

PACIFIC REGION

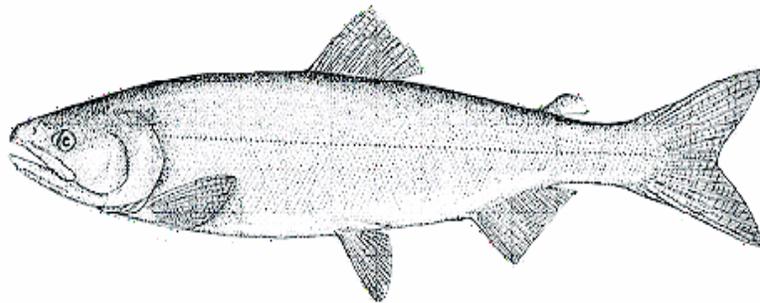
INTEGRATED FISHERIES

MANAGEMENT PLAN

SALMON

NORTHERN B.C.

JUNE 1, 2010 - MAY 31, 2011



Genus Oncorhynchus



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canada

This Integrated Fisheries Management Plan is intended for general purposes only. Where there is a discrepancy between the Plan and the Fisheries Act and Regulations, the Act and Regulations are the final authority. A description of Areas and Subareas referenced in this Plan can be found in the Pacific Fishery Management Area Regulations.

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DEPARTMENT CONTACTS

A more comprehensive list of contacts can be found online at:

www.pac.dfo-mpo.gc.ca/ops/fm/toppages/contacts_e.htm

24 Hour Recorded Information (Commercial)	Vancouver	(604) 666-2828
	Toll Free	(888) 431-3474

Pacific Salmon Commission (PSC) Office		(604) 684-8081
PSC Test Fisheries (Recorded, In-Season Information)		(604) 666-8200

Recreational Fishing:

www.pac.dfo-mpo.gc.ca/recfish/default_e.htm

Commercial Fishing:

www.pac.dfo-mpo.gc.ca/ops/fm/Commercial/index_e.htm

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Resource Manager - Recreational Fisheries
Salmon Management Biologist, North Coast
Resource Manager, AFS North Coast coastal
Resource Manager, AFS North Coast interior

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Melanie Anthony (250) 847-5108

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Karen Jeffrey (250) 627-3413

INDEX OF WEB-BASED INFORMATION

FISHERIES AND OCEANS CANADA - GENERAL INFORMATION

Main Page (www.dfo-mpo.gc.ca/) Our Vision, Latest News, Current Topics

Acts, Orders, and Regulations (www.dfo-mpo.gc.ca/communic/policy/dnload_e.htm)

Examples are: *Canada Shipping Act, Coastal Fisheries Protection Act, Department of Fisheries and Oceans Act, Financial Administration Act, Fish Inspection Act, Fisheries Act, Fisheries Development Act, Fishing and Recreational Harbours Act, Freshwater Fish Marketing Act, Navigable Waters Protection Act, Oceans Act.*

Reports and Publications (www.dfo-mpo.gc.ca/publication_e.htm)

Examples are: Administration and Enforcement of the Fish Habitat Protection and Pollution Prevention Provisions of the *Fisheries Act*, Audit and Evaluation Reports - Audit and Evaluation Directorate Canadian Code of Conduct for Responsible Fishing Operations, Departmental Performance Reports, Fisheries Research Documents, Standing Committee's Reports and Government responses, Sustainable Development Strategy

Waves (<http://inter01.dfo-mpo.gc.ca/waves2/index.html>)

Fisheries and Oceans Canada online library catalogue

Pacific Salmon Treaty (www.psc.org/about_treaty.htm)

Background information; full text of the treaty

PACIFIC REGION - GENERAL

Main Page (www.pac.dfo-mpo.gc.ca/)

General information, Area Information, Latest News, Current topics

Policies, Reports and Programs

(www.pac.dfo-mpo.gc.ca/species/salmon/policies/default_e.htm)

Reports and Discussion Papers, New Directions Policy Series, Agreements

Oceans Program (www.pac.dfo-mpo.gc.ca/oceans/default_e.htm)

Integrated Coastal Management; Marine Protected Areas; Marine Environmental Quality; Oceans Outreach; *Oceans Act*

PACIFIC REGION - FISHERIES AND AQUACULTURE MANAGEMENT

Main Page (www.pac.dfo-mpo.gc.ca/ops/fm/fishmgmt_e.htm)

Commercial Fisheries, New and Emerging Fisheries, Recreational Fisheries, Maps, Notices and Plans

Aboriginal Fisheries Strategy (www.pac.dfo-mpo.gc.ca/tapd/afs_e.htm)

Aboriginal Fisheries Strategy (AFS) principles and objectives; AFS agreements; Programs; Treaty Negotiations

Recreational Fisheries (www.pac.dfo-mpo.gc.ca/recfish/default_e.htm)

Fishery Regulations and Notices, Fishing Information, Recreational Fishery, Policy and Management, Contacts, Current B.C. Tidal Waters Sport Fishing Guide and Freshwater Supplement; Rockfish Conservation Areas, Shellfish Contamination Closures; On-line Licensing

Commercial Fisheries (www.pac.dfo-mpo.gc.ca/ops/fm/Commercial/index_e.htm)

Links to Groundfish, Herring, Salmon, Shellfish and New and Emerging Fisheries homepages; Selective Fishing, Test Fishing Information, Fishing Areas, Canadian Tide Tables, Fishery Management Plans, Commercial Fishery Notices (openings and closures)

Fisheries Notices

(www-ops2.pac.dfo-mpo.gc.ca/fns_reg/index.cfm)

Want to receive fishery notices by e-mail? If you are a recreational sport licence vendor, processor, multiple boat owner or re-distribute fishery notices, register your name and/or company at the web-site address above. Openings and closures, updates, and other relevant information regarding your chosen fishery are sent directly to your registered email. It's quick, it's easy and it's free.

Integrated Fishery Management Plans

(www-ops2.pac.dfo-mpo.gc.ca/xnet/content/MPLANS/MPlans.htm)

Current Management Plans for Groundfish, Pelagics, Shellfish (Invertebrates), Minor Finfish, Salmon; sample Licence Conditions; Archived Management Plans

Salmon Test Fishery - Pacific Region

(www-ops2.pac.dfo-mpo.gc.ca/xnet/content/salmon/testfish/default.htm)

Definition, description, location and target stocks

Licensing (www.pac.dfo-mpo.gc.ca/ops/fm/Licensing/Default_e.htm)

Contact information; Recreational Licensing Information, Commercial Licence Types, Commercial Licence Areas, Licence Listings, Vessel Information, Vessel Directory, Licence Statistics and Application Forms

Salmon (www.pac.dfo-mpo.gc.ca/species/salmon/default_e.htm) – NEW!!

Salmon Facts; Salmon Fisheries; Enhancement and Conservation; Research and Assessment; Consultations; Policies, Reports and Agreements; Glossary of Salmon Terms

Fraser River / B.C. Interior Area Resource Management and Stock Assessment

(www.pac.dfo-mpo.gc.ca/fraserriver/)

Contact information; Test fishing and survey results (Albion, creel surveys, First Nations); Fraser River sockeye and pink escapement updates; Important notices; Recreational fishing information

North Coast Resource Management (www.pac.dfo-mpo.gc.ca/northcoast/default.htm)

First Nations fisheries, Recreational fisheries; Commercial salmon and herring fisheries; Skeena Tye test fishery; Counting facilities; Post-season Review; Contacts

Yukon/Transboundary Rivers Area Main Page

(www.pac.dfo-mpo.gc.ca/yukon/default_e.htm)

Fisheries Management; Recreational fisheries; Habitat; Fisheries Management; Licensing; Contacts

PACIFIC REGION – OCEANS, HABITAT AND ENHANCEMENT

Main Page (www-heb.pac.dfo-mpo.gc.ca/default_e.htm)

Publications (legislation, policy, guidelines, educational resources, brochures, newsletters and bulletins, papers and abstracts, reports); GIS maps and Data (Habitat inventories, spatial data holdings, land use planning maps); Community involvement (advisors and coordinators, educational materials, Habitat Conservation and Stewardship Program, projects, Streamtalk)

PACIFIC REGION - POLICY AND COMMUNICATIONS

Main Page (www-comm.pac.dfo-mpo.gc.ca/)

Media Releases; Salmon Updates, Backgrounders, Ministers Statements, Publications; Contacts

Consultation Secretariat

(www-comm.pac.dfo-mpo.gc.ca/pages/consultations/consult_e.htm)

Consultation Calendar; Policies; National; Partnerships; Fisheries Management, Oceans, Science and Habitat and Enhancement Consultations; Current and Concluded Consultations

Publications Catalogue

(www-comm.pac.dfo-mpo.gc.ca/pages/NPubCatalogue/pubs_e.asp)

Listing of information booklets and fact sheets available through Communications branch

Species at Risk Act (SARA)

(www.pac.dfo-mpo.gc.ca/sara/default_e.htm)

SARA species; SARA permits; public registry; enforcement; Stewardship projects; Consultation; Past Consultation; First Nations; Related Sites; For Kids; News Releases

PACIFIC REGION - SCIENCE

Main Page (http://www-sci.pac.dfo-mpo.gc.ca/sci/default_e.htm)

Science divisions; Research facilities; PSARC; International Research Initiatives

Salmon and Freshwater Ecosystems (SAFE)

(www-sci.pac.dfo-mpo.gc.ca/mehsd/index_e.htm)

Research; Research Sites; Research Programs; Fraser River Environmental Watch Program;
Publications and Reports; Photo Gallery; Pink Salmon/Sea Lice Monitoring Program

GLOSSARY

A more comprehensive glossary is available online at:

http://www.pac.dfo-mpo.gc.ca/species/salmon/salmon_glossary/glossary_e.htm

AABM	Aggregate Abundance Based Management
AAROM	Aboriginal Aquatic Resource and Oceans Management
AHC	Area Harvest Committee
AFS	Aboriginal Fisheries Strategy
ATP	Allocation Transfer Program
BKD	Bacterial Kidney Disease
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CPUE	Catch per unit effort
CSAB	Commercial Salmon Advisory Board
CWT	Coded wire tag
ESSR	Excess Salmon to Spawning Requirements
FRP	Fraser River Panel
FSC	Food, social and ceremonial
IHPC	Integrated Harvest Planning Committee
ISBM	Individual Stock Based Management
ITQ	Individual Transferable Quota
PICFI	Pacific Integrated Commercial Fisheries Initiative
PSARC	Pacific Scientific Advice Review Committee
PSC	Pacific Salmon Commission
PST	Pacific Salmon Treaty
RCA	Rockfish Conservation Area
SARA	Species at Risk Act
SEP	Salmonid Enhancement Program
SFAB	Sport Fishing Advisory Board
TAC	Total allowable catch
WCVI	West Coast Vancouver Island
WSP	Wild Salmon Policy (<i>Canada's Policy for Conservation of Wild Pacific Salmon</i>)

MANAGEMENT CHANGES FOR 2010/2011

(These are only some of the changes for this year. For more details, please refer to appropriate sections.)

Area 3 gill net – Subarea 3-12 will be closed to the retention and possession of chum salmon. Any vessel that has chum on board from another area must unload these from their vessel prior to fishing in subarea 3-12.

Skeena River recreational sockeye fishery – rules have been changed for this fishery, including starting the season with the fishery closed, then basing any opening decision on run size and projection, for a possible July 15 starting date.

North and Central Coast coho saw good returns in 2009. If it becomes evident that returns in 2010 are similar to 2009, then some management restrictions may be eased, including possible retention of coho by nets, and the re-opening of some troll areas in the Central Coast.

The Nass River demonstration commercial sockeye inland fishery is included in the Area 3 portion of this IFMP. This fishery took place by the Gitanyow for 1500 sockeye in 2009.

Sockeye will be non-retention and non-possession in the troll fishery for 2010, unless the Skeena River sockeye returns in commercially harvestable numbers.

1. INTRODUCTION

This 2010/2011 Northern B.C. Salmon IFMP covers the period from June 1, 2010 to May 31, 2011 for First Nations, recreational and commercial fisheries directed towards Pacific salmon in the north and central coast areas of British Columbia (B.C.). The plan encompasses tidal and non-tidal waters from Cape Caution north to the B.C./Alaska boundary. The tidal waters within this area are denoted as Management Areas 1 to 10 inclusive, 101 to 110 inclusive, and 130 and 142. For the purposes of this IFMP, non-tidal waters are defined as the watersheds that contain anadromous salmon and flow into Areas 1 to 10. Pacific salmon species covered in this plan include sockeye, coho, pink, chum and chinook salmon.

This plan describes the management of Pacific salmon fisheries in northern B.C. and the factors which influence decision-making.

This plan incorporates the results of consultation and input from the Integrated Harvest Planning Committee (IHPC), north coast First Nations, north coast recreational and commercial advisors, and environmental non-government organizations (ENGOS).

Fisheries and Oceans Canada will continue to consult with First Nations, recreational, and commercial fishers to further co-ordinate fishing activities in 2010. Further consultations will occur as updated forecast information becomes available or when observed in-season returns are not covered by the decision guidelines.

Details about on-going policy development and other departmental initiatives can be found on the Fisheries and Oceans Canada website. For more specific information, refer to the Index of Web Based Information section of this document.

2. GENERAL CONTEXT

2.1. Background

Departmental policy development related to the management of fisheries is guided by a range of considerations that include legislated mandates, judicial guidance and international and domestic commitments that promote biodiversity and a precautionary, ecosystem-based approach to the management of marine resources. Each of the policies were developed with considerable consultation from all those with an interest in salmon management. While the policies themselves are not subject to annual changes, implementation details are continually refined where there is general support.

2.2. Policy Framework for the Management of Pacific Salmon Fisheries

Salmon management programs in 2010 will continue to be guided by policy and operational initiatives adopted over the past several years. These include; *Canada's Policy for Conservation of Wild Pacific Salmon (WSP)*, *An Allocation Policy for Pacific Salmon*, Pacific Fisheries Reform, *A Policy for Selective Fishing*, *A Framework for Improved Decision Making in the Pacific Salmon Fishery*, the Integrated Harvest Planning Committee and Pacific Region Fishery Monitoring and Reporting Framework.

Canada's Policy for Conservation of Wild Pacific Salmon (also called the Wild Salmon Policy) sets out the vision regarding the importance and role of Pacific Wild salmon as well as a strategy for their protection. More information on this can be found in Section 2.3.1 of this plan or on the internet at <http://www.pac.dfo-mpo.gc.ca/publications/pdfs/wsp-eng.pdf>.

An Allocation Policy for Pacific Salmon, announced in 1999, contains principles to guide the management and allocation of the Pacific salmon resource between First Nations, commercial and recreational harvesters, and forms the basis for general decision guidelines outlined in Section 4.1 of this plan.

Pacific Fisheries Reform, announced by the Department in April of 2005, provides a vision of a sustainable fishery where the full potential of the resource is realized, Aboriginal rights and title are respected, there is certainty and stability for all, and fishery participants share in the responsibility of management. Future treaties with First Nations are contemplated, as is the need to be adaptive and responsive to change. This policy direction provides a framework for improving the economic viability of commercial fisheries, and to addressing First Nations aspirations with respect to FSC and commercial access and involvement in management. The "Vision for Recreational Fisheries in BC" was approved January 2010 by DFO, the Sport Fishing Advisory Board (SFAB) and the Province of B.C. Guided by this Vision, an action and implementation plan will be developed to build upon the collaborative process established by the Federal and Provincial Governments and the SFAB. The document can be found on the DFO Pacific Region website at <http://www.pac.dfo-mpo.gc.ca/consultation/fisheries-peche/smon/sfab-ccps/docs/rec-vision.pdf>.

In May 1999, the Department released *A Policy for Selective Fishing in Canada's Pacific Fisheries*. Under the Department's selective fishing initiative, harvester groups have experimented with a variety of methods to reduce the impact of fisheries on non-target species, with a number of measures reaching implementation in fisheries.

Consultative elements of an Improved Decision Making discussion paper have been implemented through establishment of the Consultation Secretariat, which works to improve the flow of information between stakeholders and the Department. Up-to-date information pertaining to on-going consultations can be found on the Secretariat's website at: <http://www.pac.dfo-mpo.gc.ca/consultation/index-eng.htm>.

The Integrated Harvest Planning Committee (IHPC) for salmon is comprised of First Nations, recreational and commercial interests (as represented by the Sport Fishing Advisory Board and the Commercial Salmon Advisory Board) and the Marine Conservation Caucus (representing a coalition of "environmental" organizations). This committee is recognized to be the primary source of stakeholder input into Salmon Integrated Fisheries Management Plans.

Further information on salmon consultations, including terms of reference, membership, meeting dates and records of consultation can be found on the Salmon Consultation website at: <http://www.pac.dfo-mpo.gc.ca/consultation/fisheries-peche/smon/ihpc-cpip/index-eng.htm>.

In 2002, the Department released the Pacific Region Fishery Monitoring and Reporting Framework. This framework will be used as the main reference tool during coast-wide consultations to identify necessary improvements in fishery monitoring and catch reporting systems. This framework outlines the department's goals, objectives and requirements in catch monitoring.

In February 2009, the British Columbia Supreme Court (BCSC) ruled that the activity of aquaculture is a fishery which falls under exclusive federal jurisdiction pursuant to sub-section 91(12) of the *Constitution Act, 1867* - Sea Coast and Inland Fisheries and, in effect, struck down substantial portions of the provincial regulatory regime governing aquaculture. In light of the BCSC decision, it is clear that only the federal government has the authority to establish the comprehensive regulatory regime needed to ensure that the industry in British Columbia is appropriately regulated and managed. In response to the BCSC decision, the Minister of Fisheries and Oceans has confirmed the commitment of the Government of Canada to establish a federal regulatory regime governing aquaculture pursuant to the *Fisheries Act* in the geographic area of British Columbia.

As part of developing a new regulation, there will be consultations with sector stakeholders and, following pre-publication in Canada Gazette Part I, a 30 to 60-day review period during which further feedback from stakeholders will be taken into account.

The BCSC has given DFO until December 18, 2010 to develop and implement a federal aquaculture regulation for BC.

As part of the new aquaculture regulatory framework in British Columbia, DFO will develop Integrated Aquaculture Management Plans (IAPM) modelled after the existing wild fisheries IFMP. There will be a period of extensive consultations with sector stakeholders to specifically address IAMPs.

For further information refer to the following web link:

<http://www.dfo-mpo.gc.ca/aquaculture/aquaculture-eng.htm>

On May 1, 2004, Fisheries and Oceans Canada (DFO) introduced a new national policy entitled, *Access to Wild Aquatic Resources as it Applies to Aquaculture*. For the purposes of this policy, wild aquatic resources include both wild salmon, defined in 'Canada's Policy for Conservation of Wild Pacific Salmon' and hatchery stocks managed by DFO.

Aquaculturists require access to the resource to conduct their aquaculture operations (for example for broodstock collection). This policy is consistent with the commitment taken by DFO in its "Aquaculture Policy Framework" introduced in 2002 to provide aquaculturists with predictable, equitable, and timely access to the aquatic resource base.

This policy provides the aquaculture industry with access to stocks in a manner that is consistent with the department's sustainable management of those stocks. Access requests for aquatic resources will be considered by the regional aquaculture offices in collaboration with the ongoing fisheries management planning process.

Link to the Access Policy:

http://www.dfo-mpo.gc.ca/Aquaculture/ref/AWAR_e.pdf

Link to Aquaculture Policy Framework:

<http://www.dfo-mpo.gc.ca/aquaculture/ref/APF-PAM-eng.htm>

2.3. Conservation

Given the importance of Pacific salmon to the cultural and socio-economic fabric of Canada, conservation of these stocks is of the utmost importance. In order to achieve this, specific actions are taken to not only ensure protection of fish stocks, but also freshwater and marine habitats. Protecting a broad range of stocks is the most prudent way of maintaining biodiversity and genetic integrity.

Management of a natural resource like salmon has a number of inherent risks. Uncertain forecasting, environmental and biological variability as well as changes in harvester behaviour all add risks that can threaten conservation. Accordingly, management actions will be precautionary and risks will be specifically evaluated. Conservation of salmon stocks is the best approach to reduce risk of long term negative impacts to these stocks and the social and economic values that are derived from them.

2.3.1. Wild Salmon Policy

The WSP, which was approved in 2005, sets out a process for the protection, preservation and rebuilding of wild salmon and their marine and freshwater ecosystems for the benefit of all Canadians. The goal of Canada's Wild Salmon Policy (WSP) is to restore and maintain healthy and diverse salmon populations and their habitats for the benefit and enjoyment of the people of Canada in perpetuity. To achieve that goal, the WSP requires that biological status be assessed for all geographically, ecologically, and genetically distinct populations, or Conservation Units (CUs). Key elements of the policy include:

- Conservation is the highest priority for resource management;
- Ecosystem considerations will be incorporated in decision making;
- An inclusive planning process will be established to ensure objectives of the WSP are met and choices about salmon conservation reflect societal values; and
- Conservation goals will be clearly defined and progress in achieving them will be publicly evaluated.

Additional details regarding WSP and its implementation can be found at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/species-especes/salmon-saumon/wsp-pss/index-eng.htm>

2.3.2. Species at Risk Act

The *Species at Risk Act* (SARA) came into force in 2003. The purposes of the *Act* are “to prevent wildlife species from being extirpated or becoming extinct, and to provide for the recovery of a wildlife species that are extirpated, endangered or threatened as a result of human activity and to manage species of special concern to prevent them from becoming endangered or threatened”.

Endangered, threatened, and special concern marine species in Pacific region currently listed under Schedule I of SARA are:

1. Blue whale – Endangered
2. Killer whale southern resident population – Endangered
3. Killer whale northern resident population – Threatened
4. Killer whale transient population – Threatened
5. Leatherback turtle – Endangered
6. North Pacific right whale – Endangered
7. Sei whale – Endangered
8. Northern Abalone – Threatened¹
9. Fin whale – Threatened
10. Humpback whale – Threatened
11. Sea otter – Special Concern
12. Green sturgeon – Special Concern
13. Grey whale – Special Concern
14. Harbour porpoise – Special Concern

¹ In 2009, COSEWIC re-assessed Northern Abalone as an Endangered. Northern Abalone is currently in the listing process, proposed to be re-listed as Endangered replacing the current Threatened listing.

15. Killer whale offshore population – Special Concern²
16. Olympia oyster – Special Concern
17. Steller sea lion – Special Concern
18. Longspine Thornyhead – Special Concern
19. Roughey Rockfishes Types I & II – Special Concern
20. Sixgill Shark – Special Concern
21. Soupfin Shark (Tope) – Special Concern

In addition to the existing prohibitions under the *Fisheries Act*, it is illegal to kill, harm, harass, capture, take, possess, collect, buy, sell or trade any listed endangered or threatened animal or any part or derivative of an individual. These prohibitions apply unless a person is authorized, by a permit, licence or other similar document issued in accordance with SARA, to engage in an activity affecting the listed species or the residences of its individuals. Species listed as special concern are not included in these prohibitions.

Listing

Committee on the Status of Endangered Wildlife in Canada (COSEWIC) designated marine or anadromous species in Pacific region currently under consideration for listing under Schedule I of SARA are:

1. Basking shark – Endangered
2. Bocaccio – Threatened
3. Canary rockfish - Threatened
4. Okanagan Chinook – Threatened
5. Yelloweye rockfish (inside and outside waters) – Special Concern
6. Killer whale offshore population – Threatened
7. Northern Abalone – Endangered

The formal SARA legal listing process begins when the Minister of Environment issues a response statement, detailing how he intends to proceed with the COSEWIC species designations. Response statements can be found on the SARA Public Registry website at: http://www.sararegistry.gc.ca/sar/listing/response_e.cfm.

Listing decisions are likely to take place in spring 2010 for Basking Shark, and Okanagan Chinook. Listing decisions for Bocaccio, Canary Rockfish, Yelloweye Rockfish (inside and outside waters), Offshore Killer Whales and Northern Abalone are likely to take place in spring 2011.

COSEWIC Assessments – For a full list of the 2009 assessment results, please visit http://www.cosewic.gc.ca/rpts/Detailed_Species_Assessments_e.html. In April 2010,

² In 2008, COSEWIC re-assessed Offshore Killer Whales as Threatened. Offshore Killer Whales are currently in the listing process, proposed to be re-listed as Threatened, replacing the current Special Concern listing.

COSEWIC will be assessing the status of yellowmouth rockfish, loggerhead sea turtle and spiny dogfish. Assessments produced by COSEWIC help inform the Minister of Environment's decision on whether to list species under Schedule I of SARA.

White Sturgeon

In August of 2006, four populations of white sturgeon (Upper Fraser, Upper Columbia, Nechako, and Kootenay River) were listed as Endangered under SARA, while two populations (Lower Fraser and Mid Fraser) were not. Only those populations listed under SARA are subject to the general prohibitions.

A SARA recovery strategy is currently being developed for the four listed populations, which will set a recovery goal and supporting objectives, and will also incorporate management activities for the two non-listed populations.

Humpback Whales

In 2003, the North Pacific Humpback Whale population was assessed by COSEWIC, and was subsequently listed as Threatened under SARA in January 2005.

A SARA recovery strategy is currently under development. Threats identified in the strategy include entanglement and vessel strike. The draft recovery strategy will undergo regional consultations in spring 2010 and will be available on the DFO SARA Consultation website, <http://www.pac.dfo-mpo.gc.ca/consultation/sara-lep/index-eng.htm>.

Salmon

Three populations of salmon (Cultus Lake sockeye, Sakinaw Lake sockeye, and Interior Fraser coho) have been designated as Endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and one has been designated as Threatened (Okanagan Chinook). Following extensive public and stakeholder consultation processes for each population, the Minister of Environment, in consultation with the Minister of Fisheries and Oceans, did not include these populations on Schedule I of SARA. However, recovery efforts are continuing for each population.

DFO, in cooperation with the Interior Fraser Coho Recovery Team, have developed the *Conservation Strategy for Coho Salmon, Interior Fraser River Populations*. This strategy is an integral tool in effecting recovery of these unique coho populations. It is a science-based document that describes the species' biology, habitats and threats. The strategy also identifies a recovery goal, with accompanying principles and objectives designed to guide activities to achieve recovery. To view the conservation strategy, please visit http://www.pac.dfo-mpo.gc.ca/species/salmon/InteriorFraserCohoCS/default_e.htm.

Conservation Strategies for Cultus and Sakinaw Lake sockeye have also been finalized, and can be viewed at:

http://www.pac.dfo-mpo.gc.ca/species/salmon/cultus_sockeye_cs/default_e.htm and http://www.pac.dfo-mpo.gc.ca/species/salmon/sakinaw_sockeye_cs/default_e.htm.

Specific conservation objectives for these and other stocks are laid out in Section 4.

2.3.3. Northern and Southern Resident Killer Whales

Northern resident killer whales (KW) are listed as Threatened and southern resident killer whales are listed as Endangered under SARA. There are currently 87 southern residents and approximately 250 northern residents. The final Recovery Strategy for Northern and Southern Resident Killer Whales in Canada was finalized in March 2008, and can be viewed at http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=1341. Critical habitat areas were delineated and four key anthropogenic threats were identified: quality and abundance of prey, contaminants, physical disturbance, and acoustic disturbance.

Prey:

Ongoing diet research continues to indicate that resident killer whales feed primarily on chinook salmon during the summer and fall months. The summer and fall spatial and temporal distribution of resident killer whales in coastal waters appears to be associated with the timing and abundance of chinook salmon in coastal areas. Winter and spring feeding and distribution of killer whales are less well understood. Research indicates that chinook salmon represents about 90% of the resident killer whales diet in their SARA designated critical habitat during the months of July and August based on genetic sampling of scales and tissue recovered from feeding events. Chinook are available year round and have a high fat content and caloric value. Research indicates that there is a significant correlation between chinook salmon abundance and killer whales birth rates and survival. Accordingly, management actions as described in the IFMP are intended to protect and conserve a healthy chinook salmon resource for sustainable harvests and to ensure an adequate supply of prey for resident killer whales. Future research and monitoring may demonstrate the need to implement additional management actions to support the recovery of resident killer whales.

The IFMP reflects the renewed Pacific Salmon Treaty signed in January 2009. The Pacific Salmon Treaty is intended to ensure successful chinook conservation and fishery management measures implemented under the Treaty are intended to recover, maintain and protect salmon stocks in Canada and the U.S. A comprehensive, scientific, abundance-based framework is used to manage all chinook fisheries subject to the Treaty which sets a numerical limit for catch based on abundance of chinook. The measures in the renewed Treaty will further reduce the West Coast of Vancouver Island Canadian total allowable chinook catch by 30% and the South East Alaska total allowable chinook catch by 15% in 2009. These measures will reduce the chinook harvest in these areas by approximately 101,000 chinook (39K in SEAK and 62K in WCVI AABM fisheries) in the 2009/2010 chinook year compared with pre-renewal arrangements. In addition, the status of chinook populations is monitored and a range of additional harvest reductions are outlined under the Treaty if specific chinook stocks or stock groups decline below specified levels to protect and conserve biological diversity and production under a range of conditions. The IFMP also include domestic conservation measures including harvest reductions in a range of First Nation, recreational and commercial fisheries to protect specific stocks of

concern including West Coast of Vancouver Island, Lower Georgia Strait, and Fraser River chinook populations. All of these chinook measures are intended to protect and conserve a healthy and productive chinook resource with sustainable harvests and ecosystem benefits to resident killer whales and other species.

