



Fisheries and Oceans
Canada

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Your file *Votre référence*

Our file *Notre référence*

2014-501-00149

JUN 27 2014

Ken Malloway
Chair, FRAFS Executive Committee
e-mail:neil@nicolatribal.org]

Dear Ken Malloway:

This letter is in response to your correspondence of May 13, 2014, in which you provide advice and suggestions from the May Forum participants to inform 2014/2015 southern British Columbia salmon management.

Interior Fraser Coho

For Interior Fraser River coho, the management objective has been revised to limit the Canadian exploitation rate to 16 percent or less for the 2014 season only. This management objective and the management approach for Interior Fraser River (IFR) is outlined in the 2014/15 Integrated Fisheries Management Plan (IFMP).

The 2014 forecast returns for Interior Fraser coho aggregate ranges from 31,000 to 78,000 with a mid-point of 50,000. A recent Canadian Science Advisory Secretariat (CSAS) report indicated the three-year (2010-2012) geometric mean spawner abundance for the Interior Fraser coho aggregate (36,000 wild spawners) was the largest observed since sustained harvest restrictions began in 1998. The geometric mean spawner abundance for 2011-13 has increased to approximately 43,000 coho. Based on recent spawner abundances, even if returns are at the low end of the 2014 forecast returns (31,000), the projected three-year geometric mean (2012-2014) escapement is expected to meet or exceed 40,000 (recovery objective 2) under each of the three management options consulted on by the Department.

Decisions on the allocation of allowable coho impacts will be made consistent with the *Allocation Policy for Pacific Salmon* (1999). The Department does not allocate by-catch or portions of the acceptable exploitation rate on stocks of concern. The Department considers a number of fishing plan options and attempts to address a range of objectives including minimizing by-catch and incidental catch.

Resource managers will be working with First Nations to craft fishing plans for coho consistent with the Interior Fraser coho exploitation rate for 2014. The Department's approach as outlined during consultations will be to utilize any additional coho mortalities to permit fisheries for more abundant stocks and species (e.g. Fraser River sockeye). As part of this approach, the Department will implement relaxation of the Interior Fraser window closure timing and potential opportunities for coho by-catch or incidental retention during First Nations FSC fisheries for abundant species or stocks. Directed harvest may also be permitted in specific areas or natal stream systems where abundance permits, based on in-season assessment

A post-season evaluation of the 2014 Interior Fraser coho management actions will be discussed at the Joint Technical Working Group (JTWG) and bilaterally upon request. This evaluation will likely be complete in April 2015.

We expect future years' fisheries management approaches to be informed by the post-season evaluation and ongoing consultations with First Nations and stakeholders. In addition, DFO science work is planned over the next several months to support development and review of *Wild Salmon Policy* benchmarks and a status assessment for Interior Fraser River coho.

Spring and Summer 5₂ chinook

The April 2012 letter from Rebecca Reid to First Nations Chiefs and fisheries representatives outlined an overall objective of reducing the exploitation rate (ER) by a minimum of 50 percent to an exploitation rate of 30 percent or less in the event returns of Fraser River chinook are in the lowest abundance zone (e.g. Zone 1 management). As part of this approach, First Nations fishing for food, social and ceremonial purposes directed at Fraser chinook are provided the majority of the available exploitation. First Nations fishing plans are discussed and modified in-season in discussion with local resource managers, with the overall objective (for Zone 1) of a 45 percent reduction in effort from the base years.

The proposal to change the management approach for the Victoria area recreational fishery is based on the interest of recreational harvesters in creating a greater degree of stability and predictability in the fishing plan for that area. The proposed change (attached in Appendix 1) has gone through an assessment to model changes in impacts based on effort assumptions, similar to what has been done for other fisheries, including First Nations fisheries.

For 2014, the Department is planning to continue the management approach implemented in 2013, and the regulations associated with each management zone for the Juan de Fuca area will not be modified. I anticipate that further discussion on this proposal or a similar proposal will occur over the fall and winter for consideration in 2015.

As you are aware, the mid-June in-season run-size update provided by the Department confirmed an abundance of Spring and Summer 5₂ chinook that allowed the adoption of

Zone 2 management measures for 2014. Also, measures to protect Spring 4₂ chinook continue to be factor in management of chinook fisheries in marine and in-river areas.

