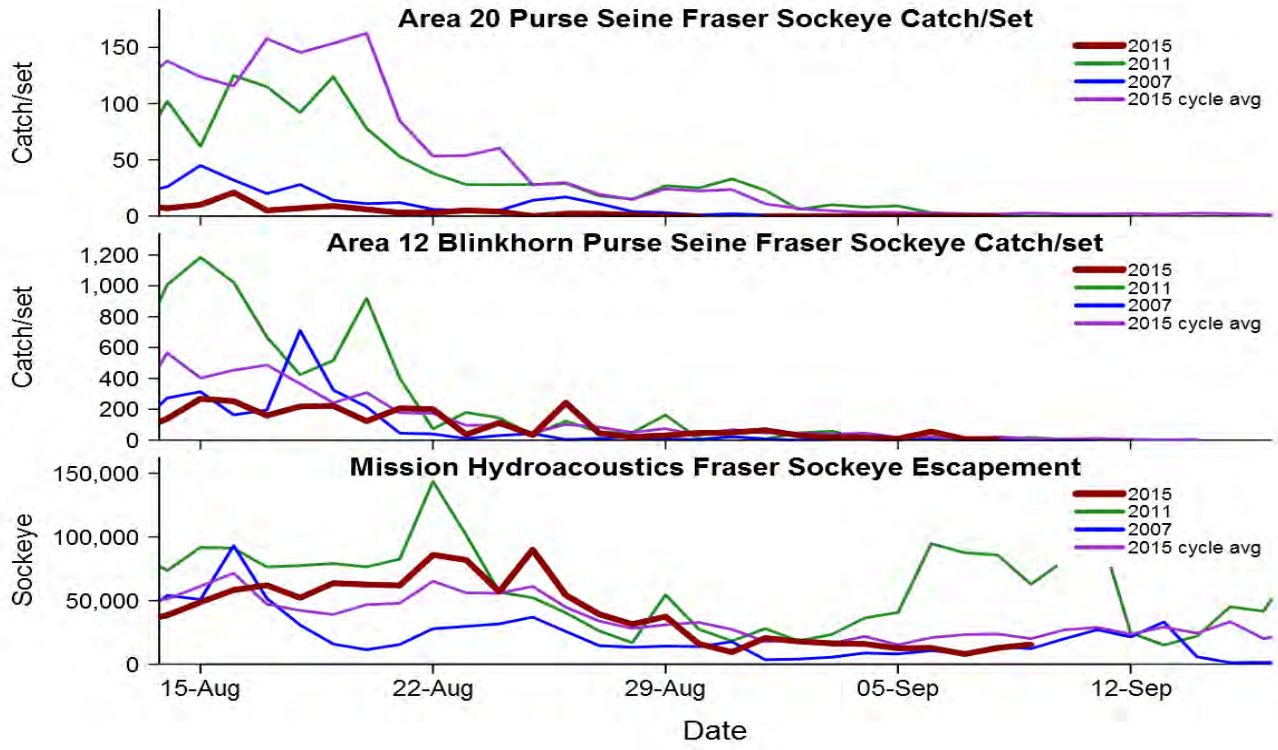
	Johnstone Strait		Juan de Fuca Strait		Fraser River						
Area/Gear	A12 PS	A13 PS	A20 PS	A7 RN**	A29B GN	A29D GN	Mission Hydroacoustics		Qualark		Hell's Gate
Location	Blinkhorn	Lower JS	Port Renfrew	San Juan Is	Cottonwood	Whonnock	Estimate[1]	Method[2]	GN Catch	Estimate	Counts[3]
From A20	(-1 day)	(+1 day)	(0 days)	(+3 days)	(+5 days)	(+6 days)	(+6 days)		(+8 days)		(+10 days)
22-Aug	1,230	987	20	90	25	47	85,900	S1+M+D2	12	35,697	4,313
23-Aug	219	672	36	30	11	46	81,900	S1+M+D2	27	54,754	3,523
24-Aug	572	547	22	53	4	34	57,000	S1+M+D2	33	48,155	3,301
25-Aug	200	704	0	DNF	17	56	89,900	S1+M+D2	20	34,237	6,463
26-Aug	1,465	798	13	DNF	6	42	54,200	S1+M+D2	28	58,212	6,680
27-Aug	272	211	12	DNF	12	50	39,300	W	17	52,887	6,544
28-Aug	126	122	6	DNF	10	39	31,400	W	21	38,198	5,305
29-Aug	92	47	0	DNF	36	24	37,400	W	21	49,762	4,832
30-Aug	187	503	2	DNF	45	18	16,000	W	31	40,314	3,597
31-Aug	303	42	DNF	DNF	42	13	9,500	W	28	44,377	2,910
1-Sep	324	FIN	1	DNF	22	25	20,500	W	18	41,569	839
2-Sep	189		1	DNF	10	23	17,900	W	36	45,618	568
3-Sep	118		0	DNF	9	21	16,400	W	27	33,781	387
4-Sep	107		1	DNF	27	20	15,900	W	26	38,944	533
5-Sep	52		2	DNF	21	16	12,500	W	33	43,761	346
6-Sep	336		0	DNF	13	15	12,800	W	24	34,309	197
7-Sep	29		0	DNF	4	10	8,000	W	20	24,406	273
8-Sep	37		0	DNF	19	15	12,800	W	35	30,644	344
9-Sep	FIN		FIN	DNF	13	19	15,500	W	19	43,496	465
10-Sep				DNF	10	27	21,600	W			270
11-Sep											