Contaminants:

There are numerous chemical and biological pollutants that may directly or indirectly impact resident killer whale, ranging from persistent organic pollutants to antibiotic resistant bacteria and exotic species. Recent studies indicate resident killer whales have high levels of some contaminants with males having the highest levels.

Disturbance:

All cetaceans including resident killer whales are being subjected to increasing amounts of disturbance from vessels, aircraft and anthropogenic noise. Industrial activities such as: dredging, pile driving, construction, seismic testing, military sonar and other vessel use of low and mid-frequency sonars impact the acoustic environment. The means by which physical and/or acoustic disturbance can affect resident killer whales at both the individual and population level are not well understood, but may depend on whether the disturbance is chronic or acute.

The Marine Mammals Regulations under the *Fisheries Act* and prohibitions under *SARA* specifically prohibit the disturbance and harm of killer whales. Guidelines for marine mammal viewing have also been developed. To avoid disturbing killer whales and other marine mammals, fish harvesters are advised to follow the *Be Whale Wise (BWW); Marine Wildlife Guidelines for Boaters, Paddlers and Viewers*, which are available from local Fishery Offices or on-line at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/species-especies/mammals-mammiferes/index-eng.htm>

Non-compliance with the *Be Whale Wise* Guidelines may lead to charges under the *Marine Mammal Regulations* and/or *SARA*.

Critical Habitat

In the March 2008 Recovery Strategy for the northern and southern resident killer whales, their critical habitat was defined. On February 23, 2009 a *Species at Risk Act* Section 58(4) Order by the Ministers of Fisheries and Oceans, and Environment was posted to protect that critical habitat from destruction. These actions include enforcement, protection, management, research, stewardship and public education directed towards the threats to critical habitat identified in the Recovery Strategy i.e. quality and abundance of prey, contaminants, and physical and acoustic disturbances. These actions are undertaken by multiple DFO sectors. The outcomes will inform further actions.

2.4. Marine Mammal Management Plans

DFO is currently developing *SARA* Management Plans for four marine mammals listed as Special Concern: offshore killer whale, harbour porpoise, grey whale, and Steller sea lion.

These plans, which will be posted on the SARA Registry for public comment in 2010, describe species biology, distribution, and threats, as well as recommending potential actions to protect these species, and mitigate impacts from key threats. Several key threats to these species include oil spills, chemical pollution, acute noise stress, reduced prey availability, habitat degradation and fishing gear entanglement.

Fisheries Depredation

Depredation (the removal of fish from fishing gear) by killer whales has been reported by groundfish longline, salmon troll, and recreational harvesters in BC.

Depredation is a learned behaviour that can spread throughout whale social groups and once established is impossible to eliminate. It is critical that BC harvesters do not encourage this learning by allowing whales to associate obtaining fish with fishing activity. Encouraging this behaviour will quickly lead to significant losses for commercial and sports fish harvesters.

The most important approach to prevent this from spreading is by NOT feeding whales directly or indirectly and not hauling gear in the vicinity of killer whales and sperm whales. Typically killer whales pass quickly through an area allowing fishing to resume. It is also recommended that you advise other fish harvesters in the area if you encounter depredation. Additional tips on avoiding depredation events can be found in the DFO Marine Mammal Bulletin #2.

If you experience depredation by whales, please report the incident by email MarineMammals@pac.dfo-mpo.gc.ca or by calling (250) 756-7253. Reporting all incidents will assist DFO and fish harvesters in understanding this problem and help in developing strategies to avoid it.

Marine Mammal Incident Response Program and Marine Mammal Sightings Network

Marine mammals incidents comprise a range of occurrences which may include; live strandings, dead, sick or injured animals, entanglements or potential violations (disturbance, harm or harassment).

To report a marine mammal incident, including violations, call DFO's Observe Record, Report (ORR) line at 1-800-465-4336. All entanglement or by-catch of marine mammals must be reported by current log book/reporting requirements.

Observations of orphaned seal pups may be reported to the Vancouver Aquarium Marine Mammal Rescue and Rehabilitation (604) 258-SEAL (7325). In many cases seal pups are not truly orphaned, and staff at these facilities will assess the circumstances.

To report a sightings of a cetacean (whale, dolphin, or porpoise) or sea turtles contact the BC Cetacean Sightings Network as soon as possible by phone at 1-866-I SAW ONE (472-9663) or www.vanaqua.org . You may also participate in a formalized logbook program by calling or contacting the Network.

More information on COSEWIC, SARA, and the listing process can be found at:

www.cosewic.gc.ca/

www.dfo-mpo.gc.ca/species-especes/home_e.asp

www.sararegistry.gc.ca/

Contacts for marine mammal inquiries:

Fisheries and Oceans Canada Contacts:

MarineMammals@pac.dfo-mpo.gc.ca

Paul Cottrell (604) 666-9965

John Ford (250) 729-8375

2.5. EC Assessing the Impact of Salmon Gill Net Fishing on local Seabird Populations

A number of seabird species around the world have experienced significant population declines in recent years; fisheries by-catch has been identified as one of the factors contributing to declines in some species.

Seabird entanglements have been documented in all types of fisheries. Seabird by-catch has been reported in BC as well as neighboring Alaska and Washington State fisheries. However, the extent of seabird entanglements in the present day BC salmon gill net fishery as well as its impact on local seabird populations is not well documented.

Environment Canada is responsible for ensuring that fishing activities do not compromise bird conservation. Environment Canada is also drafting new regulations under the *Migratory Birds Convention Act* to manage incidental take of birds unintentionally destroyed during the operation of legitimate activities such as forestry, mining, agriculture, electrical generation and transmission, fishing, etc. Consequently, Environment Canada is committed to determining how, when and where gill net fishing may impact local seabirds and identifying potential ways to mitigate impacts.

Environment Canada, in collaboration with DFO, First Nations, non-government organizations, and other coastal communities, has initiated a multi-faceted program to answer this question. Specifically,

- a) We will estimate the current level of incidental take by collecting dead seabirds submitted by fishers and collaborators and conduct post-mortem examinations to confirm cause of death. Fishing effort and net parameter details will be collected to better link seabird by-catch with specific fishing activities. This data will provide seabird by-catch estimates which reflect present day seabird populations and fishing effort.
- b) During fishery openings in the Prince Rupert and Port Hardy areas, Environment Canada biologists will conduct surveys to record seabird density and activity in close proximity to fishing vessels. Local fishers will be provided the opportunity to provide us geo-referenced locations of important fishing areas. Aerial surveys may be conducted in collaboration with DFO over-flights during fishing openings. This data will provide a better understanding of the interaction between local seabirds and fishing activities.

- c) Environment Canada researchers will monitor seabird productivity at globally significant Rhinoceros Auklet colonies at Lucy Island, Pine Island and Triangle Islands. Satellite transmitters will be mounted on individuals to record preferred at-sea foraging areas.
- d) DFO researchers will use DNA fingerprinting to determine the seabird colonies from which by-catch mortalities originated.
- e) Environment Canada will develop a spatial-temporal analysis model to determine how, when and where fishing may impact local seabirds.

To assist us with our efforts, we would appreciate obtaining any birds found or reported dead in gill nets and/or found floating dead on fishing grounds. Please report all incidents to our 24 hour reporting line: 1-866-431-BIRD (2473).

For additional information, please contact: Laurie Wilson, Wildlife Toxicologist, EC – Canadian Wildlife Service, Delta, BC. Tel: (604) 940-4679 or email: laurie.wilson@ec.gc.ca.

2.6. First Nations and Canada’s Fisheries Framework

The Government of Canada’s legal and policy frameworks identify a special obligation to provide First Nations the opportunity to harvest fish for food, social and ceremonial purposes. The Aboriginal Fisheries Strategy (AFS) was implemented in 1992 to address several objectives related to First Nations and their access to the resource. These included:

- improving relations with First Nations;
- providing a framework for the management of the First Nations fishery in a manner that was consistent with the 1990 Supreme Court of Canada Sparrow decision;
- greater involvement of First Nations in the management of fisheries; and
- increased participation in commercial fisheries (Allocation Transfer Program or ATP).

The AFS continues to be the principal mechanism that supports the development of relationships with First Nations including the consultation, planning and implementation of fisheries, and the development of capacity to undertake fisheries management, stock assessment, enhancement and habitat protection programs.

The Aboriginal Aquatic Resources and Oceans Management (AAROM) program has been implemented to fund aggregations of First Nation groups to build the capacity required to coordinate fishery planning and program initiatives. AAROM is focused on developing affiliations between First Nations to work together at a broad watershed or ecosystem level where there are common interests and where decisions and solutions can be based on integrated knowledge of several Aboriginal communities. In the conduct of their activities, AAROM bodies are working to be accountable to the communities they serve, while working to advance collaborative relationships between member communities, DFO and other interests in aquatic resource and oceans management.

As part of the reform of Pacific fisheries and implementation of the Pacific Integrated Commercial Fisheries Initiative (PICFI), announced in 2007, DFO is looking for opportunities to increase First Nations participation in economic fisheries through an interest-driven business planning process. New planning approaches and fishing techniques will be required to ensure an

economically viable fishery. In recent years some First Nations in-river “demonstration fisheries” have been initiated where some of these facets of potential future fisheries have been explored. Similar projects could be anticipated again in 2010 subject to available commercial TAC. The Department is also working with First Nations and others with an interest in the salmon fishery to have better collaboration of fishery planning and to improve fisheries monitoring and catch reporting for all fish harvesters.

Through the Co-Management and Enhanced Accountability elements of PICFI, DFO is also continuing to work toward improved engagement and collaboration with First Nations and other interests in fisheries management, as well as the need for enhanced fisheries monitoring, catch reporting, enforcement and steps towards a new traceability program for salmon.

2.6.1. Pacific Integrated Commercial Fisheries Initiative

The Pacific Integrated Commercial Fisheries Initiative (PICFI) is an initiative announced in 2007 aimed at achieving environmentally sustainable and economically viable commercial fisheries, where conservation is the first priority and First Nations’ aspirations to be more involved are supported. The Government of Canada has committed \$175 million over five years to implement the initiative. PICFI builds on fisheries reform work begun in response to the 2004 reports of the First Nations Panel on Fisheries and the Joint Task Group on Post-treaty Fisheries, as well as subsequent discussions in a wide variety of forums that have confirmed the need for PICFI.

2.6.2. Fishery Monitoring and Catch Reporting

A complete, accurate and verifiable fishery monitoring and catch reporting program is required to successfully balance conservation with the objectives of optimal harvest levels. Across all fisheries, strategies are being developed to improve catch monitoring programs by identifying standards that must be achieved as well as clarifying roles and responsibilities of the Department and harvesters. The Department is using the consultation document on catch monitoring standards for the commercial salmon fishery.

Further details are contained in Section 8. New technologies (e.g. E-logs) are also being tested to facilitate the timely submission of data directly into centralized DFO databases.

2.7. Scientific Support

The research activities of the Department’s science branch are summarized in scientific papers that are peer reviewed through the Pacific Scientific Advice Review Committee (PSARC). The advice is then forwarded to the appropriate sectors for review and adoption as required.

Specific areas of focus for Pacific salmon research in 2010 include:

- Continuing progress on the ecosystem research initiative in the Strait of Georgia in support of the ecosystem approach to resource use.
- Continuing investigations into climate change and salmon fisheries issues.
- Assessments of specific stocks (priority assessments identified by Fishery Management) and continuation of Cultus and Sakinaw lake sockeye recovery efforts.

- Annual pre-season forecasts of abundance and run timing for specific salmon populations for fishery planning.
- Initial implementation of WSP methodology to identify upper and lower benchmarks for salmon CU's, completion of habitat and ecosystem indicators and Regional reviews.
- Implementation of WSP pilots for development of strategic plans – Barkley Sound (Area 23) salmon
- Implementation of programs designed to address priority actions for chinook in the Pacific Salmon Commission report on the Coded-Wire Tagging Program as described in the renegotiated annexes of the Pacific Salmon Treaty.
- Implementation of a Sentinel Stock Program for chinook salmon spawning in the WCVI, Fraser River, and northern B.C. as described in the renegotiated annexes of the Pacific Salmon Treaty.
- Support of the aquaculture site selection and screening process by providing science advice for decision making.

2.8. Pacific Salmon Treaty

In March 1985, the United States and Canada agreed to co-operate in the management, research and enhancement of Pacific salmon stocks of mutual concern by ratifying the Pacific Salmon Treaty (PST).

The Pacific Salmon Commission (PSC), established under the PST, provides regulatory and policy advice as well as recommendations to Canada and the United States (US) with respect to interception salmon fisheries. The chapters in Annex IV outline the joint conservation and harvest sharing arrangements between Canada and the US for key stocks and fisheries subject to the Treaty. Five of these chapters, set to expire at the end of 2008, were recently renewed and ratified by the Parties: Chapter 1 (Transboundary Rivers); Chapter 2 (Northern Boundary); Chapter 3 (Chinook); Chapter 5 (Coho); and Chapter 6 (Chum). [See section on “PST Renewal - 2009” below]. Chapter 4, which covers Fraser River sockeye and pink salmon, is scheduled to expire at the end of 2010.

Under the terms of the Treaty, the responsibility for in-season management of all species rests with the Parties to the agreement, except for the in-season management of Fraser River sockeye and pink salmon. The Fraser River Panel (FRP) is specifically delegated the responsibility for in-season management, with assistance from the PSC.

To properly account for the full impact of fishing on chinook and coho stocks, the PST specifies that all parties develop programs to monitor all sources of fishing related mortality on chinook and coho. Catch monitoring programs are being modified to include estimates of encounters of all legal and sub-legal chinook and coho, as well as other salmon species, in all fisheries.

Coded-wire tag (CWT) data are essential to the management of chinook and coho salmon stocks under the PST. In 1985, the United States and Canada entered into an August 13, 1985 Memorandum of Understanding in which “the Parties agree to maintain a coded-wire tagging and recapture program designed to provide statistically reliable data for stock assessments and

fishery evaluations”. Both countries recognize the importance of the CWT program to provide the data required to evaluate the effectiveness of bilateral conservation and fishing agreements. An expert panel review concluded the CWT system is the only technology currently capable of providing the data required for PST management regimes for chinook and coho salmon, thus confirming the approach being employed.

PST Renewal

On December 23, 2008, Canada and the US ratified new provisions for five chapters under Annex IV of the PST. These new chapters came into effect on January 1, 2009 and the new management regimes continue to be implemented by DFO and US agencies for the 2010 season (including this draft IFMP). Significant changes from the previous chapters are highlighted, below:

Chapter 1 (Transboundary Rivers): The Transboundary chapter sets out the conservation and harvest sharing arrangements for sockeye, coho, chinook, and pink salmon for several transboundary rivers flowing from the Yukon to the Pacific through southeast Alaska, including the Stikine, Taku, and Alsek Rivers. The renewed chapter includes new harvest sharing arrangements for sockeye on the Taku River and a renewed commitment to the joint enhancement program for sockeye in the Transboundary Area.

The chapter also includes new arrangements for the management of sockeye on the Alsek River, including the ability of either party to recommend new commercial fisheries. The agreement includes new provisions for Canada to access salmon that are surplus to the spawning requirements outlined in the chapter and maintains the previous harvest sharing arrangements for chinook, sockeye and coho salmon on the Stikine River, as well as chinook and coho on the Taku River.

Chapter 2 (Northern Boundary): This chapter, as well as the chinook chapter, governs fisheries covered in the NC Salmon IFMP. The new chapter reflects only minor, administrative changes from the previous regime (i.e. the previous conservation and harvest sharing arrangements for Northern British Columbia and Southeast Alaska chum, sockeye and pink fisheries are maintained).

Chapter 3 (Chinook): The new chinook regime includes significant changes from the previous agreement. Building on changes made in 1999, the Parties have agreed to maintain the current abundance-based management regime for chinook, including the existing aggregate abundance based management (AABM) fisheries and individual stock based management (ISBM) fisheries. The most significant aspects of the new chinook chapter include harvest reductions in Canadian and US fisheries to address conservation concerns in both countries: the previous catch ceilings for the Southeast Alaskan (SEAK) AABM fishery have been reduced by 15%, while the catch ceilings for the Canadian WCVI AABM fishery have been reduced by 30% from previous levels.

In addition, the chapter includes new, additional provisions to protect weak stocks, including the potential for further harvest reductions in the SEAK and Northern BC AABM fisheries,

as well as the individual stock-based management (ISBM) fisheries in both countries, should certain stocks fail to meet escapement objectives outlined in the agreement.

The agreement also includes provisions for a bilateral funding framework to support implementation of the new chinook chapter. The fund will be endowed by both Canada and the US, with the following key elements: (i) \$30M which Canada can access to help mitigate the impacts of harvest reductions in Canada; (ii) \$15M (\$7.5M from each country) over five years to support the coast-wide coded-wire tag (CWT) program; (iii) \$10M from the Northern and Southern Endowment Funds for a "Sentinel Stocks Program"; (iv) up to \$3M which Canada can access to support pilot projects and the evaluation of mass-marking and mark-selective fisheries in Canada; and (v) \$1M from the US to improve the analytical models to implement the chinook agreement.

Chapter 5 (Coho, Southern BC and Washington State): The renewed chapter for coho incorporates the joint Southern Coho Management Plan developed in 2002 with the abundance-based management framework established in 1999.

Chapter 6 (Chum, Southern BC and Washington State): Substantive changes to the chum chapter were agreed to by both countries in 2006. However, the new chapter incorporates further revisions, including: the introduction of a 20% fixed harvest rate in Johnstone Strait, linking the U.S. catch ceiling to the abundance of Fraser River chum (i.e. in the case of a terminal run size below 900,000 chum salmon, the U.S. would restrict its fisheries in Area 7 and 7A to 20,000 chum), and the establishment of a "critical level" for southern-bound chum salmon of one million. There will also be a defined start date for U.S. fisheries in Areas 7 and 7A of October 10 and the removal of the previous "underage" provisions for U.S. harvest.

2.9. Fishing Vessel Safety

Commercial fishing is recognized as a very dangerous activity. Concerns over fishing related injuries and deaths have prompted DFO to proactively work with Transport Canada and Worksafe BC to ensure coordinated approaches to improving fishers' safety. See Appendix 2 for more information.

3. OBJECTIVES

3.1. Fishery Management Objectives for Stocks of Concern

The Department manages all salmon fisheries in accordance with the Wild Salmon Policy, which has the following objectives: 1. Safeguard the genetic diversity of wild Pacific salmon; 2. Maintain habitat and ecosystem integrity; and 3. Manage fisheries for sustainable benefits. Specific north and central coast stocks of concern are listed below.

3.1.1. Rivers and Smith Inlets Sockeye

The objective for Rivers and Smith Inlets sockeye salmon is to continue with rebuilding these stocks to reach escapement goals and achieve a sustainable stock that will support harvest.

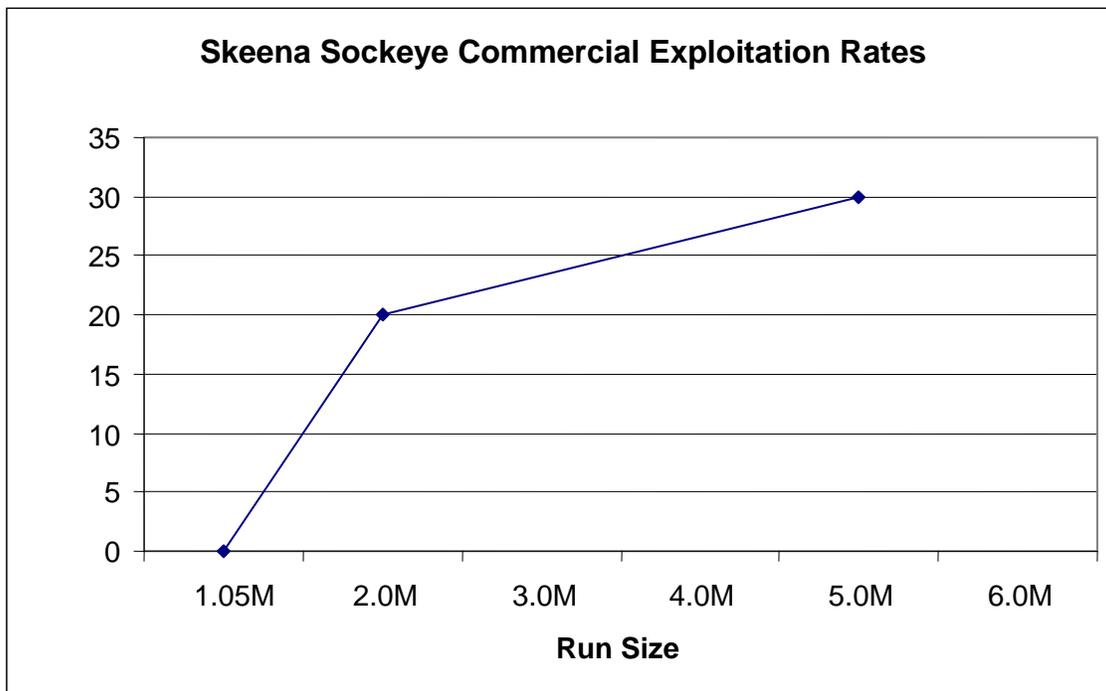
The last commercial fishery for Rivers Inlet sockeye was conducted in 1995. The low escapements since then have precluded any commercial fishing activity. For Smith Inlet sockeye, the Docee Fence provides an accurate in-season estimate of returns that can be used to provide in-season abundance estimates. The last commercial fishery for Smith Inlet sockeye was conducted in 1996.

Despite the lack of fishing activity, these two sockeye runs have failed to rebuild. For Rivers Inlet sockeye, commercial openings are unlikely until a clear trend towards higher productivity is established and documented by the annual surveys of spawning adults. To have a commercial sockeye opening in Smith Inlet, Docee Fence counts would have to clearly indicate that the escapement goal had been achieved and a significant surplus is available.

3.1.2. Skeena River Sockeye

The aggregate Skeena sockeye return consists of runs from 25 different sockeye stocks. The objective for Skeena River sockeye is to harvest any surplus in a sustainable fashion, to enable rebuilding individual sockeye stocks of concern.

To achieve the objective, Canadian commercial exploitation rates will be based on run size, starting from zero at any run size below 1,050,000, climbing to 20% at run sizes of 2.0M, to 30% at run sizes of 5.0M, and thereafter maintaining a 30% Canadian commercial exploitation rate.



3.1.3. Coho

The objective for north and central coast coho is to maintain rebuilding success and ensure overall exploitation does not exceed sustainable rates.

Coho fisheries in Areas 1 to 10 will be managed to maintain or rebuild coho stocks. Stocks originating in management Areas 3 through 10 are subject to significant Alaskan exploitation. In the past, north coast coho stocks were able to sustain exploitation rates in the range of 40% to 60%. Improved coho returns throughout the north and central coast observed in 2009 could indicate a return to higher productivity from a series of low productivity years. In-season information on coho abundances will be monitored carefully, and if abundance in-season is sufficient, options for retention in some of the more terminal net and troll fisheries may occur.

3.1.4. North Coast Chum

The objective for wild north coast chum is to rebuild weak wild runs, while providing opportunities to harvest surplus stocks.

North Coast wild chum stocks remain depressed, and management actions will be taken to reduce fishery impacts. In Area 3, seine fisheries will remain closed to retention and possession of chum and additional measures for the gillnet fishery are being implemented. See section 4.4.2.4 for further details.

Area 4 will remain closed to retention and possession of chum for all commercial fisheries, and any directed sockeye fishery will be managed taking into consideration by-catch impacts on chum.

Area 6 wild chum stocks remain depressed with a possible surplus returning to the Kitimat hatchery. Fisheries in Area 6 will proceed to harvest the hatchery surplus consistent with rebuilding the wild stock. Fisheries targeting this enhanced surplus will be limited to terminal areas.

Pre-season forecasts for Central Coast stocks indicate possible harvestable surpluses in 2010 of mostly hatchery production. Managers will proceed cautiously given the poor returns seen in the last two years.

3.1.5. WCVI Chinook

The objective for West Coast of Vancouver Island (WCVI) chinook is to manage Canadian ocean fisheries (specified below) to an exploitation rate of 10%. The objective for North Coast chinook is to manage in accordance with the allocation policy, and to manage the northern troll fishery to a WCVI chinook exploitation rate of 3.2%.

For the past several years, WCVI chinook have experienced poor marine survival rates and low spawner levels, and are a stock of concern.

For purposes of calculating the WCVI allowance for north coast chinook fisheries, all WCVI chinook caught and kept in Canadian fisheries are assumed to be returning in the present year.

Fisheries that this limit applies to are the northern troll, Haida Gwaii sport, WCVI troll and WCVI sport. The exploitation rate is measured by Coded Wire Tag (CWT) data gathered from these fisheries. The exploitation rate limit includes chinook caught and kept, as well as an estimate of fishing related mortalities.

As in the past, commercial troll fisheries in the North Coast will be monitored in-season using DNA analysis to minimize impacts on these stocks. While DNA analysis will guide in season management actions, the official measure of success will be made using post-season CWT cohort analysis.

The total allowable catch under the PST for 2010 for north coast AABM fisheries, which include Areas 1 and 2 recreational and Areas 1 through 5 commercial troll, is 152,100. From the total TAC, 45,000 will be reserved for the recreational fishery, leaving 107,100 for northern troll (Area F). This equates to 377 chinook for each of the 284 Area F troll licences.

On the West Coast of Vancouver Island, Robertson Creek returns are estimated in 2010 to make up 60% of the total return. The forecast for Robertson Creek is then expanded to get an estimate of the total return for WCVI. For 2010, the forecast return of Robertson Creek chinook is 48,700 and expands to a total return to WCVI of 81,170. The Area F troll fishery will be managed to 3.2% of the WCVI return, a limit of 2600 WCVI chinook.

3.1.6. Skeena Steelhead

The objective for Skeena steelhead, as well as all north coast steelhead, is to maintain healthy stocks and rebuild weak stocks.

In November, 1991, the Department committed to reduce steelhead harvest rates in Skeena River approach water net fisheries. The base period (1985 to 1991) Area 4 steelhead harvest rate was estimated to be 36 percent, and a multi-sector committee negotiated a reduction of 42 percent resulting in a target Area 4 harvest rate for aggregate steelhead of 21 percent. In 1997, the target harvest rates were modified to include outer Area 3 and Area 5 as well. The modified target harvest rates became 24 percent for the aggregate steelhead stock and 37 percent for the early steelhead stock. In recent years, the steelhead impact in net fisheries has been well within these bounds, while 2006 saw the closest approach to these goals since 1998. Steelhead harvest rates in Areas 3, 4 and 5 were calculated in-season using the Skeena Management Model, and post season using a run reconstruction with actual run timing as observed by the Tyee test fishery. However, this analysis stopped in 2007 while waiting for an independent panel to report on the Skeena fishery. Prior to 2007, the results of the post season analyses were as follows:

	Steelhead	Early Steelhead
1985 – 91 Base Period	36%	42%
Areas 3, 4 and 5 ceiling	24%	37%
1994 Actual	29%	33%
1995 Actual	25%	34%
1996 Actual	39%	49%
1997 Actual	31%	39%
1998 Actual	1%	2%

1999 Actual	0	0
2000 Actual	5%	11%
2001 Actual	9%	15%
2002 Actual	12%	18%
2003 Actual	6%	9%
2004 Actual	6%	8%
2005 Actual	1%	2%

In 2006, steelhead impact was calculated to be within a range of from 18.4% to 29.7%. After the 2006 season, managers stopped using the jointly developed Provincial – DFO management model to estimate impacts in-season.

In 2007, the Provincial and Federal governments commissioned an expert panel of three eminent scientists to review the Skeena fishery. This resulted in the *Report of the Skeena Independent Science Review Panel*, submitted to both governments on May 15, 2008. This report contains 23 wide-ranging recommendations. Regarding steelhead, Recommendation 2 states: “There needs to be a careful and objective analysis of assertions by sports fishing interests that commercial fisheries have overharvested steelhead. This would address two objectives: (1) separate the effects of commercial fishing from a natural cyclic pattern that has been evident since the 1960s, and (2) determine whether early-run steelhead, in particular, have been overharvested. Available run timing and escapement data do not support such assertions for Skeena steelhead as a whole, and better quantitative information is needed to fully address these objectives.”

Since the report was released, the Province has undertaken steelhead assessment work on the Skeena. The results of these studies will be reviewed and may lend clarity to future management actions.

Steelhead retention throughout B.C. is prohibited in commercial fisheries, and all steelhead encountered must be released to the water with the least possible harm. Although a commercial fishery in Management Area 4 is not expected to occur in 2010, if the run size is sufficient to initiate one, then the Skeena commercial sockeye fishery will incorporate weedlines on all 90 mesh nets, daylight fisheries, revival tanks, and seine net brailing and sorting in order to minimize commercial net impacts to Steelhead.

