



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

**PACIFIC SALMON OUTLOOK  
PACIFIC REGION  
2012**

**Canada**

## 2012 SALMON STOCK OUTLOOK

Since 2002, Pacific & Yukon Region, Stock Assessment staff have provided a categorical outlook for the next year's salmon status. The Outlook is intended to provide an objective and consistent context within which to initiate fisheries planning. In particular, it provides a preliminary indication of salmon production and associated fishing opportunities by geographic area and species (a stock group). The Conservation Units covered by each species/stock grouping are listed in Appendix 1.

For each stock group, a status outlook is provided on a categorical scale of 1 to 4 (table below). The category reflects the current interpretation of available quantitative and qualitative information, including pre-season forecasts if available, and the opinion of DFO Area stock assessment staff. Where management targets for stocks have not been formally described, interim targets were either based on historical return levels or, if necessary, opinion of local staff. The Department is currently proceeding on defining methods to determine benchmarks of status under the Wild Salmon Policy and will be consulting on these over the next year.

Status categories may have consequences to fisheries where a stock group is caught directly or incidentally. In the context of this outlook the probable fishery consequences associated with each of the four status categories are identified in the table. Stock groups forecast in category "2" are considered "sensitive" and fisheries should be planned to reduce impacts on these groups.

Status Category	Category Definition	Criteria	Fishery Consequences
1	Stock of concern	Stock is (or is forecast to be) less than 25% of target or is declining rapidly.	Directed fisheries are unlikely and there may be a requirement to avoid indirect catch of the stock.
2	Low	Stock is (or is forecast to be) well below target or below target and declining.	Directed fisheries are uncertain and likely to be small if permitted. Allocation policy will determine harvest opportunities.
3	Near Target	Stock is (or is forecast to be) within 25% of target and stable or increasing.	Directed fisheries subject to allocation policy.
4	Abundant	Stock is (or is forecast to be) well above target.	Directed fisheries subject to allocation policy.
ND	No Data	Insufficient data to determine an outlook category.	

It is important to note that the fishery consequences implied by any of the status categories do not include interactions with other stocks. Consequently, conservation requirements for stocks in status categories 1 and 2 may limit fishing opportunities for stock groups for which there are no concerns. Where possible the comments associated with each stock identify such potential constraints. A range of status categories indicates significant geographic variation in status within the stock group and fisheries may be shaped in response to that variation.

**This 2012 outlook should be regarded as an early scan of salmon production, as very preliminary information, and is subject to change as more information becomes available. The outlook will be periodically up-dated as statistical forecasts and assessments are completed and reviewed.**

## Summary of Pacific Salmon Species/Stock groups for 2012

A total of **93** species/stock groups were considered and status categorized for **87**. Five groups were data deficient (ND), and one pink group was not applicable (NA). Thirty-one (**31**) stock groups are likely to be at or above target abundance (category 3, 4, 3/4), while **33** are expected to be of some conservation concern (category 1, 2, 1/2). The remaining **22** stock groups had mixed status levels (1/4, 2/3, 2/4). Overall, the outlook for 2012 has declined relative to 2011: 8 stock groups improved in status (WCVI sockeye, and Alsek sockeye, Chinook and coho), while 14 declined in status (9 Fraser sockeye, and north and central coast pink). Please note that assessments for southern BC chum and coho salmon are incomplete, forecasts are not available at this time and these data will be revised later.

2012		
Species/Stock	Outlook status	Comments
<b>Sockeye</b>		
1. Okanagan	4	The 2008 brood year escapement was at or near record highs (129,000 AUC units in the terminal spawning area). Production of late winter sockeye fry in Osoyoos Lake was a record 7.7 million pre-smolts (by contrast with an all year average of less than 500,000 pre-smolts). The 2010 ocean entry year was a moderately strong, single year El Nino event so smolt-to-adult survival is expected to be ~4%. This supports a very preliminary forecast total Okanagan adult return of about 300,000 s in 2012 (assuming returns as age 4's). This forecast is sufficient for achieving the Canadian escapement objective of roughly 60,000 at Wells Dam or 36,000 as peak live plus dead in the terminal spawning area while still providing for FSC, recreational and some commercial catch in 2012. An actual forecast will be produced later in the year in collaboration with CRITFC group in Washington State. <i>(2011 Outlook was 2)</i>
<b>Fraser Sockeye</b>	<b>Overview</b>	Quantitative forecasts for Fraser Sockeye stocks will be available January 2012, through the Canadian Science Advice Pacific (CSAP) Process. Fraser Sockeye productivity has generally been below average for most stocks over the last four to eight brood years and extremely variable in the last two brood years: 2005 brood year (2009 age-4 returns) were associated with exceptionally low productivity for all stocks and the 2006 brood year (2010 age-4 returns) were generally associated with average to above average productivity. In the absence of leading indicators for Fraser Sockeye productivity, and with the highly variable productivity observed in recent years, forecasts remain highly uncertain (associated with wide forecast probability distributions).
2. Early Stuart (CU: Takla-Trembleur-Early Stuart)	1	Below average returns are expected in 2012 relative to the cycle return average of 120,000 (1956-2008). Although the 2008 brood year escapement (14,500 effective female spawners: EFS) was comparable to this stock's cycle average (19,800 EFS), productivity (recruits-per-effective female spawner: R/EFS) has been below average in recent years. In addition, based on 2011 preliminary return and escapement data, en-route loss appeared to be extremely high this past year. <i>(2011 outlook status was 1).</i>
3. Early Summer – North Thompson (CU: Kamloops-ES)	1/3	<b>Raft:</b> Average returns are expected in 2012 relative to the cycle return average of 57,000 (1956-2008). The 2008 brood year escapement for Raft (3,600 EFS) was below the cycle average (7,100 EFS). <b>Fennell:</b> Below average returns are expected for 2012 relative to the cycle return

