

August 12, 2015

Via E-mail

To: Lower Nicola Indian Band

Re: Closure to the Sockeye directed Food Social Ceremonial Fishery

Please find attached Communal Licence XFSC 309 2015 - Amendment 3to which amends the closure of XFSC 309 2015 - Amendment 2 to fish for sockeye and chinook salmon to Thursday at 23:59 also please find attached Communal Licence XFSC 350 2015 to fish for chinook salmon.

On Tuesday August 11 the Fraser panel met and adopted a run size for the Early Summer run of 350 000 with a timing of July 29 and a summer run of 1.7 million with the timing to be determined at a later date. 1.7 million Summer run is the P-10 range of the forecast. At this run size there is no available Total allowable catch (TAC) for directed fisheries on these stocks. The Department will be managing to a Low abundance Exploitation Rate (LAER) of 10%. For more information on the LAER please refer to letter sent on July 13, 2015 (Re: 2015 Environmental Conditions and Sockeye, Chinook & Coho Management:). The most recent DNA information indicates that approximately 80% of the Sockeye in the Sawmill creek to Churn creek area at this time is Summer Run Sockeye.

The Department will be implementing a closure to insure there is sufficient fish to meet the summer run escapement object and allow for an opportunity for First Nations Upstream of Churn creek area to have access to Fish for FSC purposes.

The Department will continue to work closely with First Nations to develop fishing plans. Please contact me if you would like to discuss this information further.

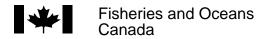
Sincerely,

Dean Allan

Resource Manager, BC Interior Fisheries & Oceans Canada

Attach

Appendix 1: Letter to First Nations Re: 2015 Environmental Conditions and Sockeye, Chinook & Coho Management



Pêches et Océans Canada

DATE, 2015

Via E-mail

To: First Nations Chiefs, Councilors and Fishery Representatives,

Re: 2015 Environmental Conditions and Sockeye, Chinook & Coho Management

The purpose of this letter is to provide an update on current environmental conditions, the management approach for Fraser sockeye fisheries and some elements of the management of Fraser Chinook and Interior Fraser Coho for 2015. Consultations over the past several months have resulted in the following approaches being adopted by the Department of Fisheries and Oceans.

Environmental Conditions

As noted in the June 30th letter from the Regional Director General, for 2015 salmon fisheries, in-season management will need to consider potential implications of exceptionally warm environmental conditions on salmon populations. Extremely low snow pack levels in southern BC, combined with recent warm and dry weather conditions greatly increase the probability of low river levels and high river temperatures this summer. These conditions are less than ideal for salmon migration and adverse effects could include migration delays, reduced numbers of salmon successfully reaching the spawning grounds and poor fish condition in spawning areas.

The Department monitors these conditions and takes this information into account when making fishery management decisions. For 2015, environmental conditions and associated uncertainties may require additional adjustments to the fisheries management approaches outlined in the management plan and in this letter.

Sockeye Management

The adopted escapement plan for Fraser River sockeye is as follows:

Management	Low	TAM Cap	Lower Fishery	Upper Fishery	Pre-season MA
Unit	Abundance ER		Reference Point	Reference Point	
Early Stuart	10%	60%	108,000	270,000	0.68
Early Summer	10%	60%	100,000	250,000	1
Summer	10%	65%	1,000,000	2,857,000	0.17
Late	20%-30%	60%	300,000	750,000	0.95

^{*}Late run pMA used if in-river 50% date is before 09-Sep. Otherwise, Late Run MA model outputs will be implemented.

The Low Abundance Exploitation Rate (LAER) (column 2) is applied in the case where there are insufficient fish to meet escapement targets while taking into account the management adjustment (MA) or in the case when the allowable ER after the MA applied is very low. The intention of the Low Abundance Exploitation Rate is to allow for limited fisheries directed on more abundant co-migrating stocks or species. This provision is not intended to create directed harvest opportunities with the exception of limited terminal fisheries. The Department may also consider requests for limited-participation fisheries for unplanned events only.