In 2010, the Provincial Ministry of Environment specified their short and long term objectives for north coast steelhead management, which are as follows:

The Ministry of Environment's short term objective for north coast steelhead is to decrease steelhead exposure rates to non-selective gear-types in successive years. This objective applies to non-selective fisheries only, not to selective gears such as brailed seines or in-river dip-net and beach seines.

The Ministry of Environment's long term steelhead management objective is to reduce non-selective fishery mortality rates for steelhead to negligible levels so as to maximize steelhead escapement and the social, economic and ecological benefits that a robust Skeena River steelhead population provides, while at the same time ensuring that the commercial sockeye

fishery is economically viable. This objective will also serve to improve the ecological standing of the sockeye fishery.

DFO and the Ministry of Environment will continue to consult with First Nations and stakeholders on Skeena River steelhead management and objectives that are acceptable to all sectors.

3.1.7. Inshore Rockfish

The management objective for inshore rockfish is to continue conservation strategies that will ensure stock rebuilding over time. A fishing mortality rate of less than 2.0 percent (all Pacific Region fisheries) will be required to achieve this objective.

Rockfish Conservation Areas (RCAs), are no fishing zones for fishing gear that impact on rockfish. There are currently 164 RCA's along the coast of British Columbia. The RCAs have been implemented within the Strait of Georgia and in all outside waters including Haida Gwaii. The conservation strategy for rockfish along the coast of British Columbia is long term. Rockfish are a long-lived species with a low level of productivity and therefore rebuilding will take several decades. The strategy addresses four areas under the fisheries management and stock assessment regime:

- a) Protect a part of inshore rockfish populations from harvest through the use of Rockfish Conservation Areas;
- b) Collect information on total fishery mortalities through improved catch monitoring programs;
- c) Reduce harvests to levels that are less than the estimates of natural mortality estimated at 2%; and
- d) Improve the ability to assess the status of inshore rockfish populations and monitor changes in abundance.

Fishermen are reminded prior to fishing to check with the local DFO office to verify RCA and other closures currently in effect. A description of all RCAs can be found at:

http://www.pac.dfo-mpo.gc.ca/recfish/Restricted_Areas/rca_e.htm

3.2. First Nations Objectives

The objective is to manage fisheries to ensure that, after conservation needs are met, First Nations' food, social and ceremonial requirements and treaty obligations have first priority in salmon allocation, in accordance with "An Allocation Policy for Pacific Salmon".

Feedback from consultation sessions is relied on to measure the performance of providing first priority to First Nations for opportunities to catch fish for FSC purposes and any treaty obligations.

3.3. Recreational and Commercial Objectives

The objective is to manage fisheries for sustainable benefits consistent with established policies.

A primary objective in the recreational fishery is maintaining the expectation and opportunity to catch fish in a stable and predictable manner. In the commercial fishery, the objective is to improve the economic performance of fisheries, to provide certainty to participants, and to optimize harvest opportunities. However, stocks of concern will continue to constrain opportunities in many fisheries resulting in less than optimal opportunities. Both fisheries will be managed to provide maximum sustainable benefits where possible in accordance with conservation and allocation policies.

3.4. International Objectives

The objective is to manage Canadian treaty fisheries to ensure that obligations within the PST are achieved.

Details can be found at the PSC website at: <http://www.psc.org/Index.htm>.

Review of the performance of the PST provisions occurs annually at bilateral meetings of the Northern Panel of the PSC and those results are published post-season.

3.5. Domestic Allocation Objectives

The objective is to manage fisheries in a manner that is consistent with the *Allocation Policy for Pacific Salmon* and the annual Pacific Salmon Allocation Implementation Plan.

An Allocation Policy for Pacific Salmon can be found on-line at:

<http://www.dfo-mpo.gc.ca/Library/240366.htm>

The Allocation Policy for Pacific Salmon identifies the priority for allocation of salmon harvest and sets sharing arrangements for each of the three commercial fishing gear groups. The target gear share is 40% seine, 38% gill net and 22% troll. . An explanation of some of the features of Allocation planning is set out in Section 4.1.7.

3.6. Compliance Management Plan

3.6.1. Conservation and Protection Program Description

The Conservation and Protection (C&P) program promotes and maintains compliance with legislation, regulations and management measures implemented to achieve the conservation and sustainable use of Canada's aquatic resources, and the protection of species at risk, fish habitat and oceans.

The program is delivered through a balanced regulatory management and enforcement approach including:

- promotion of compliance through education and shared stewardship;
- monitoring, control and surveillance activities; and,
- management of major cases /special investigations in relation to complex compliance issues.

In carrying out activities associated with the management of Pacific salmon as outlined in this management plan, C&P will utilize principle-based approaches and practices which are consistent with the National Compliance Framework and the DFO Compliance Model. More information can be found on both of these documents at the following intranet site:

http://intra.dfo-mpo.gc.ca/hq/fishmgmt/Directorates/CP/CRM/index_e.htm

3.6.2. Regional Compliance Program Delivery

For the Pacific salmon fisheries in the northern management area, C&P will be utilizing a broad scope and blend of tools and approaches to manage compliance towards achieving conservation and sustainability objectives, including:

- Maintain and develop relationships with First Nations communities, recreational groups and commercial interests through dialogue, education and shared stewardship.
- Work towards the goal of increased accountability, traceability and compliance within all salmon fisheries. Illegal sales of salmon will continue to be a regional priority.
- Prioritize enforcement efforts on those measures directed towards conservation objectives.
- Fish Habitat protection will continue to be a key focus of Fishery Officer efforts.
- Utilize 'Integrated Risk Management' to ensure Fishery Officer efforts are focused and directed at problems of highest risk.
- Maintain high profile Fishery Officer presence through patrols by vehicle, vessel and aircraft to detect and deter violators.
- Monitor and support at-sea observers and dockside monitors to ensure accurate catch monitoring and reporting. Implement traceability initiatives within the Salmon Fishery towards increased accountability (PICFI)
- Monitor and verify catches and offloads of salmon to ensure accurate catch reporting and accounting.
- Audit and monitor catch reporting data to ensure timely and accurate catch and effort reporting.
- Maintain or increase Fishery Officer efforts to protect north coast salmon stocks with priority to those stocks of concern.
- Continue to utilize covert surveillance (unmarked vessels/ vehicles and plain clothes Fishery Officers) to detect violations and gather evidence in problem fisheries.
- Employ targeted compliance monitoring with the use of enhanced surveillance techniques, Video cameras /long distance spotting scopes, trail cameras and vessel mounted digital video.
- Implement a program of 'Intelligence-led investigations' to specifically target enforcement efforts and increase successes.
- Increase patrol effort during open timed fisheries to increase intelligence gathering, build relationships with stake holders and ensure compliance to licence conditions.
- Inspect fish storage and retail outlets for compliant product
- Maintain a violation reporting 24 hour hotline to ease reporting of violations
- C&P will continue to promote 'restorative justice' principles in all fisheries

3.6.3. Consultation

Conservation and Protection works closely within the Fisheries and Aquaculture Management sector and Habitat and Enhancement Branch to ensure that Fishery & Habitat Management plans are enforceable and implemented in a controlled, fair manner. C&P has a multi-faceted role as educator, referee, mediator and law enforcer.

Conservation and Protection participates on a regular basis with consultations within the fishing community and general public. Education, information and shared stewardship are a foundation of C&P efforts. C&P participates in all levels of the advisory process from Regional Integrated Harvest Planning Committee through to individual fishery sectoral committees. The importance of local field level Fishery Officer input to these programs has proven invaluable and will continue.

C&P will continue meeting at the local level with individual First Nations, through the Fishery Officer First Nation Liaison Program to First Nations Planning committee meetings that involve many first nations' communities at one time.

C&P officers participate in local fishery management 'roundtables' and Sport Fishery recreational advisory councils in their respective areas and participate at Sport Fishery Advisory Board meetings.

Fishery Officers are viewed as the public face of the department. During their day-to-day activities, the fishing community and general public provide comment and input that is promptly communicated to C&P Managers, Fisheries Managers, Stock Assessment Managers and Habitat Management staff. This public feedback is critical in identifying issues of concern and providing accurate feedback on emerging issues.

3.6.4. Current Compliance Challenges

The key compliance challenges within the Pacific salmon fisheries in the north coast management area have been identified as:

- Numerous violations were encountered in the recreational fishery through out the NC Area, including illegal gear, exceeding quota, licensing and recording, and snagging. Central Coast Area has a very high non-compliance rate. C&P and RM continue to work collaboratively with recreational community to improve compliance issues.
- Gifting of fish is becoming more prevalent as a means to bypass possession limits (i.e. sport fishing limits and possession of FSC catch).
- Compliance issues in Area F Troll fishery – i.e. barbed hooks, quota issues. C&P and RM continue to work collaboratively with industry to improve compliance issues.
- Compliance with Selective fishing requirements in the Area 6 fishery needs improvement (i.e. ramping and release methods). C&P and RM need to improve monitoring and communications in-season.
- Poor sockeye returns to the Skeena result in significant management actions taken by some Tsimshian Communities related to their FSC fishery. Areas 4-12 and 4-15 (approaches to the Skeena River) were closed to all non-Tsimshian First Nations.

- Babine Lake recreational sockeye fishery continues to grow despite 2009 being a low sockeye return. During August the Fulton River area averaged 130 boats on the weekends and the Pinkut area was averaging 60 boats.
- FSC laundering of salmon into the commercial gillnet fishery continues to be a significant compliance issue. C&P, RM and First Nations continue to work collaboratively to improve compliance issues.
- Poor sockeye returns to the Skeena resulted in no inland ESSR or Demonstration Fisheries in the inland portions of the Skeena River.

3.6.5. Compliance Strategy

In 2010, specific objectives for the salmon fishery will be to focus compliance management efforts on:

- Maintaining enhanced coverage both on the Skeena River and in marine approach waters (Areas 3-4) by undertaking vessel, vehicle, and air patrols.
- Work to curtail illegal sales through a program designed to improve traceability of catch (improved catch monitoring and plant / storage verification)
- Improvements to fishery monitoring and catch reporting requirements
- Illegal retention of prohibited species
- Close time patrols balanced with random open time patrols
- Work with stakeholders to improve regulatory compliance
- Recreational - daily limits, non-retention and closed area enforcement
- Maintain or increase Fishery Officer efforts to protect north coast salmon stocks with priority to those stocks of concern.
- Monitor and verify catches and offloads of salmon to ensure accurate catch reporting and accounting.
- Conduct frequent and timely inspections of fish storage and processing facilities through a coordinated program of catch accountability and traceability. Communication and transfer of intelligence between areas will be strengthened.
- Audit and monitor catch reporting data to ensure timely and accurate catch and effort reporting.
- Maintaining a significant patrol and monitoring presence in the commercial gill net and seine fisheries targeting mandatory selective fishing measures such as provisions for revival tanks, brailing, catch reporting requirements (i.e. hail-ins and log books), short sets, barbless hooks and non-retention of prohibited species.
- Maintain a significant patrol and monitoring presence in tidal and non-tidal recreational fisheries. Specific areas of focus in 2010 will be on the Skeena and Kitimat Rivers, Babine Lake and marine recreational fisheries in the Prince Rupert, Queen Charlotte and Bella Bella areas.
- Dedicated pre-season inspections and in-season patrols of the recreational sport lodge fisheries throughout the North Coast.

- Maintaining a significant patrol and monitoring presence in the commercial troll fishery.
- Continued compliance and enforcement of the Skeena FN Inland Commercial fishery.
- Maintaining a significant patrol and monitoring presence in the Nisga'a Fisheries.

The management of Pacific salmon remains a high priority for C&P for 2010. There are, however, other priorities and sustaining agenda activities which must be delivered by C&P for other mandated program areas such as habitat management, the Canadian Shellfish Sanitation Program, maritime security, and the protection of species at risk.

In order to balance multiple program demands, C&P utilizes a comprehensive risk-based integrated work planning process to address the highest risks to sustainability and establish annual operational priorities. This process ensures that resources are allocated in alignment with identified priorities to achieve broad departmental objectives in a way that best serves the interests of Canadians.

3.7. Enhancement Objectives

Objective: Enhancement Operations facilities will continue efforts focused toward production supporting conservation and sustainable fisheries and provide key support to other priority watershed and public involvement activities.

Objective: DFO will continue working with hatcheries operated by volunteers or by communities under contract to DFO to meet community objectives for public stewardship, community capacity development, habitat conservation and fish production.

Background

The Salmonid Enhancement Program (SEP) in British Columbia, Canada is comprised of nearly 300 projects across B.C. and the Yukon and includes hatcheries, fishways, spawning and rearing channels, and small classroom incubators. Projects range in size from spawning channels producing nearly 100 million juvenile salmon annually to school classroom incubators releasing fewer than one hundred juveniles (per aquarium).

The following tables detail proposed enhancement targets for hatcheries and managed spawning channels operated by DFO staff (Enhancement Operations), contracted to community and native groups (Community Economic Development or CEDP), larger or more complex projects operated by volunteers (Designated Public Involvement or DPI) or funded through the Aboriginal Fisheries Strategy (AFS) program. Egg targets are determined pre-season for each stock and consider potential adult production based on average fecundities, average incubation to release survival rates and average marine survival rates.

Hatcheries may collect additional eggs for other programs for education, research or stock re-establishment. These additional eggs are not included in the hatchery egg target in the following tables. Designated Public Involvement (DPI) projects include only Terrace in the North/Central area. The smaller public involvement projects that are not included here are focussed toward stewardship, stock rebuilding or educational activities and do not release large numbers of fish.

Facilities may also enhance steelhead and cutthroat under the direction of the Province of BC; targets for these species are not included. SEP also works with First Nations, industry, community groups and other government agencies to design and implement habitat restoration projects. Habitat related activities are not addressed in this report.

Production targets are proposed in the IFMP for the coming brood year following discussions held within DFO, usually in January of each year. Several DFO sectors are involved in the production planning meetings including Oceans, Habitat and Enhancement Branch (OHEB), of which SEP is a part, Stock Assessment Division (StAD) and Fisheries and Aquaculture Management Branch (FAM). These meetings involve biologists, fish management personnel, hatchery staff and Community Advisors. Suggestions for changes are proposed and discussed. Reasons for proposed changes may include: need to reduce targets where there is a large surplus of adults returning to the river; need to increase targets where a stock needs rebuilding; or need to increase targets to produce enough fish to tag for use as an indicator stock. Targets are rarely reduced solely on the basis of changes in budget allocations. The biological implications are always considered and priorities developed. Proposals for changes to targets that were agreed to at the meetings and accepted by the Area Chiefs are included in the IFMP, as part of the external consultative process. Reasons for the proposed changes are given in the comments following the tables.

3.7.1. Chinook

Most Salmonid Enhancement Program (SEP) production targets will remain similar to last year's targets and are outlined below. The format has been changed, leaving out the egg targets and adding information on type and numbers of marks. Note that the 2010 Brood Expected Adults are based on SEP average biostandards and are the numbers of adults that can be expected over several years from the 2010 brood target release.

Proposed 2010 Brood Production Targets for Chinook for DFO Enhancement Facilities (OPS), Community Economic Development Program (CEDP), Designated Public Involvement (DPI) and Pallant Cost Recovery Hatchery

Project	Run	Stock	Release Site	Stage	Mk ¹ Type	Target Number to Mark	2009 Brood Release Target	2010 Brood Release Target	2010 Brood Exp Adults
Kitimat R (OPS)	Spring	Hirsch Cr	Hirsch Cr	Smolt 0+			200,000	200,000	800
	Spring	Kitimat R	Kitimat R	Smolt 0+			1,400,000	2,000,000	5,600
Snootli Cr (OPS)	Summer	Atnarko R Low	Atnarko R Low	Smolt 0+	Tag	200,000	850,000	850,000	3,400
			Atnarko R Low	Smolt 1+	Tag	50,000	150,000	150,000	1,200
	Summer	Atnarko R Up	Atnarko R Up	Smolt 0+	Tag	200,000	850,000	850,000	3,400
			Atnarko R Up	Smolt 1+	Tag	50,000	150,000	150,000	1,200
	Summer	Noosgulch R	Noosgulch R	Smolt 0+			43,000	43,000	172
	Summer	Nusatsum R	Nusatsum R	Smolt 0+			86,000	86,000	344
	Summer	Salloomt R	Salloomt R	Smolt 0+			86,000	86,000	344

	Summer	Wannock R	Wannock Est	Seapen0+	Tag	25,000	225,000	225,000	900
			Wannock R	Smolt 0+	Tag	25,000	25,000	25,000	100
Fort Babine (CEDP)	Summer	Babine R	Babine R	Smolt 1+			0	0	0
Kincolith R (CEDP)	Spring	Kincolith R	Kincolith R	Smolt 1+			0	20,000	80
Masset (CEDP)	Summer	Yakoun R	Yakoun R	Smolt 0+			200,000	200,000	8,000
Terrace (DPI)	Summer	Kitsum Abv Can	Kitsumkalum R	Fed Spr	Tag	100,000	100,000	100,000	200
				Smolt 1+	Tag	30,000	30,000	30,000	120
		Kitsum Bel Can	Kitsumkalum R	Fed Spr	Tag	100,000	100,000	100,000	200
				Smolt 1+	Tag	30,000	30,000	30,000	120
Toboggan Cr (CEDP)	Spring	Bulkley R Up	Bulkley R Up	Smolt 1+			43,000	43,000	172
		Morice R	Morice R	Smolt 1+	Tag	80,000	80,000	80,000	320

¹ Mark Type – coded-wire tags (Tag) or finclips: Ad= Adipose fin

- Fort Babine Hatchery: the rearing netpens need replacement. No enhancement of Chinook will take place for the foreseeable future. Hatchery staff will concentrate on habitat restoration and assessment.
- Kincolith River Hatchery: the infrastructure was damaged by an ice jam in January 2009. It is not possible to incubate eggs so none will be taken until the hatchery can be rebuilt. Depending on infrastructure capability, Kincolith plans to take eggs in 2010.
- Kitimat River Hatchery: the 2010 Kitimat River stock target was increased due to desirable benefits for fisheries.

3.7.2. Coho

Most Salmonid Enhancement Program (SEP) production targets will remain similar to last year's targets and are outlined below. The format has been changed, leaving out the egg targets and adding information on type and numbers of marks. Note that the 2010 Brood Expected Adults are based on SEP average biostandards and are the numbers of adults that can be expected over several years from the 2010 brood target release.

Proposed 2010 Brood Production Targets for Coho for DFO Enhancement Facilities (OPS), Community Economic Development Program (CEDP) and Pallant Cost Recovery Hatchery

Project	Run	Stock	Release Site	Stage	Mk ¹ Type	Target Number to Mark	2009 Brood Release Target	2010 Brood Release Target	2010 Brood Exp Adults
Kitimat R (OPS)	Fall	Kitimat R	Kitimat R	Smolts			500,000	500,000	10,000
Snootli Cr (OPS)	Fall	Johnson Cr	Johnson Cr	Smolts	Tag	25,000	30,000	30,000	600
	Fall	Salloomt R	Salloomt R	Smolts	Tag	30,000	30,000	30,000	600
Fort Babine (CEDP)	Fall	Babine R	Babine R	Fed Spr			0	10,000	100
Hartley Bay Cr (CEDP)	Fall	Hartley Bay Cr	Hartley Bay Cr	Smolts			25,000	25,000	500

			Upper Hartley Bay Lk	Fed Spr			80,000	80,000	800
			Red Bluff Lk	Fed Spr			60,000	60,000	600
			Whalen Lk	Fed Spr			80,000	80,000	800
			Union Pass Lk	Fed Spr			70,000	70,000	700
			Angler Cove Lk	Fed Spr			70,000	70,000	700
Heiltsuk (CEDP)	Fall	McLaugh Bay Cr	McLaughlin Bay	Seapen			60,000	60,000	2,580
Klemtu Cr (CEDP)	Fall	Kitasoo Cr	Trout Bay	Seapen			60,000	60,000	2,580
Masset (CEDP)	Fall	Yakoun R	Yakoun R	Fed Spr			30,000	30,000	300
Pallant Cr	Fall	Braver+Pallant	Braver+Pallant	Fed Spr			378,000	378,000	3,780
Toboggan Cr (CEDP)	Summer	Toboggan Cr	Toboggan Cr	Smolts	Tag	35,000	35,000	35,000	1,400

¹ Mark Type – coded-wire tags (Tag) or finclips: Ad= Adipose fin

Fort Babine: a production of 10K fed fry is being done in 2010 to encourage stewardship in the community of Fort Babine.

Pallant Creek Hatchery: will not be producing coho smolts. Coho will be released as fed fry.

3.7.3. Chum

Most Salmonid Enhancement Program (SEP) production targets will remain similar to last year's targets and are outlined below. The format has been changed, leaving out the egg targets and adding information on type and numbers of marks. Note that the 2010 Brood Expected Adults are based on SEP average biostandards and are the numbers of adults that can be expected over several years from the 2010 brood target release.

Proposed 2010 Brood Production Targets for Chum for DFO Enhancement Facilities (OPS), Community Economic Development Program (CEDP) and Pallant Cost Recovery Hatchery

Project	Run	Stock	Release Site	Stage	Mk ¹ Type	Target Number to Mark	2009 Brood Release Target	2010 Brood Release Target	2010 Brood Exp Adults
Kitimat R (OPS)	Summer	Hirsch Cr	Hirsch Cr	Fed FW			0	0	0
	Summer	Kitimat R	Kitimat R	Fed FW			3,500,000	1,500,000	108,900
Snootli Cr (OPS)	Summer	Fish+Airport	Fish+Airport	Fed FW			1,656,000	1,656,000	40,075
	Summer	Salloomt R	Salloomt R	Fed FW			1,656,000	1,656,000	40,075
	Summer	Snootli Cr	Snootli Cr	Fed FW	Ad	125,000	1,656,000	1,656,000	40,075
	Summer	Thorsen Cr	Thorsen Cr	Fed FW			1,656,000	1,656,000	40,075
Heiltsuk (CEDP)	Fall	McLaugh Bay Cr	McLaughlin Bay	Seapen			2,160,000	2,160,000	31,212
Kincolith R (CEDP)	Fall	Kincolith R	Kincolith R	Fed FW			21,600	21,600	367
Klemtu Cr (CEDP)	Fall	Kitasoo Cr	Trout Bay	Seapen			900,000	900,000	17,010
Pallant Cr	Fall	Pallant Cr	Deer Bay	Seapen			0	0	0

¹ Mark Type – coded-wire tags (Tag) or finclips: Ad= Adipose fin

Kitimat River Hatchery: due to facility capacity issues, Hirsch Creek stock is no longer being enhanced. Kitimat River stock targets were reduced because there is only a sport fishery and no viable commercial fishery, therefore not as many chum need to be enhanced.

Pallant Creek Hatchery: chum will no longer be enhanced due to limited resources.

3.7.4. Sockeye

Most Salmonid Enhancement Program (SEP) production targets will remain similar to last year's targets and are outlined below. The format has been changed, leaving out the egg targets and adding information on type and numbers of marks. Note that the 2010 Brood Expected Adults are based on SEP average biostandards and are the numbers of adults that can be expected over several years from the 2010 brood target release.

Proposed 2010 Brood Production Targets for Sockeye for DFO Enhancement Facilities and Manned Channels (OPS), Community Economic Development Program (CEDP) and Pallant Cost Recovery Hatchery

Project	Run	Stock	Release Site	Stage	Mk ¹ Type	Target Number to Mark	2009 Brood Release Target	2010 Brood Release Target	2010 Brood Exp Adults
Fulton R (OPS)	Summer	Fulton Ch#1	Fulton Ch#1	Chan Fry			15,000,000	15,000,000	286,500
	Summer	Fulton Ch#2	Fulton Ch#2	Chan Fry			87,000,000	87,000,000	1,661,700
Pinkut Cr (OPS)	Summer	Pinkut Ch	Pinkut Ch	Chan Fry			43,500,000	43,500,000	830,850
Snootli Cr (OPS)	Summer	Atnarko R	Atnarko R	Fed Spr	Ad	55,000	55,000	55,000	770
	Summer	Williams Cr	Williams Cr	Fed Spr	Ad	200,000	0	350,000	4200
	Summer	Lonesome Lk	Lonesome Lk	Fed Spr	RV	20,000	20,000	20,000	280
Emily Cr (AFS)	Summer	Tankeeah R	Tankeeah R	Fed Spr	Ad	60,000	90,000	90,000	900
Victor Cr (AFS)	Summer	Lagoon Cr	Roderick Lkr	Fed Spr	LV	25,000	25,000	25,000	450
			Roderick Lk	Fed Fall	RV	25,000	25,000	25,000	200
			Victor Cr	Smolts			10,000	10,000	450

¹ Mark Type – coded-wire tags (Tag) or finclips: Ad= Adipose fin, LV= Left Ventral, RV= Right Ventral

- Snootli Creek Hatchery: Williams Creek sockeye will be enhanced in 2010. In addition to 200K being Ad-clipped, 100K is also intended to be calcein-marked prior to release.
- Emily Lake Hatchery: is a sockeye facility run by the Heiltsuk Band.
- Victor Creek Hatchery: is a sockeye facility run by the Kitsoo Band.

4. DECISION GUIDELINES AND SPECIFIC MANAGEMENT MEASURES

The following comprehensive decision guidelines outline management responses that will be invoked under a range of in-season circumstances, and the general rationale to be applied in making management decisions.

Decision guidelines are meant to capture general management approaches with the intention of working towards multi-year management plans.

Specific fishing plans for 2010 are described in sections 5, 6, and 7.

4.1. General Decision Guidelines

4.1.1. Pre-season Planning

Development of decision guidelines is part of the pre-season planning process. Development is guided by relevant departmental policies, scientific advice, consultation with harvesters and other interests, and the experience of fishery managers.

Pre-season decisions may include the development of escapement targets, exploitation ceilings, sector allocations and enforcement objectives.

4.1.2. In-season Decisions

In-season decision points vary from fishery to fishery depending on type, availability and quality of in-season information and the established advisory, consultation and decision-making processes. Decisions include opening and closure of fisheries, level of effort deemed acceptable, gear type restrictions, deployment of special projects, etc.

When possible, in-season decisions will follow a pre-season plan. However, the implementation and applicability of decision guidelines and pre-season plans can be influenced in-season by a number of factors. These include unanticipated differences between pre-season forecasts and in-season run size estimates, unexpected differences in the strength and timing of co-migrating stocks, unusual migratory conditions and the availability and timeliness of in-season information. A post-season multi-sector review of run returns, management actions and by-catch levels will occur.

4.1.3. Allocation Guidelines

Allocation decisions are made in accordance with the *Allocation Policy for Pacific Salmon*.

The table below describes a generalized framework by which fishing opportunities are allocated to different fishing sectors at different abundance levels.

Allocation Guidelines

	Low Abundance		High Abundance		
First Nations Food, Social, Ceremonial	Non-retention / Closed	By-catch Retention	Directed	Directed	Directed
Recreational	Non-retention / Closed	Non-retention	By-catch Retention	Directed	Directed
Commercial	Non-retention / Closed	Non-retention	By-catch Retention	By-catch retention	Directed

Note: This table describes conceptually how First Nations, recreational and commercial fisheries might be undertaken across a range of returns. It does not imply that specific management actions for all stocks exactly follow these guidelines, but rather is an attempt to depict the broad approach.

The allocation guidelines above refer to target stocks. The application of the Allocation Policy on non-target stocks is case specific. The inadvertent harvest of different species of concern is referred to as by-catch. The inadvertent harvest of stocks of concern within the same species (i.e. Kitwanga sockeye when harvesting aggregate Skeena River sockeye) is referred to as incidental harvest. Both by-catch and incidental harvest are factored into the calculation of exploitation rates on various stocks, and therefore, fishing plans are designed to be consistent with existing policies and to keep exploitation rates on stocks of concern within the limits described in the conservation objectives (Section 3.1).

All harvest groups have recommended that the Department consult on by-catch/incidental harvest allocations. However, the Department does not allocate by-catch or portions of the acceptable exploitation rate on stocks of concern. Rather the Department considers a number of fishing plan options and attempts to address a range of objectives including minimizing by-catch and incidental catch.

4.1.4. First Nations - Food, Social and Ceremonial

The *Allocation Policy for Pacific Salmon* provides that after requirements for conservation, the first priority in salmon allocation is to FSC for harvest opportunities under communal FSC licences issued to First Nations, and to treaty rights for harvest opportunities for domestic purposes (consistent with Treaty Final Agreements).

While these opportunities will be provided on a priority basis, it does not necessarily mean that fishery targets for First Nations will be fully achieved before other fisheries can proceed. For example, many First Nations conduct their FSC fisheries in terminal areas while other fisheries are undertaken in marine areas or approach areas. The general guideline is that the fishing plan must adequately provide for the First Nations' FSC harvests that will occur further along the migration route over a reasonable range of potential run sizes.

4.1.5. First Nations – Nisga’a Allocations

The Nisga’a Final Agreement defines the catch allocations and fisheries management structures related to Nisga’a fisheries and Nass Area stocks. Sales of a specific species of salmon caught in

Nisga'a fisheries is permitted if DFO permits other commercial or recreational fisheries to target Nass Area stocks of that species.