2012		
Species/Stock	Outlook status	Comments
and North Barriere-ES (de novo))		average of 34,000 (1972-2008). The 2008 brood year escapement for Fennell (200 EFS) was very low compared to the cycle average (5,500 EFS). <i>(For Fennell and Raft combined, the 2011 outlook status was 3).</i>
4. Early Summer South Thompson (CU: Shuswap-ES)	1	<b>Scotch:</b> Below average returns are expected in 2012 relative to the cycle average of 12,000 (1984-2008). The 2008 brood year escapement for Scotch (100 EFS) was well below the cycle average (1,000 EFS). <b>Seymour:</b> Below average returns are expected in 2012 relative to the cycle return average of 34,000 (1956-2008). The 2008 brood year escapement for Seymour (300 EFS) was well below the cycle average (4,200 EFS). <i>(For Scotch and Seymour combined, the 2011 outlook status was 3).</i>
5. Early Summer – Mid/Upper Fraser (CUs: Anderson-Seton-ES; Nadina-Francois-ES (new mixed); Bowron-ES)	1/2	<b>Gates:</b> Below average returns are expected in 2012 relative to the cycle average of 135,000 (1976-2008). The 2008 brood year escapement for Gates (1,800 EFS) was below the cycle average (9,900 EFS). <b>Nadina:</b> Average returns are expected in 2012 relative to the cycle average of 137,000 (1980-2008). The 2008 brood year escapement for Nadina (10,200 EFS) was close to the cycle average (13,700 EFS). <b>Bowron:</b> Below average returns are expected in 2012 relative to the cycle average of 27,000 (1956-2008). The 2008 brood year escapement for Bowron (300 EFS) was well below the cycle average (4,000 EFS). <i>(For Gates, Nadina and Bowron combined; the 2011 outlook status was 2).</i>
6. Early Summer – Lower Fraser (CU: Pitt-ES; Chilliwack-ES; Nahatlach-ES)	1/3	<b>Pitt:</b> Above average returns are expected in 2012 relative to the average of 81,000 (1956-2008). The age-5 brood year escapement for Pitt (19,900 EFS) was above average, while the age-4 escapement (5,400 EFS) was below average (13,500 EFS). Pitt has a greater proportion of age-5 recruits (~70%) relative to age-4 recruits. Return data are not available for the remaining two sites in this stock group (Chilliwack Lake/Dolly Varden Creek and Nahatlach Lake/River); only escapements can be compared to time series averages. <b>Chilliwack Lake/Dolly Varden Creek</b> brood year escapement in 2008 (19,700 EFS) was above the recent time series average (6,900 EFS from 2000-2009 when both sites were assessed) across all cycles. <b>Nahatlach Lake/River</b> brood year escapement (150 EFS) was much smaller than the cycle average (3,000 EFS). <i>(2011 outlook status was 4).</i>
7. Summer – Chilko (CUs: Chilko-S; Chilko-ES; Taseko-ES)	1/3	Below average returns are expected in 2012 relative to the cycle average of 1.79 million (1956-2008). The number of out migrating smolts in the 2008 brood year (2010 outmigration year) (11.8 million sub2 smolts) was below cycle average (22.5 million) for Chilko. The brood year escapement for Taseko (16 EFS) was extremely low and fell below the cycle average (1,200 EFS). <i>(2011 outlook status was 4).</i>
8. Summer – Late Stuart (CUs: Takla-Trembleur-Stuart-S)	3	Average to above average returns are expected in 2012 relative to the cycle average of 187,000 (1956-2008). The 2008 brood year escapement for Late Stuart (57,900 EFS) was above the cycle average (23,600 EFS). <i>(2011 outlook status was 2).</i>
9. Summer – Nechako (CU: Francois-Fraser-S)	3	Average returns are expected in 2012 relative to the cycle average of 467,000 (1956-2008). The 2008 brood year escapement for Stellako (73,800 EFS) was close to the cycle average (61,400 EFS). <i>(2011 outlook status was 3).</i>
10. Summer – Quesnel (CUs: Quesnel-S)	2	Below average returns are expected in 2012 relative to the cycle average of 57,000 (1956-2008). The 2008 brood year escapement for Quesnel (2,500 EFS) was half the cycle average (5,000 EFS). <i>(2011 outlook status was 3).</i>

2012		
Species/Stock	Outlook status	Comments
11. Fall – Cultus (CU: Cultus-L)	1	Below average returns are expected in 2012 relative to the cycle average of 21,000 (1956-2008). Juvenile production of 145,300 smolts (99% hatchery origin) was below the cycle average (460,000 smolts). (2011 outlook status was 1/2).
12. Fall – Portage (CU: Seton-L ( <i>de novo</i> ))	2	Below average returns are expected in 2012 relative to the cycle average of 16,000 (1960-2008). The 2008 brood year escapement for Portage (63 EFS) was extremely low and fell below the cycle average (600 EFS). (2011 outlook status was 3).
13. Fall – South Thompson (CU: Shuswap-L)	1	Below average returns are expected in 2012 relative to the cycle average of 29,000 (1956-2008). The 2008 brood year escapement for Late Shuswap (80 EFS) was very low, and below the cycle average (3,100 EFS). (2011 outlook status was 4).
14. Fall – Birkenhead (CU: Lillooet-Harrison-L)	2	Below average returns are expected in 2012 relative to the cycle average of 281,000 (1956-2008). The 2008 brood year escapement for Birkenhead (6,800 EFS) was well below the cycle average (36,000 EFS). (2011 outlook status was 3).
15. Fall – Lower Fraser  CUs: Harrison (U/S)-L; Harrison (D/S)-L; Harrison (River-Type); Widgeon (River-Type)	1/3	<b>Weaver (including miscellaneous Harrison Lake-rearing stocks):</b> Below average returns are expected in 2012 relative to the cycle average of 345,000 (1972-2008). The 2008 brood year escapement for Weaver (600 EFS) was very small compared to the cycle average (21,900 EFS). Productivity in Weaver has been below average in recent years. <b>Harrison:</b> Above average returns are expected in 2012 relative to the cycle average of 19,000 (1956-2008). Escapement for Harrison was 4,400 EFS in the 2008 brood year (age-4 recruits in 2012) and 100,600 EFS in the 2009 brood year (age-3 recruits in 2012), falling, respectively, below and well above the long term average (13,500 EFS). In contrast to most other Fraser Sockeye stocks, productivity for Harrison has increased in recent years. For the remaining two sites in this stock group (Widgeon Creek and Big Silver Creek), return data are not available, instead escapements only are compared to time series averages. <b>Widgeon Creek</b> brood year escapement (36 EFS) was below the cycle average (360 EFS). <b>Big Silver Creek</b> brood year escapement (800 EFS) was below the cycle average (2,000 EFS). (2011 outlook status was 3).
16. Somass	4	The returns in 2011 suggests good survival of the 2007 brood (2009 sea entry year; age 4sub2 in 2011), suggesting a significant age 5sub2 component in 2012. Return of 4 year olds from the 2008 brood is more uncertain. Quantitative forecast will be produced in February 2012. (2011 outlook status was 3).
17. Henderson	3	Similar to Somass sockeye, a relatively high return of 5-year olds expected, but there is considerable uncertainty in the outlook for 4-year olds. (2011 Outlook Status was 2)
18. WCVI-Other	2	Assessment data are not available to forecast others systems. However, limited assessment data suggests moderate increases in abundance in recent years. (2011 Outlook Status was 1/2).
19. Area 11-13	1/2	Preliminary information for 2011 Sockeye from Nimpkish River indicate a strong return, likely 3-4 times the long term average and well above the contributing brood years. This is likely a result of a dominant age-5 component which experienced a productive marine environment in the 2008 ocean entry year. Other monitored systems were variable. Sockeye return to Heydon Creek was 40% lower than the parental brood return in 2006, while escapement to Quatse River was the largest recorded since an intensive monitoring program began in 2006 (2 <sup>nd</sup> largest was in 2010). Brood year escapements in 2008 contributing to the 2012 return were low for most Sockeye stocks. Reduced abundances of Pink and Coho returns observed in 2011, suggests outmigration conditions encountered in 2010 were not favourable. Based