Column 3 outlines the Total Allowable Mortality cap. Please note there is a change from recent years when all management units had a Total Allowable Mortality (TAM) cap of 60% (ref. column 3). For 2015, based on the consultation input, the TAM cap has been increased to 65% for the Summer run sockeye management unit. Total Allowable Mortality includes mortality from directed harvest, release mortalities, as well as estimates of en-route loss. It does not include the element of mortality that occurs after the fish are counted on the spawning grounds but prior to successful spawning (i.e. prespawn mortality).

The Lower Fishery Reference Point (column 4) describes the numerical escapement target when the run size is between the Upper and Lower Fishery Reference Points. When the run size is below the Lower Fishery Reference Point, the escapement target is the run size (i.e. target would be to have all returning fish contribute to escapement), but it is recognized that there will be some incidental harvest in the form of the Low Abundance Exploitation Rate (LAER) as described above.

The Upper Fishery Reference Point (column 5) describes the run size above which the Total Allowable Mortality is the TAM cap.

The percent management adjustment (pMA) (column 6) is multiplied by the escapement goal to get the numeric MA. The numeric MA is the number of fish in addition to the escapement goal and projected catch upstream of Mission that are required to pass Mission in order to improve the likelihood of reaching the escapement goal. The pMA for each management group is based on historical relationships between Fraser River water temperature and discharge or the timing of that group and the discrepancy between the number of fish counted at Mission (in the lower Fraser River) and the number counted on the spawning escapement grounds. The values in the table above will be updated with in-season information on migratory conditions and timing in the river and may also take into account the physical condition of fish observed along the migration route.

Fraser sockeye test fisheries at Whonnock and Qualark started operating on June 22nd and June 29th, respectively. The Area 20 gill net will be delayed by approximately 3 weeks from the usual start time until July 13th. The reason for this delay is to reduce impacts on Early Stuart sockeye. The three-week delay yields a projected reduction in Early Stuart impacts of approximately 500 fish. In-river test fisheries will still allow for an in-season abundance estimate of Early Stuarts to be generated. In-season estimates of 2015 returns of Early Stuart sockeye should be available later in July. Your local

Resource Manager will provide you with details on the best way to access this information in your area.

Early Stuart Sockeye

For Early Stuart sockeye in 2015, the return has a 90% probability of being less than the lower fishery reference point (108,000). Window closures and other fishing restrictions have been implemented in commercial, recreational and First Nations fisheries and any incidental impacts will be managed within the LAER indicated by the escapement plan. Until there is in-season information to suggest differently, fisheries will be managed using the p25 forecast of 16,000 fish consistent with recommendations from some First Nations, including those participating in the Fraser Forum process

A rolling four-week window closure, based on run timing of the Early Stuart sockeye migration through various fisheries, as proposed in the draft IFMP, has been implemented. This window closure is one week longer than the typical Early Stuart window in order to provide some additional protection to both Early Stuart sockeye and the earliest timed portion of the Early Summer run.

Any fishery impacting Early Stuart sockeye will be managed in a precautionary manner, with only extremely low-impact fisheries permitted. Planning for fisheries that may have by-catch or incidental impacts to this stock group will be informed by recommendations received from First Nations and sharing arrangements that have been applied in several recent years (see "Sharing Arrangements" below).

Appendix 2 from the IFMP describes the start and end dates of the window closure referenced above in the various fishing locations assuming a peak migration date in Area 20 of July 4th. If in-season assessment suggests that the timing of Early Stuart sockeye is significantly different than the pre-season IFMP timing assumption or the fish are delayed due to adverse migration conditions, the dates of the closure may be modified accordingly. Resource Managers in your area will be contacting you to advise of the specifics of Early Stuart Management as information becomes available (i.e. inseason abundance information, the status of the window closure and proposed FSC fishing plans, if any).

