



2015/16 Salmon IFMPs: Summary of Feedback

FN Forum Meeting
May 6th, 2015



Outline

- High level synopsis of key issues and feedback on draft IFMP:
 - Regional Issues
 - Southern BC Issues
 - Discussion Questions
- Additional detail provided on additional feedback separately.



Regional Issues

1. Chinook:
 - AABM Forecasts
 - WCVI Chinook (Area F Effort-HR approach-see NC section)
2. Salmon Test Fisheries
3. Commercial Allocation Plan
4. Demonstration fisheries and commercial share transfer guidelines



AABM chinook

2015 PSC Chinook Technical Committee model calibration is under review and abundance indices (AI) and TAC's for 2015 AABM fisheries have NOT been finalized; Abundance Index is relative to the 1979-82 base period (i.e. base period =1.0).

Year	Assessment	SEAK	NBC	WCVI
2014	Preseason	2.57	1.99	1.20
	Post-season	2.13	1.68	1.03
2015	Preseason	1.45	1.23	0.85

Preliminary 2014 and 2015 preseason and postseason AABM allowable catches

Year	Assessment	SEAK	NBC	WCVI
2014	Preseason	439,415	290,326	205,356
	Post-season	367,095	245,099	176,264
2015	Preseason	236,995	160,400	127,278



Chinook AABM Projected Harvest Amounts

	WCVI	NBC
AABM TAC	127,278	160,400
FN FSC	9,141	n/a
Recreational	60,000	43,000
Commercial	58,137*	117,400

Notes: First Nations and recreational harvest amounts are projections and will be reviewed in-season. Commercial harvest amounts may be adjusted inseason.

*includes amount for T'aaq-wiihak salmon fishery.



Salmon Test Fisheries - 2015

- For 2015, the plan is to have the PSC secretariat take on the administration of all Fraser sockeye and pink test fisheries (Panel approved) only.
- For a short (2-month) transitional period in the spring of 2015 PSC will continue providing administration for the Albion Test Fishery.
- Arrangements for alternative proponents to administer JS Chum, Albion & Skeena are underway.
- Standards for collection of scientific information from test fisheries will not be altered with any change in administrative arrangements.



Commercial Salmon Allocation Framework: Proposed changes

Advice received from CSAB and FN SCC on potential changes in 3 areas:

1. **Stabilizing Shares:** recommendations include: fixing shares for all commercial fisheries (including licences set aside for First Nations) at the fleet, species and production-area level for a 5 year period; and, eliminate annual adjustments using sockeye equivalents.
2. **Flexibility and Collaborative Process:** provide all commercial fishery participants, including First Nations economic fisheries, with greater flexibility to make fishery plans to harvest allocations; subject to consistent and transparent operational standards and considerations (DFO evaluation framework would be required); and, develop a terms of reference for a collaborative advisory process which incorporates First Nations to address commercial fishery management and planning.
3. **Outstanding Items:** Requires additional analysis/discussion; mainly bilateral issues. Suggested that these be worked on over time; not for immediate consideration.



CSAF: Proposed changes in draft IFMP

- Changes outlined in draft IFMP:
 - **Appendix 7 - Section 7.4** includes proposed commercial shares by species, fleet and fishery production areas.
 - allocation arrangements proposed for a period of 5 years with a review planned following the 4th year.
 - Three new production areas have been recommended by the CSAB; 1 new production area by SCC .
 - In some fishery production areas, different proposals have been received for allocation arrangements or production areas.
 - **Appendix 10** provides a synopsis of the process and recommendations received.
- Final IFMP will include the commercial allocation plan and may identify potential principles/guidelines to inform future commercial fishery planning



Demonstration Fisheries

- First Nations and commercial demonstration plans identified:
 - First Nations demonstration fisheries outlined in Appendix 5
 - Commercial demonstration fisheries outlined in Appendix 7
- Discussions planned on 2015 T'aaq-wiihak Salmon Fishery
- Demonstration fishery projects similar to previous years in most areas.
 - Some concerns raised regarding fleet/gear type implications for proposed demonstration in Area E using *seine* gear. Support from MCC.
- *Interim guidelines* for considering requests to transfer harvest shares between commercial fishery participants, including First Nations with commercial harvest allocations; continued implementation in 2015.