2012		
Species/Stock	Outlook status	Comments
		on poor marine conditions and weakness of brood years, our expectations for 2012 Sockeye continue to be low with some possible reduced survival. <i>(2011 Outlook Status was the same 1/2)</i> .
20. Sakinaw	1	554 adult sockeye were enumerated in 2011, coming from a smolt count of 62.6K in 2009. This group is comprised of progeny from captive brood, held at Rosewall and Ouilette hatcheries. Marine survival continues to improve. The expectation for 2012 is a similar number of adults returning from a smolt count of 70K. No broodstock will be collected and existing captive brood will be used to augment natural spawning production. <i>(2011 Outlook status: 1)</i>
21. Area 7-10	1/2	Returns are expected to be poor. Area 9 and 10 returns in 2010 and 2011 were better than recent years, but brood year escapements for 2012 returns were very low. Sockeye returns to Area 8 continue to be depressed <i>(2011 Outlook status: 1/2)</i>
22. Coastal 3/6	2/4	Status is uncertain. Limited assessment data for evaluation. <i>(2011 Outlook status: 2/4)</i> .
23. Babine Lake Enhanced	4	Below average abundance forecast for age-4 sockeye based on 2011 jack returns. Poor age-5 return expected based on age-4 returns in 2011. <i>(2011 Outlook status: 4)</i>
24. Skeena Wild	1/4	Strong returns of some middle and lower Skeena sockeye stocks expected. Babine River sockeye escapement showed some improvement in 2011. Generally expect average survival for sockeye that went to sea in 2009 (returning as 5 year olds this year). The survival for sockeye that went to sea in 2010 (returning as 4 year olds this year) is very uncertain. <i>(2011 Outlook status: 1/4)</i>
25. Nass	1/4	Below average returns are expected. Kwinageese had very poor brood year escapements. <i>(2011 Outlook status: 1/4)</i> .
26. QCI	2/4	Status uncertain for some systems, limited assessment work. <i>(2011 Outlook status: 2/4)</i> .
27. Alsek	3	Based on brood year escapements (near goal) and the historical stock-recruitment relationship, a near average run is expected. Recently, several returns have been well below expectations (record low in 2008) but it appears survivals have improved (2010 and 2011 returns were above expectations). Hence, the outlook has been upgraded to a 3 for 2012. <i>( 2011 Outlook Status was 2/3)</i>
28. Stikine-wild	3	Stikine sockeye production has varied widely since 1985. Low production periods occurred in the mid 1980(s) to early 1990(s). From 2003 through 2006 production improved, believed due to improved marine survival. Returns in 2007-10, however, were below forecast suggesting a downturn in marine survival. The 2011 return was slightly above forecast. For 2012, the Tahltan Lake component is predicted to be below average due to the below average number of smolts which emigrated from the lake in 2009 and 2010. The main stem component is also expected to be below average. Fishing opportunities are expected within the confines of conservation and PST harvest sharing arrangements. <i>(2011 Outlook Status was 3 in 2011)</i> .
29. Taku-Wild	3	Although the data are preliminary, the 2011 run appears to have returned slightly below forecast. Considering the outlook for 2012, the dominant and sub-dominant brood year escapements were within range associated with maximum production. Production is expected to be average based on preliminary stock-recruitment analysis. Fishing opportunities are expected within the confines of conservation and PST harvest sharing arrangements. <i>(2011 Outlook Status was 3)</i>

2012		
Species/Stock	Outlook status	Comments
<b>Chinook</b>		
30. Early spring – upper & mid-Fraser, North Thompson	1	Escapements in 2011 continue to be low. This season was the fifth successive year where aggregate escapement has failed to replace parental spawning abundance. Populations of concern continue to include the Cottonwood system and the Upper Chilcotin River. Expectations are for continued low escapements in 2012, related to persisting unfavorable marine conditions. There is no exploitation rate indicator stock for this group. <i>(2011 Outlook status: 1)</i>
31. Late summer – South Thompson	3/4	Aggregate escapement in 2011 exceeded brood year escapement levels, although returns to individual systems were mixed. Concern exists for Mid Shuswap where escapements failed to exceed parent abundance for the second year in a row. Aggregate abundance should continue to be favorably affected by marine conditions. Indicator stock is Lower Shuswap <i>(2011 Outlook status: 3/4)</i>
32. Spring – upper & mid-Fraser, North Thompson	1	Escapements in 2011 continue to be low. This season was the fifth successive year where aggregate escapement has failed to replace parental spawning abundance. Expectations are for continued low escapements in 2012, related to persisting unfavorable marine conditions. There is no exploitation rate indicator stock for this group. <i>(2011 Outlook status: 1)</i>
33. Summer – upper & mid-Fraser, North Thompson	1	Escapements observed in 2011 continue to be low, and the aggregate failed to replace parental brood abundance again, although the Chilko River return exceeded brood abundance. Expectations are for continued low escapements in 2012 related to persisting unfavorable marine conditions. Of particular concern again was the Clearwater River (~1,200; 40% of parental brood escapement). There is no exploitation rate indicator stock for this group. <i>(2011 Outlook status: 1)</i>
34. Spring – lower Thompson	1	Escapement trends in 2011 continued to be mixed; Bonaparte, Deadman and Nicola improved over brood levels; whereas others, including Spius and Coldwater failed to reach brood levels again. Expectations for 2012 are for continued low abundance levels resulting from persisting poor marine survival rates. Exploitation rate indicator for this group is Nicola River. <i>(2011 Outlook status: 1)</i>
35. Fall – lower Fraser natural	2/3	Average returns expected in 2012. 2011 adult escapement surveys at Harrison are underway currently, and indications are for a strong return. A formal forecast for 2012 will be available in late winter. <i>(2011 Outlook status: 2/3)</i>
36. Fall – lower Fraser hatchery	2/3	Although there are significant hatchery releases of Harrison fall-run Chinook stock into the Harrison & Stave Rivers, lower Fraser River fall-run hatchery Chinook consists mainly of Chilliwack Hatchery releases. 2011 adult escapement surveys at Chilliwack are underway currently. Average returns expected in 2012. Forecasts will be prepared for late-winter release. <i>(2011 Outlook status: 2/3)</i>
37. Early spring – lower Fraser	1/2	The preliminary estimate of the 2011 Birkenhead River escapement was poorer than abundance in 2010 and much less than the 2006 brood year escapement of 1,259 adults. While the brood escapement for the 2012 return was also strong, without an indicator program for this stock group, freshwater and marine survival trends remain uncertain. <i>(2011 Outlook status: 2)</i>
38. Summer – lower Fraser	1/2	Expectations for abundance levels in 2012 are similar to those seen in 2011, but very little is known about the productivity of these small populations. Maria Slough escapement in 2011 was similar to that seen in recent years; however the escapement to Big Silver continued to be very low. The small size of these populations increases their vulnerability, and without an indicator, their freshwater and marine survival trends remain uncertain. <i>(2011 Outlook status: 1/2)</i>
39. WCVI-hatchery CN	3	2011 returns to the Somass were below average but higher than forecast, mainly due to higher than expected age 4 returns produced by the relatively productive

