FINAL

Tsawwassen First Nation Post-Season Fisheries Report, 2014

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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
TOTS	Treaty Obligation Tracking System

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 2009–2013 Food, Social, and Ceremonial (FSC) and THA fisheries (Blakley et al. 2010, 2011, 2012, 2013, 2014). 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:

TFN FSC Sockeye salmon allocation = 1% × 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 TOTS (Treaty Obligation Tracking System) website.

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 2014, the effective date of the TAFP was 1 April 2014 and carries through to 31 March 2015. 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. Refer to Appendix A for the 2014 TAFP.

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 Seafood Safety

and Quality Unit of 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 sturgeon and Steelhead, 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 2014 for the various species and fisheries (i.e., Sockeye salmon FSC, Crab FSC, Eulachon Ceremonial, Sockeye and 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 and 2014 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. In addition, catch calendars are also available to record the days when fishing occurred for each species (see example month in Appendix C).
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 2014 based on pre-, in-, and final in-season estimates. Tsawwassen First Nation's FSC salmon allocations for Chinook (*O. tshawytscha*), Sockeye, Coho (*O. kisutch*), and Chum salmon were 625, 15,226, 500, and 2,576, respectively. The Chinook, Chum, and Coho salmon remained constant throughout the 2014 fishing season. Even year return of Fraser Pink salmon are typically too small to warrant any directed harvest of these stocks; therefore, there was no FSC allocation for Pink salmon in 2014.

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 2014, 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) and remained at that level the entire season.

For a comparison of TFN's 2014 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 2014, listed by week-ending date. The FSC directed Chinook salmon fisheries began the week ending 18 May and continued through to the week ending 31 August. There were two FSC directed Chinook openings (HD-433 and HD-438) which included incidental harvest of Sockeye salmon. The final FSC opening for Chinook salmon (HD-468) included harvest of Sockeye plus Coho salmon. There were also four FSC salmon openings directed at Sockeye salmon with the incidental catch of Chinook salmon permitted (week endings 27 July, 3 August, 10 August, and 24 August). The fifth and final FSC Sockeye opening was a limited participation (LP) fishery (LP-HD-422) and incidental harvest of Chinook, Coho, and Chum salmon were

also permitted. Food, Social, and Ceremonial fisheries directed at Chum salmon with incidental harvest of Chinook, Coho, and Sockeye salmon began 5 October and ended 19 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 14,878; of this catch 46% (6,787) was harvested the week ending 10 August. Total FSC Chinook salmon harvest was reported at 392 with the peak (79 Chinook salmon) occurring during the week ending 31 August. The total Chum salmon harvest in the FSC fisheries was 3,495 and occurred over three weeks (5−19 October). Approximately, 53% (1,861) of the total FSC Chum salmon caught were harvested the week ending 19 October during the last FSC Chum salmon opening (Table 3.3).

There were no directed TFN FSC fishery openings for Coho and Pink salmon or Steelhead. However, 159 wild (unmarked) Coho salmon were kept because they were caught incidentally during the FSC Chum salmon fisheries (Table 3.3). Under the 2014 Tsawwassen FSC salmon licences, both "hatchery-marked" and wild (un-marked) Coho salmon were allowed to be retained. Three Pink salmon were incidentally caught during the Sockeye salmon FSC openings (HD-444 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 1,171 hours. The highest fishing effort (251 hours) was recorded the week ending 3 August during the second FSC Sockeye salmon opening (HD-444).

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 19% 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 and Sockeye salmon, 22% and 24%, respectively), but not achieved for Coho (11%) and Chum salmon (14%; Table 3.4). There were no directed fisheries for Coho or Pink salmon so the encounter rate was very low; therefore, the 20% validation rate was not achieved. Pink salmon are very rare in Fraser River fisheries in even number years. Thirty-two percent of the Chum salmon harvested was interviewed, of which a portion was counted; unfortunately, only 14% of the Chum salmon catches were 100% validated. In the future, an increase in validation effort at the landing

sites would improve the current validation rate. 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 validated data versus non-interviewed data. The average CPE for Chinook salmon was slightly higher for the validated data (0.38 Chinook/h) than the non-interviewed data (0.34 Chinook/h). Similarly, the average Sockeye salmon CPE from validated fishers (15.55 Sockeye/h) was slightly higher than that for non-interviewed fishers (12.82 Sockeye/h). Due to the vast number of Sockeye salmon (23 million) returning the Fraser River, the catch rate for both the interviewed and non-interviewed fishers were higher as compared to other species, except for Chum salmon. The survey results for FSC Chum salmon fisheries differed to those of Sockeye and Chinook salmon. The average Chum salmon CPE for the validated interviews during the October Chum salmon fisheries (29.30 Chum/h, n=491) was considerably higher than that for non-interviewed fishers (11.53 Chum/h). The most likely reason for the higher catch rate for the validated interview data is that surveyors are more likely to encounter the best fishers because they tend to fish more than the other fishers. Sample sizes 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 2014. Total release catch for sturgeon, Steelhead, Pink, Sockeye, Coho, Chum salmon, and Flounder were 76, 3, 2, 3, 2, 1, and 27, respectively. There were also 2 “other” fish (1 carp and 1 unidentified fish) released during the first FSC Sockeye salmon opening (HD-441). Over 61% (47) of the Sturgeon releases were caught between the week endings 27 July–10 August during the directed Sockeye salmon FSC fisheries. The “wild” Coho salmon releases (2) were caught during the FSC Chum salmon fisheries that occurred the week ending 12 October

Table 3.6 further details Tsawwassen FSC releases of sturgeon by fishing location. There was a total of 76 sturgeon released from May to October, with the highest number (18) of sturgeon caught during the week ending 27 July in the Canoe Pass to Deas location (T3; Stat Area 29-14).

3.5 Overages and Underages

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

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

Table 3.7 summarizes the Tsawwassen FSC salmon catch, allocation, balance (overages and underages), and carry forward amounts for each salmon species. Tsawwassen harvested less than the defined allocation by 348 for Sockeye salmon. No carry forward is proposed for Sockeye salmon because Tsawwassen fishing efforts were less than that required to harvest the TFN allocations for this species.

Fisheries and Oceans Canada approved a portion of the total TFN Chinook salmon allocation not harvested in 2012 as an underage to be carried forward due to DFO management uncertainty (Blakley et al. 2012). Tsawwassen First Nation accepted the underage of 125 (20% of TFN's annual allocation of 625 Chinook salmon) with the intention that the carry forward can be used over several years. In 2013, an additional 104 Chinook salmon were harvested over and above the annual allocation (625), therefore, a balance of 21 Chinook salmon was carried forward to be harvested in future years (Blakley et al. 2013; Table 3.7).

In 2014, TFN was only able to harvest 392 Chinook salmon of the 625 allocated. For FSC Chum salmon, TFN harvested 919 more fish than their defined allocation (2,576; Table 3.7). After detailed JTC and JFC discussions related to the issue of the TFN 2014 domestic Chinook and Chum salmon fishery outcomes, DFO agreed with the proposal made by Tsawwassen to zero out the 2014 post-season TFN balances for both Chinook and Chum salmon. For more details on these discussions, refer to Appendix D which includes the letters exchanged between Tsawwassen and DFO regarding this issue.

3.6 Recommendations

The following are recommendations for the 2015 FSC fishing season:

- Prior to the weekly planning calls for Fraser salmon fisheries, TFN and DFO representatives should 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; with special emphasis on future Chum salmon FSC fisheries.
- Continue to improve coded wire tag (CWT) sampling protocol for Chinook and Coho salmon.
- 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

The THA allocation is equivalent to 0.78% of the CCTAC for Fraser River Sockeye salmon for that year. In 2014, TFN was authorized to sell 75,581 Sockeye salmon during the commercial THA fisheries. The THA allocation was calculated based on the CCTAC reported in the (4 September) 2014 Fraser River Sockeye

In-Season Status Report (Appendix E). In addition, TFN was authorized to sell 7,508 Chum salmon during commercial THA fisheries (Table 4.1). There were no THA licences issued to TFN for Pink salmon, in 2014, because even year returns of Fraser Pink salmon are typically too small to warrant any directed harvest of these stocks.

4.2 Fishery Openings and Target Species

Tsawwassen First Nation was involved in nine THA fisheries from the week ending 10 August to 28 September (Table 3.2). These fisheries were directed at Sockeye salmon; however, incidental harvest of Chinook and Chum salmon were also permitted depending on the timing of the opening (Table 3.2). The main gear type for the THA fisheries was drift nets; except for the fisheries that occurred during the week ending 28 September (HD-480 and HD-481) where Musqueam First Nation members were designated to fish using shallow seine nets.

Total Sockeye salmon harvested during the THA fisheries from August to September was 79,574 (Table 4.1). Tsawwassen First Nation harvested more than the defined allocation by 3,993 Sockeye salmon. The overage was not realized until post-season when a thorough review of all the landing slips was completed by TNRD staff and DFO (see Recommendations section 4.4).

Approximately, 82% (65,154) of the total THA allocation for Sockeye salmon was sold to packers and the remaining 18% (14,420) of the Sockeye were taken home (kept) by the individual TFN fishers (Table 4.1).

Tsawwassen First Nation was also issued one THA fishery licence (HD-498) directed at harvesting Chum salmon with no incidental harvest of other salmon species permitted. The opening occurred during the week ending 26 October and was approximately 12 hours in duration (Table 3.2). The total Chum salmon harvested in THA fisheries (including Sockeye salmon THA fisheries) was 4,967 (Table 4.1). All efforts and attempts were made to return all non-target species, including Coho salmon, Steelhead, and sturgeon, to the water alive and unharmed. The main gear type for the Chum salmon THA fishery was drift nets.

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. Releases included 44 Chinook salmon, 238 Coho salmon, 23 Sockeye salmon, 16 Chum salmon, 18 Sturgeon, and 6 Steelhead (Table 4.1). Harvest Documents 480 and 481 (EO Sockeye salmon fisheries) were issued to TFN; however, TFN designated Musqueam FN members to participate in the fisheries. Unfortunately, no effort or released catch were recorded for these fisheries. Release catch estimated was calculated using encounter rate information from the shallow seine fisheries below Port Mann (see detailed calculations in Appendix F). Estimates of released harvest from HD-498 were based on a 6-day running average from blended encounter rates from the Albion test fishery and vessel-based observations collected during the Area E fisheries, since minimal catches were reported by TFN (see detailed calculations in Appendix F).

4.4 Recommendations

The following are recommendations for the 2015 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.
- A preliminary review of all THA fisheries should be completed by DFO and TFN prior to the last opening occurring to avoid post-season discrepancies.

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 2014, targeting Dungeness (*Metacarcinus magister*)[1], Graceful (*M. gracilis*)[2], and Red rock crab (*Cancer productus*) species (Table 5.1). However, TFN fishers only kept Dungeness crab, which were all harvested using traps. No crabs were harvested by TFN members using hand picking method in 2014.

Table 5.2 summarizes the FSC crab catch and effort by licence. Overall, there was a total of 41,563 Dungeness crab kept and 5 Red rock crabs released under the four licences. Approximately, 45% (18,750) of the total Dungeness crab were harvested under the HD-403 licence from April to June. However, HD-421 (July to September) recorded the highest amount of fishing effort 30,290 trap-days and caught 18,007 Dungeness crab. In contrast, fishers active during the January to March period (licence HD-400) harvested 1,124 Dungeness crab and reported 18,298 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 June recorded the highest Dungeness crab harvest (10,943) and fishing effort (12,353 trap-days), whereas, March had the lowest recorded harvest and fishing effort (342 and 4,248 trap-days, respectively). May and June were the only months where Red rock crabs (5) were harvested and subsequently released. Inclement weather probably played a factor for the low harvest in January through March. Soft-shell crab would account for a high portion of the releases in May–July. Most of the releases in other months were crabs smaller than the minimum size limit.

Table 5.4 summarizes by month, the number of crab surveys conducted from January to December 2014. On average, the TFN Fisheries Department staff completed 205 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 if crabbers were fishing by using binoculars. In addition, during the peak months of crab fishing (March to November), 20 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 2014, 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

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

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 2014, 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 2015 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 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 2015 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 2014.” The 2014 pre-season Eulachon allocation target for Fraser River First Nations was approximately 100 lb. per First Nation. Two ceremonial licences were issued for Eulachon (25-26 April and 1-2 May) and all were 6 hours or less in duration (Table 6.1). Table 6.2 indicates a total of 59.24 lb. of Eulachon were harvested during the two ceremonial openings in April and May. The total combined fishing effort spanning the two Eulachon openings was just over 6 hours. Twenty-six suckers, 6 flounder, 0.25 lb. of Eulachon, and 30 Bullhead sculpins and/or Rainbow trout were also caught and released as bycatch during the Eulachon fisheries (Table 6.2).

6.2 Recommendations

The following are recommendations for the 2015 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.

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 2014 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 2014 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 2014.

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 2014 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 six 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. As discussed previously in section 3.5 (Overages and Underages), 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. 2012). 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" (Table 7.1). Of the 646 Chinook salmon allocated to Tsawwassen in 2014, only 392 were harvested. 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 8,833 over the last six years. Other salmon in the FSC fisheries harvested from 2009 to 2014 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 six-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. As previously discussed in section 3.5 (Overages and Underages), because of the differences between the 2014 TFN harvests and 2014 TFN allocations for Chinook and Chum salmon, the Parties agreed to zero out the 2014 post-season TFN balances for both Chinook and Chum salmon (Table 7.1).

7.2 FSC Crab Harvest

The total average FSC Dungeness crab harvest over the six year period (2009–2014) was 29,173 and ranged from 20,327 in 2011 to 42,439 in 2013 (Table 7.2). The increase in crab catch over previous years was 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 16,000 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.

8 REFERENCES

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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.

TABLES

Table 3.1 Tsawwassen FSC salmon fishery allocations (in pieces), 2014.

Season	Chinook[1]	Sockeye[2,3]	Pink	Coho	Chum
Pre-season	625	15,226	N/A	500	2,576
In-season	625	15,226	N/A	500	2,576
Final in-season	625	15,226	N/A	500	2,576

[1] Chinook salmon allocation is 625 plus the 21 carry over from 2012.

[2] See Appendix E for Fraser River Status Reports.

[3] The final in-season Sockeye salmon allocation is based on the CTAC estimate available prior to the last TFN fishery for Fraser Sockeye salmon.

Table 3.2. Tsawwassen FSC and THA salmon fishery openings by date, gear type, and target species, 2014.

Weekend date	Licence #	Fishery type	Target species	Opening Date and time	Closing Date and time	Gear type(s)
18-May-14	LFA-14-HD-408	FSC - Communal	Chinook salmon	18-May 13:00	18-May 21:00	Drift net, set net
25-May-14	LFA-14-HD-410	FSC - Communal	Chinook salmon	24-May 09:00	24-May 17:00	Drift net, set net
01-Jun-14	LFA-14-HD-411	FSC - Communal	Chinook salmon	31-May 10:00	31-May 22:00	Drift net, set net
08-Jun-14	LFA-14-HD-411	FSC - Communal	Chinook salmon	07-Jun 10:00	07-Jun 22:00	Drift net, set net
15-Jun-14	LFA-14-HD-411	FSC - Communal	Chinook salmon	14-Jun 10:00	14-Jun 22:00	Drift net, set net
22-Jun-14	LFA-14-HD-418	FSC - Communal	Chinook salmon	21-Jun 08:00	22-Jun 08:00	Drift net, set net
29-Jun-14	LFA-14-HD-424	FSC - Communal	Chinook salmon	27-Jun 18:00	29-Jun 18:00	Drift net, set net
06-Jul-14	LFA-14-HD-429	FSC - Communal	Chinook salmon	04-Jul 18:00	06-Jul 18:00	Drift net, set net
13-Jul-14	LFA-14-HD-433	FSC - Communal	Chinook salmon with incidental harvest of Sockeye salmon	11-Jul 16:00	13-Jul 16:00	Drift net, set net
20-Jul-14	LFA-14-HD-438	FSC - Communal	Chinook salmon with incidental harvest of Sockeye salmon	18-Jul 12:00	20-Jul 12:00	Drift net, set net
27-Jul-14	LFA-14-HD-441	FSC - Communal	Sockeye salmon and incidental harvest of Chinook salmon	26-Jul 14:00	27-Jul 08:00	Drift net, set net
03-Aug-14	LFA-14-HD-444	FSC - Communal	Sockeye salmon and incidental harvest of Chinook salmon	02-Aug 18:00	03-Aug 18:00	Drift net, set net
10-Aug-14	LFA-14-HD-450	Tsawwassen Harvest Agreement	Sockeye salmon and incidental harvest of Chinook salmon	08-Aug 13:00	08-Aug 16:00	Drift net, set net
10-Aug-14	LFA-14-HD-452	FSC - Communal	Sockeye salmon and incidental harvest of Chinook salmon	10-Aug 09:00	10-Aug 21:00	Drift net, set net
17-Aug-14	LFA-14-HD-457	Tsawwassen Harvest Agreement	Sockeye salmon and incidental harvest of Chinook salmon	13-Aug 17:00	13-Aug 20:00	Drift net, set net
24-Aug-14	LFA-14-LP-HD-418	FSC - Communal	Sockeye salmon and incidental harvest of Chinook salmon	23-Aug 13:00	23-Aug 17:00	Drift net
24-Aug-14	LFA-14-HD-466	Tsawwassen Harvest Agreement	Sockeye salmon and incidental harvest of Chinook salmon	24-Aug 15:00	24-Aug 19:00	Drift net, set net
31-Aug-14	LFA-14-HD-467	Tsawwassen Harvest Agreement	Sockeye salmon and incidental harvest of Chinook salmon	29-Aug 08:00	29-Aug 20:00	Drift net, set net
31-Aug-14	LFA-14-HD-468	FSC - Communal	Chinook salmon with incidental harvest of Sockeye and Coho salmon	31-Aug 08:00	31-Aug 20:00	Drift net, set net
07-Sep-14	LFA-14-HD-471	Tsawwassen Harvest Agreement	Sockeye salmon and incidental harvest of Chinook salmon	03-Sep 08:00	03-Sep 20:00	Drift net, set net
07-Sep-14	LFA-14-HD-473	Tsawwassen Harvest Agreement	Sockeye salmon and incidental harvest of Chinook salmon	06-Sep 08:00	07-Sep 20:00	Drift net, set net
14-Sep-14	LFA-14-HD-476	Tsawwassen Harvest Agreement	Sockeye salmon and incidental harvest of Chum salmon	10-Sep 14:00	10-Sep 20:00	Drift net, set net
14-Sep-14	LFA-14-LP-HD-422	FSC - Communal	Sockeye salmon and incidental harvest of Chinook, Coho, and Chum salmon	12-Sep 16:00	12-Sep 20:00	Drift net
28-Sep-14	LFA-14-HD-480	Tsawwassen Harvest Agreement	Sockeye salmon with incidental Chum salmon	22-Sep 06:00	22-Sep 20:00	Shallow seine
28-Sep-14	LFA-14-HD-481	Tsawwassen Harvest Agreement	Sockeye salmon with incidental Chum salmon	23-Sep 13:00	24-Sep 20:00	Shallow seine
05-Oct-14	LFA-14-HD-489	FSC - Communal	Chum salmon and incidental harvest of Chinook, Coho, and Sockeye salmon	04-Oct 12:00	05-Oct 12:00	Drift net, set net
12-Oct-14	LFA-14-HD-492	FSC - Communal	Chum salmon and incidental harvest of Chinook, Coho, and Sockeye salmon	10-Oct 12:00	12-Oct 12:00	Drift net, set net
19-Oct-14	LFA-14-HD-495	FSC - Communal	Chum salmon and incidental harvest of Chinook, Coho, and Sockeye salmon	18-Oct 06:00	19-Oct 18:00	Drift net, set net
26-Oct-14	LFA-14-HD-498	Tsawwassen Harvest Agreement	Chum salmon	25-Oct 06:00	26-Oct 18:00	Drift net, set net

Table 3.3. Summary of Tsawwassen FSC salmon catch and effort, 2014.