Early Summer Sockeye

Forecast returns for stocks within this management group are variable with belowaverage returns predicted for some of the early-timed groups (i.e. Bowron, Taskeko and Nadina) and above average returns for some of the later timed groups (i.e. Scotch). The extension to the window closure described in the Early Stuart sockeye section above is intended to provide some protection to the earlier-timed Early Summer sockeye. Under average environmental conditions, directed harvest opportunities would be anticipated on this run timing group, however, the current in-river temperature measure at Hope B.C. is approximately 4°C greater than average for this time of year. If this temperature trend continues, management adjustments for Early Summer sockeye are likely to increase. Actual harvest opportunities for this management group will be determined when in-season information is available.

Summers

Summer run sockeye make up approximately 70% of the total return at the median (p50) forecast. Directed FSC harvest is expected for much of the forecast range. Harvest of summer run sockeye may be limited by constraints on co-migrating groups (Early Summer and Late Run sockeye) and stocks of concern such as Cultus Lake sockeye. Actual harvest opportunities for this management group will be determined when in-season information is available.

Lates

The Late run return in 2015 represents the subdominant cycle line and is expected to be below the cycle line average at the median (p50) forecast. Given the pre-season forecast and the management adjustment, small directed harvest opportunities could occur on Late run sockeye. It is expected that most of the Late run harvest would occur during fisheries directed on co-migrating stocks and species (Summer run sockeye, pink salmon).

Cultus Lake sockeye remain a stock of concern. Management of Cultus Lake sockeye will be based on the Cultus Lake sockeye recovery objectives. For management purposes, the Cultus abundance relative to p50 forecast, exploitation rate and en-route mortality will be assumed to be the same as those for similarly timed Late run stocks caught seaward of the Vedder River confluence.

Nimpkish and Sakinaw

In the marine area, harvest-related measures continue to be required for Nimpkish River and Sakinaw Lake sockeye. For Nimpkish-origin sockeye, these measures include sockeye non-retention in First Nations' FSC fisheries occurring in Area 12 above Lewis Point until late July. For Sakinaw-origin sockeye, these measures include delaying all fisheries that have potential to intercept Sakinaw Lake sockeye until the last week of July to ensure a significant portion of the return has passed through major fisheries in Johnstone Strait. First Nations FSC fisheries in Johnstone Strait will be restricted to gill net and troll only until July 25th, and until August 15th in the northern Strait of Georgia.

Sharing Arrangements

The forecast of all sockeye returning to the Fraser system in 2015 ranges from 2.4 M (p10) to 23.6 M (p90) with a median forecast of 6.8 M (p50). The detailed forecast is provided in Appendix 3.

Actual returns as well as environmental conditions are highly uncertain and the constraints of weaker management groups could impact the ability of First Nations to access available FSC allocations.

As noted above, for Early Stuart sockeye, the Department intends to use a plan that has been implemented for the past several years to manage small catches or impacts

unless provided with a revised approach which is agreed to by a significant majority of Fraser River First Nations. This sharing plan is attached as Appendix 1.

For all other sockeye management groups, catch will be split between the marine areas, lower Fraser and BC Interior using the licence harvest target shares identified in the 2015-16 Southern B.C. IFMP to create a proportionate split.

DFO continues to seek input from First Nations on specifics of sharing where a management group is a constraint to harvest for a more abundant management group. Various approaches have been used in past years. At this time, the Department plans to use the proportional split described above with consideration of access to the particular component stocks in the aggregate and the catch to date for each of the three areas (South Coast, Lower Fraser and BC Interior).

Interior Fraser Coho

The outlook for Interior Fraser River coho remains uncertain and populations continue to be in a low productivity regime (i.e. low coho survival rates) that has persisted since the 1994 return year.

For 2015, the Department's approach to managing fisheries will be to ensure exploitation rates remain below the 10% exploitation rate limit and a cautious approach is planned to account for the following factors:

- High uncertainty about coho returns/survival rates, especially in light of the potential impact of exceptionally warm ocean conditions, and current in-river conditions;
- Uncertainty about modelled fisheries impacts (2014 post-season evaluation suggests that fishery impacts were higher than modelled pre-season and in-season)
- International obligations to manage domestic fisheries at an exploitation rate of 10% or less, as measured by models employed under the Pacific Salmon Treaty (PST) process. There is a tendency of models used domestically by Canada to underestimate fishery impacts relative to the models used through the PST process.