2012		
Species/Stock	Outlook status	Comments
		2008 sea entry year. The return in 2012 is likely moderate, although there is considerable uncertainty over the 2008 and 2009 brood year (returning as age 3 and 4 fish in 2012). Forecast will be available in March 2012. <i>(2011 Outlook Status: 2/3)</i>
40. WCVI-wild CN	1	Escapements in recent years have been well below target for wild WCVI origin Chinook. Over the last several years, stocks in the NWVI CU showed moderate improvements; however this trend was not observed in SWVI. Although final 2011 escapement estimates and age composition data are unavailable, expectations are for continued low returns in 2012. <i>(2011 Outlook Status: 1)</i>
41. Johnstone Strait area including mainland inlets	2/3	Preliminary 2011 returns to the Quinsam River hatchery indicator are below average, similar to 2010. Escapement monitoring is ongoing and preliminary information suggests a return of approximately 4,000 to 4,500 Chinook to the Campbell/Quinsam River system. Data is sparse for most of the Mainland Inlet Chinook stocks, but most Chinook populations surveyed are well below historic abundances. <i>(Outlook is similar to 2011 with wild stocks at low level (2) and hatchery stocks likely near target (3)).</i>
42. Georgia Strait Fall (wild and small hatchery operations)	2	Spawner levels are below escapement goal but are improving from historic lows in 2009. The return in 2011 was better than expected, likely due to improved survival from ocean entry year 2008 as well as other rebuilding actions. Cowichan jack returns in 2011 continue to improve over recent years, suggesting continued improvement in 2012. Returns to Chemainus River are still low. For Nanaimo, an improving trend is likely to continue in 2012. <i>(2011 Outlook Status: 1)</i>
43. Georgia Strait Fall (large hatchery operations)	2	Returns in 2011 to rivers with major hatcheries (Big Qualicum, Little Qualicum and Puntledge) are higher than last year's (2010) returns and continue to improve from recent lows, suggesting improving marine survivals and an improving trend for 2012. <i>(2011 Outlook Status: 2)</i>
44. Georgia Strait Spring and Summer	2	2011 returns to Nanaimo River (spring and summer) are similar to near term averages and returns to Puntledge (summer) hatchery are above average, both are below target escapements. Rebuilding efforts are continuing. <i>(2011 Outlook Status: 2)</i>
45. Area 7-8	3/4	Dean River and Bella Coola returns are expected to be average. <i>(2011 Outlook Status: 3/4).</i>
46. Area 9-10	2/3	Wannock River Chinook returns are expected to be average. The spring-run stocks including the Owikeno tributary stocks and Chuckwalla/Kilbella are expected to be below average as brood year escapements were poor. <i>(2011 Outlook Status: 2/3).</i>
47. Coastal Areas 3 to 6	2/3	Stocks are generally depressed and variable and this pattern is expected to continue. Poor quality assessments. <i>(2011 Outlook Status: 2/3).</i>
48. Nass	3/4	Average return expected (pending detailed review of the 2011 return age structure). <i>(2011 Outlook Status: 3/4).</i>
49. QCI	3/4	The Yakoun Chinook stock appears stable at relatively high levels. <i>(2011 Outlook Status: 3/4).</i>
50. Skeena	3/4	Variable ocean survivals for Skeena Chinook in recent years make the outlook uncertain. Average returns similar to recent years are anticipated. <i>(2011 Outlook Status: 3/4).</i>
51. Alsek	3	Brood year escapements were slightly below that considered to be the optimal range. Based on the historical stock recruitment relationship, a below average run will be expected. Alsek Chinook were in a state of poor productivity; runs in 2006 through 2008 were the three lowest on record. It appears the trend may have reversed as the escapement goals were met in 2009 - 2011. The 2012 outlook reflects the improved productivity. <i>(2011 Outlook Status was 3).</i>



2012		
Species/Stock	Outlook status	Comments
52. Stikine	2	A bilaterally developed run outlook is not yet available but is required by December 1. This stock has been subjected to directed commercial fisheries since 2005 as a result of new provisions under the Pacific Salmon Treaty. Under the Treaty, directed fisheries are allowed if the preseason forecast is greater than 28,100 large Chinook (Chinook > 659 mm mid-eye to fork length) And in-season projections are >24,500 large Chinook. The preliminary pre-season sibling-based forecast is 47,000 large Chinook suggesting production will be above the preseason trigger for conducting a directed fishery in Canada. This outlook will be updated once the TTC has completed its analysis (by Dec. 01). ( <i>The 2011 Outlook Status was 2</i> ).
53. Taku	3	Taku Chinook salmon have been managed under a PST fishing regime implemented in 2005 and renewed for the 2009-2018 period with some minor modifications. The Transboundary Technical Committee (TTC) presented an interim revised escapement goal prior to the 2009 season. It is anticipated that the revised goal of 25,500 large Chinook (range of 19,000 to 36,000 fish) will be used for remainder of the 2009-2018 period. The previous goal range was 30,000-55,000 with a point target of 36,000 large Chinook. A bilaterally developed run outlook for 2012 is not yet available but required by December 1. However, preliminary estimates of the 2011 return and historical sibling relationships suggests that the 2012 run will be below the average of 47,000 large Chinook. Based on the new escapement goal and PST harvest sharing arrangements, a run of this magnitude will permit a small directed Chinook fishery in Canada, but not in the U.S. This outlook will be updated once the TTC has completed its analysis. ( <i>The 2010 Outlook Status was 4</i> ).
54. Yukon	2/3	A below average run is expected in 2012. An Interim Spawning Escapement Goal (IMEG) of >45,000 was adopted for 2008 and 2009. An escapement goal range of 42,500 to 55,000 was subsequently agreed to in 2010. Sonar-based estimate of the total upper Yukon spawning escapements in 2006, the primary brood year expected to contribute to the 2012 return exceeded the IMEG, while in the other major brood year, 2007, the estimate was well below target. Total production is well below that observed prior to 1998. The runs since 2007 have been weak and conservation measures have been required. Although there were no Canadian commercial or domestic fishery openings and Chinook retention was varied to zero in the recreational fishery in 2007, 2008, and 2010, the IMEG was not met in these years. In 2009 and 2011 conservation measures in Alaska resulted in sufficient border passage for limited opportunities in recreational, domestic and (in 2009 only) commercial Canadian fisheries. If the factors contributing to the recent weak runs persist, fishing opportunities may be limited in 2012. ( <i>2011 Outlook Status was 2/3</i> ).
<b>Coho</b>		
55. Mid/upper-Fraser	1	Fall 2011 escapement surveys are underway; however it is too early to determine trends. Escapements to most streams in 2010 failed to achieve parental brood levels. Rebuilding will continue to be affected by marine survival conditions. The outlook for 2012 is for continued low abundance, a result of low escapement in 2009 and persistent unfavorable conditions affecting coho survival. Sustained improvement in marine conditions will be required to improve status. ( <i>2011 Outlook status: 1</i> )
56. Thompson	1	Fall 2011 escapement surveys are underway; however it is too early to determine trends. Escapements to most streams in 2010 failed to achieve parental brood levels. Rebuilding will continue to be affected by marine survival conditions. The