			Tsawwassen catch (kept)						
Weekend date	Licence #	Vessel (h)	Chinook	Adipose-clipped Chinook	Sockeye	Pink	Coho	Adipose-clipped Coho	Chum
18-May-14	LFA-14-HD-408	11.6	0	0	0	0	0	0	0
25-May-14	LFA-14-HD-410	3.0	0	0	0	0	0	0	0
01-Jun-14	LFA-14-HD-411	6.8	4	0	0	0	0	0	0
08-Jun-14	LFA-14-HD-411	40.5	5	0	0	0	0	0	0
15-Jun-14	LFA-14-HD-411	4.3	0	0	0	0	0	0	0
22-Jun-14	LFA-14-HD-418	8.8	2	0	0	0	0	0	0
29-Jun-14	LFA-14-HD-424	10.2	11	0	0	0	0	0	0
06-Jul-14	LFA-14-HD-429	23.4	19	0	7	0	0	0	0
13-Jul-14	LFA-14-HD-433	49.2	69	0	53	0	0	0	0
20-Jul-14	LFA-14-HD-438	44.7	63	0	30	0	0	0	0
27-Jul-14	LFA-14-HD-441	204.7	29	0	2,057	0	0	0	0
03-Aug-14	LFA-14-HD-444	250.8	25	0	4,929	2	0	0	0
10-Aug-14	LFA-14-HD-452	172.6	40	0	6,787	1	0	0	0
24-Aug-14	LFA-14-LP-HD-418	15.5	3	0	804	0	0	0	0
31-Aug-14	LFA-14-HD-468	42.2	79	0	79	0	0	0	0
14-Sep-14	LFA-14-LP-HD-422	10.0	20	0	129	0	0	0	0
05-Oct-14	LFA-14-HD-489	12.6	4	0	3	0	6	0	187
12-Oct-14	LFA-14-HD-492	111.1	8	0	0	0	78	0	1,447
19-Oct-14	LFA-14-HD-495	149.3	11	0	0	0	75	0	1,861
Totals		**1171.2**	**392**	**0**	**14,878**	**3**	**159**	**0**	**3,495**

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
18-May-14	LFA-14-HD-408	3.4	0	0	0	0	0	0	0	0
25-May-14	LFA-14-HD-410	1.4	0	0	0	0	0	0	0	0
01-Jun-14	LFA-14-HD-411	1.0	1	0	0	0	0	0	0	0
08-Jun-14	LFA-14-HD-411	3.6	0	0	0	0	0	0	0	0
15-Jun-14	LFA-14-HD-411	0.0	0	0	0	0	0	0	0	0
22-Jun-14	LFA-14-HD-418	1.2	1	0	0	0	0	0	0	0
29-Jun-14	LFA-14-HD-424	4.0	6	0	0	0	0	0	0	0
06-Jul-14	LFA-14-HD-429	4.9	6	0	2	0	0	0	0	0
13-Jul-14	LFA-14-HD-433	0.5	1	0	0	0	0	0	0	0
20-Jul-14	LFA-14-HD-438	6.4	8	0	8	0	0	0	0	0
27-Jul-14	LFA-14-HD-441	94.7	22	0	1,031	0	0	0	0	0
03-Aug-14	LFA-14-HD-444	62.9	8	0	1,254	1	0	0	0	0
10-Aug-14	LFA-14-HD-452	47.7	11	0	1,487	0	0	0	0	0
24-Aug-14	LFA-14-LP-HD-418	0.0	0	0	0	0	0	0	0	0
31-Aug-14	LFA-14-HD-468	7.3	10	0	5	0	0	0	0	0
14-Sep-14	LFA-14-LP-HD-422	10.0	20	0	129	0	0	0	0	0
05-Oct-14	LFA-14-HD-489	1.1	0	0	0	0	2	0	28	0
12-Oct-14	LFA-14-HD-492	31.1	3	0	0	0	21	0	573	0
19-Oct-14	LFA-14-HD-495	35.0	4	0	0	0	18	0	521	0
Total (interviews)		316	101	0	3,916	1	41	0	1,122	0
Total (non-interviews)		855	291	0	10,962	2	118	0	2,373	0
Grand total		1,171	392	0	14,878	3	159	0	3,495	0
Total catch interviewed		27%	26%	0%	26%	33%	26%	0%	32%	N/A
Total catch counted (100%)		228	86	0	3,545	0	18	0	491	0
Percentage of catch counted (100%)		19%	22%	0%	24%	0%	11%	0%	14%	N/A
Catch-per-effort (CPE) for all interview data										
Interview data only			0.32	0.00	12.39	0.00	0.13	0.00	16.70	0.00
Non-interview data only			0.34	0.00	12.82	0.00	0.14	0.00	11.53	0.00
Catch-per-effort (CPE) for validated interview data										
Validated data only			0.38	0.00	15.55	0.00	0.08	0.00	29.30	0.00

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

Table 3.5. Tsawwassen bycatch from the FSC salmon fisheries, 2014.

Weekend			Released							
date	Licence #	Vessel (h)	Sturgeon	Steelhead	Pink	Sockeye	Flounder	Coho[1]	Chum	Other[2]
18-May-14	LFA-14-HD-408	11.6	2	1	0	0	0	0	0	0
25-May-14	LFA-14-HD-410	3.0	0	0	0	0	0	0	0	0
01-Jun-14	LFA-14-HD-411	6.8	2	0	0	0	0	0	0	0
08-Jun-14	LFA-14-HD-411	40.5	4	0	0	0	27	0	0	0
15-Jun-14	LFA-14-HD-411	4.3	0	0	0	0	0	0	0	0
22-Jun-14	LFA-14-HD-418	8.8	2	0	0	0	0	0	0	0
29-Jun-14	LFA-14-HD-424	10.2	0	0	0	0	0	0	0	0
06-Jul-14	LFA-14-HD-429	23.4	0	0	0	0	0	0	0	0
13-Jul-14	LFA-14-HD-433	49.2	6	0	0	0	0	0	0	0
20-Jul-14	LFA-14-HD-438	44.7	5	0	0	0	0	0	0	0
27-Jul-14	LFA-14-HD-441	204.7	26	0	1	0	0	0	0	2
03-Aug-14	LFA-14-HD-444	250.8	12	0	0	0	0	0	0	0
10-Aug-14	LFA-14-HD-452	172.6	9	0	1	3	0	0	0	0
24-Aug-14	LFA-14-LP-HD-418	15.5	0	0	0	0	0	0	0	0
31-Aug-14	LFA-14-HD-468	42.2	1	0	0	0	0	0	0	0
14-Sep-14	LFA-14-LP-HD-422	10.0	2	0	0	0	0	0	0	0
05-Oct-14	LFA-14-HD-489	12.6	0	0	0	0	0	0	0	0
12-Oct-14	LFA-14-HD-492	111.1	2	1	0	0	0	2	0	0
19-Oct-14	LFA-14-HD-495	149.3	3	1	0	0	0	0	1	0
Totals		**1171.2**	**76**	**3**	**2**	**3**	**27**	**2**	**1**	**2**

[1] All Coho salmon were released alive.

[2] Other species caught during HD-441 were: carp and unidentified fish.

Table 3.6. Tsawwassen FSC releases of sturgeon (bycatch) by date and location, 2014.

Weekend date	Locations[1]					Totals
	T1	T2	T3	T4	T5	
18-May-14	-	-	-	2	-	2
25-May-14	-	-	-	-	-	0
01-Jun-14	-	-	2	-	-	2
08-Jun-14	-	-	3	1	-	4
15-Jun-14	-	-	-	-	-	0
22-Jun-14	-	-	2	-	-	2
29-Jun-14	-	-	-	-	-	0
06-Jul-14	-	-	-	-	-	0
13-Jul-14	-	-	6	-	-	6
20-Jul-14	-	-	4	1	-	5
27-Jul-14	-	-	18	8	-	26
03-Aug-14	-	-	1	11	-	12
10-Aug-14	-	-	1	8	-	9
24-Aug-14	-	-	-	-	-	0
31-Aug-14	-	-	-	1	-	1
14-Sep-14	-	-	-	2	-	2
05-Oct-14	-	-	-	-	-	0
12-Oct-14	-	-	-	2	-	2
19-Oct-14	-	-	-	3	-	3
Totals	**0**	**0**	**37**	**39**	**0**	**76**

[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).

Table 3.7. Tsawwassen FSC salmon overages and underages based on 2014 allocation.

	Chinook[1]	Sockeye[2]	Pink	Coho[2]	Chum[1]
Annual allocations	625	15,226	N/A	500	2,576
Previous carry forward	21	-	-	-	-
Total allocation:	646	15,226	0	500	2,576
Total catch	392	14,878	3	159	3,495
Fish provided to TFN	-	-	-	-	-
Total catch:	392	14,878	3	159	3,495
Balance:	254	348	0	341	-919
Carry forward:	-	-	-	-	-

[1] Fisheries and Oceans Canada accepted that the remaining Chinook salmon allocation from 2012 (21) plus 233 balance from 2014 would discount the 2014 Chum salmon overage of 919 (zeroing out any carry forward).

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

Table 4.1. Tsawwassen Catch Summary for THA salmon fisheries, 2014.

			Kept[1]						**Sold**				**Total retained**				**Released**						
Weekend date	Licence #[2,3]	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
10-Aug-14	LFA-14-HD-450	51.3	9	0	969	1	0	0	1,595	8	0	0	2,564	17	0	1	5	0	4	7	0	0	0
17-Aug-14	LFA-14-HD-457	60.3	2	0	65	1	0	0	6,556	5	0	1	6,621	7	0	1	1	0	0	0	0	0	0
24-Aug-14	LFA-14-HD-466	80.9	27	0	3,410	0	0	1	4,725	1	0	0	8,135	28	1	0	0	0	0	1	0	0	0
31-Aug-14	LFA-14-HD-467	257.4	53	0	5,730	1	0	1	4,536	18	0	0	10,266	71	1	1	1	0	0	1	0	0	0
07-Sep-14	LFA-14-HD-471	224.3	41	0	1,338	0	0	2	10,362	50	0	0	11,700	91	2	0	2	0	0	0	0	0	0
07-Sep-14	LFA-14-HD-473	525.8	182	1	1,724	0	0	3	29,583	173	6	0	31,307	356	9	0	0	0	0	0	0	12	2
14-Sep-14	LFA-14-HD-476-AMD01	148.3	98	0	1,184	0	0	5	6,635	0	7	0	7,819	98	12	0	0	0	7	0	0	18	0
27-Sep-14	LFA-14-HD-480	N/A	0	0	0	0	0	0	129	0	3	0	129	0	3	0	0	0	1	0	0	3	0
27-Sep-14	LFA-14-HD-481	N/A	0	0	0	0	0	0	1,033	0	0	0	1,033	0	0	0	0	0	12	0	0	25	14
26-Oct-14	LFA-14-HD-498	214.9	0	0	0	0	0	41	0	0	4,898	0	0	0	4,939	0	18	6	20	14	0	180	0
Totals		**1,563.1**	**412**	**1**	**14,420**	**3**	**0**	**53**	**65,154**	**255**	**4,914**	**1**	**79,574**	**668**	**4,967**	**3**	**27**	**6**	**44**	**23**	**0**	**238**	**16**
Total TFN in-season allocation													**75,581**		**7,508**								
Total TFN harvest													**79,574**		**4,967**								
Remaining after TFN harvest													**-3,993**		**2,541**								

[1] Chinook salmon harvested and kept during HD-476-AMD01 were mortally wounded.

[2] HD-480 and HD-481 were EO Sockeye salmon fisheries harvested by Musqueam First Nation. No effort or releases were recorded for these fisheries. Release catch estimate was calculated using encounter rate information from shallow seine fisheries below Port Mann in 2014 (see detailed calculations in Appendix F).

[3] The released harvest was incomplete for HD-498. The release catch estimates were calculated using blended estimates averaging encounter rates bewteen Albion and Area E fisheries (see detailed calculations in Appendix F).

Table 5.1. Tsawwassen FSC crab fishery openings by target species, date, and gear type, 2014.

			Opening	Closing	
Licence #	Fishery type	Target species[1]	Date and time	Date and time	Gear type(s)
LFA-14-HD-400	FSC - Communal	Crab	01-Jan 00:01	31-Mar 23:59	Handpicking, dip net, ring net, traps
LFA-14-HD-403	FSC - Communal	Crab	01-Apr 00:01	30-Jun 23:59	Handpicking, dip net, ring net, traps
LFA-14-HD-421	FSC - Communal	Crab	01-Jul 00:01	30-Sep 23:59	Handpicking, dip net, ring net, traps
LFA-14-HD-485	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, 2014.

		Dungeness crab		Red rock crab			
Licence #	Date	Number kept	Number released	Number kept	Number released	Effort (h)	Trap-days
LFA-14-HD-400	01 Jan - 31 Mar	1,124	1,657	0	0	10,848	18,298
LFA-14-HD-403	01 Apr - 30 Jun	18,750	8,318	0	5	16,801	28,332
LFA-14-HD-421	01 Jul - 30 Sep	18,007	8,300	0	0	15,576	30,290
LFA-14-HD-485	01 Oct - 31 Dec	3,682	1,554	0	0	13,848	22,189
Totals		**41,563**	**19,829**	**0**	**5**	**57,073**	**99,109**

Table 5.3. Tsawwassen FSC Dungeness and Red rock crab catch and effort by month, 2014.

		Dungeness crab		Red rock crab			
Licence #	Month	Number kept	Number released	Number kept	Number released	Effort (h)	Trap-days
LFA-14-HD-400	January	372	175	0	0	2,616	5,450
	February	410	605	0	0	6,072	8,600
	March	342	877	0	0	2,160	4,248
LFA-14-HD-403	April	1,635	1,909	0	0	2,832	5,509
	May	6,172	2,073	0	3	5,497	10,470
	June	10,943	4,336	0	2	8,472	12,353
LFA-14-HD-421	July	10,217	5,364	0	0	6,120	10,690
	August	3,069	1,580	0	0	3,408	7,076
	September	4,721	1,356	0	0	6,048	12,524
LFA-14-HD-485	October	1,206	504	0	0	4,224	5,128
	November	1,345	395	0	0	4,776	8,729
	December	1,131	655	0	0	4,848	8,332
Totals		**41,563**	**19,829**	**0**	**5**	**57,073**	**99,109**

Table 5.4. Summary of Crab Patrol Surveys conducted in 2014.

	Survey type (# of days/month)	
Month	Vehicular	On-water (Boat)
January	24	0
February	22	0
March	26	1
April	25	1
May	10	2
June	12	6
July	12	2
August	12	1
September	21	1
October	21	3
November	13	3
December	7	0
Totals	**205**	**20**

Table 6.1. Tsawwassen FSC Eulachon fishery openings by target species, date, and gear type, 2014.

Weekend date	Licence #	Fishery type	Target species	Opening Date and time	Closing Date and time	Gear type(s)
27-Apr-14	LFA-14-LP-HD-403	FSC - Communal	Eulachon	25-Apr 12:00	26-Apr 18:00	Drift net
04-May-14	LFA-14-LP-HD-404	FSC - Communal	Eulachon	01-May 15:00	02-May 21:00	Drift net

Table 6.2. Tsawwassen First Nation Catch Summary for Ceremonial Eulachon fisheries, 2014.

Weekend date	Licence #	Effort (h)	Kept Pounds[1]	Released Sturgeon	Chubs	Suckers	Flounder	Eulachon[2]	Other[3]
27-Apr-14	LFA-14-LP-HD-403	0.7	5.24	0	0	0	3	0.25	2
04-May-14	LFA-14-LP-HD-404	5.4	54.00	0	0	26	3	0.00	28
Totals		**6.1**	**59.24**	**0**	**0**	**26**	**6**	**0.25**	**30**

[1] Sixteen pieces of Eulachon equals approximately 1 pound.

[2] Eulachon released is reported in pounds; all other released fish species reported in pieces.

[3] Other species released: Bullhead sculpin and Rainbow trout.

Table 7.1. Comparison of annual FSC salmon catch and allocation from 2009 to 2014.

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

[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.

Table 7.2. Comparison of annual FSC Dungeness and Red rock crab catch from 2009 to 2014.