*** Reefnet counts are the sum of three gears/sites*

[1] *Upstream escapement estimate - does not include Pitt*

[2] *Mission S S1+M+D2 = Left-bank split-beam (S1) + Mobile offshore split-beam (M) + Right-bank inshore DIDSON (D2)*
W = Whonnock sockeye CPUE x Expansion Line

[3] *Daily Hell's Gate actual count. Multiply by 2 for abundance estimate.*



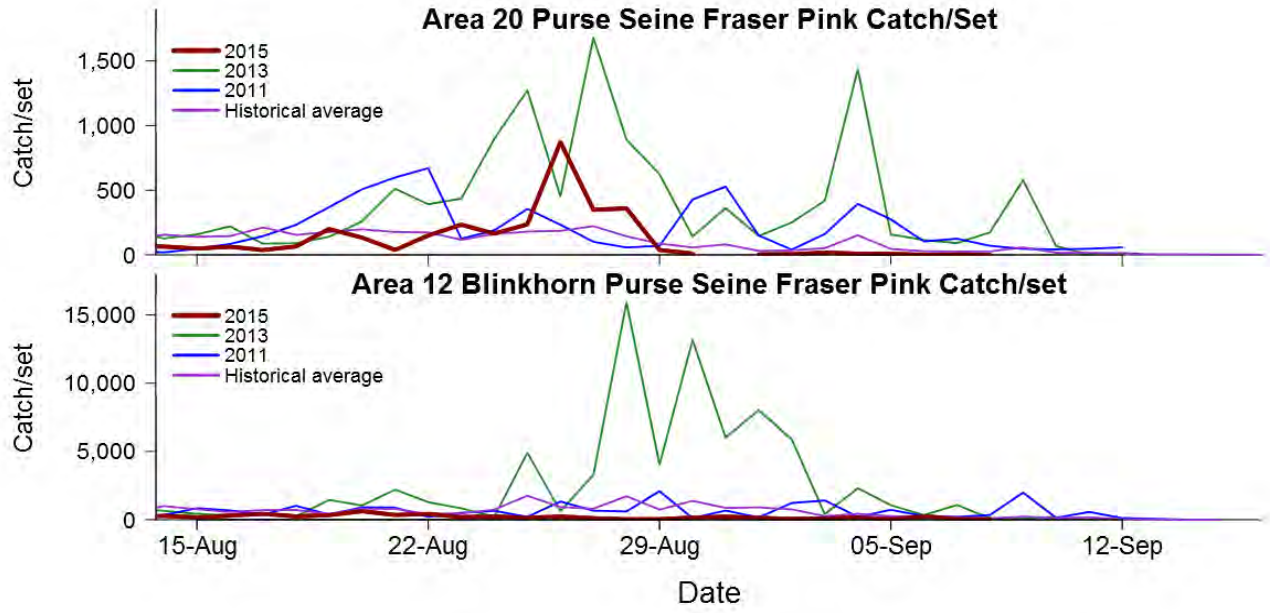
Fraser Pink Test Fishing & Escapement Summary