Species/Stock	2012 Outlook status	Comments
		outlook for 2012 is for continued low abundance, a result of low escapement in 2009 and persistent unfavorable conditions affecting coho survival. Sustained improvement in marine conditions will be required to improve status. <i>(2011 Outlook status: 1)</i>
57. Lower Fraser	2	Fall/winter 2011/2012 escapement surveys are underway; however it is too early to determine trends. 2010 escapements were marginally above those of the parental brood year. Parental brood escapements in 2009 were moderate. Sustained improvements in marine survival will be required to improve status further. <i>(2011 Outlook status: 2)</i>
58. WCVI coho	2/3	2011 returns into the Stamp River were slightly above average. WCVI coho have generally been at moderate status in recent years. However, coho jack returns were well below average in 2011 potentially indicating a lower return of adults in 2012. The forecast will be available in March 2012. <i>(2011 Outlook Status: 3).</i>
59. Area-12	2/3	It is early in the assessment of Coho in this area; intensive and extensive monitoring of key streams (i.e. Keogh) is ongoing. Preliminary data suggest returns are showing reduced survivals for 2011. Return levels in 2012 will be influenced by the extremely strong brood return of 2009, well above average Keogh smolt production in 2011 (indicator), and also possible lower marine survivals, due to warming conditions during the spring and summer of 2011 (similar to 2010). Expectations are for Coho returns similar to the last 3 years but are highly uncertain. <i>(2011 Outlook Status: 2/3)</i>
60. Area-13 North	2	Escapement monitoring for 2011 is ongoing, but indications are similar to Area 12, with low returns likely attributed to reduced marine conditions during the 2010 outmigration. Marine conditions encountered during the 2011 outmigration appear to be similar to 2010, so continued poor survivals are expected for the 2012 return of Coho to this area. Expectations are for returns similar to the last 3 years but are highly uncertain. <i>(2011 Outlook Status: 2).</i>
61. Georgia Strait	2	The 2010 marine survivals ranged from 0.5% to 0.8% for hatchery stocks and 1.6% for wild stocks. Marine survival rates for 2011 returns are not available. The early indication for the 2011 escapement is that the runs are higher than the near term average, indicating a continuing increase in marine survival. The 2012 expectation is for improving returns, similar to last year. Forecast will be available in March 2012. <i>(2011 Outlook Status: 1/2)</i>
62. Area-7-10	3/4	Survivals were relatively good for the 2009, 2010 and 2011 returns after poor returns in 2006 to 2008. Returns are uncertain and depend on the survivals of the juveniles to sea in 2011. <i>(2011 Outlook Status was 3/4)</i>
63. Area 5/6	3/4	Survivals were relatively good for the 2009, 2010 and 2011 returns compared to relatively poor survivals 2006 through 2008. Returns are uncertain and depend on the survivals of the juveniles to sea in 2011. <i>(2011 Outlook Status was 2/4).</i>
64. Area-3	3/4	Average return is expected, but depends on the survivals of the juveniles to sea in 2011. <i>(2011 Outlook Status was 3/4).</i>
65. QCI-E (Area 2E)	3/4	Assessments limited to two populations since 2002 (Tlell weir and Deena intensive escapement surveys). <i>(2011 Outlook Status was 3/4).</i>
66. QCI-N (Area 1)	ND	No recent assessments. <i>There is no change in the outlook status from 2011</i>
67. QCI-W (Area 2W)	ND	No recent assessments. <i>There is no change in the outlook status from 2011.</i>
68. Skeena	3/4	Returns are uncertain and depend on the survivals of the juveniles to sea in 2011. Outlook for lower Skeena tributaries is less certain, based on poor quality assessments. <i>(2011 Outlook Status was 3/4).</i>

2012		
Species/Stock	Outlook status	Comments
69. Skeena – high Interior	3/4	Returns are uncertain and depend on the survivals of the juveniles to sea in 2011. <i>(2011 Outlook Status: 2/3).</i>
70. Alsek	3	An above average run is expected based on a good weir count in the Klukshu River for 2008 brood year. <i>(2011 Outlook Status was 2/3)</i>
71. Stikine	3	An ABM regime has not yet been developed for this stock. Under the current PST arrangements, Canada is permitted to harvest 5,000 coho in a directed fishery. Reliable brood year escapement data are limited and available information is sometimes contradictory: extrapolated test fishing indices were average, yet results from limited aerial surveys were below average for brood years contributing to the 2012 return. Based on data of limited quality, the 2012 return is expected to be average. <i>(2011 Outlook Status was 3)</i>
72. Taku	4	For 2012, a below average run is expected based on preliminary estimated smolt abundance in 2011 combined with recent smolt-to-adult survival rates. It should be noted however, that coho exploitation rates have been relatively low over the past two decades and escapements have frequently been 2-3 times the upper end of the escapement goal range. It is anticipated that the run will be sufficient to allow harvest of 10,000 coho in a directed fishery, plus excess to spawning escapement requirements, as identified in the new PST arrangements. <i>(2011 Outlook Status was 4)</i>
73. Yukon	ND	Little is known about the stock status within Canadian portions of the Yukon River drainage. Data from the U.S. portion of the drainage indicate returns to the drainage in the last five years have been near the long term average. The general sense in Alaska is that exploitation is influenced by actions taken to manage co-migrating fall chum. This may have resulted in reduced spawning escapement in 2011.
<b>Pink</b>		
74. Fraser – Even (CU: Fraser River)	n/a	Relative to the odd numbered years, insignificant abundance of Pink return to the Fraser River in even numbered years. <i>(2011 Outlook Status: 4; 2010 Outlook Status: n/a).</i>
75. Squamish - Even	ND	No qualitative assessment information is available. <i>(2011 Outlook status: ND)</i>
76. WCVI-Even	ND	No quantitative assessment information is available. <i>(2011 Outlook status: ND)</i>
77. Area-11/13-Even	2	Pink returns in 2011 were not consistent with the strong upward trend in abundance exhibited by the odd year cycle since 2007. High water events during the fall and winter of 2009 and warm ocean temperatures in the spring of 2010 likely contributed to their reduced survival.  A declining trend within even year Pinks has continued over the last few generations within most area stocks (exception, some southern populations such as Phillips River have been improving). Parental brood returns in 2010 were subject to significant flood events throughout the fall and winter, and their progeny encountered warmer marine conditions in 2011; impacts which may result in reduced survivals in both freshwater and marine stages. Expectations therefore, are for below average returns in 2012. Historically Pink returns to this area have been highly variable and expectations are highly uncertain. <i>(2010 Outlook Status was 2/3).</i>
78. Georgia Strait-west	2/3	Preliminary information suggests returns in 2011 are half of the 2009 brood year but are still above average. Seapen returns in 2011 were good in Nanaimo and Cowichan. Outlook is for highly variable returns, (natural returns low, seapen returns average to good). The expectation for 2012 is for low escapements to natural stocks as this will be an off cycle year. <i>(2011 Outlook Status: 2/3)</i>