The Nisga'a Lisims Government is responsible for the internal allocation of catch opportunities between Nisga'a fishers and day-to-day operation of the Nisga'a fishery. The Nisga'a have distributed their salmon catches between three type of fisheries: domestic fisheries for food, social and ceremonial purposes; communal sale fisheries where proceeds are used to support fisheries management programs; and individual sale fisheries that provide commercial catch opportunities and income for Nisga'a fishers.

4.1.6. First Nations – Economic Opportunities

The Pacific Integrated Commercial Fishing Initiative (PICFI) seeks to transfer commercial salmon shares to First Nations. The Allocation Transfer Program (ATP), where commercial licences are purchased out of the fleet and transferred to First Nation communities, is one means by which First Nations communities may gain further access to economic benefits from the fishery. The Skeena Inland Demonstration Fishery is once again being planned for 2010, in case Skeena River sockeye return in greater numbers than expected. Nass River Inland Demonstration Fishery for the Gitanyow is also described in this fishing plan. These two demonstration fisheries would involve the transfer of the salmon allocation of some commercial licences inland to be fished by the First Nations of the Skeena or Nass drainages respectively.

4.1.7. Recreational Fisheries

Under the Department's *Allocation Policy for Pacific Salmon*, after First Nation's food, social and ceremonial fisheries, the recreational sector has priority to directed fisheries for chinook and coho salmon. For sockeye, pink and chum salmon, recreational harvesters will be provided predictable and stable fishing opportunities.

If stock abundance information suggests that conservation objectives cannot be attained, closures or non-retention regulations will generally be applied to the recreational fishery. Prior to a directed commercial fishery on chinook and coho, the fishing plan will provide for full daily and possession limits in tidal waters. Decision guidelines may also identify considerations for changing the area of the fishery, modifying dates or changing daily limits.

4.1.8. Commercial Fisheries

The *Allocation Policy for Pacific Salmon* provides for at least 95 percent of the combined commercial and recreational sockeye, pink and chum harvest to be allocated to the commercial sector. Commercial harvest of chinook and coho salmon will occur when abundance permits, and First Nations and recreational priorities are considered to have been addressed.

Specific coast-wide sector target allocations are: seine 40 percent, gill net 38 percent, and troll 22 percent expressed on a sockeye equivalent basis. The ability to achieve these targets is often compromised by conservation constraints and other factors. Commercial allocation targets by area and by species are included in Appendix 4.

Low impact fisheries generally occur prior to those having a higher impact, particularly at low run sizes, at the start of the run when run sizes are uncertain or when stocks of concern have peaked but continue to migrate through an area.

When one commercial gear type is unlikely to achieve its allocation, the usual approach will be that the same gear type, but in a different area, will be provided opportunities to harvest the uncaught balance.

Allocation targets are not catch targets for each sector. While DFO will plan and implement fisheries to harvest fish in accordance with allocation targets, opportunities may be provided that are inconsistent with the allocation targets, due to conservation objectives that have a higher priority than allocation objectives.

4.1.9. Excess Salmon to Spawning Requirements Fisheries

Salmon fisheries are managed with the objective of reaching escapement targets or harvesting a certain proportion of the run. Uncertain forecasts, inaccurate in-season run size estimates, and mixed-stock concerns can result in escapement to terminal areas that are in excess of their required habitat or hatchery spawning capacity. In these cases, Excess Salmon to Spawning Requirements (ESSR) fisheries may occur.

DFO will attempt, wherever practical, to eliminate or minimize ESSR by harvesting in the food, social and ceremonial, recreational and commercial fisheries. It is not the intention of DFO to establish new ESSR fisheries to displace existing fisheries.

First priority will be to use identified surpluses to meet outstanding FSC requirements which cannot be met through approved food, social and ceremonial fisheries. As a second priority, the local band or Tribal Council may be offered the opportunity to harvest all or part of the surplus under an ESSR licence.

4.1.10. Selective Fisheries

Selective fishing is defined as the ability to avoid non-target fish, invertebrates, seabirds, and marine mammals or, if encountered, to release them alive and unharmed. Selective fishing technology and practices will be adopted where appropriate in all fisheries in the Pacific Region, and there will be attempts to continually improve harvesting gear and related practices.

The continued development of selective fishing techniques has taken on more importance as a result of heightened conservation concerns on identified stocks as well as a stronger focus on protection of small stocks. The Selective Fisheries Program (1998 to 2001) began the widespread exploration of selective gear and methods. Currently, selective gear and methods are widely used and required in all fisheries. More recently development has focused on refining the most promising techniques.

Selective harvesting standards will be set in the context of the *Policy for Selective Fishing in Canada's Pacific Fisheries* and the *Allocation Policy for Pacific Salmon*. In the future, priority will be given to those who have demonstrated the ability to meet or exceed the selective fishing

standards. The Department encourages the incorporation of selective fishing experiments into regular fisheries where appropriate in order to realize cost savings.

The Canadian commercial fishing sector has responded positively to this growing conservation consciousness by developing its own Canadian Code of Conduct for Responsible Fishing Operations. Over 80 percent of Canada's fishing organizations have signed on and ratified the Canadian Code of Conduct that is overseen by a Responsible Fishing Board. Similarly, the recreational sector in the Pacific Region, through the Sport Fishing Advisory Board (SFAB), recently developed a Code of Conduct for recreational anglers. First Nations have also embraced the principles of selective fishing by adopting more selective fishing gear, as often these types of gear reflect a traditional way of fishing for many First Nations.

4.1.11. Post-Release Mortality Rates

The salmon conservation and fisheries management measures in this IFMP are based on many considerations, including estimates of the mortality rates of salmon that are released from the various types of fishing gear that are used in commercial, recreational and First Nations fisheries. Post-release mortality rates can vary substantially and depend on many factors, including the location of the fishery, the unique characteristics of each type of fishing gear and method, and the species of salmon that is captured and released. In April 2001 DFO announced revisions to the post-release mortality rates that had been used by DFO in previous years. The mortality rates applied by DFO to each gear type and fishery prior to 2001, and the revised rates announced by DFO in 2001 with some more recent revisions are summarized below. The revised rates reflected the results of additional research on post-release mortality rates that were available at that time. DFO has generally continued to use these post-release mortality rates each year in the development of annual fishing plans including this salmon IFMP.

DFO plans to conduct a review of the post-release mortality rates currently used for salmon fisheries in Canadian waters. Since 2001 additional research has been conducted on post-release mortality rates of salmon, and additional fishing methods and gear types have been implemented (e.g. beach seining, recreational catch and release study for Fraser sockeye salmon) in some salmon fisheries. The 2001 post-release mortality rates currently applied by DFO for salmon fisheries conducted in Canadian waters also, in some cases, are not the same as the rates that are currently applied by the bi-lateral Chinook Technical Committee under the Pacific Salmon Treaty. The results from the DFO review of mortality rates will be used to inform any additional revisions to the post-release mortality rates that are required to address these issues in the development of salmon IFMPs in future years.

Fishery	Pre 2001 Post-Release Rates	2001 Post-Release Rates
First Nations Fisheries	Various - Depending on gear used and fishery. Note: When using the same gear and methods noted below the same mortality rates were applied.	Various – depending on gear used and fishery. Beach seine – 5% for sockeye in-river Fraser
Recreational troll gear – sockeye, coho, pink and chum	10%	10% except 3% for sockeye in-river Fraser
Recreational troll gear – chinook	15%	15%
Recreational mooching gear – coho and chinook	10% for coho; 15% for chinook	20% for coho in Areas 1&2; 16% for coho in Areas 3 to 10; 10% for coho in other areas; 15% for chinook in all areas.
Commercial Gillnet	60% to 70%	60% with provision for rates as low as 40% where selective techniques warrant.
Commercial Seine – North Coast (Areas 1 to 10)	10% to 25%; 5% in Area 4 special seine fishery.	15% all areas, except 10% in the Area 4 special seine fishery.
Commercial Seine – South Coast (Areas 11 to 29)	15% to 25%	25 % Johnstone Strait; 70% Area 20 - coho, 25% all areas for sockeye
Commercial Troll – All Areas	26%	10% sockeye, 15% coho and chinook

4.1.12. Chinook - AABM / ISBM Management

Chinook fisheries in B.C. are managed under the umbrella of the PST, with domestic considerations for stocks of concern, allocation between sectors of the fishery, and application of selective fishing practices.

The basis for managing fisheries impacting chinook from Alaska to Oregon is the chinook abundance based management system in the PST. Two types of fisheries are identified in this agreement.

The mixed-stock aggregate fisheries of Southeast Alaska, northern B.C., and WCVI are managed on the forecast abundance of the aggregate of stocks (called Aggregate Abundance Based Management or AABM fisheries). In the AABM fisheries a total allowable catch is determined

based on the forecast abundance of the aggregate of stocks. Along the WCVI and northern B.C., the AABM fishery includes the WCVI and North Coast troll fisheries and the "outside" WCVI and Haida Gwaii recreational fishery. Fisheries are managed based on a chinook fishery year which extends from October 1 in one calendar year to September 30 in the next calendar year.

For the remaining fisheries, the agreement imposes a limit on the adult equivalent mortality rate for individual stock groups (called Individual Stock Based Management or ISBM). Under ISBM, fisheries are regulated to limit impacts on individual stock groups. In Canada, the adult equivalent mortality rate in all ISBM fisheries was limited to 65% of the historic (or base period) adult equivalent mortality rate on each stock group.

Further explanation and the text of the chinook agreement can be found on the PSC website at: www.psc.org/Index.htm.

4.2. Haida Gwaii Chum and Pink Decision Guidelines

4.2.1. Background

Surplus pink salmon opportunities on Haida Gwaii occur only during even years; odd year returns are either minimal or non-existent in most streams. Preseason predictions of pink salmon surpluses are not reliable and for the most part harvest opportunities are normally provided only when surpluses are identified in-season.

In the past terminal chum salmon opportunities have occurred in a variety of wild stock locations. However, in recent years returns of chum have declined to levels where surpluses have frequently not been observed. Terminal harvest opportunities will be considered only on identified surpluses and in locations where the harvest will not compromise or threaten weaker stocks which potentially may be caught as a by-catch.

Chum fisheries within Cumshewa Inlet target enhanced stocks from Pallant Creek. The overall escapement goals for chum are 30,000 to Pallant Creek and 20,000 to Mathers Creek. Brood stock collection and enhancement objectives for the Pallant Creek Hatchery will be defined in season. Fisheries are managed to harvest Pallant Creek surpluses. Due to low returns in recent years, harvest opportunities will be considered only on identified surpluses.

Pallant Creek coho are an enhanced stock, harvested directly by recreational and commercial troll fisheries, and as a by-catch in commercial net fisheries directed at enhanced chum. Enhancement of this stock has increased abundance of coho returning to Cumshewa Inlet and has allowed modest harvest opportunities despite declining coho abundance to surrounding systems in Area 2E.

4.2.2. General Constraints

Generally the required escapement is secured within the stream(s) and/or behind boundaries near the estuary location(s) before fisheries are allowed to proceed.

Assessment of escapements to streams in and near the surplus to be harvested will need to be assessed. Conservation of smaller and/or weaker returning stocks that may be affected by a potential harvest opportunity may influence the timing and/or location of the fishery or may result in the forgoing of the fishery.

Coho by-catch may be a concern in some areas, and so brailing by seines and the use of revival tanks by both gill nets and seines are usually, but not always, required.

All fisheries are during daylight hours, generally 11 or 12 hour days during September reducing to 10 or 11 hour days in October. This reduces the amount of by-catch.

4.2.3. Pre-season Decisions

Initial openings are based on fish observed to be schooling in front of the various systems. If a poor run is predicted, such that only enough salmon are expected to return to stock the creek, then no fishing will occur unless an actual surplus is identified in-season. Conversely, if a surplus is forecast, an initial opening may be held to confirm returning stock abundance with subsequent openings as appropriate. The size of the return will be estimated by the CPUE of the first few openings.

4.2.4. In-season Decisions

In Area 1 the Ain and Awun River systems in Masset Inlet and the Naden River in Naden Harbour are the primary chum salmon producers. Harvest opportunities are considered only when surpluses have been identified.

In Areas 2 East and 2 West wild chum harvest opportunities for both gill nets and seines are considered only when surpluses have been identified. Streams supporting wild chum returns which may present surplus harvest opportunities are located in East Skidegate Inlet, Selwyn Inlet, and Darwin Sound in Area 2 East, and West Skidegate Inlet, Englefield Bay and Tasu Sound in Area 2 West. The size of the runs to these systems can usually be determined by observations of fish holding in front of the streams, and the historic average run timing for that system.

Cumshewa Inlet will be managed similarly to wild chum systems, with openings only on identified surpluses, due to the poor returns observed in Cumshewa in recent years. Boundaries will be determined depending on fish holding behaviour and the status of escapement into Pallant Creek. When fish are abundant, fisheries have been conducted with inner boundaries being from Beattie Anchorage to the easternmost point of Oliver Island, thence from the westernmost point of Oliver Island to a boundary sign on the Moresby Island shore, or from Barge Point to a boundary sign on the opposite shore. A local in-season advisory committee may be consulted regarding fisheries in Cumshewa Inlet.

All net fisheries are managed so that catch may be delivered within two days, at the request of the commercial industry.

4.2.5. Prospects for 2010

Pink surpluses are expected to be limited in 2010 based on recent even year returns. Chum surpluses are also expected to be limited in 2010. Monitoring to determine incoming runs throughout the season will be concentrated in Masset Inlet, on the east coast between Skidegate Inlet and Darwin Sound, and on the west coast between Tasu Sound and Dawson Inlet. Terminal harvest opportunities will be based on identified surpluses determined through a variety of measures such as fence counts, over flights, or charter patrol observations.

4.3. Nass River Decision Guidelines

4.3.1. Background

Seasonal management, assessment of Nass Area salmon stocks, and minimum and production-based salmon escapement goals are all discussed in the Nass Fisheries Operational Guidelines (FOG), developed to aid in the implementation of the Nisga'a Final Agreement. Objectives and goals of managing Nass salmon stocks, as defined in the FOG document, are as follows:

- To provide for conservation and protection of fish stocks and their habitat through the application of scientific management principles applied in a risk averse and precautionary manner based on the best scientific advice available.
- To develop sustainable fisheries through a cooperative joint management process and ensure that the fishery resources of the Nass Area are utilized for the benefit of all Canadians.
- To develop fishing plans and cooperative research programs which will contribute to improving the knowledge base and understanding of the resource.
- To consider the goals of each party with respect to social, cultural and economic values of the fishery.
- To consider health and safety in the development and implementation of management plans, fishery openings and closures.
- To consider opportunity for the development of the aquaculture industry.

4.3.1.1. Sockeye

There are 14 sockeye streams in Area 3, all but two of which are tributaries to the Nass. The major producers are Bowser, Damdochax, Kwinageese, and Meziadin.

Fisheries are managed to meet commitments in accordance with the Pacific Salmon Treaty (PST) and the Nisga'a Final Agreement (NFA). In the event of a management error, overage/underage provisions in both treaties apply. The runs entering the Nass River are estimated by a series of fish wheels operated by the Nisga'a Lisims Government (NLG), and a mark-recapture program is conducted on some of the species. Close liaison is maintained throughout the season between Alaskan and NLG fishery managers and DFO staff. Commercial openings are planned keeping these treaty obligations in mind.

The northern part of Chatham Sound in Area 3 is managed in conjunction with the Skeena River fishery because of the large numbers of Skeena sockeye and pink passing through Chatham Sound during the fishing season.

4.3.1.2. Chum

There is no single major chum producer in Area 3, but significant stocks return to the Kshwan, Stagoo, and Khutzeymateen Rivers. Chum returns start in early July and continue throughout the summer and into October. Chum returns are expected to be poor in 2010, and management restrictions will be in place. Specifically, the 1.0 nautical mile gill net exclusion zone established on the shoreline of Wales Islands, and the 0.5 nautical mile zone established on the shoreline of Pearce Island will continue to be in place for the protection to weak chum stocks. Fisheries in subarea 3-12 will be conducted with non-retention and non-possession of chum. Gill nets in the remaining open portions of Area 3 are requested to release chum by-catch to the water with the least possible harm, or to place injured or lethargic chum in their revival tank prior to release. Dead chum may be retained and sold in these areas. DFO may alter areas of chum retention in-season based on fleet behaviour and chum impacts. .

Seines are required to release all chum, or to revive and release. It is important that fishermen work to rebuild weak chum stocks to prevent further restrictions to the targeted sockeye and pink fisheries.

4.3.1.3. Pink

The major stocks return to the Kwinamass, Khutzeymateen, and the Iknouk Rivers (odd years). Most Area 3 pink stocks arrive in the fishing area at approximately the same time, mid-July. The outer coastal stocks are an exception, arriving in August and early September.

Pink returns to Area 3 in 2010 are expected to be poor.

4.3.1.4. Coho

Net fisheries will start with non-retention of coho, and will be managed based on in-season abundance. A troll fishery in the inner portions of Area 3 is planned beginning on September 1, if stock strength permits.

4.3.2. General Constraints

- The fishery must be managed to meet commitments in accordance with the NFA and the PST.
- Fishing is limited to daylight hours to reduce the by-catch of coho.
- Non-retention of steelhead is mandatory in all fisheries.
- Brailing and sorting, with the mandatory release of chinook, chum and coho will be in place for the seine fishery. Changes to the non-retention species are possible depending on in-season estimation of run strengths or identified surpluses.

- Non-retention of coho for both seine and gill net will be in place initially, but may be modified depending on stock abundances and fishing effort. Potential fishery impacts will be considered prior to any retention fisheries.
- Gill nets have a 137 mm maximum mesh restriction. This restriction is in place so that sockeye is targeted selectively and larger non-target species such as chum and chinook are impacted to a lesser degree.
- The chum gill net conservation ribbon boundary along the Pearce (0.5 N.M.) and Wales (1.0 N.M.) Islands shore will be in place. Subarea 3-12 will be conducted with non-retention and non-possession. Gill net fishers initially will be requested to release all live chum and chinook to the water with the least possible harm in other areas. Non-retention and non-possession areas may change in-season depending on estimated impacts to chum stocks.

4.3.3. Pre-season Decisions

Opportunities for a mid-June gill net fishery are evaluated during the pre-season planning process based on brood year escapements. The fishery is implemented to assess sockeye strength. The fishery has very little impact on other salmon stocks because it occurs early in the sockeye run, and avoids non-target species due to the earlier timing and the use of mesh size restrictions. The first fishery is predetermined in the planning process.

Seine fishing usually starts towards the middle of July based on conservation and allocation considerations. Immature chinook presence and gill net allocation goals preclude an earlier seine opening.

4.3.4. In-season Decisions

The sockeye gill net fishery continues in some years into August depending upon run timing and stock strength. Starting in mid-July, the seine fishery is usually a targeted sockeye and pink fishery with restrictions such as time, area and gear restrictions in place to pass more chums through to the spawning grounds. Terminal chum fisheries could occur in some restricted terminal areas once a surplus has been identified from spawning ground escapement inspections.

Weekly decisions are made from run size predictions based on:

- Catch and effort data from the Area 3 and Alaskan Tree Point commercial net fisheries.
- Escapement information from the Nisga'a Fishwheel Program conducted at test-fishing sites near Gitwinksihlkw on the Nass River and fish counts at the Meziadin fishway, and later from individual stream inspections for chum and pink.

Nass River Sockeye Inland Fishery Management Plan

This demonstration fishery will only take place if the Nass sockeye run returns in sufficient strength to fish commercially in Management Area 3. Allocation to the Gitanyow will be based on the number of commercial licences that are set aside for this fishery. In 2009, 7 gill net licences were set aside for this fishery.

The concept of the Inland Fishery Demonstration Project is to transfer the catch of a number of commercial gill net or seine licences to the inland portion of the Nass system, specifically the Meziadin River or closely adjacent to the Meziadin. The sockeye allowed to be caught will depend on the number of licences available, and the commercial catch as determined from the Prince Rupert office in-season. An annual licence will be issued to the Gitanyow to authorize fishing, with quota amendments possible as issued from the Prince Rupert office of the DFO.

For any gill net or seine licence amounts transferred to the inland fishery, the quota used will be the total catch by that gear type in the Management Area 3 commercial fishery, divided by the total number of Area C or A vessels. There are currently 107 Area A seine licences and 658 Area C gill net licences (these numbers could vary slightly prior to the fishery). The fishery will be for sockeye only.

For the demonstration fishery, the intent will be to continue the selective methods that have been developed by the Gitanyow at Meziadin. This mainly consists of dip netting, although a fishwheel is possible. Gill nets will not be allowed. Sockeye may be retained, and all other species will be returned to the water with the least possible harm.

All inland commercial sockeye salmon harvests shall be checked through a compulsory landing station. All appropriate records are to be kept for proper monitoring and enforcement. No FSC fishing or retention will be allowed while participating in the Inland fishery.

The DFO contact for more information is Jim Steward at (250) 627-3421.

Licence Set-aside rules:

All licences that will be used in the inland commercial fisheries will have to be either Area C gill net or Area A seine, and annual renewal fees will be paid in full for the current season. These licences can not have been fished in any Area C or A fisheries during the current year. Licence documents and tabs will be held in the DFO office. All transactions and licence set-asides must be complete before the commencement of any inland fishing activity. In addition to licences provided by DFO, the Gitanyow may negotiate additional access by gaining control of additional licences.

4.3.5. Prospects for 2010

A slightly below average return of 648,000 to Canada is forecast for Nass sockeye. To achieve escapement targets, plus provide enough fish for FSC and treaty harvest, the target is to pass 275,000 sockeye past the Nisga'a fishwheels at Gitwinksilkh.

The Area 3 pink salmon return is expected to be poor.

4.4. Skeena River Decision Guidelines

4.4.1. Background

The Skeena River is the second largest producer of sockeye in B.C. The major stocks in the Skeena River system are the Babine River and the enhanced runs to Fulton River and Pinkut Creek.

Co-migrating with these strong sockeye stocks are weaker runs of wild sockeye, as well as stocks of all the northern Pacific salmon species. Measures have been taken to reduce fishery impacts on Skeena River coho, chum, steelhead, and some sockeye stocks. These measures include non-retention of some species, gear and fishing modifications, and specific timing closures or sockeye harvest rate reductions when weak stocks are present.

Skeena River returns are harvested in Areas 4 and 5 and upper Chatham Sound in Area 3.

There are 154 recorded coho streams in Management Area 4. Individual stock arrival timing at the Tyee test fishery varies, but generally it is the streams of the upper Skeena (Bulkley, Babine, and Interior Skeena stocks) which arrive first (from late July to early August), followed by middle Skeena stocks, and lastly coastal stocks.

In the Skeena River, 128 systems have a recorded pink salmon presence. Tagging studies were conducted in 1982, 1984 and 1985. These studies were designed primarily to provide information on interception rates, but also provided information on stock abundance, migration and timing. Management stock groupings are upper Skeena, lower Skeena and coastal.

Chum are the least abundant salmon species in the Skeena system, and return to the fewest number of streams. There are 43 chum streams or rivers in Area 4.

The Skeena is the second largest chinook producer on the B.C. coast. Skeena chinook are taken in all northern B.C. fishing areas as well as southern Alaskan troll and net fisheries. Returning adults tend to follow a north to south migration pattern. Peak timing of chinook past the Tyee test fishery is in the last week of June and first week of July, with escapements continuing into late August.

Skeena salmon are taken in virtually all northern B.C. and southern Alaskan fisheries. In B.C., directed net fisheries on sockeye and pink salmon occur in Areas 3, 4 and 5. Troll fishing effort is directed on pink, chinook, and coho salmon in Areas 1 and 101. Recreational and First Nations fisheries occur on all these salmon species, with chinook and coho being the main targeted species for the recreational fisheries, and sockeye being the major target in the First Nations fisheries.

4.4.1.1. Tyee Test Fishery

The Tyee test fishery is the main in-season stock assessment tool for estimating the relative abundance of Skeena River salmon and steelhead through the use of a multi-panel gill net with varying mesh sizes. In addition, daily in-season escapements and total run size are estimated for sockeye. Estimates are subject to error as the catchability of salmon by the Tyee test fishery net

varies from year to year due to varying environmental conditions (including water level, clarity and temperature, weather conditions and tide).

4.4.2. General Constraints

- Fishing is limited to daylight hours to reduce the by-catch of coho, except during directed chinook gill net fisheries when mesh size and run timing are used to target chinook only.
- Non-retention of steelhead is mandatory in all fisheries.
- Brailing and sorting, with the mandatory release of chinook, chum and coho will be in place for the seine fishery.
- Gill nets have a 137 mm maximum mesh restriction during the sockeye fishery. This restriction is in place so that sockeye is targeted selectively and larger non-target species such as chum and chinook are impacted to a lesser degree.
- Gill net fishers are required to release all live chum, coho, and steelhead to the water with the least possible harm. The release of coho will be reviewed in-season to determine if retention is possible.
- In-season assessments may change the management measures taken for various stocks.

4.4.2.1. Sockeye

Sockeye from various streams migrate up the Skeena throughout the salmon season. These wild stocks are generally less productive and therefore cannot withstand the same exploitation rate as the enhanced Babine stocks of Pinkut Creek and Fulton River. Two wild sockeye stocks have been a specific concern in recent years, the Nanika-Morice and the Kitwanga. These stocks are bracketed by the aggregate Skeena sockeye run timing, with Nanika-Morice sockeye peaking through the fishing area in early July (early timing), and the Kitwanga sockeye stocks peaking through the fishing area in late July (middle timing). Since both these stocks have accurate annual escapement programs, at least when these programs are properly funded, they are important tools used to evaluate fishery impacts and sockeye stock status. In addition there is particular concern for the Babine River wild sockeye due to low escapements in recent years. These are late timing, early August returning stocks.

4.4.2.2. Coho

Upper and middle Skeena coho have shown a significant increase in abundance over the last decade. The status of the lower Skeena (late timing) coho stocks is less certain. The commercial net fisheries will start with non-retention of coho, and this restriction will be reviewed in-season.

4.4.2.3. Chinook

Skeena River chinook have been relatively healthy in recent years. Restrictions to commercial and recreational opportunities may be implemented if in-season information indicates low returns. The Wet'suwet'en First Nation has expressed concerns about FSC harvest opportunities from Morice chinook stocks.

4.4.2.4. Chum

Chum stocks are expected to return below desired levels in most north coast waters (Areas 3 to 6). Conservation actions such as mandatory release of chum by seine and gill net (in Areas 3-12, 4 & 5) and mesh restrictions of maximum 137mm by gill net are expected to be implemented. Additional measures may be required to meet rebuilding initiatives.

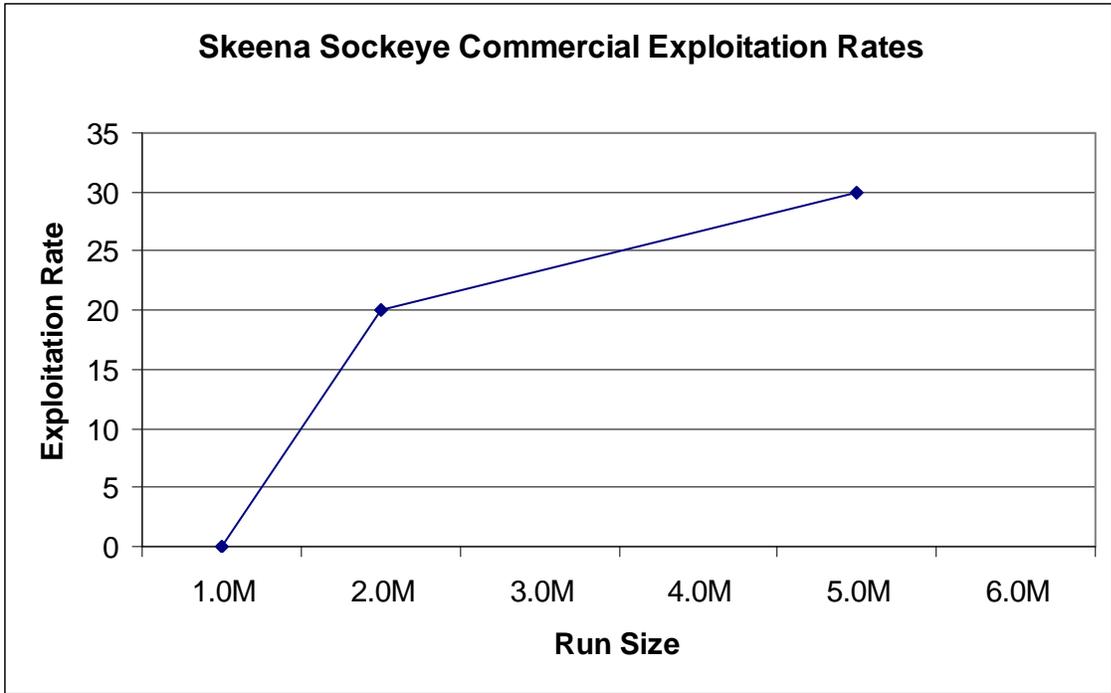
4.4.3. Pre-season Decisions

Initial openings are based on the expected returns for a given year. If a surplus of sockeye is predicted, then fishery openings are planned. If no surpluses are forecast, fisheries will not take place until the in-season run size prediction is sufficient to produce a fishable surplus. Given the extremely low sockeye forecast and the poor returns in recent years managers will be conservative in the prosecution of fisheries.