	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

FIGURES

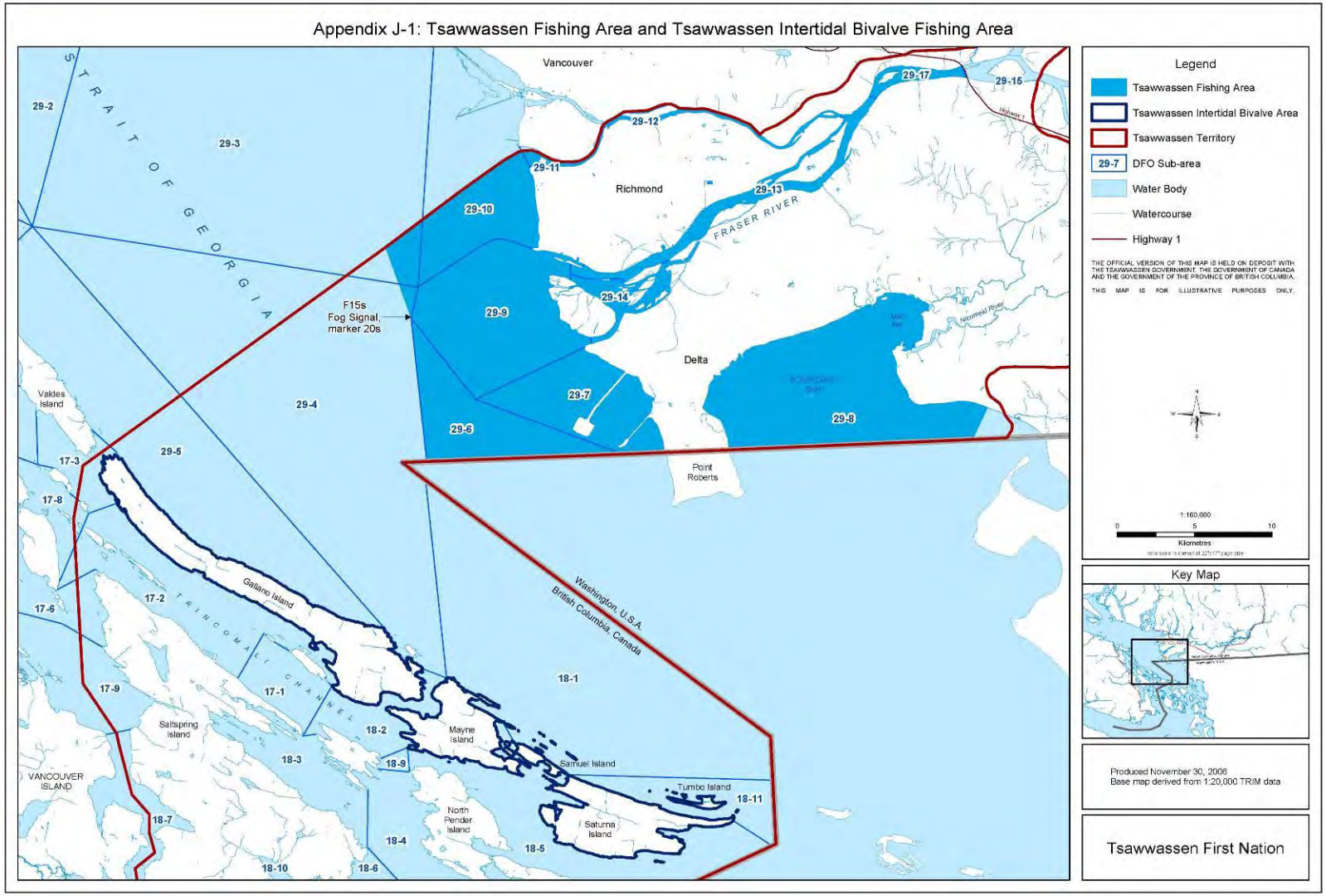

Figure 1.1. Tsawwassen Fishing Area and Tsawwassen Intertidal Bivalve Fishing Area.

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

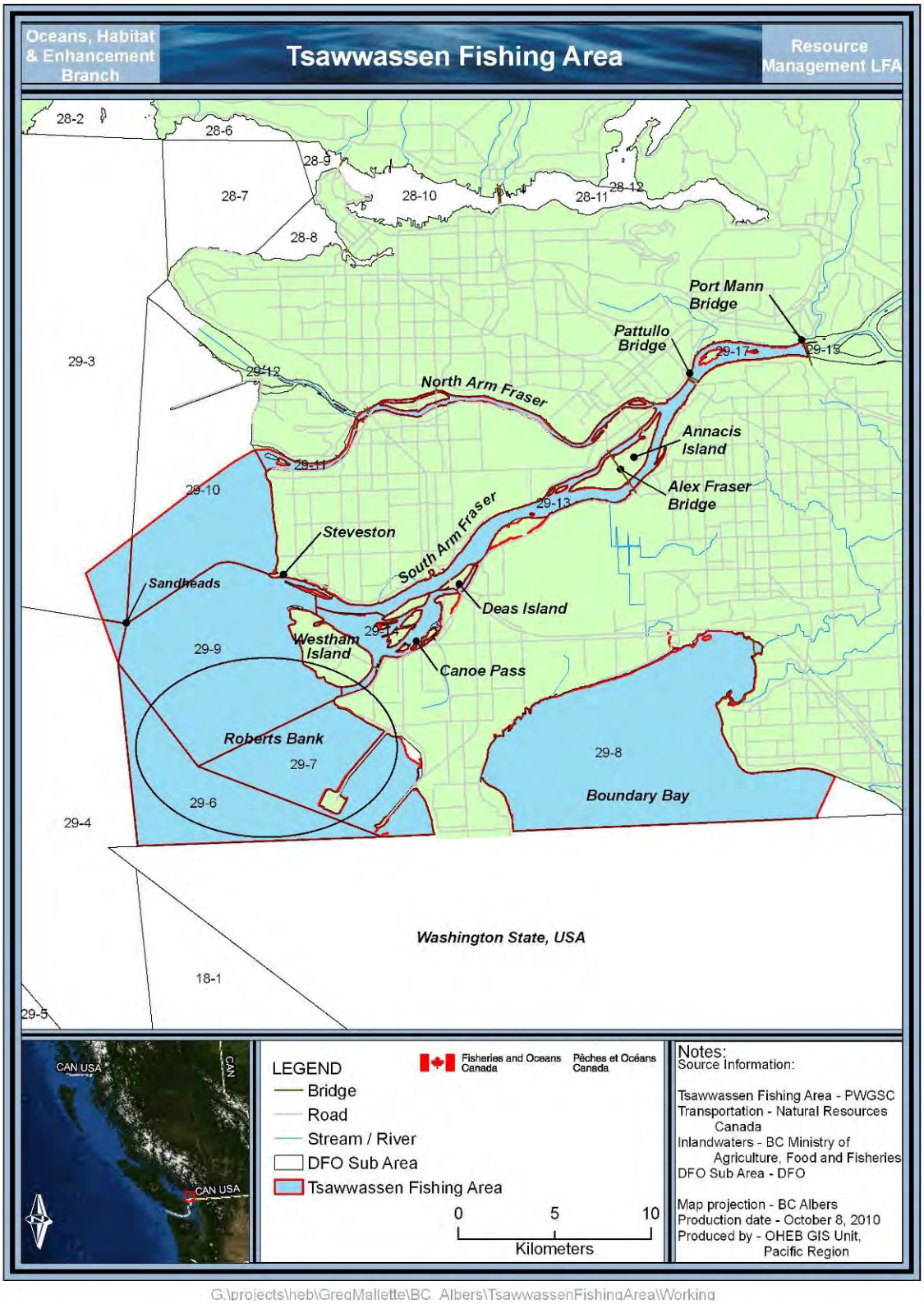

Figure 1.3. Tsawwassen Fishing Area (enlarged map with location names).

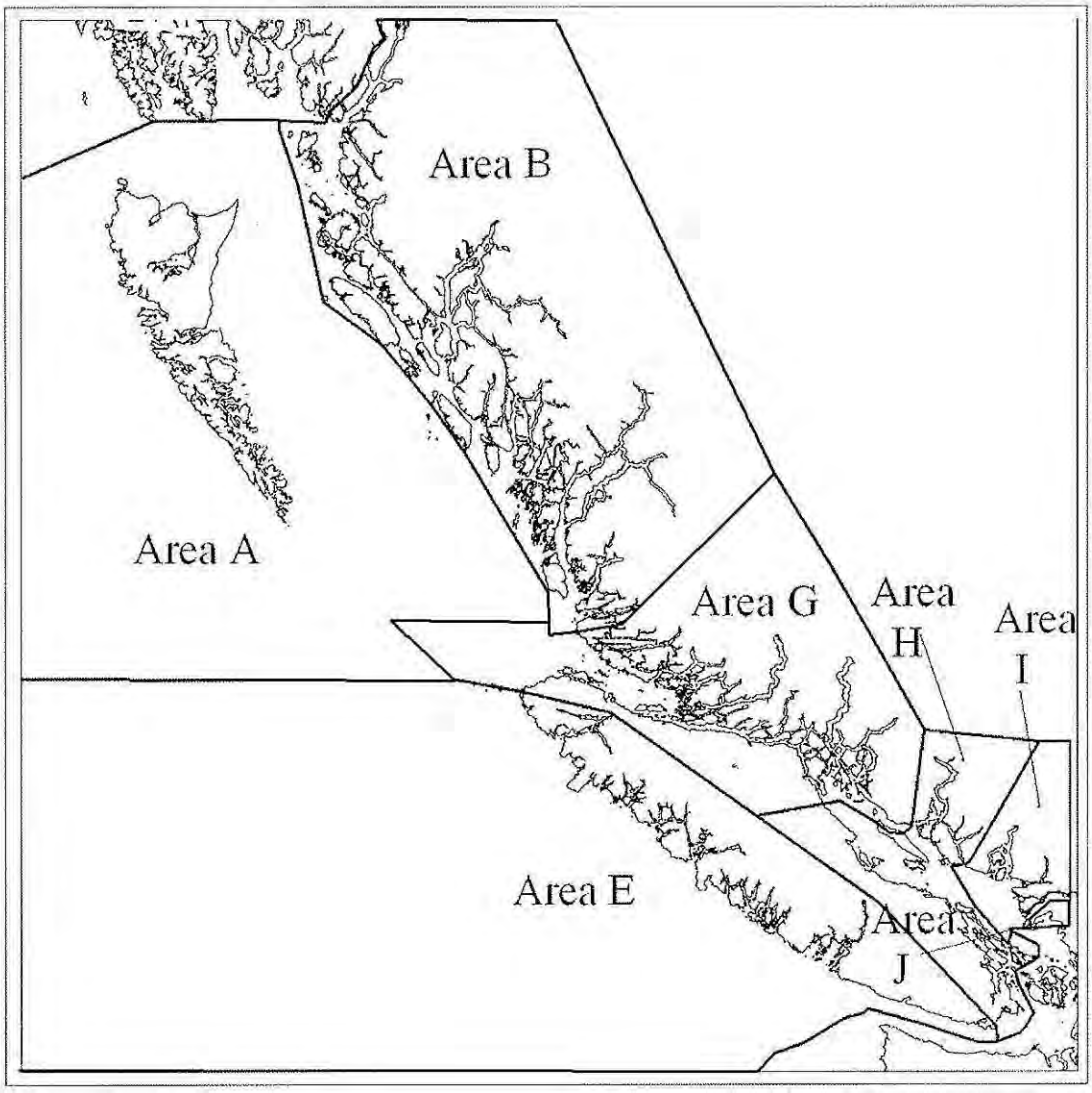

Figure 1.4. Map of Commercial Crab Management Areas.

APPENDICES

APPENDIX A

Tsawwassen Fishing Plan 2014

TSAWWASSEN FIRST NATION
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Fisheries Department

TSAWWASSEN ANNUAL FISHING PLAN 2014 – FINAL April 2014

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 2014 and 31 March 2015). A list of TFN's designated fishers and their designation numbers is provided to 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.

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 (see 2014 Fishing Calendar), 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 conservation concerns and the recovery process, 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 2014".

Fishery: A small amount of FSC harvest of Eulachon is proposed for 2014. Eulachon may be harvested for FSC purposes by specifically designated TFN fishers at the times and locations in a Tsawwassen Harvest Document.

Timing: From mid-April through mid-May 2014, 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 4 April.

Gear: Each fisher may fish using one drift net. 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 2014 is 100 lb. TFN is willing to assist other Lower Fraser First Nations with their FSC Eulachon harvest.

Chinook Salmon

Conservation: In 2010, the Nicola Tribal Association identified some serious conservation concerns for "early-timed" Chinook salmon and requested that all Fraser First Nations "hold off on any fishing" for these stocks. Most "early-timed" Chinook salmon stocks are Spring 4_2 and Spring 5_2 fish. These concerns are still relevant in 2014. In the 2014 Draft Salmon IFMP, Spring 4_2, Spring 5_2 and Summer 5_2 Chinook salmon stocks have been classified as stocks of concern. The 2012-14 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. Given the poor pre-season outlook, the Department is planning to begin the season with management actions for Spring 4_2 similar to what has been effect in recent years. For Spring and Summer 5_2 Chinook salmon, the Department is currently planning to begin the season with Zone 1 management actions, and is seeking feedback on this approach Updates of the predicted return for informational purposes are tentatively planned for 20 May and 2 June, with a final in-season update by 16 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 1 April through 15 June 2014, 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 15 June. There is evidence that these fisheries have captured some early-timed Fraser Chinook salmon stocks.

Similar to 2013 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 weekend of 17 May and second fishery starting the 31 May). If a "Zone 1" management continues through to the end of June, TFN will conduct

four-12 hour fisheries, from 7 June to 28 June. 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, only directed Sockeye salmon fisheries are proposed with bycatch of Chinook salmon.

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 16 June to 3 July and a minimum of 48 hours per week from 4 July to 25 July. These weekly fisheries will start on Friday at a time that will be determined in weekly consultations with DFO on the Wednesday prior.

From 26 July through 31 August 2014, 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.

From 1 March through 31 March 2015, 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 12 cm/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 20 cm/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 2014).

Size: No Chinook salmon with less than 30 cm/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 TFN allocation for 2014 is 625 Chinook salmon. In accordance to section 11.3 of the TFN FOG document, if there is an agreed resolution based on the remaining 2012 underage for Chinook salmon, the TFN Chinook allocation for 2014 may be adjusted pre-season. TFN is not required to make more than a 5% adjustment in a year for a past underage or overage. However, when an underage or overage exceeds 5% of the TFN annual allocation for a species, The Minister and TFN may agree to make an adjustment larger than 5% for that species.

Sockeye Salmon

Conservation[3]: Conservation concerns are anticipated for several of the components of the 2014 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). Draft IFMP indicates that there will be an Early Stuart Sockeye salmon closure in Area 29 until 18 July. 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.

From late July 2014 through mid-August 2014, most of the Sockeye salmon migrating through the TFN salmon fishing area will be originating from the Summer-run stocks. After mid-August 2014, 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 pre-season forecasts for the total return of Fraser Sockeye salmon in 2014 is 23 million (299,000 Early Stuart, 4,126,000 Early Summers, 5,699,000 Summers, and 12,886,000 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 Harvest Document. 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. DFO will 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 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[3]: 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.

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

From 18 July through 10 August 2014, the TFN's proposed Sockeye salmon fishing is 48 hours per week; 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 11 August through 1 September 2014 the TFN's proposed Sockeye salmon fishing is 24 hours per week, 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 2014. DFO is currently seeking input on the proposed approach.

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 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[4]: Based on the pre-season (50% probability) run size forecast and assuming the Canadian Total Allowable Catch (CTAC) is equal or greater than 3 million, the expected harvest level for 2014 is 15,226 Sockeye salmon in the TFN FSC fisheries. No estimate for the Sockeye salmon Canadian Commercial Total Allowable Catch (CCTAC) is available at this time; therefore, TFN's commercial Sockeye salmon allocation is yet to be determined.

Pink Salmon

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

TFN Fishery: N/A

Timing: N/A

Gear: N/A

Size: N/A

Expectation: N/A

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

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 2014 Chum salmon return to the Fraser River. The IFMP defines the decision guidelines for fisheries that target Fraser River Chum salmon stocks. TFN is concerned with DFO's plans to continue the interception of Fraser Chum salmon in Johnstone Strait fisheries prior to having sufficient information to determine the TAC for Fraser Chum salmon. TFN recommends that no 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 Harvest Document. Once the first in-season Canadian Commercial Total Allowable Catch has been determined for Fraser Chum salmon, TFN will be issued Harvest Documents by DFO for the Tsawwassen commercial allocation for Fraser River Chum salmon, as defined in the TFN Harvest Agreement. DFO will 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 (e.g., Steelhead, sturgeon, Lower Fraser Coho salmon, Interior Fraser Coho salmon).

Timing: From 4 October through 30 November 2014 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 2014, 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 25 October).

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 approximately 4 October through 30 November 2014. Revival boxes will be present on vessels greater than thirty feet.

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 2014. 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).

Coho Salmon

Conservation: Conservation concerns have been identified for Interior Fraser Coho salmon and Lower Fraser Coho salmon. However, the draft 2014 South Coast Salmon IFMP indicates there have been some recent improvements in abundance and on-going uncertainty about productivity. As a result, DFO has undertaken a scientific review of available stock and fishery information under the auspices of the Canadian Science Advisory Secretariat (CSAS) to determine the extent to which stock status has improved and the degree to which this might affect allowable exploitation rates on Interior Fraser Coho salmon for the 2014 fishing season. Regardless of the exploitation rate selected for the 2014 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 Harvest Document. 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 4 October through 30 November 2014, 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 2014 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 4 October through 30 November 2014.

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 2014 and will be harvested:

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

Crab

Conservation: No conservation concerns have been identified for Dungeness Crab harvesting in the TFA, however, the following conservation issues have been identified by DFO:

- All harvesters (Commercial, First Nation, and Recreational) should have the same minimum size limit for conservation of female crab. Commercial and recreational harvesters must release all females regardless of size. First Nation fishers are encouraged to release all female crabs caught in Food, Social and Ceremonial 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.

- 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). The commercial crab season is closed from December to mid-June in Areas 28 and 29 (December 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.

Timing: From 1 April 2014 through 31 March 2015, 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 follow 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. The commercial fishery requires at least two escape holes, both of which must be at least 105 mm in diameter.

- 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: 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:

- All clam harvesters are advised to check before they harvest that the area is not closed because of marine biotoxin or sanitary contamination.
- 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.

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: 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 1 April 2014 through 31 March 2015, 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, TFN fishers are 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 TFN Fisheries Department will endeavor to minimize the encounter rate and harvest for non-target species.

Timing: From 1 April 2014 through 31 March 2015, 24 hours per day, every day.

Gear: TFN members propose to use rod and reel gear 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: DFO 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.

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 2014. 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 2014 through 31 March 2015, 24 hours per day, every day.

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

APPENDIX B

Examples of Harvest Documents

Fisheries and Oceans Canada | Pêches et Océans Canada

Licence Number: XFSC 399 2014
File Number: LFA-14-HD 452/TSAWWASSEN
Valid From: 10-Aug-2014
Expiry Date: 10-Aug-2014

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 Sunday, August 10, 2014 or earlier if DFO, after consultation with Tsawwassen First Nation has determined there is a conservation concern.