2012		
Species/Stock	Outlook status	Comments
79. Georgia Strait – east	2	Assessment information on pink salmon in this area is limited. Generally, pink salmon have been reported in small numbers across a broad range of systems. Enhancement is limited to Chapman and Lang Creeks. The expectation for 2012 is for low escapements due to the cyclical nature of this stock group as this will be an off cycle year. <i>(2011 Outlook Status:2)</i>
80. Area-7/10 Even	2/3	2010 brood year escapements were very poor. Well below average returns are expected. <i>(2010 outlook status was 3/4).</i>
81. North Coast Areas-3/6 Even	2/3	2010 brood year escapements were very poor. Very poor returns are expected with the exception of Area 3 where brood year escapement was better. <i>(2010 outlook status was 3/4).</i>
82. QCI- Even	3/4	2010 escapements were relatively good. Local fishing opportunities are anticipated. <i>(2010 outlook status was 3/4).</i>
<b>Chum</b>		
83. Fraser River (CU's: Fraser Canyon and Lower Fraser)	2	Quantitative forecasts are not prepared for Fraser River Chums (catch by stock and escapement information is limited). Fraser Chum escapement has been trending downward over the last 13 years (1998-2010). The 2010 escapement was estimated at 600,000 (preliminary) below the escapement goal of 800,000. The 2011 in-season terminal run strength estimate is variable at this time and an estimate of the 2011 escapement is not yet available. Smaller bodied Chum were reported in 2011. <i>(2011 Outlook status: 2)</i>
84. WCVI chum	3	2011 chum returns were average to above average for SWVI stocks but well below average for NWVI stocks. Return expectations for 2012 are for continued improvement, likely above average. The 2008 brood will be the main contribution in 2012. The production from this brood will be influenced by relatively low hatchery releases in Nitinat but also relatively productive ocean conditions in 2009. <i>(2010 Outlook Status was 3)</i>
85. Johnstone Strait area and mainland inlets (Area-11-13)	2/3	Chum returns in 2011 are still being assessed, however abundance appears to range from below average to above average; dominated by age-4 fish which out-migrated in 2008 when marine survival conditions were more favourable. In-season assessments in 2011 identified a strong migration of Chum through Johnstone Strait, but fish were significantly smaller than average (2.5-3lbs smaller). Perhaps an indication of some density dependence and/or poorer survival conditions during marine residence years (2009-2010).  Expectations for 2012 are low, to near target. This is based on the below average parental brood abundance of the 2008 return, the indications of stable to slightly improved marine survival (Pink and Coho returns in 2010), the contributing outmigration year of 2009 and the high variability in Chum returns.  Summer Chum returns in 2008 were mainly below average throughout the area and will likely be similar in 2012. <i>(2011 Outlook Status was 2/3)</i>
86. Georgia Strait	3	Brood year (2007) escapements were below average. Survival rates appear average for most stocks. Preliminary 2011 returns are projecting to be similar to the pre-season forecast for most stocks. The exception is Cowichan which is estimated to be lower than the forecast and just below the escapement target. For 2012, a below average return is expected, however, chum forecasts remain highly uncertain. <i>(2011 Outlook Status:3)</i>
87. Coastal Areas 5/6	1/3	Extremely poor 2008 brood year escapement. Very poor chum returns in recent years. Kitimat enhanced return strength uncertain; depends on ocean survivals which have been very poor in recent years. <i>(2011 Outlook Status was 1/4)</i>

2012		
Species/Stock	Outlook status	Comments
88. QCI	2/3	Below average brood year escapements indicate limited opportunities. (2011 Outlook Status was: 2/3).
89. Skeena-Nass	1/2	Very poor returns expected from very poor brood year escapements. Recent survivals have been very poor. (2011 Outlook Status was 1/2).
90. Area-7-10	2/4	Brood year strength was very poor. Survivals have been poor in recent years. (2010 Outlook Status was 2/4).
91. Yukon	2/3	This stock group includes upper Yukon River populations (excluding Porcupine drainage stocks). Spawning escapements have exceeded targets since 2002 although severe conservation measures were required in Alaska and Canada in 2009. Escapements in 2007 and 2008, the principle brood years contributing to the 2012 run, were well over the minimum goal of 80,000 fish established for a rebuilt stock and the long term average of approximately 100,000 chum salmon. Even larger spawning escapements produced returns above replacement and much better than anticipated based on a stock-recruitment model, in 2011. Therefore, an above average run is also expected in 2012. (2011 Outlook Status: 2/3)
92. Porcupine (Yukon)	3	An Interim Management Escapement Goal of 22,000 to 49,000 was set for the Fishing Branch River for the 2008-2010 period based on revised analyses. This goal range is substantially less than the longstanding goal of 50,000 to 120,000. This IMEG has only been achieved once since it was established. Returns over the last five years have been well below expected. The escapements in 2007 and 2008, the principle brood years contributing to the 2012 run, were 32,000 and 19,000 respectively. If factors contributing to the weak returns persist, a below average run is again expected in 2012. (2011 Outlook Status was 3)
93. Taku	2	This stock appears to have stabilized at a low level since 1991, although little information is available. The in-river run abundance index for the primary brood year was below the recent 10-year average. Non-retention provisions are expected to continue. (2011 Outlook Status was 2)

Appendix 1. Species/stock groups and associated Conservation units.