The approach will include efforts to manage to the lowest exploitation rate possible while providing some limited additional flexibility for managers to plan for First Nations, commercial and recreational fisheries for more abundant stocks and species. Impacts will be limited to incidental, by-catch or release mortalities in most areas.

For FSC fisheries, the current plan is to allow retention of coho (wild and hatchery-marked) by-catch in fisheries directed on other species. Some directed FSC harvest opportunities are possible in tributaries subject to available abundance. Please contact your local Resource Manager to discuss implications specific to your fishery.

Chinook

Fisheries will be managed to minimize incidental harvest of Fraser River Spring 4₂ chinook salmon. For Fraser River fisheries this means minimized directed chinook harvest prior to July 15, 2015. After July 15, the IFMP outlines a suite of management actions that will be implemented. Due to the extremely low Early Stuart sockeye forecast and the adverse migration conditions in the Fraser River, recreational fisheries that were scheduled to open on July 16th will be delayed.

At this time, there is no specific management objective for Summer 4₁ chinook salmon, but given recent trends of abundance, directed fisheries are expected to occur on these stocks.

For Fraser Fall 4₁ chinook (Harrison and Chilliwack), the PST approved escapement goal is a range of 75,100 to 98,500 spawners. The 2015 forecast number of spawners falls short of this goal (33,000 spawners). Additional fishery management actions are being considered within the Fraser and/or Harrison Rivers.

The Department continues to work closely with First Nations and other harvesters to develop fishing plans and is appreciative of the support received by First Nations in this process. If you have further concerns or would like to discuss any of the proposed management actions described in this letter further, please contact the DFO Resource Manager in your area.

Sincerely,

AREA DIRECTOR

A/Area Director
Fisheries & Oceans Canada
BC Interior/Lower Fraser/South Coast – AS APPR>

Attach

Appendix 1: Early Stuart Sharing Tables

Table 1: No available TAC (Fisheries will be limited to the Low Abundance Exploitation Rate)

The Low Abundance Exploitation Rate for Early Stuart sockeye is 10%.

Allowable TAC is Zero

Run size is 16K, esc goal + MA > run size (i.e., FSC target = LAER-test fish impacts)

Early Stuart Run Size	16,000	
Total for FSC sharing (under LAER)	1,490	
FN Group	Share of available FSC for sharing	
Carrier-Sekani TC	500	
Lheidli T'enneh	15	
Carrier-Chilcotin	5	
TNG; NSTC; Esket	152	
Whispering Pines - High Bar	5	
St'at'imx Nation	254	
NWSFA; NNTC	254	
Above Port Mann	254	
Below Port Mann	51	
Marine	incidental	

Table 2: Canadian TAC is 24,500 or less.

FSC Allocation <24,500

Share equals FSC Target minus 1st priority allocation * X%

For total FSC available = 20,000 Early Stuart

	Shares (%)	Shares (# fish)
Carrier-Sekani TC	(pro-rated)	4,082
Lheidli T'enneh	2%	245
Carrier-Chilcotin	1%	81
TNG; NSTC; Esket	15%	2,448
Whispering Pines - High Bar	1%	81
St'at'imx Nation	26%	4,081
NWSFA; NNTC	26%	4,081
Above Port Mann	26%	4,081
Below Port Mann	5%	817

Table 3: Canadian TAC is greater than 24,500 FSC Allocation >24,500

Share equals min. target plus X% of FSC Target >24,500

For total FSC available = 30,000 Early Stuart

		additional shares		total share	
	"start"	(%)	(#fish)	(#fish)	
Carrier-Sekani TC	5,000	5%	275	5,275	
Lheidli T'enneh	300	1%	55	355	
Carrier-Chilcotin	99	1%	55	154	
TNG; NSTC; Esket	2,999	13%	715	3,714	
Whispering Pines - High Bar	99	1%	55	154	
St'at'imx Nation	5,000	13%	715	5,715	
NWSFA; NNTC	5,000	13%	715	5,715	
Above Port Mann	5,000	40%	2200	7,200	
Below Port Mann	1,000	13%	715	1,715	

Note: FSC Harvest of Early Stuart sockeye is minimal but does occur in marine areas in many years and is expected to occur in the future.