Key Southern Issues

- Interior Fraser Coho
- Fraser Sockeye
- Fraser Pink
- Southern / Fraser Chinook
- Fraser Chum/Steelhead
- Southern B.C Test Fisheries
- Other items outlined in IFMP feedback/key issues handout



Interior Fraser Coho - 2015 Fisheries Planning

- The draft 2015 IFMP objective for Interior Fraser River coho (including Thompson River coho) is to manage Canadian fisheries to an exploitation rate of 10% or less.
- This exploitation rate level is consistent with a “low” status under the Pacific Salmon Treaty.
- DFO will continue to advance fisheries management measures that minimize impacts on IFR coho stocks.
 - *Pacific Salmon Treaty abundance-based exploitation rate limits on coho salmon stocks in fisheries encountering southern BC coho*

Management Unit Status	US ER caps	Total Exploitation Rate
Low	10%	Up to 20%
Moderate	12%	>20 to 40%
Abundant	15%	>41 to 65%



2015 Projections of IFR coho impacts

- 2015 discussion document (appendix 1) identifies a range of potential fishery configurations for First Nations, recreational and commercial fisheries.
- In most instances, a range of potential IFR coho impacts are identified depending on a range of fishery configurations and/or uncertainties including:
 - Anticipated fishing effort by gear, time, area
 - Timing of fisheries
 - Fishery regulations (e.g. retention of wild coho permitted?)
 - Diversion rate of Fraser sockeye / pink salmon (influences location of commercial fisheries)
 - Fishery encounter rates of IFR coho in Fraser River fisheries
 - IFR coho distribution (i.e. inside vs. outside)
 - IFR coho abundance (influences projected ER in some terminal area fisheries)



Summary Table: Range of 2015 Projections

2015 Interior Fraser Coho Exploitation Rate Projections			
Area / Fishery	Mid-range	Low End	High End
South Coast Area			
Test-fishery	0.08%	0.08%	0.08%
First Nations FSC	0.19%	0.19%	0.19%
Recreational	3.15%	1.01%	4.38%
Commercial	1.37%	1.29%	1.45%
First Nations EO / Demo	TBC	TBC	TBC
South Coast Sub-total	4.79%	2.57%	6.10%
Lower Fraser Area			
Test-fishery	0.56%	0.30%	0.87%
First Nations FSC	0.77%	0.25%	1.22%
Recreational	0.21%	0.17%	0.26%
Commercial	0.20%	0.10%	0.33%
First Nations EO / Demo	0.40%	0.28%	0.52%
Lower Fraser Sub-total	2.14%	1.10%	3.20%
BC Interior Area			
Test-fishery			
First Nations FSC	3.13%	0.66%	4.92%
Recreational	0.01%	0.01%	0.02%
Commercial			
First Nations EO / Demo	0.09%	0.00%	0.23%
BC Interior Sub-total	3.23%	0.67%	5.17%
Canada Sub-totals			
Test-fishery	0.64%	0.38%	0.95%
First Nations FSC	4.54%	1.62%	6.33%
Recreational	3.37%	1.19%	4.66%
Commercial	1.57%	1.39%	1.78%
First Nations EO / Demo	0.49%	0.28%	0.75%
Canada Total	10.61%	4.86%	14.47%

- Projections are intended to illustrate the potential range in IFR coho exploitation rates across fisheries.
- Ranges incorporate different fishery configurations and/ or key uncertainties.
- The *mid-range* projection indicates potential impacts for the fishery configurations considered. *Low-end* and *high-end* provide consideration of uncertainties or alternative fishery plans.
- *Mid-range* projections indicate that IFR coho management objective for Canadian fisheries (<10%) could be exceeded.
- Further input is expected on preferred fishery configurations and management considerations (e.g. potential uncertainties in planning models) for the various fisheries listed consistent with the objective.