Licence Holder:
FIN: 108234 Tsawwassen First Nation

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

Start: Sunday, August 10, 2014 at 09:00 **End:** Sunday, August 10, 2014 at 21:00

Details:
Fishing is authorized by this licence during the following times:

Set nets & Drift nets: 09:00 hours, Sunday, August 10, 2014 to 21:00 hours, Sunday, August 10, 2014.

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

Species: SOCKEYE SALMON (Oncorhynchus nerka)

Licence Number: XFSC 399 2014
File Number: LFA-14-HD 452/TSAWWASSEN
Valid From: 10-Aug-2014
Expiry Date: 10-Aug-2014

Allowable Fishing Times:

Start: Sunday, August 10, 2014 at 09:00
End: Sunday, August 10, 2014 at 21:00
Details:
Fishing is authorized by this licence during the following times:

Set nets & Drift nets: 09:00 hours, Sunday, August 10, 2014 to 21:00 hours, Sunday, August 10, 2014.

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.
ii. Each Participant fishes only one net,
iii. Only one net is fished from any vessel,
iv. Each net is attended at all times by the Participant who is fishing the net.
v. No vessel fishing under the authority of this harvest document has on board, in a hung condition, any net that does not meet the conditions in (i) above, and
vi. Spare nets on board a vessel actively fishing are kept in a stowed condition.

Set Nets on condition that:
i. Nets do not exceed a maximum of 10 fathoms or 60 feet and a maximum depth of 60 meshes.
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.

Subject to closures and other terms and conditions of this licence, the authority to fish under this licence will expire on August 10, 2014 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 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.

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.

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07 August 2014

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

Licence Issued: 07 August 2014

Licence Printed: 07 August 2014

Licence Number: XFSC 1 2014
File Number: LFA-14-HD 400/TSAWWASSEN

Valid From: 01-Jan-2014
Expiry Date: 31-Mar-2014

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 Monday, March 31, 2014 or earlier if DFO, after consultation with the First Nation has determined that the maximum quantity has been reached.

Licence Holder:
FIN: 85473 Tsawwassen Indian Band

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

Start:	01-Jan-2014 at 00:01	**End:**	31-Mar-2014 at 23:59

Individuals or groups assisting with the authorized activity:

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

Where Tsawwassen First Nation designates an individual; a Tsawwassen fishing licence will be issued. The Tsawwassen fishing licence must be carried at all times while participating in the Fishery or while transporting fish harvested in the Fishery and must be presented to any DFO Fishery Officer, DFO Fishery Guardian or Aboriginal Fishery Officer upon request.
A vessel used in the Fishery must be identified by affixing a vessel identification decal issued by Tsawwassen First Nation. The decal must be affixed to the vessel so that the decal is legible and unobstructed when viewed from another vessel or from shore. Where the vessel is not a registered commercial vessel, the decal must be uniquely numbered. Where the vessel is a registered commercial vessel, the decal must not be numbered.
Before the Fishery commences, Tsawwassen First Nation will provide to DFO a list of Tsawwassen First Nation members and vessels designated to fish under this Harvest Document and, in the case of a vessel, the vessel's Identity Number, and will immediately inform DFO of any changes to the list.

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

Species:	DUNGENESS CRAB (Cancer magister)
Gear:	Hand Picking Net, Ring Trap, Crab
Licence Area:	Lower Fraser; See Additional Description
Units:	Individuals (live)
Species:	GRACEFUL CRAB (Cancer gracilis)
Gear:	Hand Picking Net, Ring Trap, Crab
Licence Area:	See Additional Description
Units:	Individuals (live)
Species:	RED ROCK CRAB (Cancer productus)
Gear:	Hand Picking Net, Ring Trap, Crab
Licence Area:	See Additional Description
Units:	Individuals (live)

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" Nlatitude 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" Wlongitude 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 Baybounded 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 DFOManagement 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 ofcapture. Fishers are encourgaged to immediately release all female crabs to the area of capturein a manner that causes least harm. Subject to closures and other conditions of this licence, the authority to fish under this licence will expire on Monday, March 31, 2014 or earlier if DFO, after consultation with Tsawwassen First Nation has determined there is a conservation concern.

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.

23 December 2013

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

Licence Issued: 23 December 2013

Licence Printed: 23 December 2013

Fisheries and Oceans Canada | Pêches et Océans Canada

Licence Number: XFSC 97 2014
File Number: LFA-14-HD-LP 403/TSAWWASSEN
Valid From: 25-Apr-2014
Expiry Date: 26-Apr-2014

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 Saturday, April 26, 2014 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:	Friday, April 25, 2014
Times:	12:00 - 18:00
Details:	
Date:	Saturday, April 26, 2014
Times:	12:00 - 18:00
Details:	

Individuals or groups assisting with the authorized activity:

Jason Morgan

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)

Licence Number: XFSC 97 2014
File Number: LFA-14-HD-LP 403/TSAWWASSEN
Valid From: 25-Apr-2014
Expiry Date: 26-Apr-2014

Allowable Fishing Times:	Date:	Friday, April 25, 2014
	Times:	12:00 - 18:00
	Details:	
	Date:	Saturday, April 26, 2014
	Times:	12:00 - 18:00
	Details:	
Gear:	Gill Net	
Licence Area:	Lower Fraser; Watershed: Fraser River	
To be Retained:	100	
Units:	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 100 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 April 26, 2014 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.

Licence Number: XFSC 97 2014
File Number: LFA-14-HD-LP 403/TSAWWASSEN
Valid From: 25-Apr-2014
Expiry Date: 26-Apr-2014

24 April 2014

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

Licence Issued: 24 April 2014

Licence Printed: 24 April 2014

Fisheries and Oceans Canada | Pêches et Océans Canada

Licence Number: XFSC 414 2014
File Number: LFA-14-HD 457/TSAWWASSEN
Valid From: 13-Aug-2014
Expiry Date: 13-Aug-2014

HARVEST DOCUMENT FOR TSAWWASSEN FIRST NATION FOR SALMON
COMMUNAL COMMERCIAL HARVEST DOCUMENT FOR SOCKEYE 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 Friday, August 13, 2014 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: Wednesday, August 13, 2014 at 17:00 **End:** Wednesday, August 13, 2014 at 20:00

Details: Fishing is authorized by this licence during the following times: Set Nets and Gill Nets: 17:00 hours to 20:00 hours, Wednesday, August 13, 2014.

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

Species: SOCKEYE SALMON (Oncorhynchus nerka)
Allowable Fishing Times:
Start: Wednesday, August 13, 2014 at 17:00
End: Wednesday, August 13, 2014 at 20:00
Details: Fishing is authorized by this licence during the following times: Set Nets and Gill Nets: 17:00 hours to 20:00 hours, Wednesday, August 13, 2014.
Gear: Net, Drift
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)** French Creek Seafoods **2)** Seven Sea's Seafoods,

'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 Sockeye salmon and an incidental catch of chinook.

All efforts and attempts shall be made to return all non-target species, including Coho salmon, Steelhead salmon and Sturgeon, to the water alive and unharmed. Coho salmon, Steelhead 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 August 13, 2014or 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 Sockeye and Chinook 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 50 fathoms or 300 feet in length and a maximum depth of 60 meshes with a 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.
(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.

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.

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12 August 2014

Issued by: Sheldon Evers, Resource Manager, Lower Fraser Area
Fisheries and Oceans Canada

Date

Licence Issued: 12 August 2014

Licence Printed: 12 August 2014

Fisheries and Oceans Canada | Pêches et Océans Canada

Licence Number: XFSC 539 2014
File Number: LFA-14-HD 498-TSAWWASSEN
Valid From: 25-Oct-2014
Expiry Date: 26-Oct-2014

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 26, 2014 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 Date:	Saturday, October 25, 2014	**End Date:**	Sunday, October 26, 2014
Times:	06:00 - 18:00 daily		
Details:	Fishing is authorized by this licence during the following times: Set Nets and Gill Nets: 06:00 hours to 18:00 hours daily from Saturday, October 25, 2016 and Sunday, October 26, 2014.		

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

Species:	CHUM SALMON (Oncorhynchus keta)
Allowable Fishing Times:	Start Date: Saturday, October 25, 2014 End Date: Sunday, October 26, 2014 Times: 06:00 - 18:00 daily Details: Fishing is authorized by this licence during the following times: Set Nets and Gill Nets: 06:00 hours to 18:00 hours daily from Saturday, October 25, 2016 and Sunday, October 26, 2014.
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)** Ladner Government Wharf, **3)** on the packer vessels **M/V 'Dilligence'** 4) **M/V 'Northwind "**;

'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.

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

Chinook salmon, Coho salmon, Sockeye 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 October 26, 2014 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 Chum 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.

---

23 October 2014

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

Date

Licence Issued: 23 October 2014

Licence Number: XFSC 539 2014
File Number: LFA-14-HD 498-TSAWWASSEN
Valid From: 25-Oct-2014
Expiry Date: 26-Oct-2014

Licence Printed: 23 October 2014

APPENDIX C
Dataforms

TSAWWASSEN FIRST NATION - SALMON FISHERIES INTERVIEW DATA FORM

Monitor's Name : _____

SET NET / DRIFT NET

Put Set and Drift Net Catch on Separate Sheets Even from the Same Fisher.

Date : _____ Sheet ID : _____

Site Location : _____

Fishing Area (Zone) _____

#	Name of Fisher	No.	Fishing Area	Mesh Size	Count or Hail?	# Drifts	Interview Time		Net Set (Start of Fishing)		Net Picked (End of Fishing)		Fish Kept						Fish Released				Still Fish'n
							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																					
12																					
13																					
14																					
15																					
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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

Documents Related to the 2014 Chinook Underage

TSAWWASSEN FIRST NATION
sc̓əwaθən məsteyəxʷ

December 5, 2014

Brigid Payne
A/Area Chief, Resource Management
Lower Fraser Area
Fisheries & Oceans Canada
Unit 3 - 100 Annacis Island Parkway,Delta, B.C., V3M 6A4
brigid.payne@dfo-mpo.gc.ca

Dear Brigid,

The purpose of this letter is to notify DFO that the post-season accounting for TFN salmon harvests will identify the portion of the TFN Chinook allocation not harvested in 2014 as an underage to be carried forward for harvest in future years.

The portion of the TFN Chinook allocation not harvested in 2014 must be classified as an underage to be carried forward because due to DFO's restrictions of the TFN chinook fishery to 12 hours on 31 August 2014 rather than the 48 hours defined in the TFN fishing plan and requested by TFN for that week of the 2014 fishery. No conservation concern was identified as the reason for the restriction of the TFN fishery for that week and TFN had 800 sockeye available for harvest in their FSC fishery so there was no bycatch issues related to Fraser sockeye. Therefore, the full amount of the 2014 Chinook underage (233 Chinook) must be classified as an underage to be carried forward to allow for these fish to be harvested for FSC purposes in future years, as per the Tsawwassen Final Agreement.

Please contact me if you wish to discuss this issue prior to the next scheduled JFC meeting.

Sincerely,

Laura Cassidy

Laura Cassidy
Manager of Natural Resources
Tsawwassen First Nation

Cc: Brian Matts, Resource Manager
Karl English, LGL
Anita Blakely, LGL

Fisheries and Oceans
Pêches et Océans

Pacific Region
Resource Management
Lower Fraser
Unit 3 - 100 Annacis Pkwy
Delta, BC V3M 6A2

Region du Pacifique
Gestion de la resource
Secteur du bas Fraser
100, promenade Annacis, Unité 3
Delta, C-B, V3M 6A2

February 3, 2015

Laura Cassidy
Natural Resources Manager
Tsawwassen First Nation

Dear Ms. Cassidy:

I am in receipt of your letter dated December 5, 2014 that states the TFN is proposing a portion of the TFN chinook allocation not harvested in 2014 be identified as an underage to be carried forward for future years. The rationale put forward is that Department staff did not authorize a request for a 48 hour chinook directed fishery on August 31, 2014.

Appendix J-3 of the TFN Final Agreement provides the principles for calculating overages and underages. The two principles we consider at play are as follows:

c. *where a Tsawwassen harvest was less than the defined Tsawwassen Allocation for a Salmon species in a year due to uncertainty in the management process for that species, an underage has occurred for that species and a defined portion of that underage will be accounted for in the multi-year accounting process;*

d. *where a Tsawwassen harvest was less than the defined Tsawwassen Allocation for a Salmon species in a year due to a lack of harvesting effort on the part of Tsawwassen, no underage has occurred for that species in that year;*

At a planning meeting held via teleconference on Wednesday, August 27, 2014, staff discussed several fishery options with TFN representatives (M. Baird, A. Blakely) for the week ending August 31st.

At that meeting we collectively discussed dates and fishing scenarios as they related to sockeye salmon in the Fraser River. Staff shared potential catch rates on upcoming dates (Aug 28-31), based on projections from Pacific Salmon Commission staff, with TFN representatives. Ultimately, TFN representatives made a decision to fish economically for sockeye on August 31st for 12 hours.

Further, a 12 hour chinook directed fishery was proposed by TFN and agreed to by Department staff. A licence was issued to reflect that request. Staff has reviewed notes of this meeting and show no record of a request for a 48-hour chinook directed fishery to proceed on August 31st. If TFN representatives have different information Departmental staff request that it be forwarded to our attention at your earliest convenience.

In addition, I bring your attention to the management changes that were implemented regarding the Interior Fraser River Coho: the window closure was modified in 2014 and fishing with gill nets in the Fraser River continued into mid-September. Staff has no record of any requests subsequent to the twelve hours requested on August 27th from TFN to undertake chinook directed fisheries.

The following is a summary of the Food, Social and Ceremonial (FSC) fisheries provided between the week ending May 18th and the week ending August 31st with associated effort expressed as an average number and range of nets:

Table 1 Summary of 2014 Tsawwassen Chinook and Sockeye-Directed Domestic Fisheries

Week Ending(s)	**Species**	**# of hours**	**Average # of nets**
May 18 to July 20	Chinook	268	4 (range of 1 to 6)
July 27 to August 10	Sockeye	54	20 (range of 18-22)
August 31	Chinook	12 (one 24 hour licence cancelled by Band *)	6
August 24th and September 14th (Limited Participation)	Sockeye	8	2 & 4

**2 chinook directed FSC requests in time period. 1 opportunity was forgone in favor of a sockeye EO opportunity on August 24.*

It is the Department's view that TFN could have expended additional effort by requesting further Chinook-directed openings during the latter part of August and mid-September. The Department would have authorized further opportunity during the above-noted period while working collaboratively with TFN representatives.

In your letter you raise the issue of a difference between the actual fishing plan and the TFN Annual Fishing Plan. The TFN indeed submits an Annual Fishing Plan to the JFC to assist in planning TFN domestic fisheries. It is the Department's view that this plan is a tool used pre-season to outline possible fishing scenarios, but it is subject to refinement as the season unfolds. In 2014, as per usual practice, the parties jointly managed chinook fisheries in-season via regular communciations (either thorugh one-on-one communications between DFO and TFN managers or conference calls typically held on a weekly basis). As harvestable surplus on Fraser sockeye was identified in August, the focus of these conversations shifted to planning for TFN sockeye-directed fisheries (both FSC and economic). Chinook FSC fisheries planning did continue to be a component of these in-season communications, as referenced above. Our view is that these in-season communications provided recurring opportunities for Tsawwassen to identify their interests with respect to implementation of the TFN fishing plan, and where the interest in additional chinook fishing opportunities could have been raised.

Based on the above-noted information, the Department does not share the view that the FSC underage provisions are triggered for chinook in 2014.

We would like to take this opportunity to raise a discussion point regarding the TFN chum allocation for domestic purposes and the 2014 harvest. Chum fisheries were authorized starting on October 4th, 2014; details of all chum-directed fisheries are summarized in table 2 below. On October 15, 2014 a planning call was convened to plan fisheries to harvest the remaining TFN chum allocation for domestic purposes. A 48-hour fishery was planned based on allocation remaining to harvest and the previous catch report. After the planning call, an updated report was received from TFN that identified approximately 400 less chum salmon remaining than previously thought (942). The Department reviewed this new information and contacted TFN representatives to review whether the agreed-to fishing plan was an appropriate duration to harvest the remaining allocation. The TFN representative stated that a reduction of 12 hours was an adequate reduction in order to not exceed the allocation and an amended Harvest Document was issued.

Table 2 Summary of 2014 Tsawwassen Chum-Directed Domestic Fisheries

				Chum		
Licence	**Open**	**Hours**	**Nets**	**Kept**	**Catch to Date**	***Balance***
LFA-14-HD489/Tsawwassen	04-Oct 12:00	24	3	187	187	*2,389*
LFA-14-HD492/Tsawwassen	10-Oct 12:00	48	8	1,447	1,634	*942*
LFA-14-HD495/Tsawwassen	18-Oct 06:00	36	12	1,861	3,495	*-919*

Allocation :		**2,576**

A review of the TFN reported catch identifies 3,495 chum salmon harvested for an overage of 919 chum salmon in TFN domestic fisheries. The Department would like to discuss this matter at the next TFN JTC meeting.

If you have any further questions please call me at (778) 689-9756 to discuss further.

Sincerely yours,

Brigid Payne

c.c.: Jennifer Nener, Area Director, Lower Fraser Area
Debra Sneddon, Program Coordinator, Lower Fraser Area Resource Management
Brian Matts, Resource Manager, Lower Fraser Area Resource Management

Anita Blakley

From: Karl English <kenglish@lgl.com>
Sent: March 30, 2015 7:08 PM
To: Matts, Brian; Jesson, Duane
Cc: Laura Cassidy; Mike Baird; BlakleyA
Subject: Draft JTC recommendation for balancing the TFN multi-year salmon allocation account

The following is a draft of a proposed JTC recommendation regarding balancing the TFN multi-year salmon allocation account for 2014:

"The Tsawwassen JTC meet on 17 March 2015 to discuss fisheries issues associated with the 2014 fishery and the development of 2015 fishing plans. The factors contributing to TFN not harvesting its full FSC allocation of Fraser Chinook and harvesting more than its FSC allocation of Fraser chum were discussed. The three major reason why TFN was not able to harvest it's FSC allocation of Chinook were:

1) low chinook abundance during the chinook fisheries prior to July 20th;
2) poor communications related to TFN fishery needs and reasons for DFO decision to limit the 31 August 2014 fishery to 12 hours; and
3) the focus of the fishery planning effort on Fraser sockeye fisheries during late-August and early September.

The primary reasons for TFN exceeding it's FSC allocation for Chum were:

1) unexpected increase in the number of TFN vessels (nets) participating in the last Chum FSC fishery; and
2) possibly a higher chum salmon abundance that lead to the TFN catch in the last 36 hour fishery being higher than the previous 48 hr fishery.