Sockeye:

Pre-season, the aggregate sockeye Canadian commercial exploitation rate is established. The following table shows the exploitation rates for 2010:

Details of Skeena River Canadian commercial exploitation rates:



The pre-season forecast for sockeye returning to the Skeena River is between 316,000 and 1,400,000 with a point estimate of 663,450. Based on historical studies we know the average proportions of the return that will pass through the commercial fishing area and into the Skeena River in any given week. These proportions are as follows:

Skeena Sockeye Weekly Proportions of Available Sockeye in the Commercial Harvest Area

	Weekly Proportion
July 1 – 7	10%
July 8 – 14	19%
July 15 – 21	22%
July 22 – 28	19%
July 29 – Aug 4	12%
Aug 5 – 11	8%
Aug 12 – 18	4%
Aug 19 – 25	1%

Note: A small proportion of the Skeena sockeye run is prior to or later than the weeks shown.

From this table, the numbers of sockeye in the fishing area in any week can be determined. If there is a harvestable surplus (while the majority of the forecast range is below what is necessary for a commercial fishery, if the in-season estimates are greater than 1.05 million then a commercial TAC would become available) then weekly harvest rates are applied, resulting in an annual harvest rate. These weekly rates are designed to protect weak individual sockeye stocks to ensure no single stock gets over harvested.

The management objective is to apply the abundance based exploitation rate outlined in the above graph entitled “Skeena Sockeye Commercial Exploitation Rates”.

4.4.4. In-season Decisions

4.4.4.1. Sockeye

Skeena River sockeye migrate up the river in an aggregate of stocks, but the individual stock groupings can be separated to some extent by run timing. At annual escapement levels of 400,000 or less sockeye into the Skeena River, fishing activity on sockeye will cease. To conduct commercial fisheries, the escapement should achieve 900,000 for spawning purposes, and 150,000 for food, social and ceremonial purposes by the end of the year. Thus an important in-season activity will be the continual refinement of the run size predicted for the Skeena. The pre-season estimate for 2010 is predicted to be between 316,000 and 1,400,000 sockeye, with a point estimate of 663,450, therefore commercial fisheries are not likely. However, if the run comes in greater than expected, fisheries are possible.

4.4.4.2. Food, Social and Ceremonial Fisheries

Currently there is a total catch allocation in communal licences issued to First Nations to harvest 150,000 sockeye upstream of the Tyee test fishery. Weekly escapement estimates that indicate an annual run size estimate of less than 550,000 (400,000 is the conservation limit, plus 150,000 for FSC) would trigger consultations with Skeena River First Nations to limit their food, social and ceremonial fisheries. There is also a request for First Nations not to fish near the confluence of the Kitwanga River, to protect Kitwanga sockeye that may be holding in that area.

4.4.4.3. First Nations Economic Demonstration Fisheries

If there is a commercial fishery in 2010, then a Demonstration Fishery on the Skeena River would also be planned with Skeena River First Nations, similar to what has been conducted in recent years. Catches of sockeye and pink salmon will be transferred inland to fisheries being conducted on the Skeena mainstem or Babine River. The Skeena River Sockeye Inland Fishery Management Plan follows. This fishery will be managed with the same priority as the marine commercial fishery.

Skeena River Sockeye Inland Fishery Management Plan

This demonstration fishery will only take place if the Skeena sockeye run returns in sufficient strength to fish commercially, at a size greater than 1,050,000. A pink salmon fishery may take place if there has been a commercial pink salmon opening in Management Area 4.

The concept of the Inland Fishery Demonstration Project is to transfer the catch of a number of commercial gill net or seine licences to the inland portion of the Skeena River. DFO may contribute licences from the Allocation Transfer Program, but industry commercial licences may also be solicited through private ventures, through an arrangement between the Skeena Fisheries Commission representing Skeena First Nations and processing companies, representing individual licence holders.

The sockeye swim time from the commercial fishing area to the Terrace area is approximately 1 week; from the commercial fishery to the mid-river area around Hazelton is 2 weeks; and from the commercial fishery to the Babine River weir is 3 weeks. This also roughly coincides with the interested First Nation groupings on the Skeena, with the Tsimshian at Terrace, the Gitksan in the mid-river area, and the Lake Babine Nation at the Babine weir.

The shares allowed to be caught by the various groups will depend on the number of licences transferred to each area, and the weekly TAC allocated in the commercial fishery, as determined from the Prince Rupert office in-season, based on current run size and proportion of the run available. An annual licence will be issued to each First Nation to authorize fishing, but the quota will be issued by DFO in a weekly licence amendment.

For any seine licence amount transferred to the inland fishery, the quota used will be the individual vessel quota, set each week by the Prince Rupert office of the DFO. For gill net shares, the amount transferred will be the weekly gill net TAC divided by the number of Area C gill net vessels. There are currently 107 Area A seine licences and 658 Area C gill net licences (these numbers could vary slightly prior to the fishery).

The existing commercial gill net fishery can keep sockeye and pink in Area 4. Coho, chum, and steelhead are mandatory release, and a request is made to all gill net fishers to release all live chinook to the water with the least possible harm. Seine fisheries are for sockeye and pink, with all other species required to be released to the water with the least possible harm.

For the demonstration fishery, the intent will be to continue the selective methods that have been developed during the 1990s pilot sales fisheries. These include beach seine, fishwheel, dip net, and the Babine weir. Gill nets will not be allowed. Sockeye and pink may be retained, based on the weekly allocation issued by Prince Rupert DFO, and all other species will be returned to the water with the least possible harm.

All inland commercial sockeye and pink salmon harvest shall be checked through a compulsory landing station. All appropriate records are to be kept for proper monitoring and enforcement. No FSC fishing or retention will be allowed while participating in the Inland fishery.

This project is facilitated through the Skeena First Nations. The DFO contact for more information is Jim Steward at (250) 627-3421.

Licence Set-aside rules:

All licences that will be used in the inland commercial fisheries will have to be either Area C gill net or Area A seine, and annual renewal fees will be paid in full for the current season. These licences can not have been fished in any Area C or A fisheries during the current year. Licence documents and tabs will be held in the DFO office. All transactions and licence set-asides must be complete before the commencement of any inland fishing activity. In addition to licences provided by DFO, the Skeena Fisheries Commission may negotiate additional access by gaining control of additional licences.

Management Examples for the Inland Demonstration Fishery (if commercial fishery occurs)

Week 1:

This is the week of the first commercial fisheries targeting Skeena sockeye.

A commercial sockeye harvest rate will be set for this week. This will result in a weekly commercial net TAC. Week 1 will be gill net only; therefore this TAC will be divided by the number of Area C licences to derive the individual quota that will be transferred to the inland demonstration fishery. Actual exploitation rate expected to be achieved will be estimated on a daily basis using the estimated run size, actual catch, and an estimated add-on catch for the licences that will be waiting to fish in the inland fishery. Put another way, the fish that would have been caught by the inland licences if they were fishing in Area 4 will be allowed to enter the river, to be available to that fishery in due course.

Weekly allowable harvest rates are expected to be met; therefore no ESSR opportunities would be expected yet. However, abundance of Pinkut stocks could trigger an ESSR opportunity in later weeks in the Babine River. No ESSR opportunities will occur downstream of the Babine River confluence.

Week 2:

There is expected to be at least one gill net day this week. Allowable weekly harvest rate will be calculated using the method described above.

A communal commercial licence may be issued in the Terrace area if the Tsimshian are participating in the inland demonstration fishery. The amount will be determined in the following manner: Commercial TAC in Area 4 of sockeye and pink during the previous week (Week 1) as determined in-season by the commercial fishery manager, divided by the total number of Area C licences (currently 658), times the number of licences that have been transferred to the Terrace area. This amount will be valid for Week 2 only. Any uncaught portion of this amount will be forgone catch and will not be available in the following week.

Weekly allowable harvest rates are expected to be met; therefore no ESSR opportunities would be expected yet. However, abundance of Pinkut stocks could trigger an ESSR opportunity in later weeks in the Babine River. There will be no ESSR fishery downstream of the Babine River confluence.

Week 3:

There is expected to be at least one gill net day this week. There could also be a seine fishery in Area 4. Allowable weekly harvest rate will be calculated using the method described above.

A communal commercial licence will be issued to the appropriate First Nation to administrate the Demonstration Project licences in the mid-river area. This communal commercial licence will be valid for all year, but the amounts allowed will be determined by DFO on a weekly basis. A letter of amendment will be issued every week from the Prince Rupert office, to specify the

amount of sockeye and pink salmon allowed, and the location and dates that this amount will be for.

The amount of weekly sockeye and pink salmon harvest allowed will be determined in the following manner:

Demonstration Fishery

Terrace: Individual vessel commercial TAC in Area 4 of sockeye and pink in previous week, times the number of licences that have been transferred to the Terrace area. This amount will be valid only for Week 3. If any of this amount is not caught in this week, then they will be forgone catch – they will not be available in the following week.

Mid-River: Individual vessel commercial TAC in Area 4 of sockeye and pink in Week 1, times the number of licences that have been transferred to the mid-river area. This amount will be valid only for Week 3. If any of this amount is not caught in this week, then they will be forgone catch – they will not be available in the following week.

This is the earliest week that an ESSR could be considered in the Babine River upstream of the confluence with the Skeena (by the Gitksan at Gisgegas). The sockeye entering the Babine will be the same stocks that were fished in the commercial fishing area during Week 1. Once these sockeye enter the Babine, certain weak stocks such as the Bulkley / Morice and Kitwanga sockeye will no longer be present, and a slightly higher exploitation rate can be exerted on the remaining population, which will have a high Pinkut component.

Remaining Weeks:

Quota calculations and licence amendments will be issued appropriately, based on the methods described above.

ESSR:

For Skeena River sockeye and pink salmon, all ESSR fisheries will be by selective means, with live release of all non-target species.

For Skeena River sockeye, a surplus will not be declared in-river below the Babine River confluence due to the mixed stock nature of the sockeye run in the lower and middle reaches of the river. Once the sockeye return has moved into the Babine River, many of the weaker wild stocks have moved into their natal streams to spawn, and an ESSR fishery may be considered. Surpluses in Babine Lake immediately in front of the two spawning channels at Pinkut Creek and Fulton River are not mixed-stock fisheries, and can be harvested at a much higher exploitation rate if required.

If a sockeye surplus is determined in the Babine River, then an ESSR opportunity may be declared in the Babine River and Lake. Due to uncertainty in estimating escapements, the surplus amount in the river will be half of the estimated overage. For allocation purposes, this surplus will be split in half again, and half will be available to the Gitksan Watershed Authority, to be harvested in the Babine River at Gisgegas, while the other half will be available to the Lake Babine First Nation, to be harvested at the Babine Fence. The late component of the Babine

returns, the wild Babine River lake outlet spawners, have declined in abundance the last few years. Babine watershed ESSR harvests will be managed to pass these late timed sockeye through to the spawning grounds.

If a surplus of sockeye arrives at the Pinkut or Fulton spawning facilities, an additional ESSR opportunity may be available to the Lake Babine First Nation. Amounts specified for harvest will be determined in close liaison with Pinkut Creek and Fulton River hatchery managers to ensure enough sockeye are available to stock the channels.

If the sockeye run is below the requirements to trigger a commercial fishery, then no ESSR fisheries will occur in the Babine River. A lake fishery could still occur in front of the spawning channels if a surplus develops and is identified.

4.4.4.4. Recreational Sockeye Fisheries

For non-tidal waters in the Skeena mainstem, by approximately mid-July, a decision will be made on a non-tidal sockeye fishery based on estimated Skeena River escapement. If the escapement is forecast to be above 800,000, then recreational fishery retention opportunities will occur with a daily limit of one. If the escapement is forecast to be over 1,000,000 then a daily limit of two will be in place. If a commercial sockeye fishery has been conducted in Management Area 4, and escapements are predicted to exceed 1.5M sockeye, recreational daily limits will increase to 4 per day.

For the Babine River, if abundance permits (estimated in-season) a directed sockeye fishery will take place with a daily limit of 2, August 1 – 31.

For Babine Lake, if abundance permits (estimated in-season) a directed sockeye fishery will take place with a daily limit of 2, August 1 – September 15.

4.4.4.5. Commercial Sockeye Fisheries

No commercial sockeye fisheries would take place in Management Area 4 unless the predicted escapement will be in excess of 1,050,000 (escapement of 900,000 and food, social and ceremonial requirements of 150,000). Above 1,050,000 an allowable harvest rate will be determined based on the abundance based harvest rate showing in the figure in section 4.4.3.

Commercial allocation of Skeena and Nass sockeye (Areas 3 to 5) is 75% of the commercial TAC assigned to the gill net fleet, and 25% assigned to the seine fleet. The management strategy to achieve these allocations are to open the gill net fishery first, followed by the seine fishery, which usually opens mid-July, depending on estimated run size, current escapement information, and gill net catch to date. Management Area 4 may or may not open to sockeye at this time, depending on the catch in Area 3. In many years, the sockeye allocation for seines can be caught in Area 3 in conjunction with a pink fishery, when pink salmon are abundant in Area 3.

Management Area 4 Skeena River Sockeye Seine ITQ Fishery Management Plan

Any seine fishery for sockeye salmon in Management Area 4 (Skeena) will be an Individual Transferable Quota (ITQ) demonstration fishery in 2010. This fishery will be managed to an equal share of a weekly quota for sockeye salmon for each of the registered 107 seine licenses (0.9346% for each license). The opening times and quota will be posted weekly on Wednesdays in a fishery notice.

The area will usually open for 6 days per week (Thursday to Tuesday). Areas 4-12 and 4-15 will be among the subareas open, but all vessels will be requested to exit this area if a concurrent gill net opening occurs. These areas will close on short notice if a gear conflict occurs.

Valid license eligibilities will be able to reallocate (transfer) their quota to another valid license eligibility each week or for the season. Requests for Temporary Reallocation of Quota forms are included when renewing a seine license or available by email, fax or pick up at the Prince Rupert office. These forms can also be downloaded at

http://www.pac.dfo-mpo.gc.ca/ops/fm/Licensing/Default_e.htm

Vessels receiving a reallocation for the season will receive one licence amendment with a new quota percent. Vessels requesting a short term reallocation (less than the whole season) will receive an amendment only after Wednesday of each week after the TAC is set for the week and will receive an amendment with the number of sockeye reallocated.

Weekly TAC's will expire, not be cumulative, and not carry over past end of fishing on Tuesday of any given week. Vessel masters must cease fishing when their quota has been achieved. All amendments to quota must be aboard the fishing vessel prior to fishing.

Vessels must have a valid ASA licence (seine) with ITQ Conditions of Licence and license renewal and logbook fees paid prior to receiving or reallocating quota.

Vessel masters are required to phone in their logbook catch daily, hail into and out of the fishery. Please see your license conditions for further details.

Catch validation is mandatory for all ITQ fishery participants. This catch validation must be performed by an approved service provider, be done at dockside (no packers), and be done in Prince Rupert or Port Edward. The contact number to arrange registration and validation will be published in a Fishery Notice immediately prior to any fishery.

Observers will be an integral part to this fishery and vessels may be requested to take an observer as per their license conditions.

All vessels must enter Management Area 4 with clean holds and proper hail procedures. If a vessel leaves the fishery to fish in another fishery, the catch shall be offloaded and verified by a validator prior to entering another fishery.

ITQ reallocations to the Inland Demonstration Fishery will be allowed as long as there is at least one seine licence assigned to the inland fishery. The weekly inland transfer deadline is Mondays by 4:30PM.

4.4.4.6. Pink

During the second week of August, the target species in the commercial Area 4 fishery traditionally switches from sockeye to pink salmon. The management target for pink escapement is one to two million fish. Once the fishery switches to pink management, if the yearly escapement is not expected to reach one million, the fishery may close. An exception may be made if the sockeye run is still strong at this time. Pink returns between one and two million are managed with a balance between catch and escapement, and this balance depends on escapement distribution and concern for other species. Skeena pink fishing opportunities will be managed to conserve Skeena chum by restricting late season openings, and ensuring compliance during selective seine pink harvests.

Coastal Area 4 and 5 pink stocks are traditionally managed in accordance with Skeena runs until mid-August when local pink stocks become prevalent. In recent years Area 5 pink fisheries have taken place in August. Care will be taken not to over-harvest local stocks while conducting the Skeena directed fishery. For instance, in years when there are large surpluses of Skeena pink salmon, boundaries may be established around local, coastal pink streams to protect pinks holding in front of these systems while conducting the main Skeena directed pink fishery. Seine fisheries for coastal pink stocks are then considered based on catch and stream escapement information. There are no major coastal pink stocks in Areas 4 or 5 but a number of small streams which all contribute to this stock.

Skeena Pink Salmon Weekly Run Proportions

	Weekly Run Proportion
July 1 – 7	0%
July 8 – 14	1%
July 15 – 21	3%
July 22 – 28	10%
July 29 – Aug 4	20%
Aug 5 – 11	25%
Aug 12 – 18	20%
Aug 19 – 25	10%

4.4.4.7. Chinook

The first directed chinook fishery by gill net will be conducted in June. This chinook fishery is managed to a catch of 4,000 chinook or two openings, whichever comes first. The second opening is dependent on stock status determined from the test fishery and CPUEs on the first opening. Flexibility will be exercised to facilitate the harvest of the 4,000 chinook by the gillnet fleet. This may include additional openings and/or more flexibility with the timing of openings to provide increased opportunity to harvest chinook.

If the returning run strength is very weak, management actions may occur on the commercial and recreational fishery. These actions could include reduced bag limits in tidal waters, closed times and areas, gear restrictions in non-tidal waters, or monthly quotas in non-tidal waters. Consultation with the recreational advisors would be taken to determine a course of action that will both protect the chinook run and be least intrusive to the individual fisherman. Any management action would be in accordance with the allocation policy.

4.4.4.8. Coho

The commercial net fisheries will start with non-retention of coho, and this restriction will be reviewed in-season. If abundance permits, retention of coho may be allowed during any directed sockeye fishery. A special coho directed fishery may be possible later in the salmon season in a restricted area near Stephens Island. DFO will work with the local Area Harvest Committee to see if it could be possible to conduct a coho directed fishery in this area, while not affecting other stocks. Any such special fishery would be monitored closely to determine the stock composition and catch frequencies of all species.

4.4.5. Prospects for 2010

Skeena sockeye returns are expected to be poor with an expected return between 316,000 and 1,400,000 with a point estimate of 633,450.

Skeena pink returns are expected to be below average.

Area 4 chum returns are expected to be very poor. Fisheries will be managed to avoid and release chum.

4.5. Area 5 Decision Guidelines

4.5.1. Background

Area 5 is traditionally managed in conjunction with Area 4 until mid-August when local pink stocks become prevalent. In recent years Area 5 pink fisheries have taken place in August.

There are a number of sockeye streams in Area 5 that have small surpluses, and have generally been reserved for FSC purposes in the past. However, at the request of the local First Nation (Gitxaala) a small commercial gill net opening was conducted on a local sockeye stock in 2008.

4.5.2. General Constraints

Care will be taken not to over-harvest local stocks while conducting the Skeena directed fishery. Otherwise constraints are the same as those listed in the Skeena River Decision Guidelines.

4.5.3. Pre-season Decisions

During the Skeena directed fisheries, the same pre-season decisions will be taken as those listed in the Skeena River Decision Guidelines. Pink salmon brood year escapements to local streams are reviewed pre-season to determine the likelihood of an Area 5 pink fishery. A local sockeye directed fishery could be considered if the Gitxaala First Nation so desires, and if a surplus is expected. For a fishery to take place on local stocks, a plan needs to be developed to monitor escapements and catch. Any fishery would be open to all licensed Area C vessels.

4.5.4. In-season Decisions

Area 5 uses the same decisions in-season as for Area 4 for Skeena bound sockeye until mid-August. Close liaison with the Gitxaala First Nation will be maintained to determine whether any sockeye surpluses exceed their FSC needs, and whether a commercial opportunity should occur. Seine fisheries for Area 5 pink stocks are considered starting in mid-August based on catch and stream escapement information. There is no one major pink stock in Area 5 but a number of small streams which all contribute to this stock.

4.5.5. Prospects for 2010

Area 5 pink returns are expected to be below average, as is normal in even numbered years. Area 5 chum returns are expected to be very poor. Fisheries will be managed to avoid impacts on incidental species. Local sockeye streams could develop small surpluses, and these will be monitored in-season.

4.6. Area 6 - Pink and Chum Decision Guidelines

4.6.1. Background

In recent years Area 6 has experienced strong pink returns on odd years with only very modest returns on even years. In recent years the only directed chum fishery has been on stocks returning to the Kitimat Hatchery.

4.6.2. General Constraints

Gill nets have a 149mm minimum and 165mm maximum mesh restriction. This restriction is in place so that chum is targeted selectively and other non-target species such as sockeye and chinook are not impacted. Gillnet chum fisheries will be restricted to 6-1 & 6-2 unless surplus stocks are identified elsewhere in season. There will be non-retention of steelhead in all fisheries. Coho non-retention may be changed in-season depending on coho stock abundance.

Commercial net fishing is limited to daylight hours to reduce by-catch. Other conservation measures are also in effect, including mandatory brailing for all seine sets and non-retention of chinook, steelhead, and coho in all fisheries and non-retention of chum at the Gil Island fishery by the commercial seine fleet.

If salmon stocks surplus to escapement requirements are identified, fisheries could occur in areas where incidental catch or by-catch concerns do not preclude harvest activities.

Non-retention of a species could change in-season depending on abundance and allocative considerations.

4.6.3. Pre-season Decisions

Opportunities for a gill net fishery are evaluated during the pre-season planning process based on Kitimat Hatchery chum production and wild chum stock assessments. Wild chum stocks have declined in recent years. Gill net fisheries will be designed to determine hatchery stock strength and harvest accordingly.

Seine fishing opportunities are usually evaluated pre-season for a start in mid-July. The anticipated opening date is determined from brood year escapements, run timing and concurrent openings in other areas.

4.6.4. In-season Decisions

Gill net fisheries are announced in-season based on catch and escapement information. In mid-July seine fisheries are considered. These fisheries will target pink stocks near Gil Island returning to numerous streams with the Quaal and Kemano Rivers being the main producers, and Kitimat hatchery chum in the Douglas Channel area. Further fishing opportunities are based on the assessments of the fishery, with good catches indicating a strong return. As the season progresses the focus changes increasingly to an assessment of escapements to determine further fishing opportunities. Terminal pink and chum fisheries may be considered based on in-stream escapement assessments.

4.6.5. Prospects for 2010

Area 6 pink even year returns have been modest in recent years. Escapements in 2008 were very poor with the exception of some later timed coastal stocks. During the last 3 even years the harvest has ranged from a low of 1,000 to a high of 60,000.

Area 6 chum returns are expected to be very poor with the exception of returns to the Kitimat Hatchery. Hatchery returns have been highly variable and forecasts unreliable with a recent trend towards low productivity. Assessment fisheries are expected in the Douglas Channel area with further opportunities to follow based on catch and escapement information. Chum catches in Douglas Channel have varied from a low of 3,000 to a high of 200,000 in recent years.

4.7. Area 7 Chum Decision Guidelines

4.7.1. Background

The major wild chum salmon that are actively managed in Area 7 are the Mussel, Kainet, Neekas, Quartcha and Roscoe stocks. The Kitasoo and McLoughlin Bay Hatcheries contribute to the chum harvests as well. These fisheries occur in terminal areas or the approach areas where timings of these stocks are known. Fisheries for Mussel and Kainet chum generally occur in August. Early returns of Roscoe and McLoughlin chum occur in Seaforth Channel in August, while the main return occurs in September. Gill net and seine fleets are normally small for these

fisheries with openings generally no more than two days per week. Pink salmon migrate during the same time period but are not targeted to the same extent as chum and are mainly caught as by-catch.

4.7.2. General Constraints

- The half-mile radius boundary around Mary's Cove Creek is in effect year-round to conserve Mary's Cove and Lagoon Creek sockeye.
- Gill nets with minimum 146mm mesh restriction all season to protect sockeye stocks in some of the central coast systems. All sockeye encountered are requested to be released to the water with the least possible harm.
- Seines are required to brail and release sockeye, chinook and steelhead to the water with the least possible harm all season.
- Fishing is limited to daylight hours to reduce by-catch.
- Coho on the Central Coast in recent years have experienced a period of low productivity, with the exception of 2009 which saw good returns. Net fisheries will be managed to both avoid coho and with a non-retention restriction in place. Easing of restrictions could occur if abundance in 2010 is high.
- Subject to conservation concerns and First Nations food, social and ceremonial fisheries, the Klemtu Pass area may be opened to harvest surplus chum returning to the Kitsoo Creek Hatchery. Openings targeting Kitsoo Creek Hatchery stocks and surplus chum in terminal areas would only be considered after August 22 and would follow the pattern of gill nets fishing first and seines second.
- During periods of high pink salmon catches in Areas 7 or 8, fisheries will be managed so that there is a maximum of two consecutive days of fishing. This action has been recommended by fishers and processors to maximize the value of the pink salmon caught.
- If salmon stocks surplus to escapement requirements are identified, fisheries could occur in areas where incidental catch or by-catch concerns do not preclude harvest activities.
- Where possible, openings in Areas 6 through 10 will be co-ordinated.

4.7.3. Pre-season Decisions

One day gill net and seine assessment fisheries have been predetermined for the last week of July or the first week of August in the Finlayson, Mathieson and Sheep Pass area based on brood year escapements and recent trends. These fisheries provide an improved indication of run strength but occur early in the run and have little impact on the overall escapement. Chum productivity has been poor over the last few years. In 2010, return rates that are much better than those experienced in recent years would be required to have a harvestable surplus. Before opening a fishery in 2010, results of in-season assessment and advice from advisors will be carefully considered.

4.7.4. In-season Decisions

First Week of August: One additional day of fishing during daylight hours is considered if the run appears strong on the afternoon of the one-day assessment fisheries. The assessment of run strength and expected escapement is based on a review of hailed catches after 14:00 hours on the fishing day to estimate CPUE, salmon escapements to the Mussel and Kainet Rivers to-date, and total catch of chum salmon to-date. For 2010 given the forecast and recent trend in return rates caution will be used before fishing a second day.

Second Week of August until Mid-October: The results of the past week's fisheries, status of target stocks and implications for any potential by-catch are reviewed with central coast advisors. Future fisheries are dependent upon the outcome of these reviews. If stock strength permits, fishing opportunities are considered each week until mid-October. Announcements for the next week's opportunities are made on the Thursday or Friday of the week preceding the proposed fishery.

Subject to in-season discussions with central coast advisors, Lama Pass (McLoughlin Bay) may be opened in mid-August, depending on observed chum abundance. Gill nets and seines alternate their fishing each week.

Subject to in-season discussions with central coast advisors, portions of Spiller Channel may be opened to seines and gill nets in late August. Openings in that area will depend on chum escapements to the Neekas River.

Subject to in-season discussions with central coast advisors, portions of Johnson Channel and Roscoe Inlet may be opened to seines and gill nets in late August. Openings in that area will depend on chum escapements to the Roscoe, Quartcha and Clatse Rivers.

4.7.5. General Constraints

First Week of August: Extra fishing time may depend on other areas in the north coast being open to fishing to reduce gear movement.

Second Week of August until Mid-October: A large increase in fleet size could adversely affect small mixed-stock runs in the area, so extra fishing time may depend on openings in other areas in the north coast.

4.7.6. Prospects for 2010

Pink: No surplus forecasted.

Chum: Forecasting chum returns in the last couple of years has been difficult because of lower ocean productivity. Available hatchery surpluses are expected for McLoughlin Bay and Kitasoo. Surpluses to non-enhanced stocks are not expected unless return rates are much higher than those experienced recently. Even with better return rates only modest surpluses would be expected for the Kainet and Neekas Rivers.

4.8. Area 8 - Atnarko Chinook Decision Guidelines

4.8.1. Background

The Atnarko chinook stock is an enhanced chinook population that supports food, social and ceremonial and recreational fisheries, as well as, a limited commercial chinook gill net fishery. The Nuxalk First Nation's food, social and ceremonial fishery provides the best indication of run strength and is used as a small test fishery to predict run size. Atnarko chinook are harvested by the commercial gill net fleet in North Bentinck Arm, a portion of South Bentinck Arm, Labouchere Channel and Burke Channel. A fleet of approximately 40 gill net vessels using large mesh nets is normal for recent years.

4.8.2. General Constraints

Gill nets have a 203mm mesh restriction. The restriction is in place so that chinook are targeted selectively and other non-target species, such as sockeye, are not impacted.

4.8.3. Pre-season Decisions

Opportunities for a one day gill net assessment fishery on the last week in May or the first week in June is evaluated during the pre-season planning process in November/December. If recent escapement estimates indicate an increasing or stable run, the assessment fishery will very likely go ahead. This fishery has very little impact on the stock, because it occurs early in the run and the benefits of the stock status information provided by this fishery outweigh the small risks associated with its limited impact. The final decision is made two weeks prior to the actual opening.