Interior Fraser River Coho

IFMP feedback:

First Nations:

- most groups (incl. consensus at Fraser Forum) do not support allowing up to a 10% ER
- General support for management measures in place prior to 2014, including Fraser window closure; previous increase in 2014 was intended for 1 year only.
- Concerns about continued rebuilding and recovery of populations to reach 40K return above Hells Gate.
- Need to account for all fisheries (incl. North of Cape Caution)
- Account for uncertainties and reporting bias of coho impacts using independent data

Recreational:

- Request for marine fishery plan similar to 2014 with retention of 1 wild coho / day depending on time and area. Support for window closure in lower Fraser (Sept 8 – Oct. 9)



Interior Fraser River Coho

IFMP feedback:

Commercial:

- Support for up to 10% ER for targeted fisheries on sockeye pink and chum; no support for wild coho retention unless negligible impact on IFR coho;
- Request for Area G retention of wild + hatchery coho by-catch during September fisheries.

MCC:

- Concerns regarding ocean conditions and impacts on survival / returns;
- 20% (Canada and US) not precautionary enough.



Fraser River Sockeye

- 2015 Escapement Strategy - 2 proposed options. Key differences between options:
- Option 1: 60% TAM cap for all management groups Since 2006, this TAM cap has been implemented in all years, except 2014.
 - **Summer run** lower fishery reference point of **1 million** (similar to 2013, to account for concerns about low forecasts for Summer run populations)
- Option 2: 65% TAM Cap increase in the TAM cap for Early Summer, Summer and Late Run sockeye compared to Option 1 (this was implemented in 2014 in anticipation of higher run sizes); and,
 - **Summer run** lower fishery reference point of **540K** . This was used in brood year (2011).
- Outcomes same for E. Stuart under both options; for other management units, Option 2 has lower overall escapements and higher allowable harvest
- Final escapement plan may be different from the two options described here based on input received.



Fraser River Sockeye

Additional considerations:

- **Early Stuart** – window closure outlined in management plan. 10% low abundance exploitation rate (LAER) will permit some incidental impacts in fisheries.
- **Early Summer** – Early Stuart window closure dates extended to provide some additional coverage to weaker early timed populations. Majority of fisheries impacts expected during Summer run fisheries; 10% LAER.
- **Summer** – comprises approx. 70% expected return (p50). Directed harvest expected subject to constraints of Early Summer / Late TAC and stocks of concern.
- **Late Run** – likely to be constrained by MA to LAER of 20% ER for run sizes at or below p50 (option 1); option 2 moves to 25% at p50, both options have 30% for larger run sizes (e.g. p75).



Fraser Sockeye – Cultus Management

- Cultus Management
 - Based on Cultus Lake sockeye recovery objectives and assessment of in-season information for the Late Run sockeye.
 - Due to low numbers, abundance and exploitation rate for Cultus Lake sockeye based on similar timed Late Run stocks caught seaward of the confluence of the Fraser and the Vedder Rivers.
 - Potential exploitation rates for Cultus sockeye in relation to abundance, MA and pre-spawn mortality. (Table 7-21 and 7-22)

Table 7-21. A range of maximum exploitation rates for Cultus Sockeye that would meet *minimum* recovery objectives, assuming a pre-spawn mortality rate of approximately 40% for **Option 1** Escapement Plan.

pMA	run size		
	p25	p50	p75
0.80	20%	28%	30%
1.00	20%	20%	30%
1.14	20%	20%	30%
1.20	20%	20%	30%
1.30	20%	20%	30%

Table 7-22. Same as 7-21 for **Option 2** Escapement Plan.

pMA	run size		
	p25	p50	p75
0.80	20%	37%	37%
1.00	20%	30%	30%
1.14	20%	25%	30%
1.20	20%	23%	30%
1.30	20%	20%	30%



Fraser River Sockeye

IFMP feedback:

First Nations:

- **E. Stuart:** Cautious approach; consider starting with p25 forecast abundance; support for window closure; support for reduced test fishery impacts
- **E. Summer:** extension of window closure to support populations; 60% TAM cap
- **Summer:** lower reference point of 1M (option 1) to conserve/rebuild and provide FSC access. Suggestion to consider 1M ref. point with 65% TAM (proposed "Option 3"). Concerns regarding conservation/FSC access for Late Stuart/Stellako and importance of assessing returns inseason.
- **Late run:** 20% LAER for; manage Cultus sockeye to achieve recovery objectives (limit to 20%). Review of management approach given removal of captive brood program.