Given that the intent of these TFN allocations is to provide salmon for FSC purposes and both the Chinook underage and Chum overage were the result of deficiencies in the fishery planning process, the JTC recommends that the JFC consider balancing the Chinook underage with the Chum overage for 2014."

This could be done via Clause "e" in Appendix J-3 "Principles for Calculating Overages and Underages" which states that:

"where Tsawwaeen and Canada agree on an amount to be accounted for in the multi-year accounting process for overages and underages for a Salmon species, Tsawwassen and Canada will use that amount in the multi-year accounting process."

If this approach was agreed to by the JFC, the "carry forward" amounts in Table 3.7 in the 2014 report would be zero for each salmon species.

If we need to discuss this further, we should arrange a JFC conference call or meeting before April 10th if possible.

Karl

Fisheries
and Oceans

Pêches
et Océans

Pacific Region
Fisheries Management
Pacific Region Headquarters
401 Burrard St
Vancouver, BC

Region du Pacifique
Gestion de la peche
Quartier-General
401 rue Burrard
Vancouver, C-B

May 22, 2015

Laura Cassidy
Natural Resources Manager
Tsawwassen First Nation

Dear Ms. Cassidy:

Re: Tsawwassen First Nation (TFN) Joint Fisheries Committee (JFC) Meeting March 17, 2015 To Discuss 2014 Chinook and Chum Fisheries

I would like to thank you for the discussion within the JFC on March 17 regardling the underlying rationale and considerations of each party as it related to the issue of the TFN 2014 domestic chinook and chum salmon fishery outcomes.

DFO has taken these discussions into account, has further considered various broad objectives of the Department with respect to stock conservation and management, and has considered clause 11.2 of the FOG, which reads as follows:

"TFN and Canada will endeavour to balance overages and underages over time by adjusting subsequent years' allowable catch. TFN and Canada may agree upon transfers between species of Salmon using adjustments in the Tsawwassen Allocation of another species of Salmon."

Based on these considerations, the Department agrees to the proposal made by Tsawwassen (via email from Karl English on March 30th) to zero out the 2014 post-season balances for both chinook and chum.

In reaching this determination, the conservation status of the species in question and allocation demands were a consideration. Thus, for the 2014 post-season accounting process, the Department is willing to account for a possible chinook underage by discounting a TFN chum overage. However, given the current conservation concerns and allocation pressures related to Fraser chinook, the Department would be highly unlikely to agree to an offset in the other direction (i.e. offset a chinook overage against a harvest shortfall in some other species).

It is important to note that this decision applies to this specific circumstance only, and that DFO does not commit to applying this cross-species adjustment as a matter of regular practice. To support stability in the fisheries for Tsawwwassen and for other participants in the fishery, we strongly believe it is in the interests of both DFO and Tsawwassen to annually manage fisheries to avoid overages and underages in the post-season balance.

For clarity, the current agreement to accept the TFN "zeroing out" proposal is not an acknowledgement by DFO of a chinook underage in 2014. Rather, this reflects that there is lack of consensus on the applicability of underage clauses in this circumstance. In light of this and clause 11.2 of the FOG, the Department is willing to agree to a negotiated solution based on a consideration of the interests of both parties for 2014.

Moving forward we recommend adjustments to the planning process for implementation by the parties in 2015. As discussed at the March 17 JTC meeting, it is important that prior to the weekly planning calls representatives of the parties (TFN and DFO) meet, via phone or otherwise, to discuss:

1. potential conservation issues;
2. remaining allocation balances of all salmon species;
3. potential projected effort profiles ; and,
4. catch monitoring and enforcement strategies that will aid in formulating any potential fishery plan options with the ultimate goal of reaching allocations as set out in the TFN Final Agreement.

It is my understanding that the parties have already agreed to some of these provisions. If you have any further questions please contact me at (604) 666-9993 or brigid.payne@dfo-mpo.gc.ca to discuss further.

Sincerely yours,

Brigid Payne
Salmon Operations
Pacific Integrated Commercial Fisheries Initiative
DFO Pacific Region

c.c.:
Jennifer Nener, Area Director, Lower Fraser Area
Debra Sneddon, Program Coordinator, Resource Management, Lower Fraser Area
Brian Matts, Resource Manager, Lower Fraser Area

APPENDIX E

2014 Fraser River Sockeye In-season Status Report

File: 71007

DRAFT AGENDA
PACIFIC SALMON COMMISSION
FRASER RIVER PANEL TECHNICAL Committee
Thursday Sept. 4, 2014 at 1:00 pm.
Via GOTO meeting
See email with invitation info

1) Agenda.

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

3) Catch to date summary — PSC staff

4) In-season data flow for updating objectives — PSC staff
   a) Test fishing catches
   b) Mission acoustics
   c) Stock proportions
   d) Environmental conditions and other observations in the watershed.

5) Assessments and recommendations
   a) Escapement projections and run sizes
   b) Gulf troll survey estimate
   c) Prediction of upstream timing of Late-run
   d) Management adjustments (Summer and Late-run)
   e) Current TAC table

6) Other Business — Staff/FRPTC

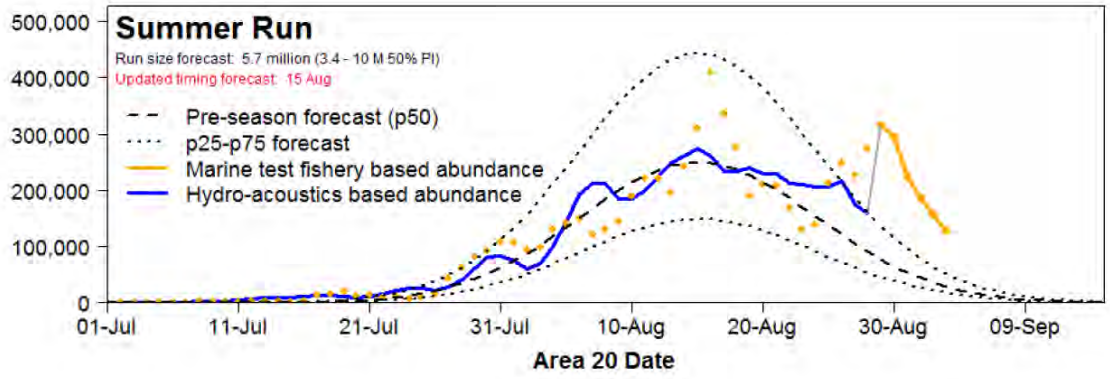
7) Next Meeting — FRPTC

2014 Run status of Fraser sockeye salmon

Date: Sep. 4, 2014

Week of: Aug. 31 - Sep. 6, 2014	Sockeye				
	Management Group				Total
	E.Stuart	E.Summer	Summer	Late	Fraser
Mission passage (incldes Pitt, Alouette, Coquitlam)	227,900	1,209,600	3,124,700	1,098,400	5,660,600
Catch downstream of Mission	5,400	617,500	3,184,800	2,459,200	6,266,900
Accounted run-to-date [1]	233,300	1,827,100	6,309,500	3,557,600	11,927,500
Run size adopted in-season [1]	**233,500**	**1,900,000**	**8,200,000**	**na**	**na**
Run size forecasted pre-season	299,000	4,126,000	5,699,000	12,730,000	22,854,000
Area 20 timing adopted in-season	**9-Jul**	**8-Aug**	**18-Aug**	**na**	
Area 20 timing expected (revised Jul 24)	7-Jul	7-Aug	15-Aug	22-Aug	
Johnstone Str. Diversion Rate	In-season 5-day average				100%
	Preseason forecast of annual rate				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.*



2014 Catch-to-date by fishery

Date: Sep. 4, 2014

Week of: Aug. 31 - Sep. 6, 2014	Sockeye	
	Total	Fraser
Canada	**6,415,100**	**6,402,100**
Commercial	**5,200,700**	**5,191,500**
B Purse Seine	3,059,800	3,052,600
D Gillnet	976,300	974,500
E Gillnet	932,200	932,200
G Troll	35,400	35,400
H Troll	197,000	196,800
First Nations	**1,063,300**	**1,059,600**
Food, Social & Ceremonial (FSC)	805,700	802,000
Marine	282,400	279,100
Fraser R.	523,300	522,900
Lower Fraser (LFA)	338,700	338,300
BC Interior (BCI)	184,600	184,600
Economic Opportunity (EO) & Demonstration (Demo)	257,600	257,600
Marine	0	0
Fraser R.	257,600	257,600
Lower Fraser (LFA)	251,400	251,400
BC Interior (BCI)	6,200	6,200
Escapement Surplus to Spawning Requirements (ESSR)	**0**	**0**
Recreational	**149,000**	**149,000**
Marine	100	100
Fraser R. *	148,900	148,900
Charter (Albion gillnet test fishery)	**2,000**	**2,000**
United States	**338,100**	**337,400**
Commercial	**334,900**	**334,200**
Treaty Indian (TI)	218,000	217,500
Areas 4B, 5, 6C	3,300	3,200
Areas 6, 7, 7A	214,700	214,300
All Citizen (AC)	116,900	116,700
Purse Seine (PS)	70,900	70,800
Gillnet (GN)	33,000	32,900
Reefnet (RN)	13,100	13,000
Treaty Indian Ceremonial & Subsistence (C&S)	**3,200**	**3,200**
Areas 4B, 5, 6C	500	500
Areas 6, 7, 7A	2,700	2,700
All Citizen Recreational	**0**	**0**
Alaska **	**na**	**na**
Panel-approved Test Fisheries	**145,100**	**142,400**
Panel Waters	**35,900**	**34,400**
Canada	29,800	28,600
U.S.	6,000	5,900
Non-Panel Waters	**109,200**	**108,000**
Total	**6,898,300**	**6,881,900**
Catch Downstream of Mission ***	6,283,300	6,267,000
Catch Upstream of Mission	614,900	614,900

** LFA Recreational catch is currently estimated mostly based on 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.*

Pacific Salmon Commission - Fraser Sockeye Test Fishing & Escapement Summary 2014

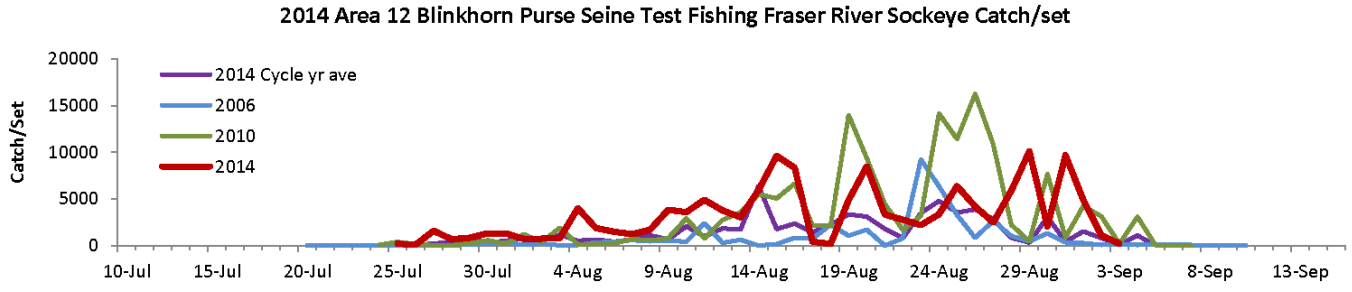
Area/Gear	A12 PS	A13 PS	A20 PS	Fraser River							
				A29B TR	A29B GN	A29D GN	Mission Hydroacoustics		Qualark		Hell's Gate
Location	Blinkhorn	Lower JS		Gulf Troll	Cottonwood	Whonnock	Estimate[1]	Method[2]	GN Catch	Estimate	Counts[3]
From A20	(-1 day)	(+1 day)		(+4 days)	(+5 days)	(+6 days)	(+6 days)		(+8 days)		(+10 days)
24-Aug	20,255	7,930	230	201	256	206	114,000	S1MD2D3	103	170,930	21,484
25-Aug	38,453	14,875	300	* 54	DNF	DNF	83,200	S1MD2D3	160	155,581	24,060
26-Aug	25,215	54,188	55	175	229	171	82,200	S1MD2D3	93	140,733	17,240
27-Aug	14,930	55,811	75	DNF	DNF	DNF	102,700	S1MD2D3	66	97,001	24,640
28-Aug	29,288	44,760	50	* 44	121	194	113,600	S1MD2D3	37	67,013	12,000
29-Aug	60,594	29,545	33	DNF	141	79	196,900	S1MD2D3	70	84,066	12,611
30-Aug	12,345	44,828	13	* 62	87	57	148,200	S1MD2D3	50	52,285	13,949
31-Aug	58,003	11,340	22	117	155	162	304,300	S1MD2D3	50	89,033	14,093
1-Sep	29,431	20,100	26	DNF	58	108	375,900	S1MD2D3	68	-	20,158
2-Sep	6,506	12,325	23	DNF	DNF	DNF	268,600	S1MD2D3	128	-	19,918
3-Sep	807	47,604	FIN	111	75	39	118,300	S1MD2D3	-	-	28,129
4-Sep							-	-		-	-
5-Sep							-	-		-	-
6-Sep							-	-		-	-
7-Sep							-	-		-	-
8-Sep							-	-		-	-
9-Sep							-	-		-	-
10-Sep							-	-		-	-

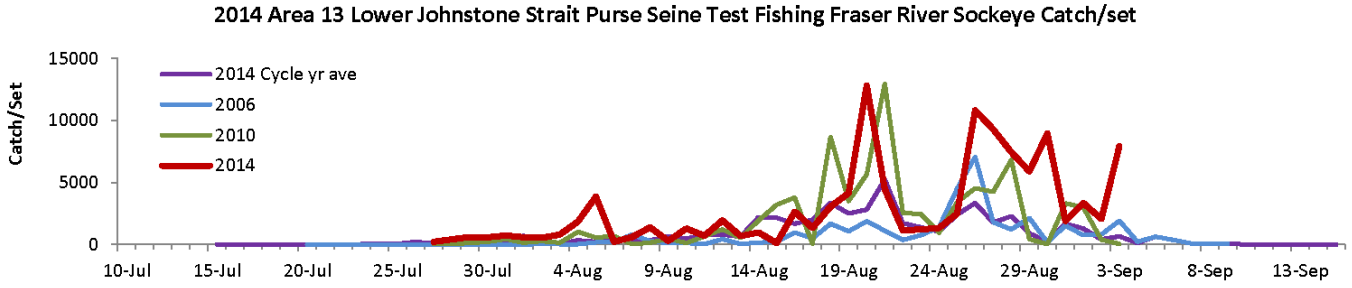
* Gulf troll - One boat only

1 Upstream escapement estimate - does not include Pitt

2 Mission : W = Whonnock C = Cottonwood D1M = Left bank (facing downstream) DIDSON + Midsection hydroacoustic estimate
S1MD2D3 = Left-bank split-beam, mobile split-beam, right bank offshore and inshore DIDSONs

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





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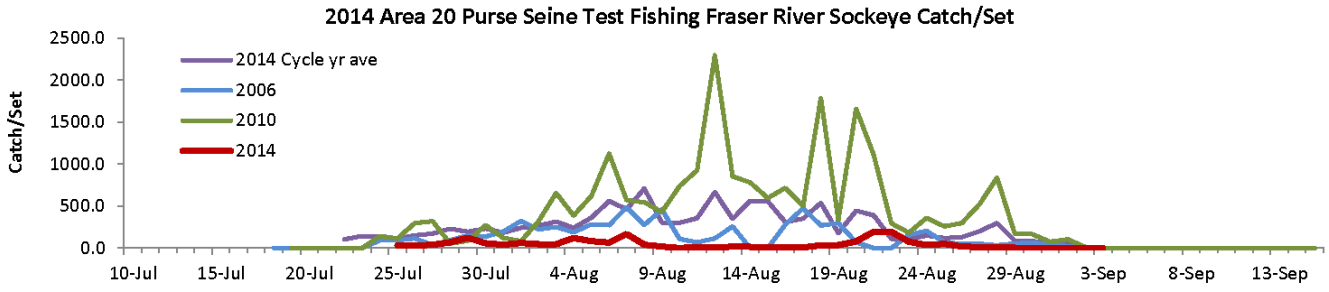
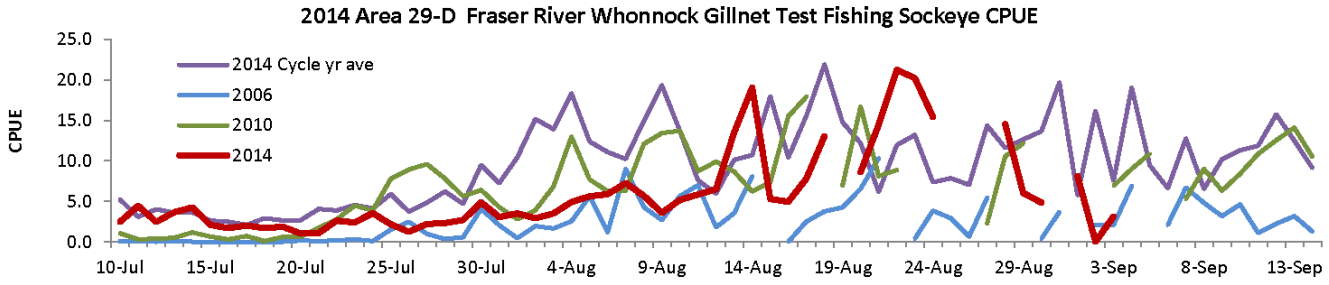
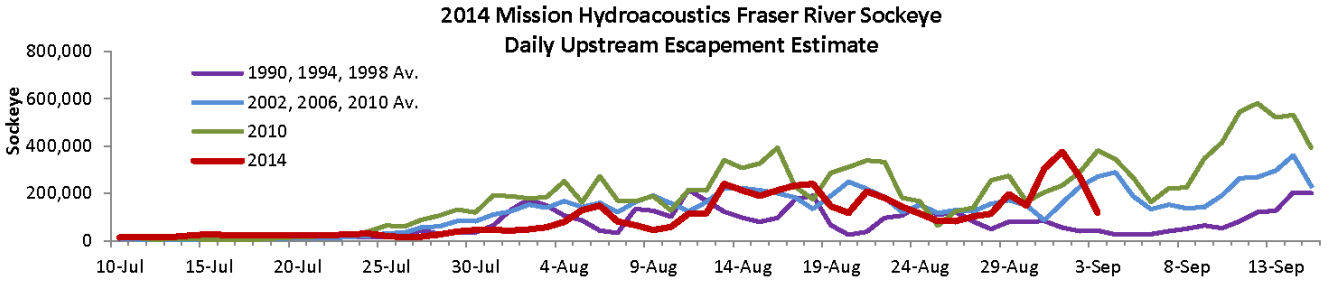
Pacific Salmon Commission - Fraser Sockeye Test Fishing & Escapement Summary 2014