Outlook Group Number	Outlook Group Name	Conservation Unit
1	Okanagan	SEL::Osoyoos
2	Early Stuart	SEL::Stuart-Early Stuart timing SEL::Takla/Trembleur-Early Stuart timing
3	Early Summer – North Thompson	SEL::Kamloops-Early Summer timing
4	Early Summer South Thompson	SEL::Shuswap Complex-Early Summer timing
5	Early Summer – Mid/Upper Fraser	SEL::Anderson-Early Summer timing SEL::Bowron-Early Summer timing SEL::Chilko-Early Summer timing SEL::Francois-Early Summer timing SEL::Fraser-Early Summer timing SEL::Indian/Kruger-Early Summer timing SEL::Nadina-Early Summer timing SEL::Nahatlatch-Early Summer timing SEL::Taseko-Early Summer timing
6	Early Summer – Lower Fraser	SEL::Chilliwack-Early Summer timing SEL::Pitt-Early Summer timing
7	Summer – Chilko	SEL::Chilko-Summer timing
8	Summer – Late Stuart	SEL::Stuart-Summer timing SEL::Takla/Trembleur-Summer timing
9	Summer – Nechako	SEL::Fraser-Summer timing
10	Summer – Quesnel	SEL::Mckinley-Summer timing SEL::Quesnel-Summer timing
11	Fall – Cultus	SEL::Cultus-Late timing
12	Fall – Portage	SEL::Seton-Late timing
13	Fall – South Thompson	SEL::Kamloops-Late timing SEL::Shuswap Complex-Late timing
14	Fall – Birkenhead	SEL::Lillooet-Late timing
15	Fall – Lower Fraser	SEL::Harrison-downstream migrating-Late timing SEL::Harrison-upstream migrating-Late timing SEL::Hayward-Late timing SEL::Kawkawa-Late timing
16	Somass	SEL::Great Central SEL::Sproat
17	Henderson	SEL::Henderson
18	WCVI-Other	SEL::Alice SEL::Canoe Creek SEL::Cecilia SEL::Cheewat SEL::Clayoquot SEL::Deserted SEL::Fairy SEL::Hesquiat SEL::Hobiton SEL::Jansen SEL::Kanim SEL::Kennedy SEL::Maggie SEL::Megin SEL::Muchalat SEL::Muriel SEL::Nitinat SEL::O'Connell SEL::Owossitsa SEL::Park River SEL::Power SEL::Sooke SEL::William/Brink
19	Area 11-13	SEL::Fulmore SEL::Georgie/Songhees SEL::Heydon SEL::Ida/Bonanza SEL::Kakweiken SEL::Loose SEL::Mackenzie SEL::Nahwitti SEL::Nimpkish SEL::Pack SEL::Phillips SEL::Quatse SEL::Schoen SEL::Shushartie

Outlook Group Number	Outlook Group Name	Conservation Unit
19	Area 11-13	SEL::Tom Browne SEL::Tzoonie SEL::Vernon SEL::Village Bay SEL::Woss
20	Sakinaw	SEL::Sakinaw
21	Area 7-10	SEL::Long SEL::Owikeno SEL::Owikeno-Late timing SEL::South Atnarko Lakes SEL::Wannock[Owikeno]
22	Coastal 3/6	SEL::Backland SEL::Banks SEL::Bloomfield SEL::Bolton Creek SEL::Bonilla SEL::Borrowman Creek SEL::Busey Creek SEL::Canoona SEL::Cartwright Creek SEL::Chic Chic SEL::Citeyats SEL::Club SEL::Curtis Inlet SEL::Dallain Creek SEL::Deer SEL::Devon SEL::Dome SEL::Douglas Creek SEL::Elizabeth SEL::Elsie/Hoy SEL::End Hill Creek SEL::Evelyn SEL::Evinrude Inlet SEL::Fannie Cove SEL::Freedra SEL::Hartley Bay SEL::Hevenor Inlet SEL::Higgins Lagoon SEL::Kadjusdis River SEL::Kainet Creek SEL::Kdelmashan Creek SEL::Keecha SEL::Kent Inlet Lagoon Creek SEL::Kenzuwash Creeks SEL::Keswar Creek SEL::Kildidt Creek SEL::Kildidt Lagoon Creek SEL::Kimsquit SEL::Kisameet SEL::Kitkiata SEL::Kitlope SEL::Koeye SEL::Kooryet SEL::Kunsoot River SEL::Kwakwa Creek SEL::Lewis Creek SEL::Limestone Creek SEL::Lowe/Simpson/Weir SEL::Mary Cove Creek SEL::Mcdonald Creek SEL::Mcloughlin SEL::Mikado SEL::Monckton Inlet Creek SEL::Namu SEL::Pine River SEL::Port John SEL::Powles Creek SEL::Price Creek SEL::Prudhomme SEL::Roderick SEL::Ryan Creek

Outlook Group Number	Outlook Group Name	Conservation Unit
22	Coastal 3/6	SEL::Salter SEL::Scoular/Kilpatrick SEL::Shawatlan SEL::Sheneeza Inlet SEL::Ship Point Creek SEL::Sockeye Creek SEL::Soda Creek SEL::Spencer Creek SEL::Stannard Creek SEL::Talamoosa Creek SEL::Tankeeah River SEL::Treneman Creek SEL::Tsimtack/Moore/Roger SEL::Tuno Creek East SEL::Tuno Creek West SEL::Tyler Creek SEL::Wale Creek SEL::Watt Bay SEL::West Creek SEL::Whalen SEL::Yaaklele Lagoon SEL::Yeo
23	Babine Lake Enhanced	SEL::Babine
24	Skeena Wild	SEL::Alastair SEL::Aldrich SEL::Asitika SEL::Atna SEL::Azuklotz SEL::Bear SEL::Clements SEL::Damshilgwit SEL::Dennis SEL::Ecstall/Lower SEL::Footsore SEL::Johanson SEL::Johnston SEL::Kitsumkalum SEL::Kitwancool SEL::Kluatantan SEL::Kluayaz SEL::Lakelse SEL::Leverson SEL::Maxan SEL::Mcdonell SEL::Morice SEL::Motase SEL::Nilkitkwa SEL::Sicintine SEL::Slamgeesh SEL::Spawning SEL::Stephens SEL::Sustut SEL::Swan SEL::Tahlo/Morrison
25	Nass	SEL::Bowser SEL::Bulkley SEL::Damdochax SEL::Fred Wright SEL::Kwinageese SEL::Meziadin SEL::Oweegeee
26	QCI	SEL::Ain/Skundale/Ian SEL::Awun SEL::Fairfax SEL::Jalun SEL::Marian SEL::Marie SEL::Mathers SEL::Mercer SEL::Skidegate SEL::Yakoun