Early Stuart Sockeye

Early Stuart sockeye will be managed based on in-season run size estimates and management adjustments that will be adjusted based on temperature and discharge conditions during their migration, to determine the available harvest for First Nations food, social and ceremonial fisheries. As you are aware, in most recent years there has not been a total allowable catch identified in part due to either low abundance or adverse environmental conditions. Under those conditions, the Department has implemented a window closure intended to limit overall impacts on the stock to 10 percent or less. For 2014, the Department is proposing a cautious approach to start the season, with fishing opportunities based on a confirmation of available harvest amounts. The Department has proposed window closure dates that would be modified once in-season information becomes available. Local resource managers will work with First Nations on fishing plans if in-season information indicates a sufficient amount of fish for harvest. Your specific advice on the Lower Fraser fishery will be provided to Lower Fraser DFO staff for follow-up and further planning discussions. Thank you for providing this level of detail.

Salmonid Enhancement Program (SEP)

Annually, fishery and enhancement planning takes place at the local area level with First Nations, and is led by area Aboriginal Fisheries Strategy (AFS), Resource Management and SEP staff. Issues relating to enhancement planning, including fish production and habitat restoration that support fisheries, are integrated into this planning process. Links to specific production plans for each season are provided in the draft salmon IFMP for review and comment. In addition, Department staff identify substantive changes to SEP production plans as part of discussions on the draft IFMP. DFO is willing to discuss ways to improve engagement with First Nations on SEP production planning.

DFO's Biological Risk Management Framework for Enhancing Salmon in the Pacific Region was completed in 2013, and a draft has been distributed externally through the Integrated Harvest Planning Committee (IHPC), as well as through the Southern BC Chinook Steering and Planning Committee. These documents are attached for your information and can be provided that can be shared with the JTWG, Forum participants and others.

DFO appreciates your input. The Department is committed to working with the FORUM participants in engaging in collaborative planning of fisheries for food, social and ceremonial purposes.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Susan Farlinger". The signature is fluid and cursive, with a large initial "S" and a long, sweeping underline.

Susan Farlinger
Regional Director General
Pacific Region

cc: Adrian Wall
Jeff Grout
Jennifer Nener
First Nations Fisheries Council

Attachments



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April 27, 2012

Via E-mail

Dear First Nations Chiefs, Councilors and Fisheries Representatives,

Subject: Fraser River Spring 5₂ and Summer 5₂ Chinook Management.

As part of developing the 2012 Salmon Integrated Fisheries Management Plans, the Department has been consulting with First Nations, recreational and commercial harvesters seeking feedback on a potential reduction in exploitation rates on Spring 5₂ and Summer 5₂ chinook. The objective is to reduce the exploitation rate by a minimum of 50% from exploitation rates of 50% - 60% observed in the early 2000's to an exploitation rate of less than 30% to address expected poor returns of less than 30 thousand Spring 5₂ and Summer 5₂ chinook to the Fraser River. These actions would build on and extend actions implemented in recent years that were designed to protect and conserve southern BC chinook stocks of concern and, in particular, Fraser Spring 4₂ chinook. The Department is seeking feedback on two possible approaches for management of Spring 5₂ and Summer 5₂ chinook for 2012.

Fraser River chinook populations comprise 17 Wild Salmon Policy conservation units and are organized into 5 management units. These management units are organized based on life history of the populations and return timing of adults to the Fraser as follows: Spring 4₂, Spring 5₂, Summer 5₂, Summer 4₁ and Fall 4₁. These management units are intended to align fisheries management objectives with indicator stocks, escapement, catch, and exploitation rate data used in the Pacific Salmon Treaty process. Chinook populations in the first three management units (Spring 4₂, Spring 5₂, and Summer 5₂) contain 13 Wild Salmon Policy conservation units that are of conservation concern due to declining trends in spawner abundance and very low survival rates in recent years. Fraser Spring 4₂ chinook return to spawn from early March through late July and migration peaks in June in the lower Fraser River; return timing of Spring 5₂ chinook is similar. Summer 5₂ chinook have later timing and return to the Fraser River to spawn from late June to August with a peak in late July, approximately 1 month later than Spring 4₂ and Spring 5₂ chinook.