	Johnstone Strait		Juan de Fuca Strait		Fraser River				
Area/Gear	A12 PS	A13 PS	A20 PS	A7 RN**	A29B GN	A29D GN	Qualark		Hell's Gate
Location	Blinkhorn	Lower JS	Port Renfrew	San Juan Is	Cottonwood	Whonnock	GN Catch	Estimate	Counts[1]
From A20	(-1 day)	(+1 day)	(0 days)	(+3 days)	(+5 days)	(+6 days)	(+8 days)		(+10 days)
22-Aug	3,840	1,520	1,275	503	6	12	5	14,874	142
23-Aug	1,711	984	1,950	622	0	11	3	6,084	225
24-Aug	1,760	496	1,348	600	3	11	12	17,511	351
25-Aug	1,185	655	953	DNF	4	9	17	29,101	950
26-Aug	1,910	1,961	6,931	DNF	1	28	7	14,553	1,707
27-Aug	875	529	2,739	DNF	5	31	8	24,888	1,539
28-Aug	236	219	2,777	DNF	3	34	15	27,284	1,922
29-Aug	177	106	93	DNF	7	28	5	11,848	1,949
30-Aug	767	441	79	DNF	6	23	9	9,103	1,889
31-Aug	1,654	64	DNF	DNF	37	19	3	4,755	2,910
1-Sep	855	FIN	32	DNF	17	27	1	4,619	6,424
2-Sep	455		35	DNF	24	82	2	2,534	5,146
3-Sep	645		124	DNF	22	91	7	8,758	8,117
4-Sep	1,237		62	DNF	24	69	14	20,970	5,409
5-Sep	230		59	DNF	47	64	25	33,153	4,638
6-Sep	1,800		8	DNF	30	50	32	45,745	5,400
7-Sep	245		15	DNF	8	47	72	87,862	8,416
8-Sep	193		2	DNF	16	22	98	85,804	16,428
9-Sep	FIN		FIN	DNF	18	35	28	64,100	19,547
10-Sep				DNF	12	34			14,746
11-Sep									

** Area 20 Gillnet: total from 2 boats*

*** Reefnet counts are the sum of three gears/sites*

[1] Daily Hell's Gate actual count. Multiply by 2 for abundance estimate.



2015 Fraser River Sockeye Salmon Stock identification Review

Recent stock composition estimates for sockeye salmon

Fishing				Sample		Fraser-only Stock Proportions by Reporting Group[4] (%)														Age (%)
						Early Stuart	Early Summer					Summer					Late				
Area/Gear[1]	Sector[2]	Date	Type[3]	Size (n)	%Fraser	Early Stuart	Chilliwack	Pitt Alouette Coquitlam	Nadina Bowron Gates Nahatlatch Taseko	Early Thompson	Early Summer sub-total	Harrison Widgeon	Late Stuart Stellako	Chilko Quesnel	Raft North Thompson	Summer sub-total	Birkenhead Big Silver	Late Shuswap Portage	Weaver Cultus	Late sub-total	Age-4$_2$
Johnstone Strait & Queen Charlotte Strait																					
A12 ps	tf	Sep 6	scales	100	99%	**0%**					**0%**		5%	30%	12%	**47%**	16%	31%	6%	**53%**	58%
A12 ps	tf	Sep 8	DNA	38	97%	**0%**					**0%**	5%	3%	39%		**47%**	22%	20%	12%	**53%**	NA
Juan de Fuca Strait & Washington & Other																					
In-river																					
AB gn	tf	Sep4-5	DNA	35	100%	**0%**			3%		**3%**	26%		17%	9%	**51%**	14%	26%	6%	**46%**	46%
BB gn	tf	Sep4-5	DNA	47	100%	**0%**					**0%**		6%	45%	6%	**58%**	27%	15%		**42%**	70%
AB gn	tf	Sep6-8	DNA	40	100%	**0%**					**0%**	10%	6%	23%	22%	**61%**	20%	19%		**39%**	52%
BB gn	tf	Sep6-8	DNA	36	100%	**0%**				3%	**3%**	6%	11%	47%	22%	**86%**	9%	3%		**11%**	65%

2015 Fraser River Pink Salmon Stock identification Review

Recent stock composition estimates for pink salmon

Fishing				Sample	DNA % Estimates by Group		
Area/Gear[1]	Sector[2]	Date	Type[3]	Size (n)	Fraser River	Washington	Canada South Coast
Johnstone Strait							
A12		17-Sep	Prediction	1	93%	5%	2%
Juan de Fuca Strait							
A20		17-Sep	Prediction	1	90%	8%	2%
Washington							
A7		17-Sep	Prediction	1	86%	12%	2%
A7A		17-Sep	Prediction	1	90%	7%	3%