Page 2 of 2







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2014 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				Overall Stocks
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	Aug 23	DNA	95	99%	0%					0%	1%	4%	21%		27%	2%	69%	2%	73%	95%
A12 ps	tf	Aug 26	DNA	94	100%	0%			1%		1%		9%	32%		41%		57%	1%	58%	99%
A12 ps	tf	Aug 30	DNA	96	100%	0%				2%	2%		6%	22%		28%	1%	66%	3%	70%	NA
A12 ps	tf	Sep 2	DNA	96	100%	0%					0%		4%	18%		22%		73%	5%	78%	98%
A12 gnps		Sep 7	Prediction	1	100%	0%					0%		5%	18%		23%		74%	3%	77%	NA
Juan de Fuca Strait & Washington & Other																					
GU tr	tf	Aug 30	DNA	47	100%	0%					0%	6%	9%	19%		34%		62%	4%	66%	88%
GU tr	tf	Aug 31	DNA	37	100%	0%					0%		16%	27%		43%		57%		57%	98%
In-river																					
AB gn	tf	Sep 1	DNA	95	100%	0%			1%	6%	7%	9%	3%	31%	1%	44%		48%	1%	49%	NA
AB gn	cm	Sep 2	DNA	43	100%	0%				8%	8%	2%	12%	52%	2%	69%		21%	2%	23%	94%
BB gn	tf	Sep 1	DNA	58	100%	0%				7%	7%	7%	4%	23%		34%	3%	55%		59%	NA
BB gn	cm	Sep 2	DNA	90	100%	0%				4%	4%	5%	2%	27%		33%		62%		62%	NA

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

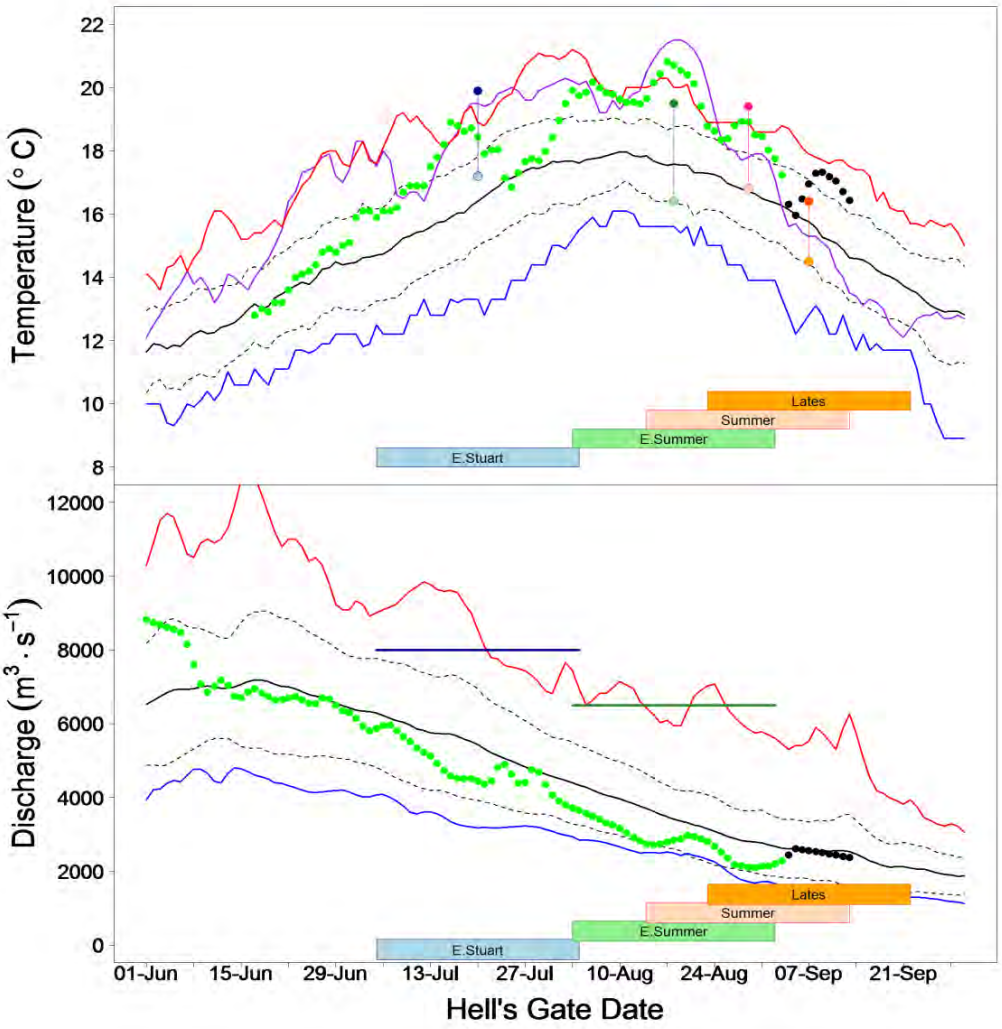
[4] Further information relating stock group descriptions to spawning ground locations and population definitions can be found at www.psc.org/FraserPnl/Escapement/2014_PSC_Fraser_Sockeye_Stock_Group_Definitions.pdf

Fraser River Environmental Report for September 03, 2014

Observed Fraser River Temperature at Qualark for 03-Sep	17.2°C
Average (1971-2000) Historical Temperature on this day	16.3°C
Deviation from Average	1°C
Forecast Temperature for 09-Sep-14	17.3°C

Rainfall in the upper basin increased the supply of cool water in the upper river and the temperature of the Thompson dropped sharply. This combination resulted in a rapid drop in the temperature at Qualark. A warm spell over the next few days will result in some mid forecast increase in the river temperature.

Observed Fraser River Discharge at Hope for 03-Sep	2279 $m^3 \cdot s^{-1}$
Average (1971-2000) Historical Discharge on this day	2625 $m^3 \cdot s^{-1}$
% above or below Historical Discharge	-13%
Forecast Discharge for 09-Sep-14	2502 $m^3 \cdot s^{-1}$



Temperature Legend

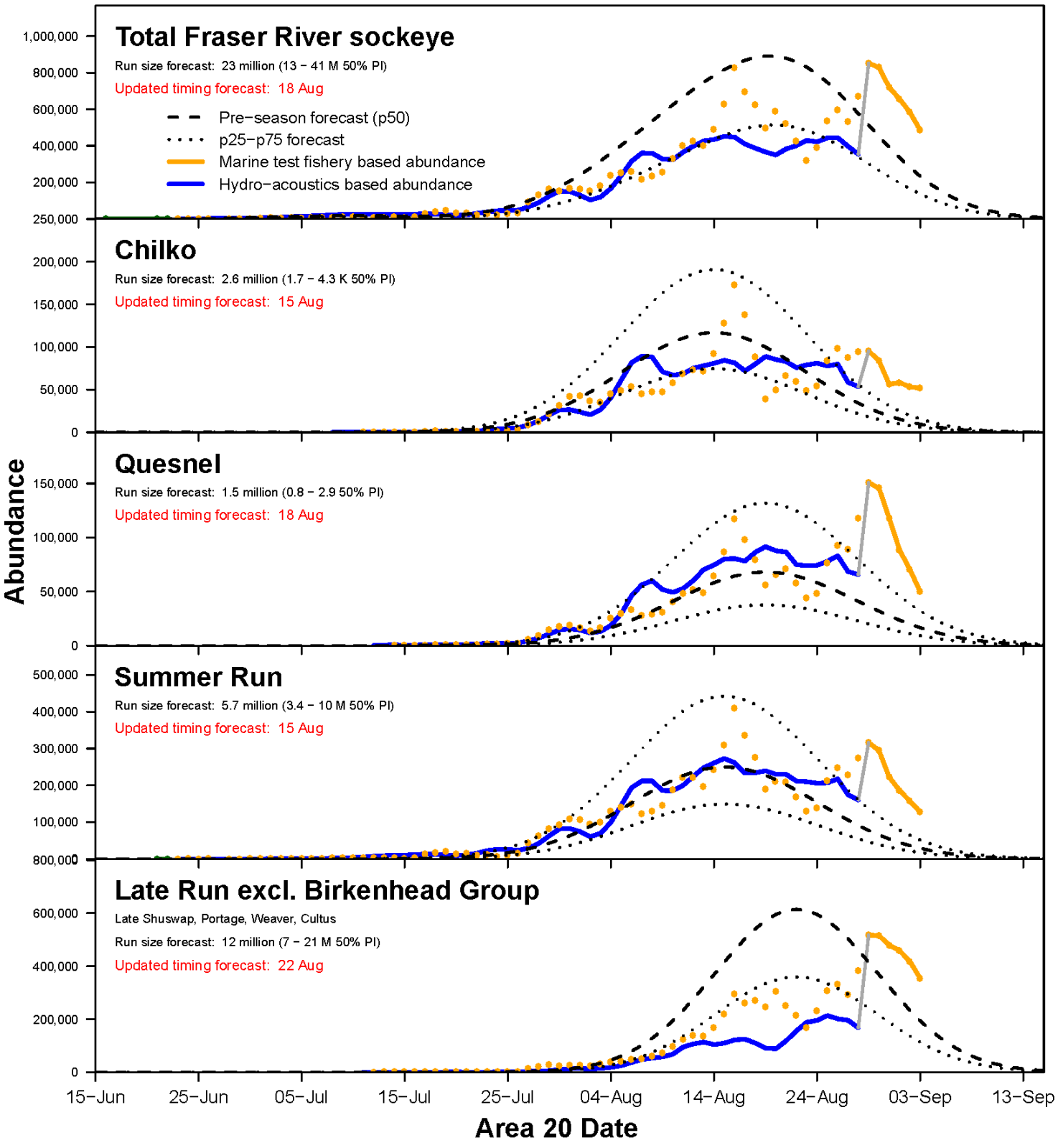
- Mean Temp (1971-2000)
- +/- sd
- Min Temp (1971-2000)
- Max Temp (1971-2000)
- 2004
- Current Temp
- Forecast Temp
- Opt. T of stock group*
- Upper T range of stock group**

Discharge Legend

- Mean Dis (1971-2000)
- +/- sd
- Min Dis (1971-2000)
- Max Dis (1971-2000)
- Current Dis
- Forecast Dis
- E.Stuart Threshold ($m^3 \cdot s^{-1}$)[i]
- E.Summer Threshold ($m^3 \cdot s^{-1}$)[ii]

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

2014 Fraser River sockeye daily migration abundance with in−season updated timing estimates



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2014 Fraser River sockeye abundance en-route to Mission

Current date: 04-Sep

Area 20 date / Mission date	Escapement past Mission through 03-Sep	Projected abundance en route to Mission based on marine test fishery data[1,2] 29-Aug / 04-Sep	30-Aug / 05-Sep	31-Aug / 06-Sep	01-Sep / 07-Sep	02-Sep / 08-Sep	03-Sep / 09-Sep	Total	80% PI[3] 10p	80% PI[3] 90p	Escapement + projections through 09-Sep
Total Fraser	**5,660,700**	**982,700**	**823,700**	**211,600**	**662,500**	**666,500**	**25,900**	**3,372,900**	**2,052,300**	**4,884,200**	**9,033,600**
Early Stuart	**227,900**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**227,900**
Early Summer Run	**1,209,600**	**10,200**	**14,500**	**2,900**	**11,300**	**4,300**	**0**	**43,200**	**21,200**	**89,400**	**1,252,800**
Chilliwack	23,500	0	0	0	0	0	0	0	0	0	23,500
Pitt/Alouette/Coquitlam	50,000	0	0	0	0	0	0	0	0	0	50,000
Nadina group[4]	156,300	2,800	2,400	0	0	0	0	5,200	2,500	10,800	161,500
Early Thompson[5]	979,800	7,400	12,100	2,900	11,300	4,300	0	38,000	18,600	78,700	1,017,800
Summer Run	**3,124,700**	**372,900**	**254,000**	**62,400**	**173,600**	**178,800**	**4,600**	**1,046,300**	**638,200**	**1,506,700**	**4,171,000**
Harrison / Widgeon	513,300	3,900	300	900	400	1,400	0	6,900	4,200	9,900	520,200
Late Stuart / Stellako	606,000	81,500	56,800	14,400	37,100	36,700	2,200	228,700	139,500	329,300	834,700
Chilko	1,061,100	122,600	60,000	16,100	46,500	69,200	2,400	316,800	193,200	456,200	1,377,900
Quesnel	901,000	164,900	136,900	31,000	89,600	71,500	0	493,900	301,300	711,200	1,394,900
Raft / North Thompson	43,300	0	0	0	0	0	0	0	0	0	43,300
Late Run	**1,098,500**	**599,600**	**555,200**	**146,300**	**477,600**	**483,400**	**21,300**	**2,283,400**	**1,392,900**	**3,288,100**	**3,381,900**
Birkenhead / Big Silver	41,900	5,300	5,900	900	3,900	1,200	0	17,200	10,500	24,800	59,100
Late Shuswap / Portage	1,042,100	580,000	531,800	140,600	451,200	456,300	18,800	2,178,700	1,329,000	3,137,300	3,220,800
Weaver / Cultus	14,500	14,300	17,500	4,800	22,500	25,900	2,500	87,500	53,400	126,000	102,000
Catches removed [1]		**122,400**	**184,900**	**157,300**	**116,100**	**153,300**	**133,600**	**867,600**			

[1] En route catches are incomplete: catches from present and future fisheries must be deducted from projections and added to the catches removed

[2] Projected abundances en route to Mission include Harrison and Late runs, an uncertain number of which are expected to delay

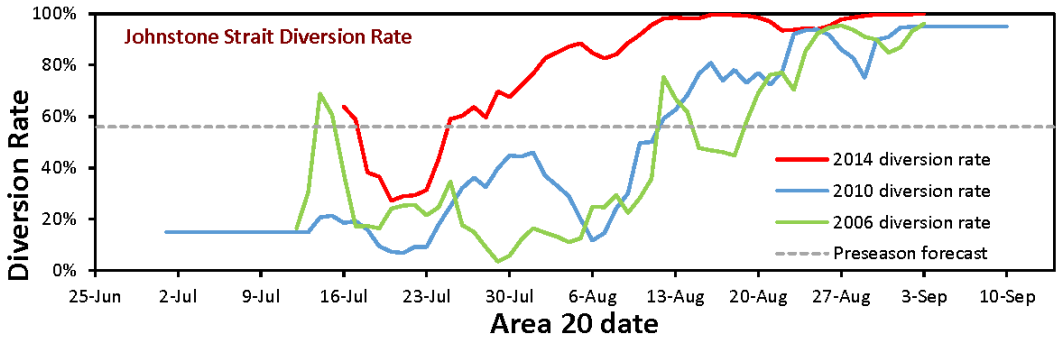
[3] 80% Probability Interval: there exists an 80% chance that the true abundance lies within this interval

[4] Nadina / Bowron / Gates / Nahatlatch / Taseko

[5] Early South Thompson / North Barriere

2014 Fraser River sockeye diversion rates through Johnstone Strait

	5-day average
Diversion rate	**100%**
Gillnet	
Purse Seine	100%



2014 Fraser River run size and timing estimates

Preseason forecasts, reconstructed and model estimates, and official estimates

	Run size estimate									Run timing estimate[4]				
	Preseason	Inseason	Catch +	Total reconstruction[1]			Model estimate[3]			Preseason	Inseason	Recon-	Model estimate	
	Forecast	Adopted	Escape.	Median	80% PI[2]		Median	80% PI		Forecast	Adopted	structed	Median	80% PI
Total Fraser sockeye	**22,849,000**	**NA**	**11,944,000**	**20,061,500**	**NA**	**NA**	**NA**	**NA**	**NA**					
Early Stuart	**299,000**	**233,500**	**233,000**	**233,000**						**04-Jul**	**09-Jul**	**09-Jul**		
Early Summer Run	**4,121,000**	**1,900,000**	**1,828,000**	**1,870,000**	**1,855,000**	**1,886,000**				**07-Aug**	**08-Aug**	**08-Aug**		
Chilliwack	14,000	NA	25,000	25,000						17-Jul	NA	15-Jul		
Pitt/Alouette/Coquitlam	73,000	NA	69,000	69,000						02-Aug	NA	30-Jul		
Nadina Group[5]	237,000	NA	205,000	210,000						01-Aug	NA	01-Aug		
Early Summers exl. Early Thompson	324,000	NA	299,000	304,000								30-Jul		
Early Thompson[6]	3,797,000	NA	1,529,000	1,566,000	1,551,000	1,582,000				08-Aug	NA	10-Aug		
Summer Run	**5,699,000**	**8,200,000**	**6,316,000**	**7,989,000**	**6,751,000**	**11,590,000**				**15-Aug**	**18-Aug**	**18-Aug**		
Harrison / Widgeon	473,000	NA	791,000	1,145,000	604,000	3,432,000				13-Aug	NA	15-Aug		
Late Stuart / Stellako	1,019,000	NA	1,310,000	1,554,000	1,446,000	1,749,000				12-Aug	NA	16-Aug		
Chilko	2,615,000	NA	2,168,000	2,540,000	2,358,000	2,911,000				15-Aug	NA	18-Aug		
Quesnel	1,524,000	NA	1,952,000	2,627,000	2,247,000	3,326,000				17-Aug	NA	22-Aug		
Raft / North Thompson	68,000	NA	95,000	123,000	96,000	172,000				21-Aug	NA	21-Aug		
Summer Run excl. Harr.	5,226,000	NA	5,525,000	6,844,000	6,147,000	8,158,000						19-Aug		
Late Run	**12,730,000**	**NA**	**3,567,004**	**9,969,500**	**7,443,000**	**13,489,500**				**22-Aug**	**NA**	**24-Aug**		
Birkenhead Group	493,000	NA	89,623	126,000	100,000	184,000				22-Aug	NA	24-Aug		
LShu/Port/Weav/Cult	12,237,000	NA	3,477,381	8,507,000	6,007,000	11,969,000				22-Aug	NA	26-Aug		
LShu/Port/Weav/Cult				11,180,000	8,679,000	14,642,000						26-Aug		

[1] Total reconstructed run size consists of catch + escapement + 6 days projection + tail of the run as estimated by the run size models.