In recent years, there has been substantial work undertaken to develop and implement closures and other restrictions to protect Fraser Spring 4₂ stocks; these actions are planned to continue for 2012. In addition to the Fraser Spring 4₂ actions, the salmon integrated fisheries management plan details a three zone management approach for Fraser Spring 5₂ and Summer 5₂ chinook based on: 1) less than 30 thousand chinook

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(zone 1); 2) 30 to 60 thousand chinook (zone 2); or 3) greater than 60 thousand chinook (Zone 3) returning to the Fraser River. Chinook returns less than 30 thousand are associated with high conservation concern; only 5 of the last 35 years have had spawner abundances in this range. In 2012, returns of Fraser Spring 5₂ and Summer 5₂ chinook are expected to be less than 30 thousand, based on approximately 22 thousand spawners in the parental brood year (2007) and continuing low return rates that have averaged 1 adult return per spawner or less in recent years. Given the poor pre-season outlook, the Department is planning to initiate management actions based on returns being less than 30 thousand (zone 1). The abundance of Spring 5₂ and Summer 5₂ chinook returning to the Fraser River will be assessed in-season.

Results from the in-season assessment of Spring 5₂ and Summer 5₂ chinook returns to the Fraser will be used to finalize which of the 3 management zones will be applied. The Department will use the relationship between the cumulative Catch Per Unit Effort (CPUE) of chinook caught in the Albion test fishery from May 6th through June 16th to provide an in-season estimate of returns of Spring 5₂ and Summer 5₂ chinook to the mouth of the Fraser River. Updates of the predicted return for informational purposes are planned for May 22nd and June 4th, however, management actions for Spring 5₂ and Summer 5₂ chinook will be implemented based on the final in-season update which is planned for June 18th.

A key challenge with developing appropriate management approaches for Spring 5₂ and Summer 5₂ chinook has been a lack of current indicator stock data (i.e. a coded wire tagged chinook population) to estimate exploitation rates on these populations for all fisheries. Current coded wire tag (CWT) indicator data and associated information on the distribution of mortalities in fisheries exists only for the Spring 4₂ (Nicola), Summer 4₁ (Shuswap) and Fraser Fall 4₁ (Chilliwack/Harrison) groups; older data is available for Spring 5₂ (Dome Creek data ended in 2006) but not for the Summer 5₂ chinook.

In order to support the discussion of additional management actions for a return of less than 30 thousand (zone 1), the Department has provided a summary of estimated exploitation rates in recent years for all fisheries impacting on Spring 5₂ chinook (see attachment 1, Table 1, status quo-2010). This information is based on estimated exploitation rates from a 2000 to 2006 base period for Dome Creek (Spring 5₂) coded wire tag information. However, because coded wire tag information is not available after 2006, projected exploitation rates for 2010 were made by adjusting the base period exploitation rates to account for recent management actions that have occurred since the 2002 to 2006 period. Recent (e.g. 2010) exploitation rate estimates in Table 1 largely reflect recent fishery management actions that were implemented to conserve Fraser Spring 4₂ chinook. Based on Table 1, there appear to be five primary areas where these stocks have been most impacted by fisheries: Northern (Area F) and West Coast of Vancouver Island (Area G) commercial troll fisheries; Juan de Fuca (Victoria area) and Fraser River recreational fisheries; and Fraser River First Nation food, social and ceremonial fisheries. Exploitation rates appear to be low in other areas.

Similar calculations for Summer 5₂ chinook are not possible as coded wire tag information is insufficient to estimate mortality distributions for this management unit. However, the Department has compiled a technical information package on Spring 5₂ and Summer 5₂ chinook that summarizes available information. Where information is available, relative changes in impacts on Summer 5₂ chinook are provided for reference.

Differing views have emerged in response to the Department's proposal to reduce exploitation rates on Spring 5₂ and Summer 5₂ chinook by a minimum of 50% from exploitation rates of 50% to 60% observed in the early 2000's. One view that has been offered is that management actions implemented in recent years to protect Fraser River Spring 4₂ chinook may be sufficient to also protect Spring 5₂ and Summer 5₂ chinook given the substantial run timing overlaps of these groups. However, another view is that additional management actions will be required to account for the approximately 1 month later timing of Summer 5₂ chinook and to reduce exploitation rates further.