Commercial:

- Support for option 2 (incl. 65% TAM caps)
- Manage Cultus to the same fishery exploitation rate as Late run

MCC:

- Support for option 1 (no TAM caps exceeding 60%)



Proposed "Option 3"

- Same as option 1 with 65% TAM for Summer sockeye.

Management Unit		Pre-season Forecast Return				
		p10	p25	p50	p75	p90
Summer	<i>lower ref. pt. (w misc)</i>	1,448,000	1,448,000	1,448,000	1,448,000	1,448,000
(w. RNT & Har)	<i>upper ref. pt. (w misc)</i>	4,138,000	4,138,000	4,138,000	4,138,000	4,138,000
	forecast	1,701,000	2,681,000	4,675,000	8,764,000	16,511,000
	TAM Rule (%)	15%	46%	65%	65%	65%
	Escapement Target	1,448,000	1,448,000	1,636,250	3,067,400	5,778,850
	MA	261,300	261,300	295,300	553,500	1,042,900
	Esc. Target + MA	1,709,300	1,709,300	1,931,550	3,620,900	6,821,750
	LAER	10%	10%	10%	10%	10%
	ER at Return	0%	36%	59%	59%	59%
	Allowable ER	10%	36%	59%	59%	59%
	available harvest	170,100	971,700	2,743,450	5,143,100	9,689,250
	<u>2015 Performance</u>					
	Projected S (after MA)	1,297,000	1,448,000	1,636,000	3,067,000	5,779,000
	BY Spawners	1,866,000	1,866,000	1,866,000	1,866,000	1,866,000
	Proj. S as % BY S	70%	78%	88%	164%	310%
	cycle avg S	778,000	778,000	778,000	778,000	778,000
	Proj. S as % cycle S	167%	186%	210%	394%	743%

- Key impacts of proposed option 3 is reduced 36%ER at p25 run size (vs. 59% - option 2) and increased spawners as % of BY 78% (like option 1) vs. 50% (option 2); and,
- provision for higher 59% ER if returns p50 and above (vs. 53% for option 1)



Fraser Pink

- 2015 Forecast (section 7.19): 14.455 million; Range: 7.66 million (p10) to 27.78 million (p90)
 - Preseason fishing plans are developed based on the 50% probability level forecast. In-season run size estimates form the basis for management once estimates are available.
- Opportunities to harvest pink salmon will likely be constrained by objectives for stocks of concern, including:
 - Cultus/Late run sockeye escapement objectives
 - Interior Fraser River coho salmon
- Opportunities for selective fisheries.



Fraser Pink

IFMP feedback:

First Nations:

- Independent assessment requested for proposed recreational pink fisheries in BCI, including IFR coho impacts.
- Require selective fishing to protect Thompson steelhead
- Concerns about proposed 4 pink/day recreational limit in lower Fraser; suggestion to start season at 2 / day; related to IFR coho impacts.

Commercial:

- Interest in ensuring sufficient IFR coho impacts available to harvest Fraser pink TAC
- UFAWU/Area B concerns with proposed Area E shallow seine fisheries given area-gear licensing and allocations.



Fraser River Spring 5₂ and Summer 5₂ Chinook

- DFO plans to begin season with management actions based on returns in lowest abundance level
 - (i.e. Zone 1 - <45K to Fraser River).
 - Upcoming seasons likely to start with Zone 1 until brood year escapements and/or the recruitment rates substantially improve.
- An in-season re-assessment of management zone may be made based on estimated abundance at the Albion test fishery in mid-June (or earlier if possible).
- Proposed changes to management approach for recreational fisheries in Juan de Fuca and Strait of Georgia (Areas 18, 19, 20 and 29). See Appendix 6 –Section 6.1.1.