4.8.4. In-season Decisions

During June opportunities are evaluated based mainly on First Nations FSC fishery catches with consideration of commercial and sport catches as well. The Bella Coola River chinook Bayesian run size predictor, based on First Nations FSC catches, will be used to determine run strength.

4.8.5. Prospects for 2010

Average returns are expected to both the Atnarko & Dean Rivers.

4.9. Area 8 Pink and Chum Decision Guidelines

4.9.1. Background

Chum fisheries in Area 8 target mainly on Kimsquit and Bella Coola River stocks. Fisheries also occur to a lesser extent on returns to Lower Dean streams (Elcho, Cascade and Jenny). The Bella Coola River system is enhanced while the Kimsquit River is not. Pink fisheries in Area 8 target mainly on Atnarko River stocks but there is a component including Kwatna River and Koeye River pinks that are fished. The pink fishery on Kwatna stocks occurs at the same time as the Atnarko fishery while Koeye pinks are harvested during the later part of August. Fisheries in North Bentinck Arm, Dean Channel and Burke Channel are gill net only while fisheries in Fisher Channel and Fitz Hugh Sound are open for gill net as well as seine. Conservation measures to protect Rivers Inlet and local sockeye stocks have been put in place in recent years.

4.9.2. General Constraints

- Gill net fisheries have a 158mm minimum mesh restriction until the beginning of August to protect weak sockeye stocks. Gill nets with 149mm mesh will be allowed for the remainder of the season. Gill net fishermen are requested to release all live sockeye to the water with the least possible harm, all season long.
- Fishing is limited to daylight hours to reduce the catch of coho.
- Coho on the Central Coast in recent years have experienced a period of low productivity until 2009 which saw good returns. Net fisheries will be managed to both avoid Coho and with a non-retention restriction in place. Easing of restrictions in-season could occur if abundance in 2010 is high.
- Seines are required to brail and release sockeye, coho, chinook and steelhead to the water all season. Gill nets are required to release coho and steelhead.
- Dean River steelhead remain a special concern. Between July 10 and August 14 weed lines are required for gill nets in Subareas 8-5 north of Bold Point and 8-8 for steelhead conservation.
- If salmon stocks surplus to escapement requirements are identified, fisheries could occur in areas where incidental catch or by-catch concerns do not preclude harvest activities.
- The seine opening date will be reviewed in conjunction with other seine openings on the north coast.
- During periods of high pink salmon catches in Areas 7 or 8, fisheries will be managed so that there is a maximum of two consecutive days of fishing. This action has been recommended by fishers and processors to maximize the value of the pink salmon caught.
- Where possible, openings in Areas 6 through 10 will be concurrent.

4.9.3. Pre-season Decisions

In November/December during the pre-season planning process, opportunities for two-day gill net assessment fisheries in the first two weeks of July are evaluated. The evaluation is mainly based on chum brood year escapements. This fishery is implemented to get an early assessment of run strength. It has very little impact on the stock because it occurs early in the run and provides information needed to either conserve or increase harvest later in the season. Two weeks of data are required to obtain sufficient information for an updated run-size estimate. The final decision is made the previous week. Given chum return rates during the last few years these assessment fisheries will likely be restricted to one day dependant upon in-season stock assessment and comments from advisors.

4.9.4. In-season Decisions

Second Week of July: The assessment openings may be extended for a third day that week if the runs appear strong based on a review of catches to-date. Opportunities for a gill net and seine opening on Monday in the third week in July are considered, based on the results of the assessment fisheries:

- If Atnarko pink stocks are weak but Bella Coola and Kimsquit chum stocks are strong, Subareas 8-3 and a portion of Subarea 8-4 south of a line from Walker Point to Hergest Point will be closed.

- If Kimsquit chum are weak but Bella Coola chum are strong, Subarea 8-5 will be closed.
- If Kimsquit chum are very weak but Bella Coola chum are strong, Subareas 8-5 and 8-4 north of Walker Point will be closed.

4.9.5. Prospects for 2010

No targeted pink fisheries expected, these will be caught as by-catch only.

Forecasting chum returns in the last couple of years has been difficult because of lower ocean productivity. A 5-year average return rate would result in a surplus of 170,000 while using the return rate of the past two years would predict no surplus.

4.10. Area 9 - Rivers Inlet Sockeye Decision Guidelines

4.10.1. Background

There has been no gill net fishery in Rivers Inlet since 1995 after the sockeye returns declined dramatically in 1994. This decline was caused by poor marine survival beginning with the 1990 and 1991 brood years. Since 2002, total returns have shown some improvement, but remain well below the minimum escapement goal. Sockeye salmon in Rivers Inlet remain in recovery mode.

4.10.2. Pre-season Decisions

Fishing opportunities for Rivers Inlet sockeye are evaluated pre-season based on brood year stock status and indications of marine survival rates. For Rivers Inlet sockeye, optimum spawning escapements are uncertain, but likely within the 200,000 to 600,000 range. Commercial and recreational fisheries are very unlikely until there is a trend towards higher ocean survival and significant improvements in escapement.

4.10.3. In-season Decisions

Owikeno Lake sockeye stocks are currently stable at low abundance, rebuilding is required.

4.10.4. General Constraints

If a fishery occurs, a maximum mesh restriction of 150mm would be in place to protect Rivers Inlet chinook stocks. Commercial gill net boundaries will be developed through consultations with commercial, First Nations, and recreational interests.

4.10.5. Prospects for 2010

Brood year escapements and the current poor ocean survival trend suggest a return well below 200,000. No fishing opportunities are expected with the exception of a small First Nation harvest for food, social, and ceremonial purposes until there is a trend towards higher return rates and significantly improved escapement.

4.11. Area 10 - Long Lake Sockeye and Nekite Chum Decision Guidelines

4.11.1. Background

The last commercial fishery occurred in 1996. Total returns to Long Lake have remained relatively poor since.

4.11.2. Pre-season Decisions

For Smith Inlet sockeye, the updated assessments suggest that optimum escapements for unfertilized conditions are in the 43,000 to 80,000 range. For fertilized conditions, optimum escapements are in the 155,000 to 300,000 range. As the lake is no longer being fertilized, 100,000 sockeye will be the precautionary interim escapement goal for Smith sockeye. Commercial and recreational fisheries are very unlikely until there are higher escapements.

A mark-recapture program may be conducted for Nekite chum to determine escapements levels. Information from this program will be use to determine if a harvestable surplus is available this season.

4.11.3. In-season Decisions

Opportunities for Long Lake sockeye directed fisheries are evaluated in-season based on Docee Fence fish counts, but fisheries are not expected based on poor brood year escapements and a trend to low ocean survival rates for more than a decade. The Long Lake sockeye stock remains in recovery mode.

The primary tool available for in-season management of this stock consists of a run-size predictor using historic (1972-2008) daily proportional average sockeye counts observed at the Docee River fence. Normal mean run timing date is July 20.

If a terminal fishery is initiated for Nekite chum salmon, catch and escapement data will be used to make decisions on any further fisheries. Because of the lack of data on this system, caution will be used regarding any harvest opportunities.

4.11.4. General Constraints

If a fishery takes place, a maximum mesh restriction of 150mm will be in place to protect Docee River chinook stocks. Boundaries will be restrictive to protect non-targeted stocks. There will be no coho retention unless abundance warrants.

4.11.5. Prospects 2010

Smith Inlet sockeye returns have been poor in recent years, and no fisheries are expected. Nekite chum salmon escapements will be monitored in-season but no fishery is expected.

4.12. Northern Troll Decision Guidelines

4.12.1. Background

In 1999, and again in 2008, Canada and the US agreed to implement an abundance-based coast-wide chinook management regime, under which chinook fishery regimes are classified as aggregate abundance-based management regimes (AABM) or individual stock-based management regimes (ISBM). In northern B.C., troll fisheries in Management Areas 1 to 5 and Haida Gwaii sport fisheries (Areas 1 and 2) are managed under an AABM regime. All other fisheries in the north and central coast are managed under an ISBM regime. The northern B.C.

(and South-East Alaska) AABM allowable catch is constrained by a specified formula agreed to by the two countries. The AABM fishery is managed annually according to an allocation calculated from this formula.

The coho harvest in western Dixon Entrance and around Haida Gwaii is from a wide variety of stocks, mostly from northern coastal mainland streams. Coho harvest will be limited to an exploitation rate of 40 to 60 percent. Coho abundance is estimated in-season by monitoring catch and effort, and post season using CWT analysis from the catch. Management adjustments may be made based on assessments of coho abundance in-season.

4.12.2. General Constraints

- WCVI chinook will be managed in-season to a harvest rate of 3.2% of the return to Canada.
- Areas with known high abundance of undersized chinook will remain closed.
- Areas or times where weak Haida Gwaii, northern mainland or central coast chinook, coho or chum stocks are known to be abundant will remain closed.
- Dockside monitoring will be mandatory in ITQ fisheries.
- Appropriate biological sampling, particularly for coded-wire tags and DNA, will be conducted.
- Coho will be managed in accordance with the overall exploitation rate objective and the indications of in-season abundance.
- Barbless hooks and operating revival boxes are required for all fisheries.
- There will be non-retention of steelhead and chum all year, and sockeye in Fraser River migration areas.
- Additional measures may be implemented in recognition of weak salmon stocks.

4.12.3. Pre-season Decisions

4.12.3.1. Sockeye

The main producers of sockeye in the north and central coast are the Skeena and Nass Rivers, and trollers at times intercept a small amount of these fish in Dixon Entrance as a by-catch to their directed fisheries on coho, pink, and chinook. Fraser River sockeye migrating through north coast waters are protected by prohibiting sockeye retention west of 133 degrees West Longitude. In years of low Skeena or Nass sockeye returns, sockeye retention may be prohibited throughout the north coast area.

4.12.3.2. Coho

Coho will be managed to a maximum exploitation rate of 40 to 60 percent. In-season coho abundance will be assessed by weekly monitoring of coho CPUE by Subarea, and post season by CWT analysis of the catch. Local closures may be implemented to reduce fishery impacts on stock concentrations. Additional opportunities could be provided if high abundances are confirmed in-season.

Coho trolling will open in the northern half of Dixon Entrance on July 1, then in the southern half on July 22. Initially central coast areas will be closed to troll opportunities, but this may be

adjusted in-season if coho abundance is high. Section 7 outlines areas and Subareas that are expected to open. Dependent on abundance, the coho troll fishery may open in Management Area 3 in late August or early September. DFO will work closely with Nisga'a fisheries to monitor coho run strength to determine if a coho troll fishery is warranted in Management Area 3.

4.12.3.3. Pink

Canada will manage the Area 1 troll fishery to achieve an annual catch share of 2.57 percent of the annual allowable harvest (AAH) of a portion of south-east Alaska, as agreed to in the Pacific Salmon Treaty (PST). The methodology for AAH calculations is provided in the PST. Canada can carry forward from year to year annual deviations from the prescribed catch. To optimize the pink catch, the northern section of Dixon Entrance will open to pink salmon fishing on July 1st. During this fishery, coho retention will also be allowed. Pink salmon retention will also be allowed during the chinook fishery.

4.12.3.4. Chum

Chum is expected to be weak in most mainland and Haida Gwaii systems. There will be non-retention of chum in effect all year.

4.12.3.5. Chinook

For PST purposes, the accounting year for chinook runs from October 1 to September 30 of the following year. The allowable northern B.C. troll catch (Management Areas 1 to 5) for the 2010 accounting period will be 107,100 chinook.

The chinook fishery will be conducted as an Individual Transferable Quota (ITQ) demonstration fishery in 2010. The ITQ will be set with equal vessel shares, as in the past. The vessel share in 2010 is 377 chinook per vessel.

The open date for 2010 will be June 15, and the closing date will be midnight on BC Day, August 2. This closure could be delayed if information indicates that the WCVI proportion of the catch is low. Information considered will be: results of DNA tests through the season to date; estimated catch to date; effort; and CPUE. All chinook must be unloaded and validated within 5 days of this closure, by midnight, August 7th. This August closure is implemented to protect weak stocks of WCVI chinook, and allow managers a proper assessment of total catch, as well as WCVI catch. The chinook fishery will re-open, if there is any further WCVI allowance, on August 28th, and close on September 30th. The August 28th opening date may be varied depending on amount of WCVI chinook allowance left after the early fishery.

4.12.4. In-season Decisions

Harvest opportunities may be adjusted on short notice based on the in-season assessments of stock abundance and fishery impacts.

Pink salmon opportunities are anticipated to remain available throughout the coho and chinook fishery. The allowable pink harvest under the provisions of the PST is such that it is very unlikely that the troll fleet will be restricted.

DNA sampling will be conducted on the chinook catch, and depending on WCVI presence, the fishery may close earlier than mentioned in the pre-season section.

During the expected August chinook closure, the Haida Gwaii recreational chinook catch will be re-assessed. Initially, 45,000 chinook are being set aside for this fishery. Models predict that the annual catch could only be in the neighbourhood of 42,000. If the expected annual catch is predicted in August to be less than 45,000, an amount may be transferred from this set-aside to the troll fishery. If this is the case, the amount will be divided up amongst trollers based on their then-current proportion of the troll TAC, after all transfers have been taken into account.

4.12.5. Prospects for 2010

There is no predicted commercial surplus for Skeena River sockeye. As a result, sockeye retention will be prohibited until there is a predicted commercial surplus. Chum and steelhead retention will remain prohibited all year. Pink salmon returns to the northern mainland are expected to be weak in 2010.

5. FIRST NATIONS FISHING PLAN

After conservation needs are met, First Nations' food, social, and ceremonial (FSC) requirements and treaty obligations to First Nations have first priority in salmon allocation. DFO manages FSC fisheries cooperatively with individual First Nations using Comprehensive Fisheries Agreements and communal licences. A communal licence is issued by DFO that reflects the provisions in the Comprehensive Fisheries Agreement. Where a Comprehensive Fisheries Agreement cannot be reached between DFO and an Aboriginal group, DFO will only issue a communal licence to the group.

Catch Monitoring will be a priority in the management of First Nations fisheries. Monitoring programs and real-time reporting technologies will be examined.

5.1. Catch Monitoring and Reporting Initiatives

5.1.1. Improving Coded Wire Tag (CWT) sampling of FSC fisheries

Many First Nations FSC fisheries have not been sampled for CWTs, and most of those that have been inconsistently or inadequately sampled for CWTs. Since many of these fisheries are terminal and intercept Chinook and/or Coho indicator stocks, this is a serious concern because it generates unknown bias for cohort analyses and implementation of PST management regimes for Chinook and Coho salmon. In 2009, the Department, with collaboration from the Nuxalk First Nation, introduced CWT sampling in the Lower Bella Coola River fishery that impacts Atnarko Chinook salmon, an indicator stock. This program was very successful in acquiring mark rate information and CWT recoveries and will continue in 2010.

5.2. Specific Conservation Measures

When a conservation concern has been identified for an individual stock that is harvested by First Nations, then consultation is undertaken to adapt the fishing plan to provide the necessary protection to the weak stock.

5.3. Communal Licence Harvest Targets

First Nations access to salmon for FSC purposes is managed through communal licences. These licences are designed for the effective management and regulation of First Nations fisheries through a negotiated series of mutually acceptable conditions wherever possible. The date, times and locations where harvesting may occur, acceptable gear types, and other conditions are described in these licences. Communal licences can be amended in-season for resource conservation purposes or to increase access for FSC purposes as needed.

DFO seeks to provide for the effective management and regulation of First Nations fisheries through negotiation of mutually acceptable and time-limited Comprehensive Fisheries Agreements. If an agreement cannot be mutually concluded, DFO will only issue a Communal Licence to the group authorizing them to fish for FSC purposes.

Harvest ceilings for communal licences in the north and central coast of B.C. are outlined below. Note that actual numbers of fish on some communal licences are still in negotiation, and therefore the numbers listed below are subject to change. Actual catches will be dependent on, among other factors, in-season assessments of actual stock strength, management measures taken to ensure conservation of individual stocks, and abundance of other species.

Communal Licence Harvest Ceilings (Arranged From North and Inland)

	Sockeye	Coho	Pink	Chum	Chinook
Gitanyow (Nass River)	6,000	250	185	25	620
Yekooche (Babine Area)	2,000	0	0	0	0
Takla (Bear/Sustut)	1,050	0	0	0	550
Lake Babine (Babine Lake and Area)	35,000	500	1,000		100
Gitksan (Skeena River) and Wet'suwet'en (Bulkley River)	100,000	2,500	25,000	500	10,000
Kitselas (Skeena River near Terrace)	14,000	1,000	2,000	200	1,500
Kitsumkalum (Skeena River near Terrace)	12,000	200	1,000	500	1,000
Lax Kw'alaams (Areas 3 and 4)	20,000	500	1,000	700	750
Metlakatla	5,000	100	500	100	100

(Area 4)					
Kitkatla (Area 5)	5,500	100	600	750	100
Gitga'at (Area 6)	2,200	750	140	200	140
Haisla (Area 6)	2,500	2,500	1,000	2,000	1,000
Haida (Areas 1 and 2)	20,000	5,000	2,500	2,500	3,000
Kitasoo (Areas 6 and 7)	9,000	1,500	1,500	3,000	500
Heiltsuk (Areas 7 and 8)	20,000	3,000	6,000	6,000	2,000
Ulkatcho (Bella Coola/Atnarko Rivers)	500	50	350	50	350
Nuxalk (Area 8)	14,000	3,500	5,000	3,000	5,000
Wui'kinuxv (Area 9)	4,500	400	400	400	100
Gwa'sala-'Nakwaxda'xw (Area 10)	2,000	20	20	70	20

5.4. Anticipated Food, Social and Ceremonial Opportunities

Salmon fishing for FSC purposes is open year round, with the exception of closed times for nets in the vicinity of commercial net fisheries as described in individual First Nations' communal licences.

5.5. Nisga'a Fisheries

The Nisga'a Annual Fishing Plan (NAFP) is developed by the Fisheries Program of the Nisga'a Lisims Government and governed by the terms of the Nisga'a Final Agreement and the Nisga'a Harvest Agreement. The Nisga'a Harvest Agreement includes Nisga'a fish allocations expressed as a percentage of the adjusted total allowable catch of sockeye and pink. The NAFP is developed in accordance with Chapter 8 of the Nisga'a Final Agreement. Once approved by the Minister, the Annual Fishing Plan remains in effect until replaced the following year. The fishing plan applies to persons who harvest fish, other than steelhead, in Nisga'a fisheries.

Nisga'a fish allocations of sockeye and pink, as defined in the Nisga'a Harvest Agreement, are set out as a percentage of the Canadian Total Allowable Catch for Nass Area stocks. Nisga'a commercial fisheries for these or other salmon species have the same priority in fisheries management decisions as other commercial fisheries that target Nass Area salmon stocks.

The NAFP defines the escapement goals required to guide management decisions for Nass salmon stocks, calculates Nisga'a allocations for each salmon species and provides the general regulatory requirements for catches of each salmon species. The NAFP is reviewed by the Joint

Fisheries Management Committee (JFMC) prior to being submitted to the Minister for approval. Nisga'a Lisims Government is responsible for the internal allocation of catch opportunities between Nisga'a fishers and day to day operation of the Nisga'a fishery.

Pre-season estimates and ranges for the Nisga'a salmon allocations in 2010 are:

- a) Nass Sockeye: Total Return to Canada (TRTC) forecasts range between **350,000** (minimum brood estimate) and **686,000** (maximum brood estimate). Based on the TRTC forecasts and the minimum escapement goal (**100,000**), the Nisga'a allocation ranges between **52,000** and **118,000**. The sibling TRTC estimate (**648,000**) has tracked well in the past and will be used for calculating the initial target for the in-season Nisga'a allocation (**113,000**). The actual allocation target may be approximately 2,000 less, depending on run strength, to account for the cumulative overages/underages accrued from 2000 to 2009;
- b) Nass Pink: TRTC forecasts range between **68,000** (minimum brood estimate) and **230,000** (maximum brood estimate) for two year, even year, return average. Based on the TRTC forecasts and the minimum escapement goal (**150,000**), the Nisga'a allocation ranges between **0** and **2,000**. The mean brood TRTC estimate (**149,000**) will be used for calculating the initial target for the in-season Nisga'a allocation (<**500**). No allocation adjustments are required as no cumulated overages and underages exist from 2000 to 2009;
- c) Nass Chinook: TRTC forecasts range between **29,000** (minimum brood estimate) and **44,000** (maximum brood estimate). Based on the TRTC forecasts and the minimum escapement goal (**10,000**), the Nisga'a allocation ranges between **6,000** and **9,500**. The sibling (age) TRTC estimate (**33,000**) will be used for calculating the initial target for the in-season Nisga'a allocation (**7,000**). The actual allocation target may be approximately 4,500 more to account for management uncertainty allowances as part of the overage/underage calculations from 2000 to 2009. Underages would only be targeted in productive return years as assessed during the season;
- d) Nass Coho: TRTC forecasts range between **104,000** (minimum brood estimate) and **127,000** (maximum brood estimate). Based on the TRTC forecasts and the minimum escapement goal (**40,000**), the Nisga'a allocation ranges between **8,000** and **10,000**. The mean brood TRTC estimate (**115,000**) will be used for calculating the initial target for the in-season Nisga'a allocation (**9,000**). The actual allocation target may be approximately 7,000 more to account for management uncertainty allowances as part of the overage/underage calculations from 2000 to 2009. Underages would only be targeted in productive return years as assessed during the season; and
- e) Nass Chum: TRTC forecasts range between **19,000** (minimum brood estimate) and **107,000** (maximum brood estimate). Based on the TRTC forecasts and the minimum escapement goal (**30,000**), the Nisga'a allocation ranges between **0** and **8,500**. The mean brood TRTC estimate (**61,000**) will be used for calculating the initial target for the in-season Nisga'a allocation (**5,000**). The actual allocation target may be approximately 36,000 more to account for overage/underage allowances from 2000 to 2009. Underages would only be targeted in productive return years as assessed during the season.

5.6. Aboriginal Commercial Fishing Opportunities

The Aboriginal Fisheries Strategy (AFS) was implemented to address several objectives related to First Nations access to the salmon resource. One of these objectives was to contribute to the economic self-sufficiency of Aboriginal communities. An integral component of the AFS is the Allocation Transfer Program (ATP). This Program facilitates the voluntary relinquishment of commercial licences and the issuance of licences to eligible Aboriginal groups in a manner that does not add to the existing effort on the resource, thereby providing Aboriginal groups with much needed employment and income. Since 1994 when the ATP was first launched, over 250 commercial licences have been transferred to Aboriginal groups.

In July, 2007, the Minister of Fisheries and Oceans announced a new initiative to align with the AFS and ATP programs. This initiative, termed the Pacific Integrated Commercial Fisheries Initiative (PICFI), has the goal of increasing First Nations participation in all commercial fisheries. This initiative also encourages the aggregation of First Nations in their quest to re-establish their presence in Pacific Commercial fisheries. To this end an inventory of license relinquishments has been undertaken over the past 2 years. The general PICFI website link is <http://www.pac.dfo-mpo.gc.ca/fm-gp/picfi-ipcip/index-eng.htm>, and a summary of PICFI/ATP licence eligibilities and quota relinquishments can be obtained at: http://www.pac.dfo-mpo.gc.ca/fm-gp/picfi-ipcip/archives/07-08_results-resultats-eng.htm:

Discussions regarding economic opportunities for First Nations are on-going with First Nations and stakeholders. For 2010, as in previous years, the focus with First Nations will be on experimenting in non-tidal areas on abundant stocks. These fisheries will be conducted separately from food, social and ceremonial fisheries, under the same priority and similar rules as the commercial fishery and fish harvested will be off-set with licenses retired from the commercial fishery.

6. RECREATIONAL FISHING PLAN

Recreational fishing opportunities for salmon are regulated by the *British Columbia Sport Fishing Regulations, 1996* made under the *Fisheries Act*. The regulations are generally summarized in the *2009 to 2011 British Columbia Tidal Waters Sport Fishing Guide* and the *2009 to 2011 British Columbia Freshwater Salmon Supplement*.

This information is subject to change in-season if additional conservation concerns arise or if additional recreational opportunities become available. Changes will be communicated through Fishery Notices, media reports, telephone information lines and/or postings on the Pacific Region Fisheries and Oceans Canada website at: www.pac.dfo-mpo.gc.ca/recfish.

Catch Monitoring will be a priority in the management of recreational fisheries. The Department is working with the Sport Fishing Advisory Board to develop catch monitoring standards for use in the recreational fishery.

6.1. Catch Monitoring and Reporting Initiatives

The development of an improved catch monitoring regime will continue to be a priority in the management of recreational fisheries. The Department is working with the Sport Fishing Advisory Board to develop catch monitoring standards for the recreational fishery. The standards focus on data collected to estimate catches, releases, and essential biological data for stock assessments and fishery management evaluations.

6.1.1. Initiatives to increase Coded Wire Tag (CWT) submission rates

The CWT system relies on voluntary submissions of heads from adipose fin clipped chinook and coho salmon to estimate the quantity and composition of CWTs caught by anglers. Over the past several years, submission rates have decreased for both species, but most drastically for coho salmon. Now recovery rates for coho salmon have become too low to provide sufficiently precise CWT catch estimates for stock assessment purposes; in certain fisheries, recovery rates of chinook salmon are also too low. Further, the 2005 expert panel review of the CWT system found that an increased proportion of the total catch was occurring in sport fisheries, which are more difficult to sample than commercial fisheries. To increase angler awareness of the program and head submission rates, the department is increasing promotion and advertising efforts, and communicating these concerns to the Sport Fish Advisory Board. In 2010, the Department will explore additional means of improving the certainty of the recreational fishery CWT data.

Sport catch taken on guided trips, both lodge-based and non-lodge based, is one sector of the sport fishery that has seen increased head submission rates in recent years, due to cooperation of the guides in collecting and in some cases delivering heads. In 2010, the department will strive to increase the proportion of guiding companies collecting heads to better represent their fishing activity.

6.2. Specific Conservation Measures

There are specific management measures in all management areas of the north and central coast, and these specifics are outlined in the *2009 to 2011 British Columbia Tidal Waters Sport Fishing Guide*. These restrictions are to protect vulnerable salmon from being over-harvested, with many closures occurring at the mouths of streams where salmon school and acclimatize to a fresh water environment prior to entering the stream.

6.3. Tidal Salmon Sport Fishing Regulations

North COAST WATERS - AREAS 1 TO 10, 101 TO 110 and 142

1. The aggregate daily limit for all species of Pacific salmon (other than kokanee) from tidal and non-tidal waters combined is four (4). The aggregate possession limit is eight (8) salmon.
2. Unless otherwise specified in the table below, the daily limit for chinook is 2 per day and all retained chinook must measure 45 cm or more from tip of nose to tail fork. All coho, sockeye, pink and chum must measure 30 cm or more.
3. A barbless hook is in effect year-round.
4. There is an annual limit of 30 adult Chinook, in the aggregate
5. All Area/Subarea descriptions provided in square brackets are approximations. For more exact information, please see the *Pacific Fishery Management Area Regulations*.
6. Rockfish Conservation Areas that are currently in effect and are closed to all fin fishing. Descriptions of these closures can be found on the Internet at: www.pac.dfo-mpo.gc.ca/recfish.
7. **It is important to note that changes to the table below may occur in-season.**

WATERS	SPECIES	DATES	LIMITS / GEAR/
All Areas (Areas 1 to 10, 101 to 110 and 142), unless otherwise specified below.	Chinook	Jan 01-Dec 31	2 per day.
	Coho	Jan 01-Dec 31	4 per day.
	Sockeye	Jan 01-Dec 31	4 per day.
	Pink	Jan 01-Dec 31	4 per day.
	Chum	Jan 01-Dec 31	4 per day.
Area 1, 2E and 2W	All Salmon	Jan 01-Dec 31	Single barbless hooks required in tidal portions of all streams.
Area 2E - The waters shoreward of a line between two boundary signs on either side of the Copper River estuary and the Pallant Creek estuary.	All Salmon	Jan 01-Dec 31	Single barbless hooks required.
Area 2E - The waters of Cumshewa Inlet east of a line from a boundary sign 3.5 km west of Mathers Creek to a boundary sign on McLellan Island and west of a line from this boundary sign to a boundary sign 3.5 km east of Mathers Creek	All Finfish	Aug 15-Oct 31	No Angling.
Area 1 - Waters of Masset Inlet and Sound south of a line from a boundary sign at Griffiths Point to a boundary sign due west on the opposite shore.	Chinook	May 15-Oct 31	0 per day.
Area 1 - Waters of Masset Inlet and	Chinook	Jun 15-Oct 31	0 per day.