Table 1 provides a comparison of the expected outcomes of two possible approaches for returns of less than 30 thousand Spring 5₂ and Summer 5₂ chinook (zone 1) in 2012. Summaries of proposed 2012 fishery management actions for the two Zone 1 options and Zone 2 are provided in Attachment 2. Attachment 2 also contains the management actions that were implemented in 2011.

Option 1 identifies proposed management actions that have been implemented in recent years to protect Fraser River Spring 4₂ chinook with some modification to commercial fisheries in order to further reduce harvest impacts;

- In developing Option 1, management actions proposed are similar to those implemented in 2010 and 2011 to protect Fraser River Spring 4₂ chinook with the following additions:
 - the West Coast of Vancouver Island (Area G) commercial troll is proposed closed for June and July, and
 - any commercial net fisheries for Fraser sockeye are proposed to have chinook non-retention

Option 2 identifies proposed management actions to further reduce overall exploitation rates on Spring 5₂ chinook while also providing additional protection to later timed Summer 5₂ chinook.

For marine waters:

- North Coast (Area F) Troll: Fishery is currently closed and is proposed to open June 21. Southern portions of the fishing area including Areas 6 to 10 and 106 to 110 will remain closed in 2012.
- West Coast of Vancouver Island (Area G) troll fishery: Fishery is proposed to be closed during June and July. Management during April and May will include a combination of closed times, monthly effort restrictions and catch limits. This fishery opened April 19th in the northwest portions of Vancouver Island; the next opening is planned for May 1st. From April 19th to May 31st

monthly effort restrictions and catch limits will also be in place in this fishery to limit total harvest rates. Effort (e.g. boat days) from the June period will be moved to either May, August or September.

- Juan de Fuca recreational fishery: March 1st through June 15th, the daily limit is two (2) chinook per day which may be wild or hatchery marked between 45 and 67 cm or hatchery marked greater than 67cm in Subareas 19-1 to 19-4 and 20-5. From June 16th through July 20th, the daily limit will be two (2) chinook per day which may be wild or hatchery marked between 45 and 85cm or hatchery marked greater than 85cm in the same areas.
- Strait of Georgia recreational fishery (corridor between Victoria and the Fraser River): May 1st to June 15th, the daily limit is two (2) chinook per day wild or hatchery marked only one of which may be greater than 67 cm in Subareas 18-1 to 18-6, 18-9, 18-11, 19-5 and portions of 29-4 and 29-5. From June 16th to July 20th, the daily limit will be two (2) chinook per day which may be wild or hatchery marked between 62cm and 85cm.
- Strait of Georgia recreational fishery (off the mouth of the Fraser): Effective May 1st through July 27th, in Sub areas 29-6, 29-7, 29-9 and 29-10, non-retention of chinook salmon.

For Fraser River tidal and non-tidal waters:

- Fraser River recreational fishery (tidal and non-tidal Fraser):
 - i) Tidal and non-tidal Fraser in Region 2: No fishing for salmon January 1st through July 27th.
 - ii) non-tidal Fraser in Region 3: Thompson River from Kamloops Lake downstream to the confluence of the Fraser River and waters of the Fraser river downstream of the confluence of the Thompson River to the Alexandra Bridge no fishing for salmon to August 21st. Clearwater and North Thompson Rivers, no fishing for salmon. South Thompson River no fishing for salmon to August 15th. Mouth of Bessette Creek July 15th to August 15th, no fishing for salmon; Mabel Lake and Shuswap River July 25th to Aug 15th, 1 chinook per day 77cm or greater and monthly limit of 4/month.
 - iii) All waters of Region 5 and 7: no fishing for salmon.
- First Nations fisheries: Limited fisheries considered. Expected exploitation rates on Fraser Spring 5₂ and Summer 5₂ chinook would need to be reduced by at least 45% under this option. Harvests of Spring 5₂ and Summer 5₂ chinook may occur during chinook-directed fisheries or as by-catch in sockeye-directed fisheries. The Department is consulting with First Nations to assess potential fishing plans and management measures for First Nations food, social and ceremonial (FSC) fisheries in 2012.
- any commercial net fisheries for Fraser sockeye are proposed to have chinook non-retention

In developing Option 2, the Department has proposed management actions in the 5 primary areas where Spring 5₂ chinook appears to be most impacted. In proposing specific fishery management actions, the Department was guided by its policies and management practices. In particular, DFO manages fisheries such that conservation is paramount. After conservation, DFO is committed to priority of First Nations harvest opportunities for FSC purposes over all other uses in managing salmon fisheries according to policies such as *Canada's Policy for Conservation of Wild Pacific Salmon (2005)* and the *Allocation Policy for Pacific Salmon (1999)*.