Fraser River Spring 5₂ and Summer 5₂ Chinook

IFMP feedback:

First Nations:

- Juan de Fuca recreational proposal to combine regulations for Fraser Spring 5₂ and Summer 5₂ chinook not supported given increase in exploitation rate expected in zone 1 (low abundance); also concerns about impacts on other populations (e.g. Cowichan)
- Support for zone 1 management to start the season
- Requests for number of recreational regulation changes in BCI:
 - No fishing for salmon at mouths of Bonaparte and Deadman
 - Thompson R. (Kamloops Lk downstream to Fraser) no fishing for salmon until Aug. 21
 - Clearwater and N. Thompson no fishing for salmon in zones 1-3 given poor recent escapements.



Fraser River Spring 5₂ and Summer 5₂ Chinook

IFMP feedback:

Recreational:

- Request area 29-6,-7,-9, and -10 managed as chinook non-retention beginning May 1 to July 15th (proposed dates are Jan. 1 to July 15th no fishing for salmon, then zone 1-3 actions specified)
- Support for proposed Juan de Fuca fishery regulations

MCC:

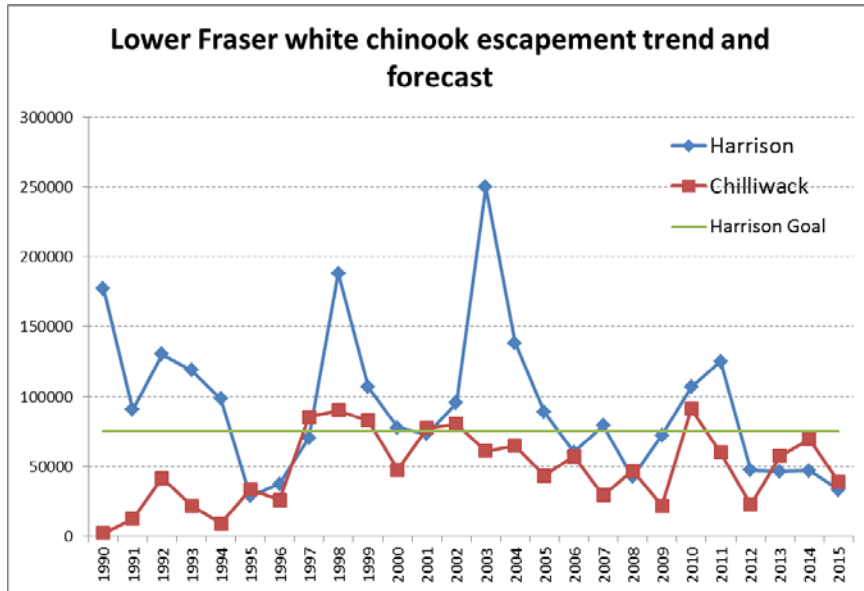
- Proposed increases to terminal run size reference points to 75,000 (zone ½) and 150,000 pending determination of recovery goals. (current reference points are 45,000 and 85,000).
- Additional management restrictions proposed.



Lower Fraser Fall - Harrison

Poor jacks in 2014 = poor returns in 2015

Harrison Fall chinook escapement					
	Age 2	Age 3	Age 4	Age 5	Total Esc
2013	36696	14795	30661	956	46412
2014	2575	15162	29303	2483	46948
2015 NA		3597	26396	3108	33101



Preliminary forecast is below the escapement goal range:
Plan for chinook non-retention in Fraser River commercial/EO fisheries.



Fraser Chum

- Measures to reduce impacts to Interior Fraser coho (IFR coho) include gear and area restrictions from early Sept to mid-October in the Fraser River main stem below Mission (IFR coho window closure).
- If initial Fraser River terminal run-size assessment in mid-October indicates that abundances are:
 - $>1.05M$ – consideration may be given for Area B fisheries to precede Lower Fraser gill net fisheries
 - $<1.05M$ – consideration will be given for Area B to access commercial allocation remaining after Lower Fraser gill net fisheries have concluded.