Notes for sockeye and pink tables:

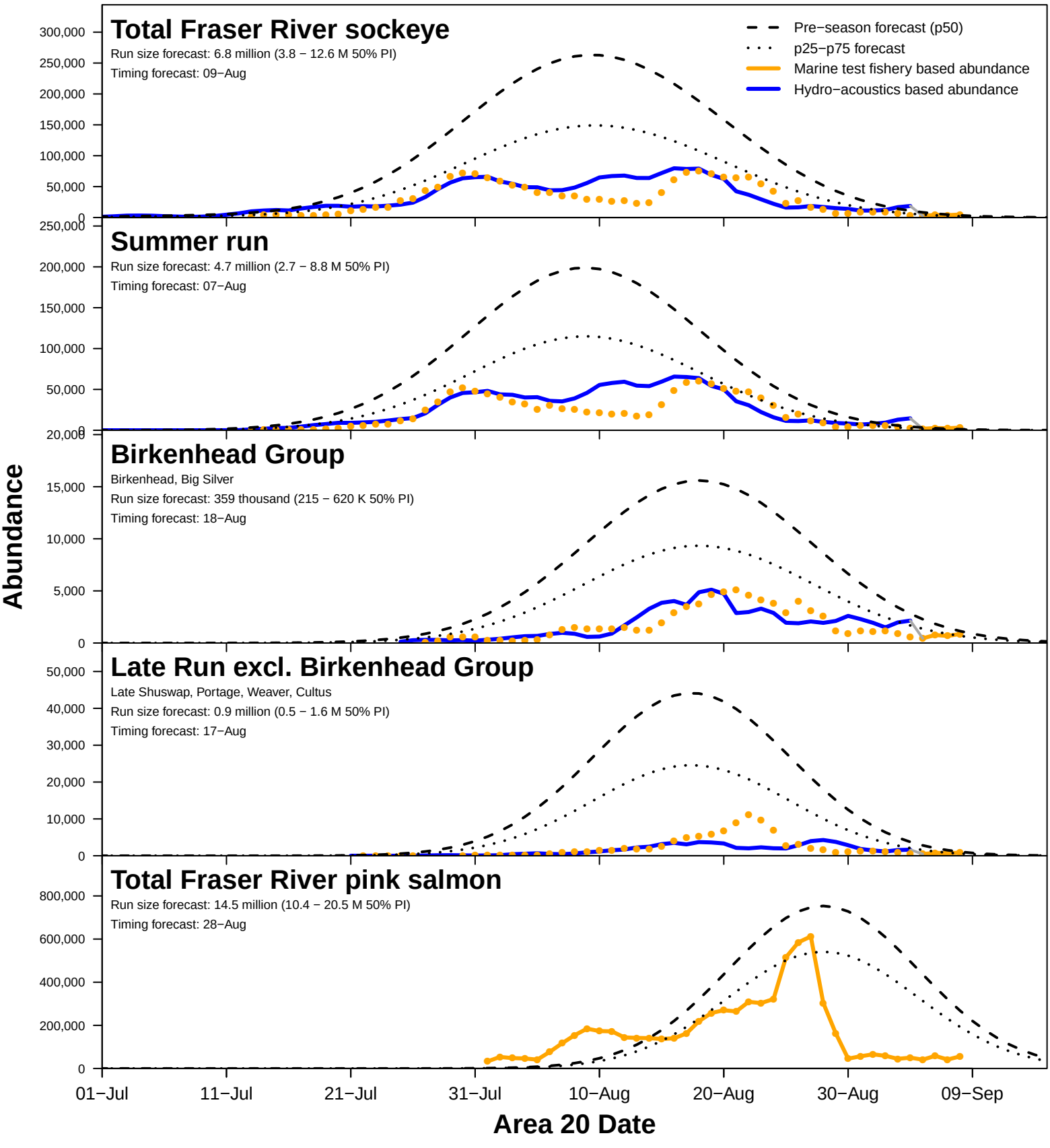
[1] GU TR=29_1-6, BB GN=29_13 (Cottonwood), AB GN=29_16 (Whonnock), MI GN=Mission test fishery, QU GN=Qualark

[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 www.psc.org/FraserPnl/Escapement/PSC_Fraser_Sockeye_Stock_Group_Definitions.pdf

2015 Fraser River sockeye daily migration abundance



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2015 Fraser River run size and timing estimates