Outlook Group Number	Outlook Group Name	Conservation Unit
27	Alsek	SEL::Blanchard SEL::Klukshu SEL::Neskatahin
28	Stikine-wild	SEL::Christina SEL::Chutine SEL::Tahltan
29	Taku-Wild	SEL::King Salmon SEL::Kuthai SEL::Little Trapper SEL::Tatsamenie
31	Late summer – South Thompson	CK::Shuswap River-summer timing-age 0.3 CK::South Thompson-Bessette Creek CK::South Thompson-summer timing-age 0.3 CK::South Thompson-summer timing-age 1.3
32	Spring – upper & mid-Fraser, North Thompson	CK::Middle Fraser River-spring timing CK::North Thompson-spring timing-age 1.3
33	Summer – upper & mid-Fraser, North Thompson	CK::Middle Fraser River-summer timing CK::North Thompson-summer timing-age 1.3
34	Spring – lower Thompson	CK::Lower Thompson-spring timing-age 1.2
35	Fall – lower Fraser natural	CK::Lower Fraser River-fall timing (white)
37	Early spring – lower Fraser	CK::Lower Fraser River-spring timing CK::Lower Fraser River-Upper Pitt
38	Summer – lower Fraser	CK::Lower Fraser River-summer timing CK::Maria Slough
40	WCVI-wild	CK::Nootka & Kyuquot CK::Northwest Vancouver Island CK::Port San Juan CK::Southwest Vancouver Island
41	Johnstone Strait area including mainland inlets	CK::Homathko CK::Klinaklini CK::Northeast Vancouver Island CK::South Coast-southern fjords
42	Georgia Strait Fall (wild and small hatchery operations)	CK::Boundary Bay CK::East Vancouver Island-Cowichan & Koksilah CK::East Vancouver Island-Goldstream CK::East Vancouver Island-Nanaimo & Chemainus-fall timing CK::South Coast-Georgia Strait
43	Georgia Strait Fall (large hatchery operations)	CK::East Vancouver Island-Qualicum & Puntledge-fall timing
44	Georgia Strait Spring and Summer	CK::East Vancouver Island-Nanaimo-spring timing CK::East Vancouver Island-Nanaimo-summer timing CK::East Vancouver Island-Puntledge-summer timing
45	Area 7-8	CK::Bella Coola-Bentinck CK::Dean River
46	Area 9-10	CK::Docee CK::Rivers Inlet CK::Wannock
47	Coastal Areas 3 to 6	CK::North & Central Coast-early timing CK::North & Central Coast-late timing CK::Portland Sound-Observatory Inlet-Lower Nass CK::Skeena Estuary
48	Nass	CK::Unuk CK::Upper Nass
49	QCI	CK::Haida Gwaii-East CK::Haida Gwaii-North
50	Skeena	CK::Ecstall CK::Gitnadoix CK::Kalum-early timing CK::Kalum-late timing CK::Lakelse CK::Lower Skeena CK::Middle Skeena CK::Middle Skeena-large lakes CK::Middle Skeena-mainstem tributaries CK::Sicintine CK::Upper Bulkley River CK::Upper Skeena CK::Zymoetz
51	Alsek	CK::Alsek
52	Stikine	CK::Stikine-early timing CK::Stikine-late timing

Outlook Group Number	Outlook Group Name	Conservation Unit
53	Taku	CK::Taku-early timing CK::Taku-late timing CK::Taku-mid timing
54	Yukon	CK::Big Salmon CK::Black CK::Middle Mainstem Yukon River CK::Nordenskiold CK::Northern Yukon River and tributaries CK::Old Crow CK::Pelly CK::Porcupine CK::Stewart CK::Upper Yukon River CK::White and tributaries CK::Yukon River-Teslin headwaters
55	Mid/upper-Fraser	CO::Fraser Canyon CO::Middle Fraser
56	Thompson	CO::Lower Thompson CO::North Thompson CO::South Thompson
57	Lower Fraser	CO::Lillooet CO::Lower Fraser-A CO::Lower Fraser-B
58	WCVI	CO::Clayoquot CO::Juan de Fuca-Pachena CO::West Vancouver Island
59	Area-12	CO::Homathko-Klinaklini Rivers CO::Nahwitti Lowland
60	Area-13 North	CO::East Vancouver Island-Johnstone Strait-Southern Fjords CO::Southern Coastal Streams-Queen Charlotte Strait-Johnstone Strait-Southern Fjords
61	Georgia Strait	CO::Boundary Bay CO::East Vancouver Island-Georgia Strait CO::Georgia Strait Mainland CO::Howe Sound-Burrard Inlet
62	Area-7-10	CO::Bella Coola-Dean Rivers CO::Rivers Inlet CO::Smith Inlet
63	Area 5/6	CO::Brim-Wahoo CO::Douglas Channel-Kitimat Arm CO::Hecate Strait Mainland CO::Mussel-Kynoch CO::Northern Coastal Streams
64	Area-3	CO::Lower Nass CO::Portland Sound-Observatory Inlet-Portland Canal CO::Skeena Estuary CO::Upper Nass
65	QCI-E (Area 2E)	CO::HG-East
66	QCI-N (Area 1)	CO::HG-Graham Island Lowlands
67	QCI-W (Area 2W)	CO::HG-West
68	Skeena	CO::Lower Skeena CO::Middle Skeena
69	Skeena – high Interior	CO::Upper Skeena
70	Alsek	CO::Alsek River
71	Stikine	CO::Lower Stikine
72	Taku	CO::Taku-early timing CO::Taku-late timing CO::Taku-mid timing
73	Yukon	CO::Porcupine
74	Fraser – Odd	PKO::Fraser River
75	Squamish - Odd	PKO::East Howe Sound-Burrard Inlet PKO::Georgia Strait
76	WCVI-Odd	PKE::Northwest Vancouver Island PKE::West Vancouver Island PKO::West Vancouver Island
77	Area-11/13- Even	PKE::Southern Fjords PKO::Nahwitti PKO::Southern Fjords
78	Georgia Strait-west	PKO::East Vancouver Island-Johnstone Strait
79	Georgia Strait – east	PKE::Georgia Strait
80	Area-7/10 Odd	PKE::Hecate Lowlands PKE::Hecate Strait-Fjords PKO::Homathko-Klinaklini-Smith-Rivers-Bella Coola-Dean

Outlook Group Number	Outlook Group Name	Conservation Unit
81	North Coast Areas-3/6 Odd	PKE::Middle-Upper Skeena PKE::Nass-Skeena Estuary PKE::Upper Nass PKO::Hecate Strait-Fjords PKO::Hecate Strait-Lowlands PKO::Lower Skeena PKO::Middle & Upper Skeena PKO::Nass-Portland-Observatory PKO::Nass-Skeena Estuary PKO::Upper Nass
82	QCI- Odd	PKE::East Haida Gwaii PKE::North Haida Gwaii PKE::West Haida Gwaii PKO::East Haida Gwaii PKO::North Haida Gwaii PKO::West Haida Gwaii
83	Fraser River	CM::Fraser Canyon CM::Lower Fraser
84	WCVI	CM::Northwest Vancouver Island CM::Southwest Vancouver Island
85	Johnstone Strait area and mainland inlets (Area-11-13)	CM::Bute Inlet CM::Loughborough CM::Northeast Vancouver Island CM::Southern Coastal Streams CM::Upper Knight
86	Georgia Strait	CM::Georgia Strait CM::Howe Sound-Burrard Inlet
87	Coastal Areas 5/6	CM::Douglas-Gardner CM::Hecate Lowlands CM::Mussel-Kynoch
88	QCI	CM::East HG CM::North Haida Gwaii CM::North Haida Gwaii-Stanley Creek CM::Skidegate CM::West Haida Gwaii
89	Skeena-Nass	CM::Lower Nass CM::Lower Skeena CM::Middle Skeena
90	Area-7-10	CM::Bella Coola River-Late CM::Bella Coola-Dean Rivers CM::Rivers Inlet CM::Smith Inlet CM::Spiller-Fitz Hugh-Burke CM::Wannock
91	Yukon	CM::Donjek-Kluane CM::Middle Yukon River CM::North Yukon River CM::Old Crow CM::Teslin CM::White River
92	Porcupine (Yukon)	CM::Porcupine River
93	Taku	CM::Taku

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