Fraser Chum/Steelhead

- Commercial gill net opportunities within the Fraser will continue to be delayed to avoid the majority of the Interior Fraser steelhead migration period.
 - Daylight hour openings as in 2014 likely
 - Return to previous (pre-2014) IFR window closure dates
- The Department will continue to engage with the Province on the strategy for addressing steelhead impacts in fisheries.



Southern B.C. Salmon Test Fishing Program

Overview

- Same projects as carried out in recent years
- 10 Projects for Fraser Sockeye and Pink
 - 6 Panel Waters (Fraser, Gulf and Area 20)
 - 4 Non-Panel Waters (Areas 12 & 13)
- Albion gill net
 - Fraser Chinook & Chum
- Johnstone Strait Seine
 - Mixed-stock Chum
- Barkley Sound Seine
 - Somass Sockeye
- Saanich & Cowichan Seine
 - Local Chum



Southern B.C. Salmon Test Fishing Program

Overview

- 15 projects
- Total project cost projection = \$2.6 M
- In-kind contribution approximately \$325 K
- Projections of fish amounts (pieces):
 - 140 K – 170 K sockeye
 - 135 K – 200 K pink
 - 3 K - 5 K chinook
 - 75 K – 100 K chum



Test Fishing Details – Southern BC Salmon

Test Fishery	Proposed Proponent	Test Fishery Purpose	Potential dates (preliminary ^a)	
			Start	End
Area 20 GN ^b	PSC Secr.	Fr Sock / Pink	20-Jun	18-Aug
Area 20 SN	PSC Secr.	Fr Sock / Pink	21-Jul	10-Sep
Cottonwood GN	PSC Secr.	Fr Sock / Pink	13-Jul	25-Sep
Whonnock GN	PSC Secr.	Fr Sock / Pink	22-Jun	30-Sep
Gull TR	PSC Secr.	Fr Sock / Pink	10-Aug	30-Sep
Area 12 SN	PSC Secr.	Fr Sock / Pink	21-Jul	10-Sep
Area 13 SN	PSC Secr.	Fr Sock / Pink	21-Jul	07-Sep
Round Island Ck GN	PSC Secr.	Fr Sock / Pink	11-Jul	15-Aug
Naka Ck GN	PSC Secr.	Fr Sock / Pink	18-Jul	31-Jul
Mission GN ^c	PSC Secr.	Fr Sock / Pink		
Qualark	PSC Secr.	Fr Sock / Pink	16-Jul	30-Sep
Albion GN	PSC Secr (transition)	Fr Chinook/Chum	26-Apr	23-Nov
Area 12 SN	Namgis/Atlegay	JS St Chum (mixed stock)	15-Sep	30-Oct
Barkley Sound SN	Hupacasath / Tseshaht	Somass Sockeye	June	July
Cowichan / Saanich	TBD	Terminal Chum	mid-Oct	Nov/Dec

^a All dates subject to change based on in-season factors. In-season information from initial TFs important to determining timing of subsequent TFs.

^b Likely delay in initiation of Area 20 GN to July 13th to reduce Early Stuart impacts.

^c Not anticipated to operate in 2015



2015 considerations

- DFO has been working with the PSC Secretariat and has identified some immediate areas for process efficiencies for 2015. More fundamental changes in program design would require a longer time-frame to implement.
- In years of low abundance, decisions have been made to alter the operation of test fisheries to reduce the likelihood of test fishing operations having an impact on FSC allocations. Examples:
 - In 2013, marine test fisheries (seine) stopped retaining sockeye after major downgrade in available TAC.
 - For 2015, a delay in the onset of test fisheries is being planned in consideration of the weak anticipated returns of Early Stuart Sockeye.
- DFO recognizes that further discussions and evaluation of salmon test fishing operations are required with implementation of the Use of Fish Policy.