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

[3] Model estimates prior to the peak of the run are highly uncertain and may not be provided. Model estimates are replaced by reconstructed totals when the migration is nearly complete.

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

[5] Nadina / Bowron / Gates / Nahatlatch / Taseko.

[6] Early South Thompson / North Barriere.

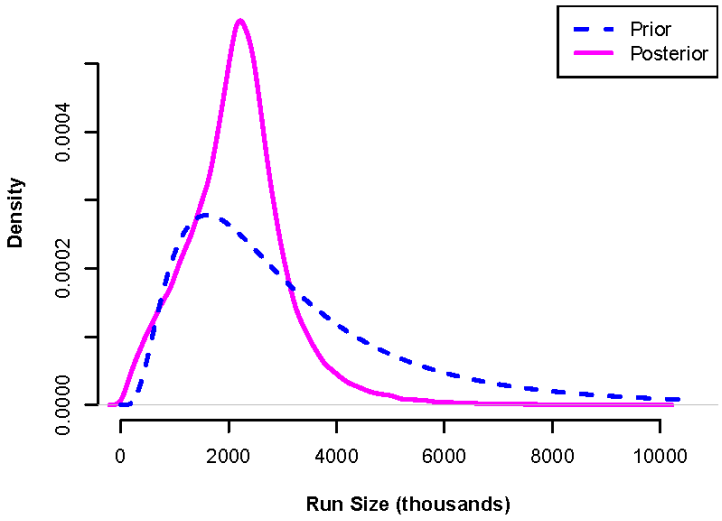
Timing	Run Size E.Thomp.
09-Aug	1,557,000
10-Aug	1,696,000
11-Aug	1,821,000
12-Aug	1,932,000
13-Aug	2,038,000
14-Aug	2,149,000

Timing	Run Size Summers
15-Aug	6,379,000
16-Aug	6,909,000
17-Aug	7,387,000
18-Aug	7,779,000
19-Aug	8,314,000
20-Aug	8,824,000

Chil run size assessment using MissionPurseSeine test

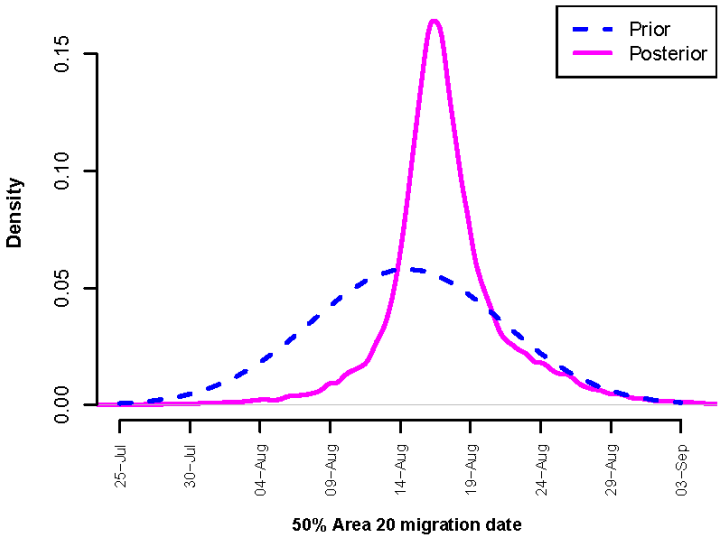
Chil Abundance

Median = 2162 thousand (992 - 3240 K 80% PI)
Mode = 2160 thousand



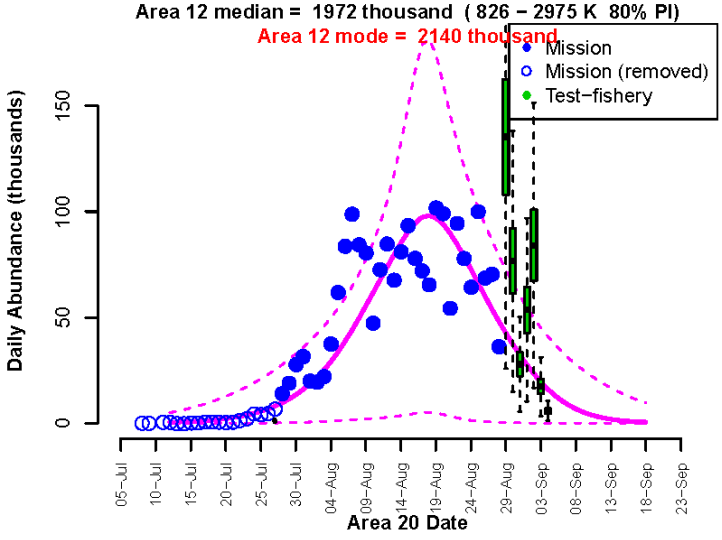
Timing of 50% the run

Timing = 17-Aug (14-Aug - 23-Aug 80% PI)
Spread = 34 days (12 - 55 days 80% PI)



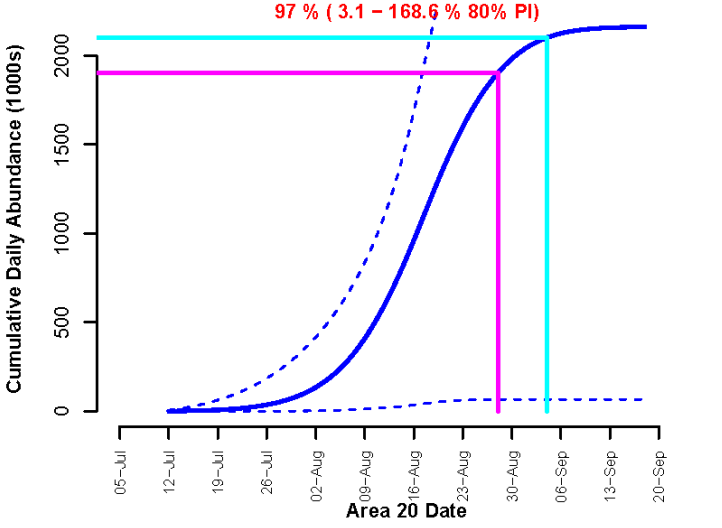
Fit of the model to reconstructed data

Area 20 median = 101 thousand (28 - 501 K 80% PI)
Area 20 mode= 40 thousand
Area 12 median = 1972 thousand (826 - 2975 K 80% PI)
Area 12 mode = 2140 thousand

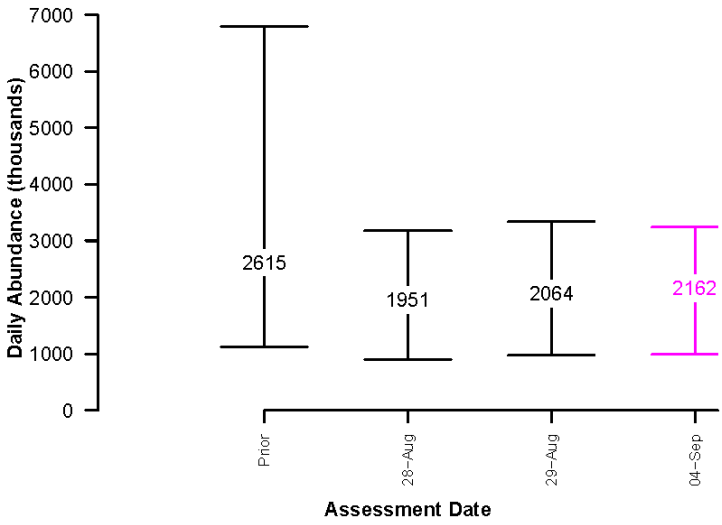


Cumulative Projected Run To Date

2102 thousand (66 - 3645 K 80% PI)
Percentage of Median
97 % (3.1 - 168.6 % 80% PI)



In-season changes in run size estimates



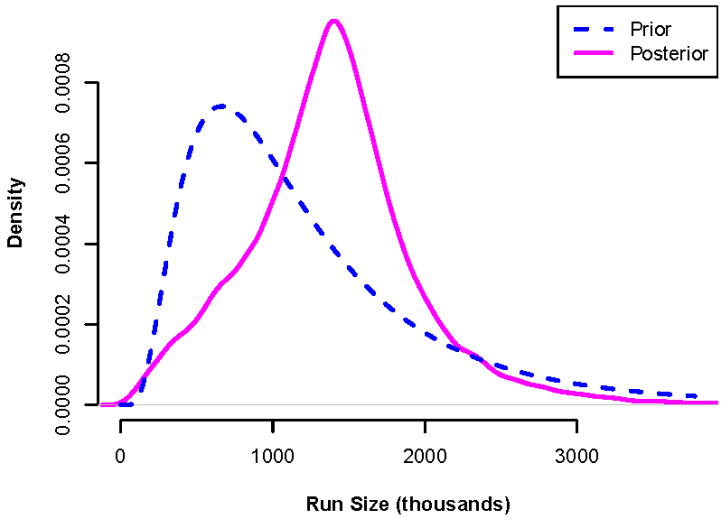
	Run Size Statistics
25% PI	1590K
75% PI	2646K
p10 (Prob>p10)	1121K (87%)
p25 (Prob>p25)	1670K (72%)
p50 (Prob>p50)	2615K (26%)
p75 (Prob>p75)	4274K (3%)
p90 (Prob>p90)	6790K (0%)
Mission to-date	1903 K (66 - 3256 K 80% PI)
% Mission to-date	88 % (3 - 150.6 % 80% PI)
Projected+Tails	259,000 (1 - 683 K)
Tails	60,000 (0 - 294 K)

Date: 2014-09-04, Time: 11:23

LStuStel run size assessment using MissionPurseSeine test

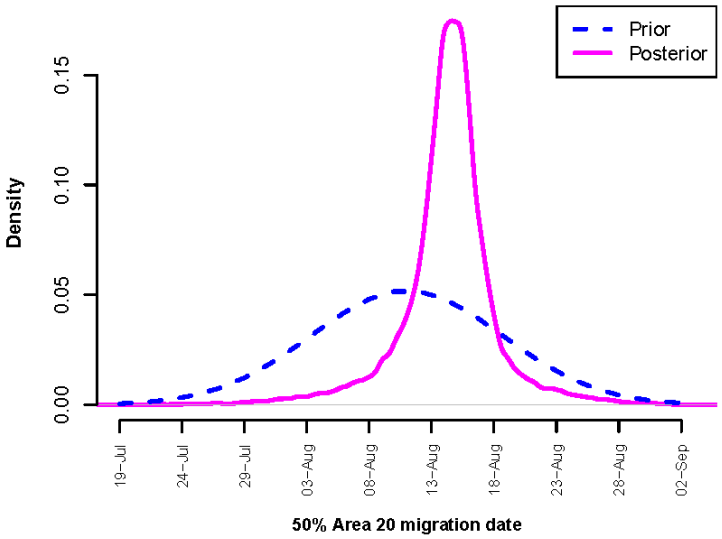
LStuStel Abundance

Median = 1377 thousand (673 - 2046 K 80% PI)
Mode = 1420 thousand



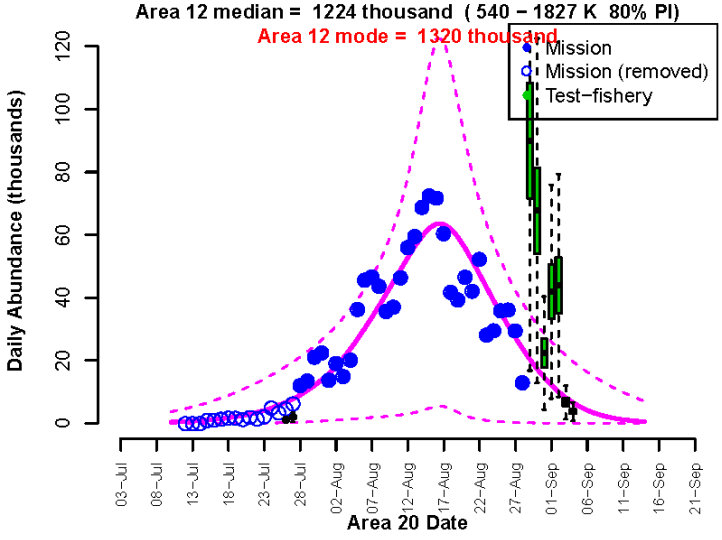
Timing of 50% the run

Timing = 16-Aug (11-Aug - 19-Aug 80% PI)
Spread = 33 days (12 - 54 days 80% PI)



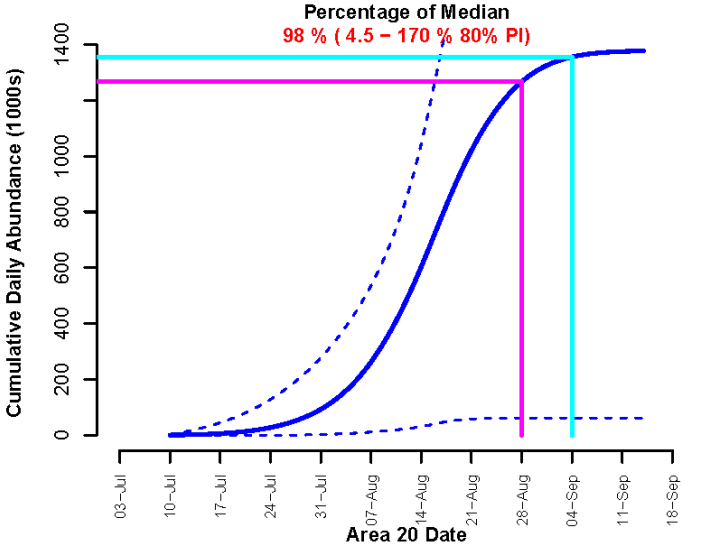
Fit of the model to reconstructed data

Area 20 median = 94 thousand (30 - 390 K 80% PI)
Area 20 mode= 40 thousand
Area 12 median = 1224 thousand (540 - 1827 K 80% PI)
Area 12 mode = 1320 thousand

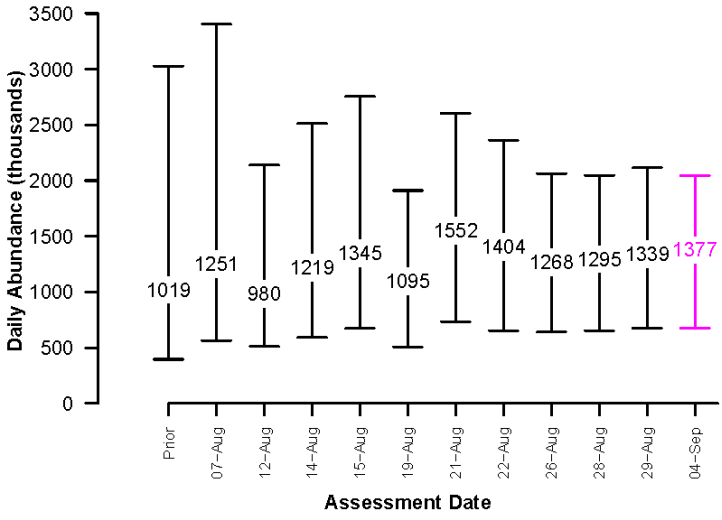


Cumulative Projected Run To Date

1356 thousand (62 - 2341 K 80% PI)
Percentage of Median
98 % (4.5 - 170 % 80% PI)



In-season changes in run size estimates



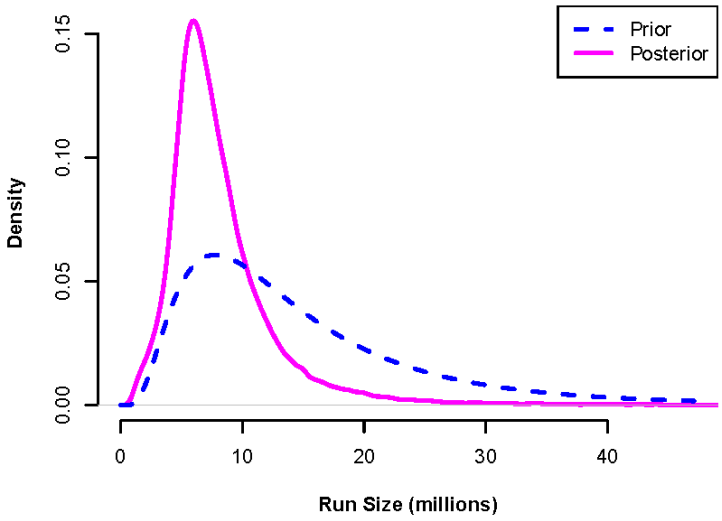
	Run Size Statistics
25% PI	1045K
75% PI	1673K
p10 (Prob>p10)	395K (96%)
p25 (Prob>p25)	609K (92%)
p50 (Prob>p50)	1019K (76%)
p75 (Prob>p75)	1791K (19%)
p90 (Prob>p90)	3027K (1%)
Mission to-date	1267 K (62 - 2155 K 80% PI)
% Mission to-date	92 % (4.5 - 156.5 % 80% PI)
Projected+Tails	110,000 (0 - 304 K)
Tails	21,000 (0 - 119 K)

Date: 2014-09-04, Time: 11:17

LShPWeCu run size assessment using PurseSeine

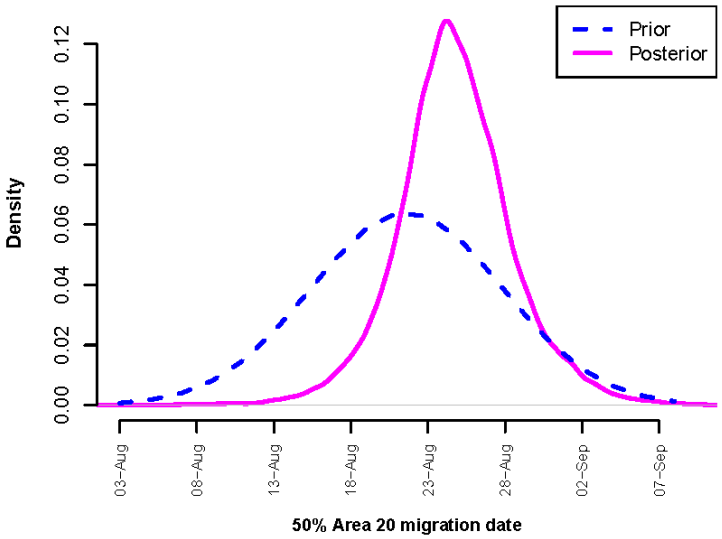
LShPWeCu Abundance

Median = 7.14 million (4 - 13 M 80% PI)
Mode = 6 million



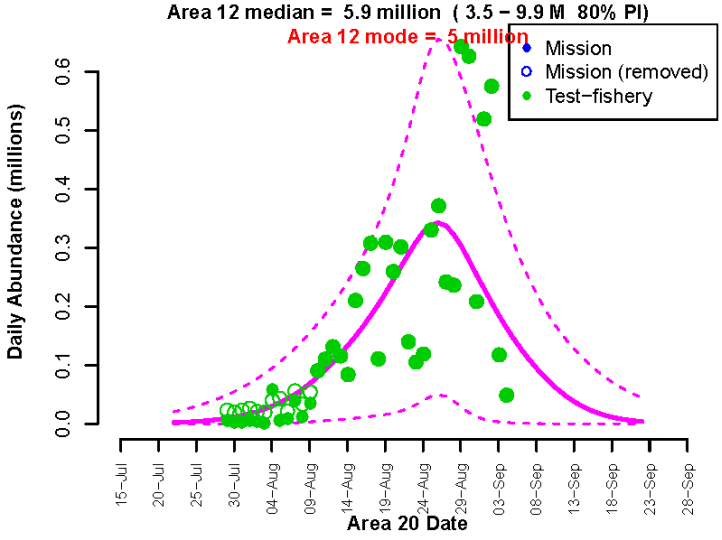
Timing of 50% the run

Timing = 25-Aug (21-Aug - 30-Aug 80% PI)
Spread = 31 days (12 - 50 days 80% PI)