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

	Run size										Run timing [1]				
	Preseason	Inseason	Catch +	6-day	Salmon seaward		Run size estimate			Method	Preseason	Inseason	Timing estimate		
	Forecast	Adopted	Escape.	Projection[3,4]	Abundance	%	Median	80% PI[2]			Forecast	Adopted	Median	80% PI	
Total Fraser sockeye	**6,778,000**	**2,132,000**	**2,073,000**	**39,000**	**0**	**0%**	**2,114,000**	**2,098,000**	**2,131,000**						
Early Stuart	**30,000**	**32,000**	**32,000**	**0**	**0**	**0%**	**32,000**	**32,000**	**32,000**	**D**	**08-Jul**	**06-Jul**	**06-Jul**	**06-Jul**	**06-Jul**
Early Summer Run	**837,000**	**400,000**	**372,000**	**0**	**0**	**0%**	**372,000**	**372,000**	**372,000**	**E**	**01-Aug**	**31-Jul**	**30-Jul**	**30-Jul**	**30-Jul**
E.Summers excl. E.Thomp[5]	321,000		296,000	0	0	**0%**	296,000	296,000	296,000	D	29-Jul		29-Jul	29-Jul	29-Jul
Early Thompson[6]	516,000		76,000	0	0	**0%**	76,000	76,000	76,000	D	04-Aug		07-Aug	07-Aug	07-Aug
Summer Run	**4,675,000**	**1,500,000**	**1,522,000**	**9,000**	**0**	**0%**	**1,532,000**	**1,528,000**	**1,535,000**	**E**	**07-Aug**	**10-Aug**	**10-Aug**	**10-Aug**	**10-Aug**
Harrison / Widgeon	1,420,000		186,000	0	0	0%	186,000	186,000	186,000	D	08-Aug		13-Aug	13-Aug	13-Aug
Late Stuart / Stellako	444,000		193,000	1,000	0	0%	194,000	193,000	194,000	C	06-Aug		09-Aug	09-Aug	09-Aug
Chilko/Quesnel/Raft/NT	2,811,000		1,144,000	8,000	0	0%	1,152,000	1,149,000	1,155,000	C	09-Aug		11-Aug	11-Aug	11-Aug
Late Run	**1,236,000**	**200,000**	**147,000**	**30,000**	**0**	**0%**	**178,000**	**166,000**	**192,000**	**E**	**17-Aug**	**21-Aug**	**20-Aug**	**20-Aug**	**21-Aug**
Birkenhead Group[7]	359,000		77,000	2,000	0	0%	80,000	79,000	81,000	C	18-Aug		20-Aug	20-Aug	20-Aug
L.Shuswap/Weaver Gr.[8]	877,000		70,000	28,000	0	0%	98,000	87,000	111,000	C	17-Aug		21-Aug	21-Aug	22-Aug
Fraser Pink salmon	**14,455,000**	**6,200,000**	**4,627,000**	**1,565,000**	**28,000**	**0%**	**6,220,000**	**5,119,000**	**12,870,000**	**A**	**28-Aug**	**22-Aug**	**22-Aug**	**20-Aug**	**05-Sep**

[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 fishery data. Based on model if Method = A or G.

[4] This may include delaying fish for Harrison, Late Shuswap, Portage, Weaver, Cultus and Pink salmon

[5] Chilliwack / Pitt / Alouette / Coquitlam / Nadina / Bowron / Gates / Nahatlatch / Taseko.

[6] Early South Thompson / North Barriere.