Test Fisheries – Delay considerations

- PSC has assessed options for delay in start time of test fisheries to reduce impacts on Early Stuart.

Test Fishery	Overall Purpose	Typical Start Date	Potential Start Time	Potential Reduction in EStu
Area 20 GN	EStu/ESumm Run Size and Stock Comp	20-June	13-July	500
Whonnock GN	EStu abundance prior to acoustics; species comp for Mission; stock comp.	22-June	13-July	60
Qualark GN	Sp comp for Qualark acoustics; stock comp	01-July	15-July	70

* Summary of information provided in Mike Lapointe memo dated March 17th, 2015



Additional Slides



Southern Inside coho forecasts

Stock	2014			2015			change from 2014
	Forecast		Observed	Forecast	50% CI	Model	
Johnstone Strait/Mainland Inlets							
Area 12	1,652	3YRA	2,170	2,068	1428 - 2994	3YRA	-3%
Area 13	345	3YRA	274	327	224 - 476	3YRA	19%
Georgia Basin - West							
Big Qualicum Hatchery	0.014	LLY	0.009	0.009	0.005 - 0.016	LLY	0%
Quinsam Hatchery	0.01	3YRA	0.02	0.017	0.012 - 0.024	3YRA	-15%
Goldstream Hatchery	0.009	3YRA	0.011	0.011	0.004 - 0.028	3YRA	0%
Black Creek (wild)	0.017	3YRA				3YRA	
Lower Fraser							
Inch Hatchery	0.021	LLY	0.022	0.022	0.013 - 0.037	LLY	0%
Interior Fraser							
Interior Fraser watershed	49,472	3YRA		46,036	29314 - 72296	3YRA	-7%



Preliminary WCVI chinook forecasts

	Forecast range	2015 Forecast	2014 return	20 yr avg	change
Conuma	(28,000 - 56,000)	42,000	47,000	35,000	-11%
Nitinat	(18,000 - 36,000)	27,000	33,000	25,000	-18%
Somass/RCH	(24,000 - 41,000)	33,000	26,200	90,000	26%
		102,000	106,200	150,000	

	Forecast range	2015 Forecast	%age3	%age4	%age5	eggs
Conuma	(28,000 - 56,000)	42,000	49%	21%	31%	62,254,500
Nitinat	(18,000 - 36,000)	27,000	37%	30%	33%	46,014,750
Somass/RCH	(24,000 - 41,000)	33,000	63%	13%	24%	37,166,250



WCVI chinook summary

- Generally, expectations are for lower terminal area returns than 2015.
- fewer 4 year olds are expected; apparent low marine survival for ocean entry year 2012 (i.e. 0.24%)
- fewer females, fewer eggs, requires careful planning of terminal fishery opportunities to meet spawning requirements.
- Further discussion planned with local planning processes on WCVI to plan for harvests of terminal surpluses. Considerations could include approaches to select for age 3 (under 77cm, 10-15lb) chinook in late July – August.



WCVI Chinook

IFMP Feedback:

First Nations:

- Support for 10% ER objective in all Canadian fisheries
- Concerns with Area F troll management including in-season management based on effort-harvest rate approach for area F re: 3.2% limit (*see NC section for further details*)
- Further discussion required regarding T'aaq-wiihak salmon fishery plan



WCVI Chinook Sampling

- Draft IFMP indicated:
 - *A small ISBM assessment fishery near the Brooks Peninsula has been proposed as one component of a PSC high priority chinook proposal to improve the precision and accuracy of annual WCVI chinook return estimates.*
- Program Objective: Reconstruct the entire terminal return of WCVI origin chinook along the WCVI supported by PSC funding.
- Plan to conduct sampling of all chinook fisheries along the WCVI (e.g. DNA, otoliths, CWT's, sex, by GPS location).
- Plan to collect samples from existing fisheries where possible working with harvest groups.
 - E.g. Brooks peninsula area – plan to work with Kuyukot FN to sample FSC
 - Enhanced sampling from creel survey, recreational guides, etc.,