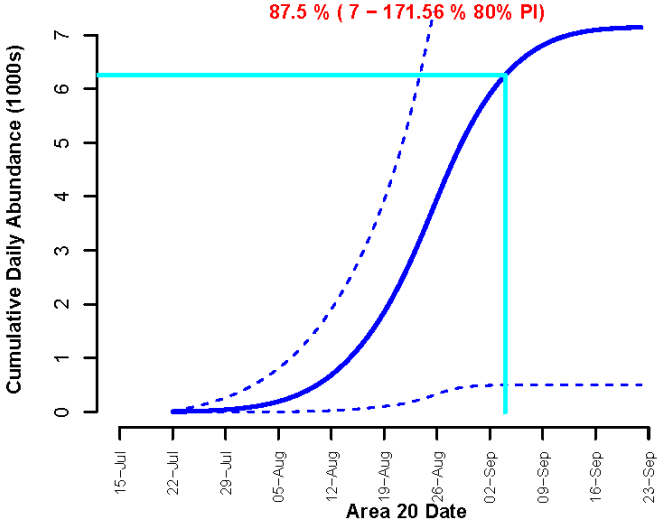
Fit of the model to reconstructed data

Area 20 median = 0.8 million (0.2 - 4.2 M 80% PI)
Area 20 mode= 0 million
Area 12 median = 5.9 million (3.5 - 9.9 M 80% PI)
Area 12 mode = 5 million

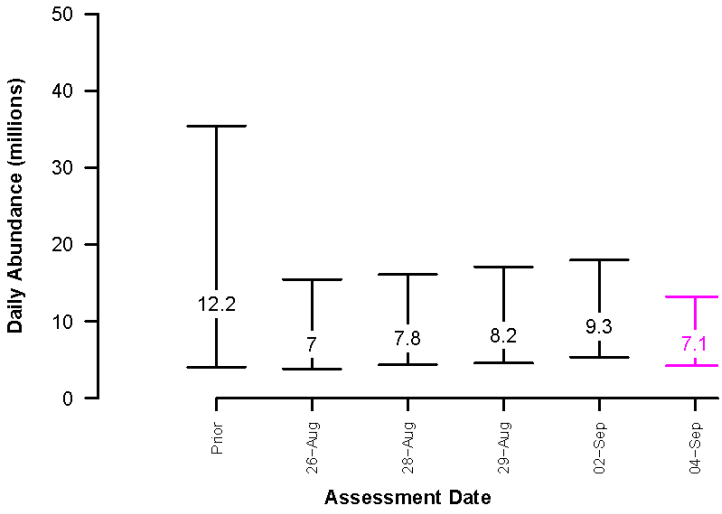


Cumulative Projected Run To Date

6.3 million (0 - 12.3 M 80% PI)
Percentage of Median
87.5 % (7 - 171.56 % 80% PI)



In-season changes in run size estimates



	Run Size Statistics
25% PI	5K
75% PI	10M
p10 (Prob>p10)	4.043M (91%)
p25 (Prob>p25)	7.154M (50%)
p50 (Prob>p50)	12.237M (13%)
p75 (Prob>p75)	21.228M (2%)
p90 (Prob>p90)	35.42M (0%)
Mission to-date	M (- M 80% PI)
% Mission to-date	% (- % 80% PI)
Projected+Tails	NA (NA - NA M)
Tails	900,000 (0 - 2.5 M)

Date: 2014-09-04, Time: 11:24

Management Adjustment (MA) Report for September 04, 2014

Management Adjustment output for Summers excluding Harrison

	Area 20 Date	Hells Gate Date	Average Temperate (19 days)	Average Discharge (19days)	Number of obs. days	Number of forec. days	Proportional MA (pMA) median	80% PI 10%	80% PI 90%	% DBE	pMA incl. Harrison
Pre-season MA value and expected timing											
	19-Aug	29-Aug					0.08			-7%	0.12
Current model predictions											
	16-Aug	26-Aug	19.6	2685	19	0	0.52	0.03	1.26	-34	
	17-Aug	27-Aug	19.5	2636	19	0	0.52	0.03	1.26	-34	
	18-Aug	28-Aug	19.4	2595	19	0	0.52	0.03	1.26	-34	
*	**19-Aug**	**29-Aug**	**19.4**	**2559**	**19**	**0**	**0.51**	**0.02**	**1.24**	**-34**	
	20-Aug	30-Aug	19.3	2531	19	0	0.49	0.00	1.21	-33	
	21-Aug	31-Aug	19.1	2508	19	0	0.45	-0.03	1.15	-31	
	22-Aug	01-Sep	18.9	2492	18	1	0.39	-0.06	1.07	-28	

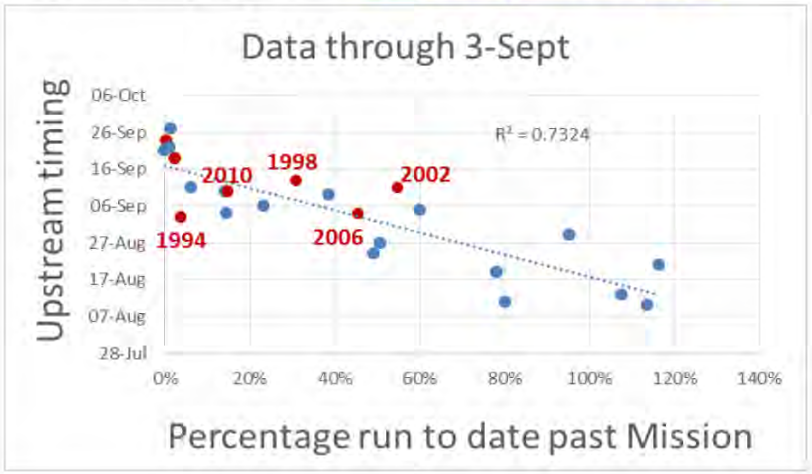
* currently adopted timing with updated forecast information

2014 Late-run upstream migration date and corresponding MA

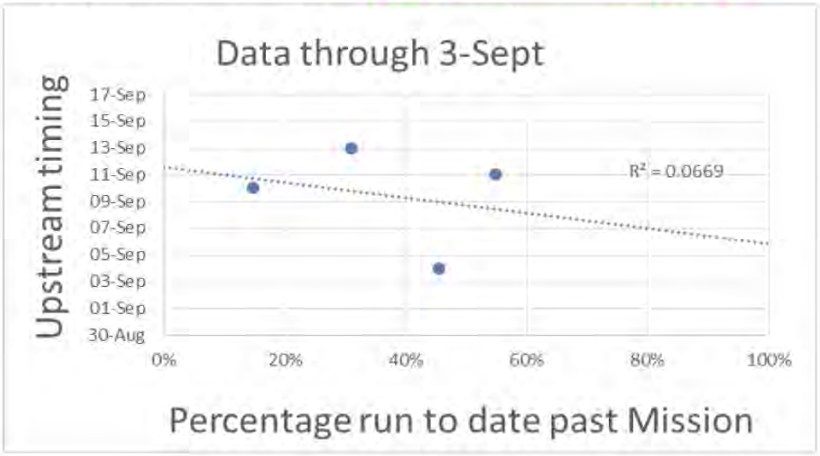
Percentage upstream migration to date using Inseason updated Summer run expansion line: 47%

(Using Summer run historical expansion line of 180, the percentage upstream migration to date is: 29%)

Upstream timing using all data: **2-sept (23-Aug - 12 sept 80% PI)**



Using 4 last years on this cycle: **8 Sept (31-Aug – 17-Sept 80% PI)**



Upstream Migration Timing (i.e. Mission 50% Date)	Prediction for Lates excluding Birkenhead(Model fit to data from 2014-2015 Cycle including revised 2010 estimate and excluding 2006)
31-Aug	1.18
01-Sep	1.11
02-Sep	1.04 ← **80% PI 0.54 - 1.69**
03-Sep	0.97
04-Sep	0.91
05-Sep	0.85
06-Sep	0.79
07-Sep	0.73
08-Sep	0.68 ← **80% PI 0.37 - 1.06**
09-Sep	0.62
10-Sep	0.57
11-Sep	0.52
12-Sep	0.47
13-Sep	0.42
14-Sep	0.38
15-Sep	0.33
16-Sep	0.29

Upstream timing if Area 20 timing is Aug 23 and there is no delay

Upstream timing corresponding to preseason pMA of 0.28

2014 Fraser River sockeye salmon: TAC and catch balance

Week of: Aug. 31 - Sep. 6, 2014 Date: Sep. 4, 2014

	Fraser Sockeye				
	Early Stuart	Early Summer	Summer	Lates	Total
RUN STATUS, ESCAPEMENT NEEDS & AVAILABLE SURPLUS					
Pre-season or **Adopted In-season** Run Size	**233,500**	**1,900,000**	**8,200,000**	**12,730,000**	**23,063,500**
Adult Spawning Escapement Target (SET)	**108,000**	**665,000**	**2,870,000**	**4,455,500**	**8,098,500**
%SET from TAM rules	46%	35%	35%	35%	
Management Adjustment (MA)	**211,700**	**279,300**	**344,400**	**1,247,500**	**2,082,900**
Proportional MA (pMA)	1.96	0.42	0.12	0.28	
Adjusted Spawning Escapement Target (SET) *	233,500	944,300	3,214,400	5,703,000	10,095,200
Test Fishing (TF)	3,000	30,000	95,000	40,400	168,400
Surplus above Adjusted SET & Test fishing	0	925,700	4,890,600	6,986,600	12,802,900
DEDUCTIONS & TAC FOR INTERNATIONAL SHARING					
Aboriginal Fishery Exemption (AFE)	**20,500**	**56,200**	**158,300**	**165,000**	**400,000**
Total Deductions (Adj. SET + TF + Available AFE)	257,000	1,030,500	3,467,700	5,908,400	10,663,600
Available TAC for International Sharing	**0**	**869,500**	**4,732,300**	**6,821,600**	**12,423,400**
UNITED STATES (Washington) TAC					
Proportionally Distributed TAC + Payback Total	**0**	**143,000**	**778,300**	**1,122,000**	**2,043,300**
CANADA TAC					
Canadian TAC + AFE	**20,500**	**782,700**	**4,112,300**	**5,864,600**	**10,780,100**
CATCH-TO-DATE					
Test	**2,800**	**26,800**	**77,800**	**35,000**	**142,400**
Washington	**0**	**20,100**	**163,500**	**154,000**	**337,400**
Canada	**22,700**	**732,500**	**3,296,700**	**2,350,100**	**6,402,100**
Total Catch in All Fisheries	**25,500**	**779,400**	**3,538,000**	**2,539,100**	**6,881,900**
Exploitation Rate (catch-to-date / run size)	10.9%	41.0%	43.1%	19.9%	29.8%
CATCH REMAINING (BALANCE)					
Washington	**0**	**122,900**	**614,800**	**968,000**	**1,705,900**
Canada	**-2,200**	**50,200**	**815,600**	**3,514,500**	**4,378,100**
Balance Remaining [below share / -above share]	-2,200	173,100	1,430,400	4,482,500	6,083,800

* The adjusted SET is the lesser of the run size or the sum of the MA + TAM-defined SET.

** Washington sockeye and pink shares according to Annex IV of the Pacific Salmon Treaty.
Sockeye: 16.5% of the TAC - payback (maximum of 5% of share).

Anita Blakley

From: Matts, Brian <Brian.Matts@dfo-mpo.gc.ca>
Sent: September 4, 2014 9:53 AM
To: Anita Blakley; Charron, Terry; Ennevor, Bridget; Evers, Sheldon; gmoore@tsawwassenfirstnation.com; Green, Ken; Karl English; Kyle Flindt; Laura Cassidy; Liana Williams; Matts, Brian; mike baird; Payne, Brigid; Sneddon, Debra
Subject: FW: TFN TAC

Summer run increased to 8.2M since last week. (also ESum @1.9M) Lates still at p50.

Tsawwassen First Nation
domestic & commercial TAC calcs

CTAC	11,351,000
CCTAC	10,152,980

	TFN
domestic allocation	15,226
CTD	14,667
balance	559
commercial allocation	79,193
CTD	24824
balance	54,369
allocation updated:	*3-Sep-14*
CTD updated:	*03-Sep*

Brian Matts
Resource Manager-LFA
(604) 666-2096
(604) 916-4867

APPENDIX F

Release Estimate Calculations for TFN THA Salmon Fisheries

Legend:

SK = sockeye	PK = Pink	SG = Sturgeon	W = wild
CN = Chinook	CM = Chum	K = kept	H = hatchery
CO = Coho	SH = Steelhead	R = released	

Catch reports used for estimation:

Summary of Encounter Rate Information from Shallow Seine Fisheries in the Below Port Mann Area, September 2014

													Encounter Rates - 6 Day Average				
Date	SK K	SK R	CN K	CN R	CO K	CO R	CM K	CM R	SH K	SH R	SG K	SG R	CN/SK	CO/SK	CM/SK	SH/SK	SG/SK
16-Sep	1,126			5		11	-	1				1					
17-Sep	2,389			16		10	-	8									
18-Sep	15			12			-	-					0.0113	0.0246	0.0140	-	0.0001
19-Sep	1,016			14		7	-	3									
20-Sep	1,448			6		9	14										
21-Sep	1,233			29		141	4	71									

Summary of Landing Information for Tsawwassen Shallow Seine Openings, September 2014

Date	SK K	SK R	CN K	CN R	CO K	CO R	PK K	PK R	CM K	CM R	SH K	SH R	SG K	SG R	Licence #
22-23-Sep	129								3						HD480
23-24 Sep	1,033														HD481

Estimate of bycatch based on alternate datasources

Estimate of bycatch during Tsawwassen Sockeye Shallow Seine Harvest Agreement Fisheries Using Shallow Seine Encounter Rates in the Below Port Mann Area

		Encounter Est based on Sh Sn					Release Estimate (Acct for kept)				
Licence #	SK K	CN	CO	CM	SH	SG	CN	CO	CM	SH	SG
HD480	129	1	3	2	-	-	1	3	-	-	-
HD481	1,033	12	25	14	-	-	12	25	14	-	-

Estimate of total catch during Tsawwassen Shallow Seine Openings, September 2014

Date	SK K	SK R	CN K	CN R	CO K	CO R	PK K	PK R	CM K	CM R	SH K	SH R	SG K	SG R	Licence #
22-23-Sep	129	-	-	1	-	3	-	-	3	-	-	-	-	-	HD480
23-24 Sep	1,033	-	-	12	-	25	-	-	-	14	-	-	-	-	HD481

Catch reports used for estimation:

2014 catch of salmon in the Albion chum test fishery

							6 Day Average				
DATE	CM	CN	CO	SK	SH	SG	CN/CM	CO/CM	SK/CM	SH/CM	SG/CM
19/10/2014	274	1	7	-	-	-					
21/10/2014	418	-	5	-	1	-					
22/10/2014	100	1	1	-	-	-					
24/10/2014	114	-	-	-	-	1					
25/10/2014	367	-	2	-	1	-					
26/10/2014	166	2	-	-	-	-	0.00555	0.00888	0	0.00111	0.00222
27/10/2014	72	1	2	-	-	-					
29/10/2014	82	1	3	-	-	1					
30/10/2014	181	-	5	-	-	2					
31/10/2014	172	-	4	1	-	-					
01/11/2014	130	-	3	-	-	-					

2014 catch of salmon in the Area E chum fisheries from vessel-based DFO observations

Date	CM	CN	CO	SK	SH	SG	CN/CM	CO/CM	SK/CM	SH/CM	SG/CM
23/10/2014	689	2	47	6	1	4					
28/10/2014	826	3	33	1	1	3	0.0033	0.05281	0.00462	0.00132	0.00462

Blended estimate using average encounter rate between Albion & Area E Fisheries

	CN/CM	CO/CM	SK/CM	SH/CM	SG/CM
Avg encounter rate:	0.00414	0.03642	0.0029	0.00124	0.00373

2014 Tsawwassen Chum Fishery Catch Reports from FOS

				Kept Catch						Released Catch					
	Licence	Open	Close	CM	CN	CO	SK	SH	SG	CM	CN	CO	SK	SH	SG
Day1	LFA-14-HD498	25-Oct	25-Oct	2,488	-	-	-	-	-	-	-	12	-	-	-
Day2	LFA-14-HD498	26-Oct	26-Oct	2,451	-	-	-	-	-	-	-	-	-	-	-

Estimate of bycatch based on alternate datasources

Estimate of bycatch encountered during Tsawwassen Chum EO Fisheries Using Albion and Area E Vessel-based Observations

Licence	Date	CM	CN	CO	SK	SH	SG
LFA-14-HD498	25-Oct	2,488	10	91	7	3	9
LFA-14-HD498	26-Oct	2,451	10	89	7	3	9

Estimate of bycatch kept and released during Tsawwassen Chum EO Fisheries Using Albion and Area E Vessel-based Observations

			Encounter Est					Release Estimate (Acct for kept)				
Licence	Date	CM K	CN	CO	SK	SH	SG	CN	CO	SK	SH	SG
LFA-14-HD498	25-Oct	2,488	10	91	7	3	9	10	91	7	3	9
LFA-14-HD498	26-Oct	2,451	10	89	7	3	9	10	89	7	3	9