The expected outcome of Option 2 is a substantial reduction of exploitation rates on Spring 5₂ chinook and additional protection of Summer 5₂ chinook compared with Option 1. While overall exploitation rates will be reduced most substantially under Option 2, First Nations fishing for food, social and ceremonial purposes will have priority over other uses and will be provided the majority of the available fishery exploitation. Commercial and recreational fisheries will have the greatest overall reductions; only low impact fisheries will remain. In permitting some recreational and commercial fisheries in marine waters, the actions outlined above are intended to provide the greatest protection to Spring 5₂ and Summer 5₂ chinook while avoiding broad fishery closures in areas with very low or no impacts on these stocks.

The Department will be meeting with First Nations, commercial and recreational harvesters to gather further feedback on these options, as well as, on specific fishery management actions that have been proposed. These discussions will occur as part of the final round of meetings planned for early May to discuss the draft Salmon Integrated Fisheries Management plans. Feedback received will be used to inform the management approach implemented in 2012. In the event that the Albion chinook test fishery indicates that Spring 5₂ and Summer 5₂ chinook returns to the Fraser River are larger than 30 thousand even after accounting any uncertainty in the run size estimate, the Department intends to implement management actions consistent with zone 2 or 3. These actions will be in addition to previously developed management actions for Spring 4₂ chinook. Further updates on specific management actions will be communicated publicly using the Department's fishery notice system.

In addition to the proposed fishery management actions for 2012, the Department is continuing with work to develop a management framework for conserving and managing southern British Columbia chinook conservation units, including Fraser chinook. Technical work has begun on the status of Southern British Columbia chinook populations and identification of key factors limiting their production. This work is expected to include: a detailed evaluation of the status of chinook populations; an assessment of the role of productivity (e.g. climate, ocean and freshwater environments), exploitation rates, hatchery enhancement and habitat on the current status of these chinook populations; and advice on potential actions to address bottlenecks and improve future prospects for recovery. A scientific workshop is being planned for the fall to review findings.

Despite different views on proposed management approaches, the Department would like to acknowledge the strong commitment to conserving Fraser chinook populations expressed by all First Nations, recreational and commercial harvesters. The Department will continue to work with all harvesters to seek ways of reconciling their varied interests, identifying mutually beneficial solutions, and ensuring conservation objectives are met to provide for future opportunities. Feedback is requested before May 11th, 2012.

Sincerely,



Rebecca Reid,
Regional Director, Fisheries Management Branch

Attachments (2):

- 1) Table 1: Fishery Exploitation Rate summaries for Spring 5₂ Chinook
- 2) Management Measures Summary for Fraser Chinook

Cc: Fraser River Aboriginal Fisheries Secretariat
Gerry Kristianson, Sport Fishing Advisory Board
Peter Sakich, Commercial Salmon Advisory Board
Sue Farlinger, Regional Director General
Paul Ryall, Director, Resource Management
Andrew Thomson, Area Director, South Coast Area
Jennifer Nener, Area Director, Lower Fraser Area
Barry Rosenberger, Area Director, BC Interior Area
Mel Kotyk, Area Director, North Coast Area

Table 1: Fishery Exploitation Rate summaries for Spring 52 chinook

a) Fraser Spring 5₂ Chinook Exploitation Rate Summary by fishery.