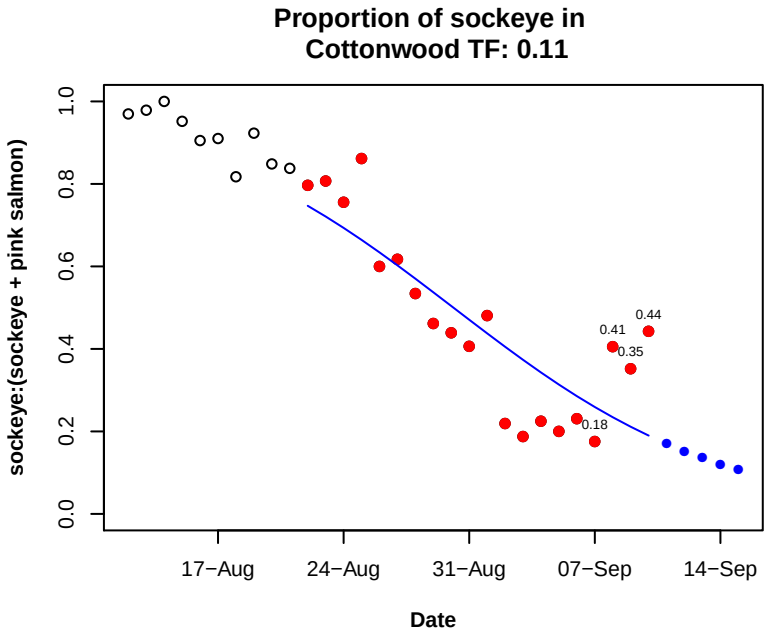
[7] Birkenhead / Big Silver

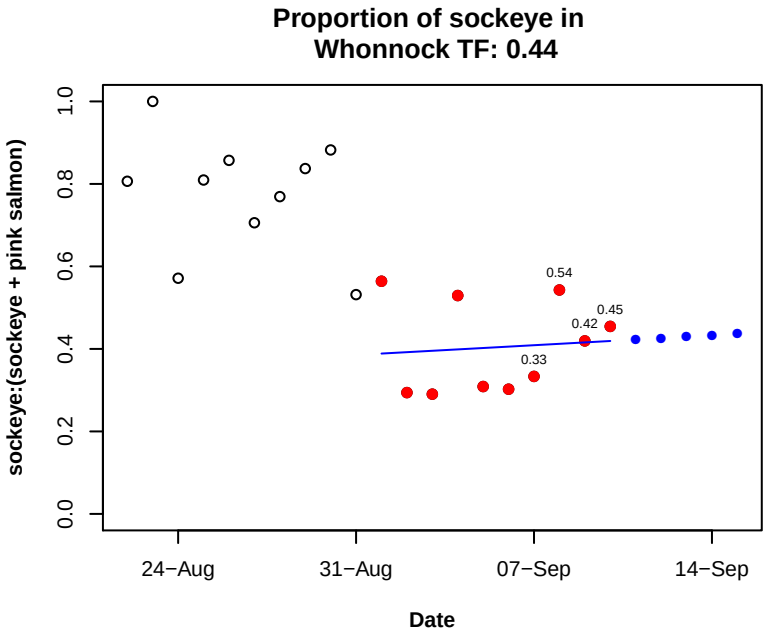
[8] Late Shuswap / Portage / Weaver /Cultus

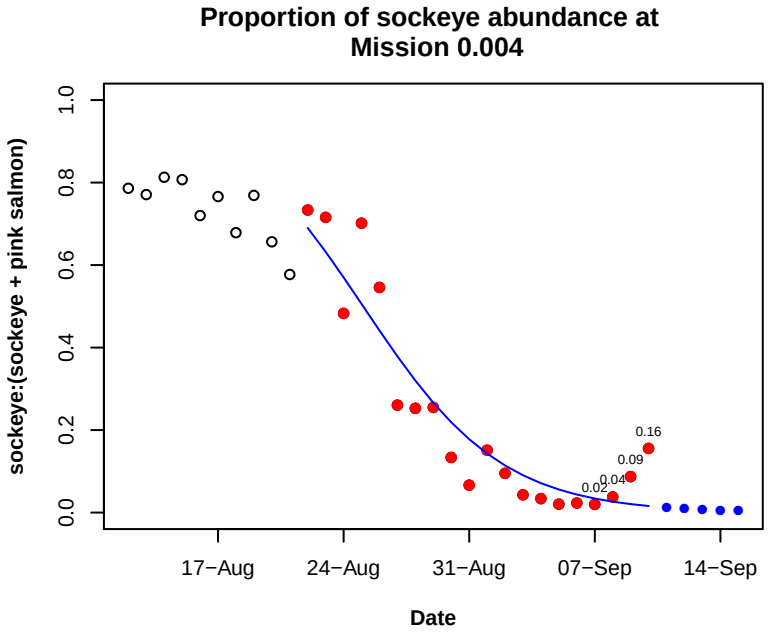
Method for run size estimation

A	Run size assessment model (median)
B	Run size assessment model (average of median and mode)
C	Reconstruction consisting of catch + escapement + 6 day projection + seaward projection
D	Catch + escapement
E	Sum of individual groups
F	Timing based
G	Reconstruction consisting of catch + escapement + model projections

Prediction of the proportion of sockeye:(sockeye + pink salmon) in 2015 test fisheries & Mission abundance







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