Appendix 2: Early Stuart and Early Summer Window Closure Dates

2015 Management Acti	on Dates for Ea	rly Stuart Cor	nservation Measures		
Early Stuart Run Size= 30,000 A20 Peak= 4-Jul		Printed on:	28-May-2015		
	Actual Dates		Management Action		
Area	Start (date, time)	End (date, time)			
Area 127	open July 22, 7 d/week				
Area 11	open July 22, 7 d/week		Earliest potential opening to fishing for Fraser sockeye = July 22 (SN, GN, TR) – Note: Gear restrictions to protect		
Area 12	open July 22, 7 d/week				
Area 13	open July 22, 7 d/week		Sakinaw sockeye will remain in place until July 25, 2015.		
Area 20	open July 22, 7 d/week				
Areas 18 and 29	June 28 - Midnight	July 29 - noon	Earliest potential opening to fishing for Fraser sockeye is July 18 (Sn, Gn, Tr).		
Steveston-Port Mann Bridge (Subareas 29-11 to 29-17)	Jun 29 - Midnight	July 31 - noon	Potential for FNs FSC Chinook- directed fisheries. Earliest potential communal opening to for Fraser		
Port Mann Bridge to Sawmill Creek			sockeye (is July 18.		
Sawmill Creek to Texas Creek		Aug 1 - 6 pm	FNs FSC: Open to selective fishing		
Texas Creek to Kelly Creek	Jul 3 - 6 pm		for Chinook (dip net, rod and reel		
Kelly Creek to Deadman			and potential 8 inch mesh GN).		
Deadman to Chilcotin		Aug 7 - 6 pm	FNs FSC: Open to selective fishing for Chinook (dip net) and open in		
Chilcotin to Quesnel	Jul 8 - 6 pm				
Quesnel to Hixon			tribs for sox and chinook.		
Hixon to Prince George	Jul 12 - 6 pm	Aug 10 - 6 pm	FNs FSC: Open to selective fishing for Chinook (dip net) and open in tribs for sox and chinook.		
Prince George to Stuart River	Jul 12 - 6 pm	Aug 10 6 pm	FNs FSC: Some allowable harvest in terminal areas.		