Fishery	Base Period Avg.		Status Quo (2010)	% Change vs. Base Period	Option 1: Modified Status Quo		Option 2: <30% Exploitation Rate	
	Actual ER	% Change vs. Base Period			ER Estimate	% Change vs. Base Period	ER Estimate	% Change vs. Base Period
US Total	1.4%		1.4%		1.4%		1.4%	
Northern BC Troll	3.9%		1.8%	-53%	1.8%		1.4%	-65%
Northern Sport	0.1%		0.1%		0.1%		0.1%	
Northern Net	0.0%		0.0%		0.0%		0.0%	
WCVI Troll	4.2%		5.5%	31%	0.6%		0.6%	-86%
WCVI Sport	1.3%		1.3%		1.3%		1.3%	
Georgia St. Troll	0.0%		0.0%		0.0%		0.0%	
Georgia St. Sport	1.1%		1.1%	0%	1.1%		0.8%	-27%
Juan de Fuca Sport	11.8%		3.4%	-71%	3.4%		1.9%	-84%
Candian Ocean Total	22.4%		13.2%	-41%	8.3%		6.1%	-73%
Fraser First Nations (FSC)	35.6%		34.3%	-4%	34.3%		20.0%	-44%
Fraser Mainstem and Tributaries Sport	1.7%		0.4%	-76%	0.4%		0.2%	-88%
Fraser Commercial (includes EO)	1.1%		1.1%	0%	0.1%		0.1%	-91%
Test Fishery	2.0%		2.0%		2.0%		2.0%	
In-River Total	40.4%		37.8%	-6%	36.8%		22.3%	-45%
Total Canadian Exploitation Rate	62.8%		51.0%	-19%	45.1%		28.4%	-55%
Total Exploitation Rate	64.2%		52.4%	-18%	46.5%		29.8%	-54%

Notes: Base Period consists of 2000 to 2003, 2005, 2006. All Base Period estimates are from Dome CWT recoveries.

b) Fraser Spring 5₂ Chinook Canadian Fishery Exploitation Rate Summary for First Nations, recreational and commercial fisheries.

Fishery	Base Period Avg.		Status Quo (2010)	% Change vs. Base Period	Option 1: Modified Status Quo		Option 2: <30% Exploitation Rate	
	Actual ER	% Change vs. Base Period			ER Estimate	% Change vs. Base Period	ER Estimate	% Change vs. Base Period
First Nations	35.6%		34.3%	-3.7%	34.3%		20.0%	-44%
Recreational	16.0%		6.3%	-60.6%	6.3%		4.3%	-73%
Commercial	9.2%		8.4%	-8.3%	2.5%		2.1%	-78%
Test	2.0%		2.0%	0.0%	2.0%		2.0%	0%
Total	62.8%		51.0%	-19%	45.1%		28.4%	-55%

c) Distribution of Canadian Exploitation Rate (excluding test fishery) among First Nations, recreational and commercial fisheries.

Fishery	Base Period Avg.		Status Quo (2010)	Option 1: Modified Status Quo Estimate	Option 2: <30% Exploitation Rate Estimate
	Actual	% Change vs. Base Period			
First Nations	59%		70%	80%	78%
Recreational	26%		13%	15%	16%
Commercial	15%		17%	6%	8%
Total	100%		100%	100%	100%