Sound south of a line from Entry Point to Westacott Point.			
Area 1, 2E and 2W - Tidal portions of all streams in. (Excluding tidal portions of Pallant and Braverman Systems).	Coho	Jan 01-Dec 31	2 per day
Area 2E – The waters westward of a line from Lawn Pt to Grey Pt.	Sockeye	Jan 01-Dec 31	0 per day.
Area 2W - The waters of Fairfax Inlet shoreward of a line from Magneson Point to Reid Point.	Sockeye	May 15-Aug 15	0 per day.
Area 2E - The tidal portion of Tlell River.	Pink	Jan 01-Dec 31	0 per day.
Area 2E - The waters of Skidegate Inlet shoreward of a line between two boundary signs on either side of Sachs Creek estuary.	Pink Chum	Aug 15-Oct 31	No fishing for pink and chum.
Area 3 - The tidal portions of the Gingolx (Kincolith) River from the Gingolx Highway Bridge downstream to boundary signs at the mouth.	Chinook	Jan 01-Dec 31	1 per day over 45cm.
Area 4 - The waters downstream of a tidal boundary sign at the water line crossing on Shawatlan Creek to the fishing boundary signs at the mouth of Shawatlan Bar.	All Finfish	July 15-Aug 15	No angling.
Area 4 - The waters from a fishing boundary sign at the mouth of Kloiya Creek to the fishing boundary sign at the mouth of Kloiya Bay.	All Finfish	Aug 01-Sep 01	No angling.
Area 5 - Inside a line drawn from boundary signs located approximately 100 m seaward of the falls at the mouth of the Kumowdah River flowing into Lowe Inlet.	All Finfish	July 01-Oct 31	No angling.
Area 6 – All streams flowing into tidal waters.	Coho	Jan 01-Dec 31	Daily limit same as non-tidal portions of stream.
Area 7 to 10	Sockeye	Jan 01-Dec 31	0 per day.
Area 7 - The waters of McLaughlin Bay shoreward of a line connecting two fishing boundary signs on each side of the entrance to McLaughlin Bay.	All Finfish	July 01-Oct 31	No angling.
Area 8 - The mouth of Namu River shoreward of a line between two fishing boundary signs located 180 m from a bridge at the mouth of Namu Creek on the west shore and a point on the opposite side of the bay.	All Finfish	Jan 01-Dec 31	No angling.
Area 9 - The mouth of Johnston Bay shoreward of a line between two square white boundary signs .	All Finfish	Jun 01-Sep 30	No angling.
Area 9 - In those waters of Rivers	All Finfish	Jun 01-Sep 15	No angling.

Inlet shoreward of a line connecting two square white boundary signs off the mouth of the Wannock River.			
Area 9 - In those waters of Rivers Inlet shoreward of a line connecting two square boundary signs off the mouth of the Chuckwalla and Kilbella Rivers.	All Finfish	Jun 01-Sep 15	No angling.
Area 9 - In those waters of Rivers Inlet shoreward of a line connecting two square boundary signs located at Rutherford Point and McAllister Point.	All Salmon	Jun 01-Sep 15	Closed to fishing with a fishing line or downrigger line to which is attached either to a weight that is greater than 168 grams (6 oz), or an attracting device that is not affixed directly to the hook.
Area 10 - The waters of Wyclees Lagoon lying southerly of the boundary sign near the entrance.	All Salmon	Jun 20-Nov 20	0 per day all salmon species.

7. COMMERCIAL FISHING PLAN

7.1. IFMP Implementation

Due to the uncertainty of both timing and size of returning salmon runs, many commercial openings are not confirmed until a few days prior to the actual opening. Announcements are at least weekly, usually every Thursday afternoon at 14:00 hours and during days when a fishery is in progress, usually prior to 16:00 hours, and occasionally more frequently. Although it is not stated under each week in each area of this fishing plan, management actions planned for any area may change in-season. Fishing Areas, Subareas or portions thereof, provisions for extensions, opening patterns and the duration of the fishing season can all be adjusted based on factors such as weak stock concerns, target stock abundance, fishing effort, rate of gear selectivity, domestic allocations and other factors.

This fishing plan is designed to harvest abundant salmon stocks while minimizing the incidental harvest and by-catch of those stocks that are at less than abundant levels. For example, boundaries have been adjusted to reduce the size of the mixed stock fishing area from historic levels. Stocks of concern for which management actions have been included are Rivers and Smith Inlets sockeye, chum along the outer coast of Areas 3 to 6, and Skeena sockeye, coho and steelhead. Net fisheries that occur on the north and central coast may be required to release all non-target species with the least possible harm, depending on local stock concerns. Central coast pink and chum fisheries will be monitored to ensure coho encounters do not harmfully impact on local stocks.

Fishery managers are working with Area Harvest Committees to develop demonstration fisheries that experiment with meeting a range of objectives including matching fleet size to the available stock, pacing fisheries to maximize value of the harvest and developing more cooperative fishing arrangements between fishers. Lessons learned from the demonstration fisheries will be considered for inclusion into fisheries of the future. Close liaison with coastal First Nations will be maintained to determine whether any surpluses develop on streams over and above what would normally be used for FSC purposes.

Catch Monitoring will be a priority in the management of commercial fisheries. DFO will continue to focus efforts on enforcement of current reporting requirements.

7.2. Catch Monitoring and Reporting Initiatives

The development of an improved catch monitoring regime will continue to be a priority in the management of commercial fisheries. The Department will work with the Commercial Salmon Advisory Board and Area Harvest Committees to implement tools and develop annual catch monitoring plans for commercial fisheries. The standards focus on data collected to estimate catches, releases, and essential biological data, such as CWT sampling, for stock assessments and fishery evaluations.

Traceability of commercially harvested fish is increasingly a focus of concern as a result of the need to provide market confidence in resource sustainability and product safety. The

Department will work with all fleets to implement components of traceability. These could include mandatory hail-in/hailout provisions (currently in place in troll fisheries) and a pilot mandatory dockside monitoring program.

In the North Coast in 2010, the Department will work with harvesters and processors to explore options for improving logbook and sales slips reporting in all salmon fisheries. By building on recent catch monitoring programs, the goal of the project will be to improve compliance, accuracy and the delivery time of harvest and release information while considering effort and costs to fishermen. It is unlikely program details will be available for inclusion in the management plan but options that will be considered for North coast fisheries will mainly include expansion and increased options within the e-log program and assessing the potential of an electronic sales slip program.

7.3. Coded Wire Tag (CWT) sampling of freezer troll catch

The importance of adequately sampling for CWTs in the catch has increased as the portion of troll landings frozen at sea has increased. There are three ongoing concerns with CWT sampling of freezer troll catch which continue to be addressed in 2010.

The first concern results from the removal of heads from the catch at sea when trollers freeze their catch. For commercial landings chosen for CWT sampling, sampling activity must examine 100% of the landed fish, and collect all heads that are suspected to contain a CWT. Therefore, trollers removing heads at sea are required by Condition of Licence to keep all heads from retained chinook and coho and deliver them to processing plants when landing their catch. However, heads are not always delivered, and when they are delivered, many deliveries have to be excluded from the CWT sample because they contain fewer heads than the body count in the landing.

The second concern also results from the removal of heads before sampling. Recognizing that freezer trollers may have space limitations for retaining heads, the Department allows the alternative of retaining only the portion of the head likely to contain the CWT, referred to as the 'snout'. Unfortunately, many deliveries of snouts have to be excluded from the CWT sample because the snouts have been cut too small, making it likely that CWTs actually present in the fish are not included in the sample.

To help address these concerns, the Department:

- i) has standardized the requirements regarding head retention and delivery from all retained coho and chinook in the Conditions of Licence for all troll Licence Areas;
- ii) has specified, as a Condition of Licence, the minimum portion of each head that must be retained;
- iii) will provide instructions regarding these conditions, via troll Fishery Notices, this document (Appendix 8), and other routes.

The third concern results because freezer trollers often land two or more weeks worth of catch during one landing. The Mark Recovery Program (MRP) is required to estimate the catch of

CWTs by week. Ice trollers land often enough that CWTs detected in their catch can be attributed to the week they were caught in. However, when freezer trollers land after a trip lasting two or more weeks, and deliver heads for the entire fishing trip duration, it is unknown which week each discovered CWT was caught in; thus, such samples can not contribute to the estimates of CWT catch by week (but are still useful for improving estimates of CWT catch in each fishery).

To address this concern, the Department has implemented a program in which special purpose bags and labels are provided to freezer trollers for use in storing and labelling head samples separately according to the week they were caught. For 2010, freezer trollers will be able to pick up packages of bags and labels at Fishery Licensing offices in Vancouver, Nanaimo, and Prince Rupert. Vessel masters unable to pick up bags from licensing offices should contact the Department toll-free at 1-866-483-9994 to arrange delivery.

7.4. Licence Application and Issuance

The salmon licensing period encompasses April 1 to March 31 of the following year. Applications must be completed and submitted to a Pacific Fishery Licence Unit by March 31 of each year along with the required fee. Prior to commencing fishing, a vessel must have the valid licence documentation aboard.

Prior to annual licence issue, vessel owners must ensure that:

- a) Any Ministerial conditions placed on the licence eligibility have been met;
- b) Any conditions of the previous year's licence have been met, such as:
 - i. Submission of all harvest logs (for further information contact the Salmon Catch Monitoring Unit at 250-756-7000); and
 - ii. Submission of all fish slips (for further information contact the Regional Data Unit at 604-666-2716).

7.4.1. Fisher Identification Number (FIN)

Starting in 2006 DFO introduced unique Fisher Identification Numbers (FIN) that were assigned to all Pacific commercial harvesters.

The FIN allows for fast, easy, and reliable on-grounds identification of fishers for data collection, fisheries management and enforcement purposes. Once a FIN has been assigned to a fisher, that individual will reference the FIN when identifying him or herself in subsequent business dealings with both the department and service contractors, e.g. completing the FIN field on logbooks, noting the FIN when hailing, landing catch, etc. As the FIN will now be used during normal business interactions with DFO and contractors fishers will no longer need to provide detailed personal identifying information such as gender or date of birth.

Fishers will not need to apply for a FIN as one will be automatically generated the first time an annual FRC (Fishers Registration Card) licence is issued. Once the FIN is issued to a fisher, it will not change from year to year.

7.5. Mandatory Log-Book and Phone-In Program

Fishers are reminded that there is a mandatory log-book and phone-in program or E-log in place for all commercial fisheries. In-season decisions could be directly affected by the level of compliance to the phone-in provisions.

Conditions of Licence require that commercial fishers make service arrangements with an approved service provider in order to fulfil reporting requirements. An approved service provider is a third party company, organisation or individual who meets departmental requirements for impartiality and security, and who will provide services including:

- Provide fishers with harvest logs with the same format and content as the appropriate example in Appendix 8;
- Establish and maintain a computer network with secure access to the departmental salmon fishery database and computer software that will enable data entry into that database;
- Establish and maintain a call centre that will receive in-season reports and enter the reported information electronically into the departmental salmon fishery database;
- Submit the post-season catch reports required by conditions of licence electronically to the departmental salmon fishery database, and issue letters confirming receipt of these reports.

Information on contacting currently approved service providers will be included with licence packages mailed to licence holders.

Fishermen should be aware that completion of their previous year's logbook must be completed and submitted before their new licence will be released.

7.5.1. Electronic Logbooks (E-Logs)

Fisheries and Oceans Canada is piloting an Electronic Logbook system in some areas. This computer application has been designed following the current, paper versions of logbooks for the gill net, seine and troll fleets. The ultimate goal of this new initiative is to improve the efficiency and compliance of reporting catch to the Department. Participants will be required to follow the terms as described in their licence conditions.

A selected number of computers will be deployed to each of the three gear types, and will be the primary means used to transfer each vessel's catch and other fishery information to DFO's Fishery Operations System (FOS). Participants in this pilot project will not be required to purchase the salmon logbook service or be required to phone in their catch and fishery information to the service provider. A list of Fishers, Vessel Names and associated VRN numbers will be communicated via Fishery Notice once determined. The Department will be working with harvesters and processors to further develop the e-log program in all salmon fisheries in the North Coast in 2010.

For more information please contact Carmen McConnell at 250-713-7172 or Ron Goruk at 250-713-1522.

Refer to your conditions of licence for further details regarding the log book and phone-in program.

7.6. North Coast Non-Retention Species

All opening announcements will contain the species that will be allowed to be retained, and those which must be released to the water with the least possible harm. The fishing season will begin with the following non-retention rules will be in place:

<u>Species</u>	<u>Non-retention fisheries</u>
Steelhead	All commercial fisheries
Chum	Troll, seine in Areas 3 – 6, gill net in Areas 4, 5, and Subarea 3-12
Coho	All net fisheries, subject to change after an in-season review on coho abundance.
Chinook	All seine fisheries

There may be some local exceptions, for instance coho retention allowance in areas with a strong local enhancement component such as Cumsheewa Inlet.

In-season management actions may take place to include other non-retention species, or allow retention of some species that show in-season strength.

7.6.1. Retention of Lingcod and Rockfish by Salmon Troll

Implementation of a commercial groundfish integrated fishery has management implications for those wishing to retain lingcod while salmon trolling. Similar to last year, all vessels wishing to retain any amount of lingcod must have their fish validated through the established dockside monitoring program. In addition to this, any vessel wishing to land lingcod must acquire sufficient quota to do so.

Requirements include the following (less than 500 lbs of lingcod per trip):

- Vessel must have sufficient IVQ;
- Transportation requirement – All lingcod must be transported by the licensed vessel either directly to land or to a fish pen;
- Hail in and Hail out requirements through the designated service provider Archipelago Marine Research Ltd (AMR);
- Specific locations and times at which landing of fish is permitted; and
- Landing requirements – The landing of any fish of any species is not permitted unless a designated observer is present to authorize the commencement of weight verification.

Vessels wishing to retain and land **more than 500 lbs** per trip of lingcod must, in addition to all of the above, meet the new electronic monitoring requirements. For more information on these requirements please refer to the 2010/2009 Groundfish Integrated Fisheries Management Plan.

The salmon troll fishery is currently permitted to retain 20 rockfish per day (excluding Yelloweye, Quillback, China, Tiger and Copper, as by-catch to salmon fishing (i.e. during

salmon troll open times and when salmon are retained on board the vessel). This allowance will continue in 2010. There are no additional monitoring requirements.

7.7. Net Fishing Times

All north and central coast net fisheries, with only a few exceptions, will normally be restricted to daylight hours (not longer than 16 hours per day, progressively shorter as the daylight hours get shorter).

The local manager may vary these net fishing times depending on circumstances such as by-catch concerns, strong returns of target species, abundance of prohibited species, weather, or other factors. Times will be specified in fishery notices released prior to each fishery.

7.8. Revival Tanks

Revival tanks conforming to the Conditions of Licence are required, and all prohibited species captured as by-catch must be either revived in the revival tank and released, or released directly to the water with the least possible harm. If compliance with revival tank provisions is poor this could negatively affect future fishing opportunities.

While gill net fishing, revival tanks must be operating from 10 minutes prior to the commencement of retrieval of the net and continue in operation at all times during retrieval and while fish are being held in the tank. For seine and troll fishers, the revival tanks must be operating while the seine net or hooks are in the water and while fish are being held in the tank. The revival tank(s) and equipment must be kept clean and in operable condition and shall be used for no other purpose than that outlined above.

7.9. Demonstration Fisheries

The Department has conducted extensive consultations with the commercial salmon industry and First Nations concerning fisheries reform and renewal. Changes in the fishery will be designed to improve biological and economic performance of the fishery.

Four demonstration projects are being planned for implementation in 2010 – Area 4 seine sockeye individual transferable quota (ITQ), Area F chinook (ITQ), Nass inland commercial demonstration fishery (Gitanyow) and the Skeena inland commercial demonstration fishery (Skeena Fisheries Commission).

In an ever-changing environment such as resource conservation, a group may want to explore special harvesting initiatives or new management approaches to develop flexible fisheries with greater harvester control that improves product quality, increases value to the fleet and have better catch monitoring and compliance with catch limits. Projects that fall under this category may include investigating share-based (quota) management in salmon fisheries, fishing in an unconventional area/time, or testing the abundance of stocks prior to full fleet fisheries. Special projects or initiatives may have significant components that relate to selective fishing.

7.10. Gill Net Construction and Configuration

In Management Areas 1 to 10, gill nets of different constructions may be used. Net construction may be either multistrand (30 filaments), or four, five or six filaments (Alaska twist). Specific

restrictions such as the specifications for net construction and revival boxes are found in the conditions of the individual licences, which are attached to the licence. Fishers are urged to read these conditions carefully to ensure that their vessel and fishing techniques are in accordance with their licence.

All gill nets will meet one of the following configurations:

1. Nets may be hung without a weedline (corkline to web distance 0 to 45 cm) to a maximum of 60 meshes deep.
2. In Management Areas 3 to 5, nets may be greater than 60 meshes deep, but must be hung with a weedline (corkline to web distance minimum 1.2 m, maximum 1.5 m) to a maximum of 90 meshes deep. As well, every fifth cork must be red or another distinctive colour (not white).
3. Between July 10 and August 14 weed lines are required for gill nets in Subareas 8-5 north of Bold Point and 8-8.

Specific restrictions for net configuration are found in the Fishery Notice issued prior to every commercial fishery. Fishers are urged to read these carefully to ensure that their fishing gear is in accordance with the opening.

7.11. Selective Fishing and other Conservation Measures

Skeena River Selective Gill Net Fisheries

The decision on when to implement this selective gill net fishery will be made in-season based on the level of fishing that has occurred to date and the expected impact on steelhead, coho and chum throughout the year.

For the selective gill net fishery, the following rules will apply:

- Half length nets: Maximum net length will be 100 fathoms, or 187.5 m. It will not be acceptable to have a regular length net on your drum and only set half. It will also not be acceptable to have both halves of the net on your drum. Only one (half-length) net will be allowed on your drum or in the water.
- 20 minute soak times: The maximum amount of time the net is allowed to be in the water from the time it is completely set to the time it begins to be retrieved is 20 minutes. Note that this “soak time” is designed to equal a 40 minute time from when the first portion of the net enters the water to the when the last portion of the net leaves the water. Times will be monitored on the grounds.
- Fish handling: Gill net fishers are encouraged to handle prohibited species with the greatest of care. Operating revival boxes are mandatory as in all gill net fisheries. However, if the salmon is in a vigorous condition, it is best to release it directly to the water rather than put it in the revival box. Fishers are asked to use their judgement on which fish should go into the revival box before they are then released to the water.
- Reduced fishing area. In order to effectively monitor this selective fishery, the fishing area will be reduced. This will be achieved by closing the northern portions of Chatham Sound.

The commercial gill net fleet is reminded that the success of this selective fishery is critical to their future access to Skeena sockeye. In-season decisions on further fishing days will be directly dependant on compliance to the above restrictions.

7.12. Seine Fisheries

All seine fisheries unless otherwise authorized will be conducted with mandatory brailing and sorting of the catch. Specific restrictions such as the specifications of revival tanks are found in the Conditions of Licence. Fishers are urged to read these conditions carefully to ensure that their vessel and fishing techniques are in accordance with their licence. When moving between areas with different non-retention and non-possession rules, seiners must offload prior to fishing in the area they are moving to.

7.13. Anticipated Net Opening Dates

All dates are anticipatory only. Subareas open and hours of fishing will be announced in fishery notices prior to openings.

7.13.1. Area 1

No gill net or seine fisheries will be directed on passing stocks.

Mid-August to early September: Possible terminal fisheries directed on identified surpluses of local pink stocks.

Mid-September to October: Possible terminal fisheries directed on identified surpluses of local chum stocks.

7.13.2. Area 2E & 2W

No gill net or seine fisheries will be directed on passing stocks.

Mid-August to early September: Possible terminal fisheries directed on identified surpluses of local pink stocks

Mid-September to October: Possible terminal fisheries directed on identified surpluses of local chum stocks.

For commercial net openings in Cumshewa Inlet, coho may be retained and seines will be allowed to ramp due to the hatchery origin of the coho.

7.13.3. Area 3

June 15: First anticipated gill net fishery. Maximum mesh size 137 mm. This fishery will assess the returning Nass River sockeye run.

July 12: First anticipated seine fishery. Minimum bunt mesh size 70 mm. Earlier fishery possible if stocks abundant.

7.13.4. Area 4 & 5

Openings will be based on Skeena salmon returns and the target annual exploitation rate.

7.13.5. Area 6

July 12: First anticipated gill net opening in the Douglas Channel area. Minimum mesh size 149 mm, maximum mesh size 165 mm. First seine opening dependant on surpluses identified in-season.

7.13.6. Area 7

July 26: Consideration for a gill net and seine opening in 7-5, portion of 7-6 (Finlayson), portion of 7-9 (Mathieson), and 7-29 (Sheep). Minimum mesh size 149 mm.

August 16: Consideration for an opening in 7-17 (McLoughlin Bay). Gear types will alternate each week. Consideration for terminal chum harvest on Kitasoo Creek Hatchery stocks; gill nets first and seines second.

August 23: Consideration for a gill net and seine opening in portions of 7-30 (Johnstone Channel), 7-15 (Roscoe Inlet) and 7-13 (Spiller Channel).

7.13.7. Area 8

May 31: First anticipated gill net opening in the Bella Coola gill net area. This will be a directed chinook fishery. Minimum mesh size 203 mm.

June 28: Anticipated gill net opening in the Bella Coola gill net area and Fisher Channel/Fitz Hugh Sound. Minimum mesh size 158 mm.

July 12: First anticipated seine opening in Fisher Channel/Fitz Hugh Sound. Minimum bunt mesh size 70 mm.

July 10 to August 14: Weedlines are in effect in upper 8-5 (Fisher Ch) and 8-8 (Upper Dean Ch).

7.13.8. Area 9

No anticipated openings.

7.13.9. Area 10

No anticipated openings.

7.14. Northern Troll

All dates are anticipatory only. Subareas open and hours of fishing will be announced in fishery notices prior to openings.

Sockeye, chum, and steelhead are closed.

Chinook:

Please note, all chinook must be validated within 5 days of a chinook closure.

The troll fishery is limited in 2010 to 107,100 chinook. This equates to 377 chinook for each of the 284 Area F trollers. The forecast for WCVI is estimated to be 81,170. 3.2% of this return is 2600 chinook, which is the limit that will be managed for in the northern troll fishery.

The chinook fishery will be conducted under the ITQ rules. The first opening will be June 15. The quota per vessel will be 377 chinook. The fishery will close midnight August 2, earlier if the WCVI allowance is reached, or later depending on an estimate of WCVI caught to date, and re-open on August 28 to September 30, as long as there are enough WCVI left to allow this fishery. Information considered for the August closure will be: results of DNA tests through the season to date; estimated catch to date; effort; and CPUE. The re-opening date of August 28 may be changed depending on the numbers of WCVI chinook left to catch.

The ceiling on the number of chinook that can be held on any single licence is 1500 chinook at any given time. Once a vessel's catch reaches this limit, then additional quota can be put on the licence. This is intended to prevent speculation and large scale amassing of quota.

All Areas and Subareas mentioned are subject to change in-season. Below is a list of areas and Subareas expected to open on June 15 (Pink salmon will open in conjunction with chinook):

Subareas 1-1, 101-1, 101-2, 101-4, 101-5, 101-8 to 101-10.

Those portions of Subareas 1-2, 1-3 and 1-7 outside and seaward 1 nautical mile from the Graham Island and Langara Island shorelines (defined at the mean high water mark).

That portion of Subarea 1-5 outside and seaward 1 nautical mile from the Graham Island shoreline thence to it's intersection with a line running true North from Skonun Point (defined at the mean high water mark) and that portion of Subarea 1-5 east of a line running true North from Skonun Point.

Those portions of Subareas 101-3, 101-6 and 101-7 outside and seaward 1 nautical mile from the Graham Island and Langara Island shorelines (defined at the mean high water mark).

That portion of Subarea 142-2 north of 53 degrees 30 minutes north latitude.

The Frederick Island Rockfish Conservation Area remains closed to hook and line fisheries (see below for description).

Those portions of Subareas 1-1, 101-1 and 142-2 that lies outside a line that: begins at 53 deg 56.246 min N and 133 deg 17.500 min W then true East to 53 deg 56.246 min N and 133 deg 11.862 min W (Hope Point) then to 53 deg 57.144 min N and 133 deg 07.938 min W (Graham Island) then southerly following the shoreline of Graham Island to the intersection with 53 deg 47.0 min north latitude, then to 53 deg 47.000 min N and 133 deg 10.00 min W thence to the beginning point.

The above boundaries retains the 1.0 nautical mile ribbon boundary in Areas 1 and 101 following the Graham Island and Langara Island shorelines initiating at Langara Island and terminating at Skonun Point. There will be no commercial trolling shoreward of this ribbon boundary.

The chinook fishery may be closed on short notice if the proportion of WCVI chinook increases.

Coho:

July 1 - Open to pink and coho in Subareas 101-3 north of 54 degrees 24 minutes north latitude, 101-4, 101-5, 101-8 and 101-9.

July 22 - Coho open in the following areas. Refer to the Fishery Notice issued prior to the opening in case there are any in-season changes.

- Subareas 101-2, 101-4, 101-5, 101-8 to 101-10.
- Subareas 1-2, 1-3 and 1-7 except those portions inside or shoreward of a line running parallel to the mean high water mark of Graham Island and Langara Island at a distance of one nautical mile.
- Subarea 1-5, except that portion inside or shoreward of a line commencing at Wiah Point then following the Subarea boundary east for one nautical mile, then running parallel to the mean high water mark of Graham Island at a distance of one nautical mile to a point true north of Skonun point, then running true south to Skonun Point.
- Subareas 101-3, 101-6 and 101-7, except those portions inside or shoreward of a line commencing at 54°14.976' N and 133°04.386' W then true west for one nautical mile then north and east running parallel to the mean high water mark of the shorelines of Langara Island and Graham Island at a distance of one nautical mile.
- Subareas 1-1, 101-1 and 142-2 except those portions that lie inside a line that begins at 53 deg 56.246 min N and 133 deg 17.500 min W then true east to 53 deg 56.246 min N and 133 deg 11.862 min W (Hope Point) then to 53 deg 57.144 min N and 133 deg 07.938 min W (Graham Island then southerly following the shoreline of Graham Island to the intersection with 53 deg 47 min N then to 53 deg 47 min N and then to the beginning point.
- That portion of Subarea 142-2 north of the parallel passing through 53°43' N, except that portion set out in Item 5.
- Subareas 2-3, 2-4 and 102.
- Those portions of Subareas 103 and 104 north of 54 degrees 12 minutes north latitude and west of 131 degrees 10 minutes west longitude.
- Subarea 105-1.
- Subarea 105-2, except that portion inside or shoreward of a line that begins at 53 deg 27.900 min N and 130 deg 39.800 min W then to 53 deg 27.985 min N and 130 deg 35.246 min W then to 53 deg 23.700 min N and 130 deg 22.700 min W then to 53 deg 18.700 min N and 130 deg 21.500 min W then to 53 deg 24.300 min N and 130 deg 38.000 min W and then to the beginning point.
- Subarea 105-2, except that portion inside or shoreward of a line that begins at 53 deg 15.900 min N and 130 deg 22.200 min W then to 53 deg 16.100 min N and 130 deg 16.700 min W then to 53 deg 10.000 min N and 130 deg 06.200 min W then to 53 deg 10.000 min N and 130 deg 21.300 min W and then to the beginning point.

- Trolling is closed in all rockfish conservation areas listed in Appendix 3.

September 1 (or in the latter part of August, depending on analysis of stock strength) – A decision will be made on an opening of some inner portion of Area 3 for coho.

7.14.1. Retention of freezer troll caught chinook and coho heads

In accordance with the conditions of the Area F troll licence, all vessels are required to bring all chinook and coho heads (or snouts if they are cut properly to include any CWT) to the dock for submission, unless there is aboard that vessel a letter signed by a DFO official that exempts that vessel from this requirement.

In 2010, as in 2009, half the Area F troll fleet will be exempt from bringing in heads from 100% of all chinook and coho retained, and the other half of the fleet will be required to bring 100% of all chinook and coho heads to the dock for submission to dockside monitors. The vessels that will be required to bring in their heads are those that were exempted in 2009 from this requirement.

In 2009, some vessels were not diligent in carrying out their obligation in bringing in all chinook and coho heads. These vessels will be required to once again bring in all their heads in 2010 (i.e. will not be exempted). These vessels will be monitored as to compliance and appropriate actions will take place if they are not compliant.

8. 2009 POST-SEASON OBJECTIVES REVIEW

8.1. Fishery Management Objectives for Stocks of Concern

8.1.1. Rivers and Smith Inlets Sockeye

The objective for Rivers and Smith Inlets sockeye salmon is to continue with rebuilding these stocks to reach escapement goals and achieve a sustainable stock that will support harvest.

There has been no commercial or sports fisheries targeting River Inlet sockeye for many years. Escapements continue to fall well short (10 year average < 85,000) of the optimum escapement level, which is estimated to be between 200,000 and 600,000. Commercial and sports fisheries will continue to be curtailed until a trend to higher productivity has been established. This trend will be established from the adult spawner survey program and would have to show escapements that are either above or well within the optimum escapement levels.

The objective for Smith Inlet sockeye is to continue to rebuild these stocks to escapements of over 100,000 adults before considering commercial or sport fishing opportunities. Docee Fence counts will be instrumental in determining when the escapement goal is attained.