Appendix 3: 2015 Fraser Sockeye Forecast

Run timing group	Mean R	un Size	Probability that	Return will be a	nt/or Below Spe	ecified Run Size	
Stocks	all cycles ^c	2015 cycle ^c	10%	25%	50%	75%	90%
Early Stuart	303,000	162,000	8,000	16,000	30,000	58,000	108,000
Early Summer		-	236,000	424,000	837,000	1,603,000	2,963,000
(total excluding miscellaneous)	507,000	462,000	192,000	325,000	624,000	1,256,000	2,342,000
Bowron	38,000	75,000	6,000	11,000	21,000	40,000	72,000
Fennell	24,000	30,000	10,000	16,000	27,000	47,000	78,000
*Gates	54,000	31,000	46,000	79,000	141,000	280,000	502,000
Nadina	75,000	81,000	8,000	15,000	31,000	65,000	126,000
Pitt	71,000	70,000	33,000	51,000	79,000	120,000	190,000
*Scotch	100,000	20,000	48,000	85,000	185,000	430,000	845,000
*Seymour	145,000	155,000	41,000	68,000	140,000	274,000	529,000
Misc (Early Shuswap) ^d			33,000	74,000	164,000	258,000	459,000
****Misc (Taseko) ^e			1,000	2,000	4,000	7,000	9,000
Misc (Chilliwack) ^f			4,000	9,000	18,000	33,000	61,000
Misc (Nahatlatch) ^f		-	6,000	14,000	27,000	49,000	92,000
Summer			1,701,000	2,681,000	4,675,000	8,764,000	16,511,000
(total excluding miscellaneous)	3,866,000	2,524,000	1,693,000	2,666,000	4,648,000	8,710,000	16,406,000
Chilko ^g	1,405,000	1,545,000	1,117,000	1,587,000	2,387,000	3,813,000	5,972,000
Late Stuart	544,000	81,000	12,000	25,000	54,000	118,000	245,000
Quesnel	1,324,000	151,000	108,000	197,000	367,000	684,000	1,421,000
Stellako	457,000	568,000	186,000	261,000	390,000	552,000	823,000
Raft ^h	31,000	20,000	15,000	23,000	36,000	56,000	87,000
***Harrison h & j	105,000	159,000	255,000	573,000	1,414,000	3,487,000	7,858,000
Misc (N. Thomp. Tribs) h & k			1,000	2,000	3,000	7,000	14,000
Misc (N. Thomp River) h & k			5,000	10,000	18,000	37,000	74,000
Misc (Widgeon) h & I			2,000	3,000	6,000	10,000	17,000
Late	-		419,000	703,000	1,236,000	2,210,000	3,998,000
(total exicuding miscellaneous)	3,169,000	2,061,000	400,000	671,000	1,176,000	2,103,000	3,809,000
Cultus ^g	38,000	81,000	1,000	3,000	6,000	12,000	22,000
*Late Shuswap	2,379,000	1,357,000	168,000	293,000	517,000	924,000	1,758,000
*Portage	41,000	25,000	1,000	3,000	8,000	19,000	55,000
Weaver	346,000	222,000	110,000	189,000	346,000	635,000	1,095,000
**Birkenhead	365,000	376,000	120,000	183,000	299,000	513,000	879,000
Misc non-Shuswap ^m		-	19,000	32,000	60,000	107,000	189,000
TOTAL SOCKEYE SALMON			2,364,000	3,824,000	6,778,000	12,635,000	23,580,000
(TOTAL excluding miscellaneo	7,845,000	5,209,000	2,293,000	3,678,000	6,478,000	12,127,000	22,665,000
a. Probability that return will be at, or below, spec		,,	, 11,100	,,	,	, ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Definitions: Ei (Entrance Island sea-surface temperature); PDO (Pacific Decadal Oscillation); Pi (Pine Island spring sea-surface temperature); R/S (Recruits per Spawner); MRS or MRJ (Product of average survival from entire time series and brood year Effective Female Spawners or juvenile/smolt); RS1 (Product of average survival from 4 years previous and Effective Female Spawners (or juvenile/smolt)

b. Forecast model used for stock

b. Forecast mode to see the score to the start of the time series), either across all cycles (column F) or on the 2015 cycle only (column G) d. Misellaneous Early Shuswap uses Scotch and Seymour R/EFS in forecast e. Miscellaneous Taseko uses Chilko R/EFS in forecast

f. Miscellaneous Chilliwack and Nahatlach use Early Summer Run stocks R/EFS in forecast g. Chilko and Cultus smolt data are presented in column C & D (rather than EFS data that is presented for all other stocks) h. Raft, Harrison, North Thompson Tributaries and River, and Widgeon were moved into the Summer Run Timing group

in. Rati, Harrison, Noth Thompson Tributaries and River, and Wrigepen were intoved into the sulmine Ruin Thining group.

J. Harrison EFS for four year olds returning in 2015 (2011 brood year) are in column C and three year olds (2012 brood year) are in column D k. Miscellaneous North Thompson Tributaries and River use Raft and Fennell R/EFS in forecast

I. Miscellaneous Widgeon use Birkenhead R/EFS in forecast

m. Miscellaneouse non-Shuswap stocks (includes Big Silver, Cogburn, etc.) use Birkenhead R/EFS in forecast

^{*} Stocks with uncertain five year old forecasts due to exceptional EFS in 2010; note: Gates had exceptional escapement in 2011

** Birkenhead was the only stock that returned at abundances associated with well below average survival, therefore, five year old forecasts were generated with sibling models

****Harrison forecasts are extremely uncertain due to exceptionall large 2011 brood year EFS

****Taseko forecasts are additionally uncertain since escapement abundance estimates are indices of abundance only