Proposed Zone 1: Option 1 - 2012 Management Measures Summary for Fraser Chinook

Fishery	Area	March			April			May			June			July			August				
		1	15	31	1	15	30	1	15	31	1	15	30	1	15	31	1	15	31		
Commercial:																					
Area F Troll	North Coast	Closed-Status Quo															June 15th Opening				
Area G Troll	NWV (Area 123 to 127)	Closed March 15 to April 22			April 23 to May 31 managed to boat day effort/patch target level						Closed										
	SWV (Area 123/124)																				
Recreational: Marine																					
Juan de Fuca	West of Cadboro Point to Sheringham Point. Subareas 19-1 to -4 and 26-5	March 1- June 15: 2 chinook between 45-67 cm (hatchery or wild) or >67cm (hatchery marked only).										June 16 to July 15: 2 chinook of which only 1 may be greater than 67cm. Minimum size of 45cm.									
George Strait	Corridor between Juan de Fuca and Fraser River (Subareas 18-1 to 18-6, 18-9, 18-11, 19-5, and portions of Subareas 29-4 and 29-5)	May 1 to July 15: 2 chinook of which only 1 may be greater than 67cm. Minimum size level of 62cm.																			
George Strait	Area 29 off Fraser River (Area 29-6, 7, 9-10)	May 1 to July 15: Non-retention of Chinook															July 16-27: 2 chinook wild or hatchery between 62cm and 77cm.				
Recreational: Fraser Tidal + Non-tidal																					
Fraser Tidal	Fraser River Tidal (Areas 28-11 to -17)	Jan 1 to July 15: Closed - No fishing for salmon															July 16 to 27: 1 chinook between 50cm and 77cm.				
Fraser Non-tidal	Freshwater (Mission to Alexandra Bridge)	Jan 1 to July 15: Closed - No fishing for salmon															July 16 to 27: 1 chinook between 50cm and 77cm.				
	Freshwater (Alexandra Bridge upstream)	Jan 1 to July 15: Closed - No fishing for salmon															July 16 to August 21: No fishing for Salmon (Mouth of Hoopon River); July 15 to August 15: No Fishing for Salmon (Mouth of Besseke Creek); July 25 to Aug 15: 1 Chinook per day >77cm, monthly limit of 4/month or Greater (Mabel Lake and Shovelw River); August 5 to August 15: No Fishing for Salmon (South Thompson River).				
	Freshwater (Region 6 & 7)	Jan 1 to July 15: Closed - No fishing for salmon															1 Chinook per day between 50cm and 77cm at the following dates and locations: July 10-25 (Fraser River at Prince George); July 15 to Aug 15 (Bowen River); July 15 to Sept 01 (Coastal River); July 25 to Aug 15 (Chillo River); July 27 to Aug 16 (Caribou River).				
Fraser River Post Nations	Lower Fraser: Below Port Mann	Limited fisheries considered. Exploitation rates similar to 2010.																			
	Lower Fraser: Port Mann to Sawmill	Limited fisheries considered. Exploitation rates similar to 2010.																			
	BC Interior: Sawmill to Kelly Cr. And Thompson below the Bonaparte	Closed-Status Quo			Limited fisheries considered. Exploitation rates similar to 2010.																
Alison Test Fishery	Fraser River Chinook Assessment Fishery	Closed-Status Quo			Late April: Start of chinook test fishery																

Proposed Zone 1: Option 2 - 2012 Management Measures Summary for Fraser Chinook

Fishery	Area	March			April			May			June			July			August		
		1	15	31	1	15	30	1	15	31	1	15	30	1	15	31	1	15	31
Commercial:																			
Area F Troll	North Coast	Closed - Status Quo															June 21st Opening		
Area G Troll	NW (Area 123 to 127)	Closed March 15 to April 18			April 18 to May 31 managed to local day effort/catch target limit			May 1 to May 31 managed to local day effort/catch target limit			Closed								
	SW (Area 123/124)																		
Recreational - Marine																			
Juan de Fuca	West of Cadboro Point to Shelburne Point Subareas 19-1 to -4 and 20-5	March 1 - June 15: 2 chinook between 45-67 cm (hatchery or wild) or hatchery marked only >67cm									June 15 to July 20: 2 chinook between 45-55 cm (hatchery or wild) or hatchery marked only >55 cm								
George Strait	Corridor between Juan de Fuca and Fraser River (Subareas 18-1 to 18-6, 18-9, 18-11, 19-5, and portions of Subareas 20-4 and 20-9)										May 1 to June 15: 2 chinook (hatchery or wild) of which only 1 may be greater than 67cm. Minimum size limit of 62cm			June 15 to July 20: 2 chinook between 62-66 cm (hatchery or wild)					
George Strait	Area 29 off Fraser River (Area 29-6, 7, 9-10)	May 1 to July 27: Non-retention of Chinook																	
Recreational - Fraser Tidal + Non-tidal																			
Fraser Tidal	Fraser River Tidal (Areas 28-11 to -17)	Jan 1 to July 27: Closed - No fishing for salmon																	
Fraser Non-tidal	Freshwater (Bosman to Alexandra Bridge)	Jan 1 to July 27: Closed - No fishing for salmon																	
Fraser River (Alexandra Bridge upstream) and Thompson River (downstream from Kamowee Lake to the confluence with the Fraser)		Jan 1 to Aug 21: Closed - No fishing for salmon																	
															Giswater and North Thompson Rivers: Closed - No fishing for salmon to Dec 31. South Thompson River: Closed - No fishing for salmon to August 15. Mouth of Bessette Creek: Closed - No fishing for salmon July 15 to August 15.				
Region 3 Tributaries																	Mabel Lake and Shuswap River July 25 to August 15 - 1 chinook per day greater than 77 cm with a limit of 4/month.		
Fraser River	Freshwater (Region 5 & 7)	Jan 1 to Dec 31: Closed - No fishing for salmon																	
Fraser River First Nations	Lower Fraser - Below Port Mann	Limited fisheries considered. Exploitation rates reduced by 45% from the base period.																	
	Lower Fraser: Port Mann to Savona	Limited fisheries considered. Exploitation rates reduced by 45% from the base period.																	
	BC Interior - Savona to Kelly Cr. And Thompson below the Seneqete	Closed-Status Quo			Limited fisheries considered. Exploitation rates reduced by 45% from the base period.														
Albion Test Fishery	Fraser River Chinook Assessment Fishery	Closed-Status Quo			Late April: Start of chinook test fishery														

Proposed Zone 2 - 2012 Management Measures Summary for Fraser Chinook

Fishery	Area	March			April			May			June			July			August								
		1	15	31	1	15	30	1	15	31	1	15	30	1	15	31	1	15	31						
Commercial:																									
Area F Troll	North Coast	Closed-Status Quo												June 15th Opening											
Area G Troll	NWM (Area 123 to 127)	Closed March 15 to April 7			April 19 to approx. June 10 managed to meet day effort/catch target limit.						Closed June 18 to July 24														
	SWM (Area 123/124)																								
Recreational: Marine																									
Jun de Puce	West of Cedaro Point to Skegshaw Point Subareas 18-1 to -4 and 20-5	March 1 to June 15: 2 chinook between 45-67 cm (hatchery or wild) or >67cm (hatchery marked only)												June 16 to July 15: 2 chinook of which only 1 may be greater than 67cm											
George Strait	Corridor between Jun de Puce and Fraser River (Subareas 18-1 to 18-4, 18-8, 18-11, 19-5, and portions of Subareas 20-4 and 20-5)													May 1 to July 15: 2 chinook of which only 1 may be greater than 67cm. Maximum size limit of 62cm.											
George Strait	Area 20 off Fraser River (Area 20-6, 7, 9-10)													May 1 to July 15: Non-retention of Chinook						July 16 -27: 3 chinook (hatchery or wild) between 62cm and 77cm.					
Recreational: Fraser Tidal + Non-tidal																									
Fraser Tidal	Fraser River Tidal (Areas 20-11 to -17)	Jan 1 to July 15: Closed - No fishing for salmon												July 16 to 27: 1 chinook between 50cm and 77cm											
Fraser Non-Tidal	Freshwater (Mission to Alexandra Bridge)	Jan 1 to July 15: Closed - No fishing for salmon												July 16 to 27: 1 chinook between 50cm and 77cm											
	Freshwater (Alexandra Bridge upstream)	Jan 1 to July 15: Closed - No fishing for salmon												July 16 to August 27: No fishing for Salmon (Mouth of Nicolle River); July 15 to August 15: No Fishing for Salmon (Mouth of Bessette Creek); July 25 to Aug 15: 1 Chinook per day >77cm monthly limit of 4 salmon in Greater Mabel Lake and Shuswap River; August 5 to August 15: No Fishing for Salmon (South Thompson River).											
	Freshwater (Region 3 & 7)	Jan 1 to July 15: Closed - No fishing for salmon												1 Chinook per day between 50cm and 77cm at the following dates and locations: July 15-25 (Fraser River at Prince George); July 15 to Aug 15 (Bowen River); July 15 to Sept 01 (Gusson River); July 25 to Aug 15 (Chillo River); July 27 to Aug 14 (Caribou River)											
Fraser River First Nations	Lower Fraser Below Port Mann	Limited fisheries considered. Exploitation rates similar to 2010.																							
	Lower Fraser Port Mann to Sawmill	Limited fisheries considered. Exploitation rates similar to 2010.																							
	BC Interior: Sawmill to Kelly Cr And Thompson below the Bonaparte	Closed-Status Quo			Limited fisheries considered. Exploitation rates similar to 2010.																				
Alton Toot Fishery	Fraser River Chinook Assessment Fishery	Closed-Status Quo			Late April: Start of chinook test fishery																				