8.1.2. Skeena River Sockeye

The objective for Skeena River sockeye is to reduce the Canadian commercial exploitation rate on Skeena sockeye to begin rebuilding individual sockeye stocks of concern by maintaining, on average, a Canadian commercial exploitation rate of between 20% and 30%.

The 2009 Skeena River sockeye return did not allow for commercial harvest. Before it became obvious that the run was returning at this low rate, some Area 3 fisheries had taken place in upper Chatham Sound, resulting in a total 2009 commercial exploitation rate (ER) of 2.4%.

The actual Skeena total return for 2009 was 994,000. Escapement past the Tyee test fishery was 840,000, and the in-season estimate at Tyee was 874,955.

Alaskan exploitation rate is estimated at 8.1% (average of recent years). Canadian commercial net catch in upper Chatham Sound resulted in 2.4% ER. The in-river FSC catch (90,000) and the marine FSC catch (50,000) resulted in an ER of 14.1%. The in-river sport catch resulted in 2.0% ER, for a total of 26.5% ER in 2009.

8.1.3. Coho

The objective for north and central coast coho is to maintain rebuilding success and ensure overall exploitation does not exceed sustainable rates.

Post season assessment determined north and central coast coho returned at an unexpectedly high rate. Modest harvest was allowed in some net fisheries, and the troll fishery harvested

238,973 coho, mostly from Areas 1 and 101. Coho streams that were enumerated saw adequate stocking levels in most.

8.1.4. North Coast Chum

The objective for wild north coast chum is to minimize fishery impacts on these fish to the greatest degree possible while still maintaining fisheries targeting other species.

Chum remained a concern in 2009. Troll non-retention was continued all year. In Area 3, the 0.5 nautical mile ribbon boundary was maintained next to Pearce Island, and a 1.0 N.M boundary was established around Wales Island. In mid-season, subarea 3-12 went to non-retention of chum. In Area 3, the request to voluntary release chums in the gillnet fishery resulted in a very high proportion of chums being retained.

In Areas 4 & 5, non-retention by nets was continued. In Area 6, the only chum fishery was for enhanced chum in Kitimat Channel.

8.1.5. North Coast Chinook

The objective for West Coast of Vancouver Island (WCVI) Chinook is to manage Canadian ocean fisheries (specified below) to an exploitation rate of 10%. The objective for north coast chinook is to manage in accordance with the allocation policy, and to manage the northern troll fishery to a WCVI chinook exploitation rate of 3.2%.

The pre-season calculated allowable catch of WCVI chinook by the Area F troll fishery was 2860, and in-season this catch was estimated to be 2685, based on DNA analysis. Pre-season, the Area F troll allowance was 93,000, increased to 103,000 during the August break. Total catch was 75,470 chinook.

8.1.6. Skeena Steelhead

The objective for Skeena steelhead, as well as all north coast steelhead, is to maximize escapement, minimize interception, and minimize commercial impacts.

All commercial fisheries were operated with non-retention of steelhead, with the operation of revival tanks also mandatory. Gill net weedlines were optional, with the incentive of using a 90 mesh net if a weedline was used, in Areas 3 through 5, and mandatory in the Dean Channel area, 8-5 & 8-8. No commercial net fisheries were conducted in Management Area 4, so impact on Skeena River steelhead by commercial fishermen was low to none.

8.1.7. Inshore Rockfish

The management objective for inshore rockfish is to introduce conservation strategies that will ensure stock rebuilding over time. A fishing mortality rate of less than 2.0 percent (all Pacific Region fisheries) will be required to achieve this objective.

Rockfish Conservation Areas, (RCA's, no fishing zones for gear that impact on rockfish), have been implemented within the Strait of Georgia and in all outside waters including Haida Gwaii. The conservation strategy for rockfish along the coast of British Columbia is long term.

Rockfish are a long-lived species with a low level of productivity and therefore rebuilding will take several decades.

8.2. First Nations Fisheries Objectives

The objective is to manage fisheries to ensure that, after conservation needs are met, First Nations' food, social and ceremonial requirements and treaty obligations to First Nations have first priority in salmon allocation in accordance with "An Allocation Policy for Pacific Salmon" "A new Direction: The fourth in a series of papers from Fisheries and Oceans Canada, October 1999."

In general, Skeena River First Nations FSC harvests were below average because of the generally poor returns. There were specific concerns expressed by the Wet'suwet'en First Nation over chinook and sockeye abundance at Moricetown and by the Gitanyow First Nation regarding Kitwanga sockeye. The below average sockeye return to the Skeena resulted poor sockeye harvests in many areas.

Nisga'a Fisheries Program activities continued providing DFO and Nisga'a stock assessment managers with valuable information (e.g., run size and Nisga'a catch) required to successfully manage the Nisga'a fishery and assess Nass area stocks in 2009.

8.3. Recreational and Commercial Fisheries Objectives

The objective is to manage fisheries for sustainable benefits consistent with established policies.

Recreational salmon opportunities were maintained. Increased commercial opportunities were provided for First Nations inland fisheries while ensuring sustainability in accordance with the Wild Salmon Policy. The successful initiation of the Gitanyow Nass River sockeye commercial Demonstration Fishery provided economic opportunity to the Gitanyow First Nation. In addition, in-season identified escapement surpluses allowed for Excess Salmon to Spawning Requirement (ESSR) economic opportunities in terminal North Coast areas (Moricetown and Babine River for pink salmon, and Pallant Creek for coho).

8.4. International Objectives

The objective is to manage Canadian treaty fisheries to ensure that obligations within the PST are achieved.

Obligations within the PST were met this year with all species under the specified catch quotas. The Area 3-1 to 3-4 net fishery catch of pink salmon was within the annual catch share of 2.49 percent of the AAH of Alaskan Districts 101, 102 and 103. The Area 1 troll catch of pink salmon was within the annual catch share of 2.57 percent of the AAH of Alaskan Districts 101, 102 and 103.

Review of the performance of the PST provisions occurs annually at two bilateral meetings of the northern Panel of the PSC, and these results are published and available from the PSC.

8.5. Domestic Allocation Objectives

The objective is to manage fisheries in a manner that is consistent with the *Allocation Policy for Pacific Salmon* and the *2009 Pacific Salmon Allocation Implementation Plan*.

While fisheries were managed to address conservation objectives, they were also conducted in a manner consistent with the Allocation Policy for Pacific Salmon. When converted to sockeye equivalents, the coast-wide share of the three gear types were 39% seine (target 40%), 34% gill net (target 38%), and 27% troll (target 22%).

8.6. Compliance Performance

At the end of each season, statistics are compiled on the numbers of checks conducted from various platforms (vessel, vehicle and foot), and the number of charges resulting from these checks and others. Using this information, staff can evaluate whether compliance management objectives were met and whether the activities undertaken were effective. Overall compliance rates for each area and fishery are calculated to help identify priority areas for enforcement in subsequent seasons. In addition, valuable narrative data is collected to ensure problem areas are identified and addressed.

Reports generated from C & P’s Fisheries Enforcement Activity Tracking System (FEATS) are tracked and analyzed against business plan projections to see if patrol effort is taking place in areas where increased compliance is needed.

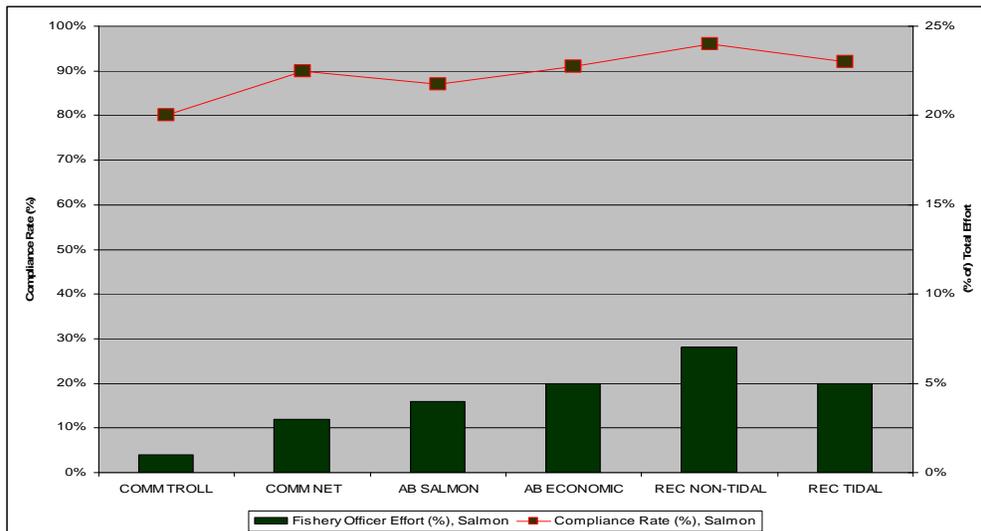
Table 1 (below) presents a summary of the compliance management program statistics for the Pacific salmon fisheries in the north coast management area.

TABLE 1:

NORTH COAST SALMON FISHERIES -- APRIL 1, 2009 TO JANUARY 12, 2010						
FISHERY CATEGORY	FISHERY OFFICER EFFORT HOURS	PER CENT TOTAL EFFORT	CHECKS	VIOLATIONS	COMPLIANCE RATE**	NON-COMPLIANCE RATE
COMM SALMON (TROLL)	705	1%	137	28	80%	20%
COMM SALMON (NET)	1396	3%	356	34	90%	10%
ABORIG SALMON	1812	4%	288	36	87%	13%
AB SALMON (ECONOMIC)	2588	5%	457	36	91%	9%
REC SALMON (NON-TIDAL)	3490	7%	2982	121	96%	4%
REC SALMON (TIDAL)	2463	5%	2533	201	92%	8%
NOTES: * Checks = no. of persons checked						
** Compliance rate (of proportion checked) = 100% minus Non-Compliance Rate (number of violations/person checked X 100)						

Table 2 provides a graphic presentation of compliance information (by sector), correlated to proportional effort by DFO Fishery Officers with respect to Pacific salmon in the north coast management area.

TABLE 2:
North Coast Salmon Fisheries Results
Fishery Officer Effort (%) vs. Compliance Rate (%) April 1, 2009 --
January 2010



8.7. 2009 Enhancement Objectives

Egg targets are determined pre-season for each stock. Actual egg take numbers in these tables are preliminary. Difficulties in capturing brood stock because of environmental conditions or poor returns can limit success in achieving targets. Actual fecundity and in-hatchery survival rates will determine the number of juveniles released. If there are excess fry due to higher than usual fecundity and in-hatchery survival, they are usually released as unfed or small fed fry. Hatcheries may collect additional eggs for other programs for education, research or stock re-establishment. These additional eggs are not included in the hatchery targets in the following tables, but are included in the actual eggs taken. The tables include information on major DFO operations, contract hatcheries (Community Economic Development Program, or CEDP) and larger or more complex Public Involvement Projects (Designated Public Involvement, or DPI), operated by volunteers. The only DPI project in the North Coast is Terrace. The smaller Public Involvement projects that are not included are focused towards stewardship, stock rebuilding or educational activities, and do not release large numbers of fish. Facilities may also enhance steelhead and cutthroat under the direction of the Province of BC. Targets and actual numbers for these species are not included. SEP also works with First Nations, industry, community

groups and other government agencies to design and implement habitat restoration projects. Habitat-related activities are not addressed in this report.

8.7.1. Chinook

Enhancement of chinook at Kitimat and Snootli Hatcheries is primarily undertaken to supplement runs for commercial and recreational fisheries. Wannock chinook are enhanced in partnership with the Rivers Inlet North Coast Salmon Enhancement Association and the Wui’Kinuxv First Nation. In addition, two small runs of central coast chinook are enhanced opportunistically at Snootli hatchery; the number of eggs collected is dependent on brood stock availability and staff requirements.

Enhanced Chinook Production from DFO Operated Hatcheries and Managed Channels, Hatcheries Contracted to DFO or Run by Community Groups and Pallant Cost Recovery Hatchery

Project	Run	Stock	Release Site	Stage	2008 Brood		2009 Brood	
					Release Target	Actual Release ¹	Egg Target	Eggs Attained
Enhancement Operations								
Kitimat R	Spring	Hirsch Cr	Hirsch Cr	Smolt 0+	200,000	23,307	225,000	282,967
	Spring	Kitimat R	Kitimat R	Smolt 0+	1,400,000	1,405,833	1,700,000	1,838,822
Snootli Cr	Summer	Atnarko R Low	Atnarko R Low	Smolt 0+	650,000	900,574	1,050,000	1,222,290
	Summer	Atnarko R Low	Atnarko R Low	Smolt 1+	200,000	299,128		
	Summer	Atnarko R Up	Atnarko R Up	Smolt 0+	650,000	760,909	1,050,000	1,208,316
	Summer	Atnarko R Up	Atnarko R Up	Smolt 1+	200,000	0		
	Summer	Noosgulch R	Noosgulch R	Smolt 0+	43,000	0	50,000	0
	Summer	Nusatsum R	Nusatsum R	Smolt 0+	86,000	0	100,000	0
	Summer	Salloomt R	Salloomt R	Smolt 0+	86,000	11,544	100,000	60,052
	Summer	Wannock R	Wannock R	Smolt 0+	80,000	30,092	200,000	288,903
	Summer	Wannock R	Wannock Est	Seapen	80,000	196,789		
Community Economic Development & Designated Public Involvement								
Fort Babine	Summer	Babine R	Babine R	Smolt 1+	70,000	61,014	85,000	0
Kincolith R	Spring	Kincolith R	Kincolith R	Smolt 1+	70,000	70,241	50,000	0
Masset	Summer	Yakoun R	Yakoun R	Smolt 1+	200,000	263,000	250,000	312,000
Terrace	Summer	Kitsum Abv Can	Kitsum Abv Can	Fed Spr	100,000	119,908	125,000	192,760
	Summer	Kitsum Abv Can	Kitsum Abv Can	Smolt 1+	15,000	30,391		
	Summer	Kitsum Bel Can	Kitsum Bel Can	Fed Spr	100,000	97,423	125,000	103,816
	Summer	Kitsum Bel	Kitsum Bel Can	Smolt 1+	15,000	30,494		

		Can						
Toboggan Cr	Spring	Bulkley R Up	Bulkley R Up	Smolt 1+	43,000	5,386	20,000	N/A
	Spring	Morice R	Morice R	Smolt 1+	72,000	65,060	100,000	N/A

1. Smolt 1+ are fry on hand for release in 2010.

- Kitimat Hatchery: was unable to reach their 2008 brood Hirsch Creek stock egg target due to a shortage of staff available for broodstock collection, adversely affecting the number of smolts released in 2009.
- Snootli Creek Hatchery: Noosgulch and Nusatsum chinook experienced escapement numbers that were well below anticipated. As a result, both the 2008 and 2009 brood egg targets were not met. Snootli is holding 10-20% of the 2008 brood Atnarko R chinook for release in 2010 to test the differential survival between 0+ and 1+ smolt releases.
- Kincolith River Hatchery: all 2007 brood chinook were lost in January 2009 due to an ice jam that occurred. The 2008 brood are rearing in outdoor ponds and will be released in spring 2010. The winter ice jam damaged the hatchery infrastructure so badly that it is no longer capable of producing fish. As a result, no 2009 brood eggs were collected. A reconstruction plan is currently being developed.
- Terrace Salmon Enhancement Society: the 2008 brood release target was increased slightly to allow for a 30K release of smolt 1+ chinook for each stock.
- Toboggan Creek Hatchery: began enhancing Morice R chinook in 2007 as part of a planned short-term enhancement effort. The 2008 eggs taken for Bulkley River chinook were well below target due to very high flow conditions experienced in the Upper Bulkley River, adversely affecting the number released in 2009.

8.7.2. Coho

Most coho production from northern and central hatcheries is from facilities operated by communities and volunteers. Coho smolts are released from Kitimat hatchery to support an in-river sport fishery and from Snootli Hatchery to support educational and assessment programs. Pallant Creek Hatchery is operated by the Haida Tribal Society as a cost recovery pilot hatchery, with production also contributing to North Coast commercial and recreational marine fisheries.

Enhanced Coho Production from DFO Operated Hatcheries and Managed Channels, Hatcheries contracted to DFO and Pallant Cost Recovery Hatchery

Project	Run	Stock	Release Site	Stage	2008 Brood		2009 Brood	
					Release Target	Actual Release ¹	Egg Target	Eggs Attained
Enhancement Operations								
Kitimat R	Fall	Kitimat R	Kitimat R	Smolts	500,000	569,115	600,000	458,135
Snootli Cr	Fall	Snootli Cr	Snootli Cr	Smolts	40,000	39,333	50,000	0
	Fall	Bella Coola R				78,656		0
	Fall	Johnston Cr				26,856		32,500
	Fall	Salloomt R	Salloomt R	Smolts	40,000	33,265	50,000	39,401
Community Economic Development & Designated Public								

Involvement								
Hartley Bay Cr	Fall	Hartley Bay Cr	Hartley Bay Cr	Smolts	25,000	18,000	500,000	500,000
	Fall	Hartley Bay Cr	Upper Hartley Bay Lk	Fed Spr	80,000	44,000		
	Fall	Hartley Bay Cr	Red Bluff Lk	Fed Spr	60,000	44,000		
	Fall	Hartley Bay Cr	Whalen Lk	Fed Spr	80,000	44,000		
	Fall	Hartley Bay Cr	Union Pass Lk	Fed Spr	70,000	0		
	Fall	Hartley Bay Cr	Angler Cv Lk	Fed Spr	70,000	0		
Heiltsuk	Fall	McLaugh Bay Cr	McLaughlin Bay	Seapen	60,000	90,000	90,000	90,000
Klemtu Cr	Fall	Kitasoo Cr	Trout Bay	Seapen	60,000	60,000	90,000	10,000
Masset	Fall	Yakoun R	Yakoun R	Fed Spr	45,000	55,700	30,000	39,100
Pallant Cr	Fall	Braver+Pallant	Braver+Pallant	Fed Spr	378,000	0	1,083,000	471,000
	Fall	Braver+Pallant	Braver+Pallant	Smolts	540,000	572,000		
Toboggan Cr	Summer	Toboggan Cr	Toboggan Cr	Smolts	30,000	43,968	40,000	N/A

1. Smolts are fry on hand for release in 2010.

- Hartley Bay Hatchery: experienced a natural landslide upstream which reduced 2008 brood incubation survival. As a result, there were not enough fed fry for release to Union Pass Lake or Angler Cove Lake. Egg survival rates have increased for the 2009 brood, therefore, in order to align with the release target, the egg take target will decrease from 500K to 400K eggs for the 2010 brood.
- Pallant Creek: coho smolts are being held in Mosquito Bay netpens and will be released in the spring of 2010. The 2009 brood will be released as fed fry in 2010.

8.7.3. Chum

Enhancement of chum is undertaken to supplement runs for First Nations, commercial and recreational fisheries. Pallant Creek Hatchery is operated by the Haida Tribal Society as a cost recovery pilot hatchery.

Enhanced Chum Production from DFO Operated Hatcheries and Managed Channels, Hatcheries Contracted to DFO and Pallant Cost Recovery Hatchery

Project	Run	Stock	Release Site	Stage	2008 Brood		2009 Brood	
					Release Target	Actual Release	Egg Target	Eggs Attained
Enhancement Operations								
Kitimat R	Summer	Kitimat R	Kitimat R	Fed FW	3,500,000	1,457,826	4,000,000	2,883,995
Kitimat R	Summer	Hirsch Cr	Kitimat R	Fed FW				1,139,514
Snootli Cr	Summer	Fish+Airport	Fish+Airport	Fed FW	1,656,000	1,898,849	1,800,000	1,863,493
	Summer	Salloom R	Salloom R	Fed FW	1,656,000	1,863,057	1,800,000	898,716

	Summer	Snootli Cr	Snootli Cr	Fed FW	1,656,000	1,716,005	1,800,000	1,836,227
	Summer	Thorsen C/CCST	Thorsen C/CCST	Fed FW	1,656,000	1,910,149	1,800,000	1,890,716
Community Economic Development & Designated Public Involvement								
Heiltsuk	Fall	McLaugh Bay Cr	McLaughlin Bay	Seapen	1,080,000	1,593,692	3,000,000	2,475,972
	Fall	McLaugh Bay Cr	McLaugh Bay Cr	Fed FW		303,303		
Klemtu Cr	Fall	Kitasoo Cr	Trout Bay	Seapen	900,000	1,227,453	1,250,000	1,340,000
Kincolith R	Fall	Kincolith R	Kincolith R	Fed FW	21,600	0	30,000	0
Pallant Cr	Fall	Pallant Cr	Deer Bay	Seapen	21,375,000	9,859,199	0	0

- Kitimat Hatchery: experienced low numbers of returning adults in 2008. They did not enhance Hirsch Creek stock beginning in 2008, but were able to take eggs from both stocks in 2009.
- Heiltsuk Hatchery: the egg target was doubled after upgrades were made to the hatchery infrastructure. 18K eggs were destroyed in 2008, due to high BKD incidence in the broodstock.
- Kincolith Hatchery: chum broodstock were not taken in 2008 due to poor adult returns. An ice jam occurred in January 2009 that badly damaged the hatchery infrastructure. The hatchery is presently incapable of producing fish, therefore, no 2009 broodstock were taken. A reconstruction plan is currently being developed.
- Pallant Creek Hatchery: chum eggs were not taken in 2009 due to limited resources.

8.7.4. Pinks

There is no hatchery or managed channel production of pinks from North Coast facilities. Atnarko channel, although not managed, is kept open for pink salmon spawning. The habitat was also modified to support rearing opportunities for other species.

8.7.5. Sockeye

Enhancement of sockeye from the Babine Lake Development Project (Pinkut and Fulton channels) is undertaken to supplement runs for First Nations, commercial and recreational fisheries. The project operates as a complex of manned spawning channels and controlled river flows. Snootli Creek Hatchery concentrates on rebuilding stocks of concern.

Enhanced Sockeye Production from DFO Operated Hatcheries and Managed Channels and Hatcheries Contracted to DFO

Project	Run	Stock	Release Site	Stage	2008 Brood		2009 Brood	
					Release Target	Actual Release ¹	Egg Target	Eggs Attained
Enhancement Operations								
Fulton R	Summer	Fulton Ch#1	Fulton Ch#1	Chan	15,000,000	6,600,000	30,000,000	12,000,000

				Fry				
	Summer	Fulton Ch#2	Fulton Ch#2	Chan Fry	87,000,000	32,100,000	174,000,000	134,800,000
	Summer	Fulton R	Fulton R	Chan Fry	45,000,000	39,825,848	300,000,000	233,800,000
Pinkut Cr	Summer	Pinkut Ch	Pinkut Ch	Chan Fry	43,500,000	37,801,410	87,000,000	78,400,000
	Summer	Pinkut Cr	Pinkut Cr	Fed Spr		6,567,951		29,400,000
	Summer	Pinkut Cr	Pinkut Airlift			0		0
Snootli Cr	Summer	Atnarko R	Atnarko R	Fed Spr	80,000	56,452	100,000	83,966
	Summer	Williams Cr	Williams Cr	Fed Spr	80,000	270,052	250,000	0
				Egg Plant		5,449		0
	Summer	Curtis Cr	Batchellor Lk	Fed Spr		187,802		0
	Summer	Lonesome Lk	Lonesome Lk	Fed Spr		24,253		28,903
Community Economic Development								
Emily Lk	Summer	Tankeeah R	Tankeeah R	Fed Spr	90,000	101,580	100,000	127,062
Victor Cr	Fall	Lagoon Cr/CCST	Roderick Lk	Fed Spr	20,000	14,010	50,000	43,313
	Fall	Lagoon Cr/CCST	Lagoon Cr Est	Seapen	10,000	0		
	Fall	Lagoon Cr/CCST	Victor Cr	Smolt	10,000	0		

1. Smolts are fry on hand to be released in 2010.

- Pinkut Creek Hatchery: no airlift was conducted in 2008 or 2009.
- Snootli Creek Hatchery: is enhancing several sockeye stocks of concern. Williams Creek is done in partnership with the Gitanyow First Nation.
- Emily Lake sockeye facility: is run by the Heiltsuk First Nation. Returns were good in 2008 and 2009, and targets were easily attained.
- Victor Creek facility: is run by the Kitasoo Band. In 2008, the egg target was reduced in-season due to poor returns.

9. ATTACHMENTS

- Appendix 1: Advisory Board Memberships
- Appendix 2: Fishing Vessel Safety
- Appendix 3: Rockfish Conservation Areas
- Appendix 4: 2010 Pacific Salmon Allocation Implementation
- Appendix 5: Maps of Commercial Salmon Licence Areas
- Appendix 6: Freshwater Salmon Sport Fishing Regulations
- Appendix 7: Chinook and coho head retention and delivery requirements
- Appendix 8: Salmon Logbook Examples

Appendix 1: Advisory Board Memberships

Meeting dates and records of consultation can be found at:

<http://www.pac.dfo-mpo.gc.ca/consultation/fisheries-peche/smon/ihpc-cpip/index-eng.htm>

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Appendix 2: Fishing Vessel Safety

Vessel owners and masters have a duty to ensure the safety of their crew and vessel. Adherence to safety regulations and good practices by owners, masters and crew of fishing vessels will help save lives, prevent vessel damage and protect the environment. All fishing vessels must be in a seaworthy condition and maintained as required by Transport Canada (TC), WorkSafeBC, and other applicable agencies. Vessels subject to inspection should ensure that the certificate of inspection is valid for the area of intended operation.

In the federal government, responsibility for shipping, navigation, and vessel safety regulations and inspections lies with Transport Canada (TC); emergency response with the Canadian Coast Guard (CCG) and DFO has responsibility for management of the fisheries resources. In B.C., WorkSafeBC also regulates health and safety issues in commercial fishing. This includes requirements to ensure the health and safety of the crew and safe operation of the vessel. DFO (Fisheries and Aquaculture Management (FAM) and CCG) and TC through an MOU have formalized cooperation to establish, maintain and promote a safety culture within the fishing industry.

Before leaving on a voyage the owner, master or operator must ensure that the fishing vessel is capable of safely making the passage. Critical factors for a safe voyage include the seaworthiness of the vessel, vessel stability, having the required safety equipment in good working order, crew training, and knowledge of current and forecasted weather conditions. As safety requirements and guidelines may change, the vessel owner, crew, and other workers must be aware of the latest legislation, policies and guidelines prior to each trip.

There are many useful tools available for ensuring a safe voyage. These include:

Education and Training Programs

Marine Emergency Duties

Fish Safe Stability Education

First Aid

Radio Operators Course

Fishing Masters Certificates

Small Vessel Operators Certificate

Publications:

- Transport Canada Publication TP 10038 '*Small Fishing Vessel Safety Manual*' (can be obtained at Transport Canada Offices from their website at www.tc.gc.ca/MarineSafety/Tp/Tp10038/tp10038e.htm),
- Gearing Up for Safety – WorkSafeBC
- Safe At Sea DVD Series – Fish Safe
- Stability Handbook – Fish Safe and Measuring Stability –DVD

For further information see: <http://www.tc.gc.ca/marine/menu.htm>

Important Priorities for Vessel Safety

There are three areas of fishing vessel safety that should be considered a priority. These are: vessel stability, emergency drills, and cold water immersion.

1.1. Fishing Vessel Stability

Vessel stability is paramount for safety. Care must be given to the stowage and securing of all cargo, skiffs, equipment, fuel containers and supplies, and also to correct ballasting. Fish harvesters must be familiar with their vessel's centre of gravity, the effect of liquid free surfaces on stability, loose water or fish on deck, loading and unloading operations and the vessel's freeboard. Know the limitations of your vessel; if you are unsure contact a reputable naval architect, marine surveyor or the local Transport Canada Marine Safety Office.

Fishing vessel owners are required to develop detailed instructions addressing the limits of stability for each of their vessels. The instructions need to be based on a formal assessment of the vessel by a qualified naval architect and include detailed safe operation documentation kept on board the vessel. Examples of detailed documentation include engine room procedures, maintenance schedules to ensure watertight integrity, and instructions for regular practice of emergency drills.

1.2. Emergency Drill Requirements

The master must establish procedures and assign responsibilities to each crew member for emergencies such as crew member overboard, fire, flooding, abandoning ship and calling for help.

The Crewing Regulation under the Canada Shipping Act (CSA) states that as of July 30th, 2002 all seafarers, including fish harvesters, must have a Basic Safety Certificate (MED A1 or A3 depending upon vessel and operating waters) within 6 months of becoming a crewmember, regardless of time at sea. The MED A1 is a three day course, and must be taken by all crew regardless of duty station.

MED provides a basic understanding of the hazards associated with the marine environment; the prevention of shipboard incidents; raising and reacting to alarms; fire and abandonment situations; and the skills necessary for survival and rescue.

1.3. Cold Water Immersion

Drowning is the number one cause of death in B.C.'s fishing industry. Cold water is defined as water below 25° C (Celsius), but the greatest effects occur below 15° C. BC waters are usually below 15° C. The effects of cold water on the body occur in four stages: cold shock, swimming failure, hypothermia and post-rescue collapse. Know what to do to prevent you or your crew from falling into the water and what to do if that occurs. More information is available in the WorkSafe Bulletin *Cold Water Immersion* (available from the WorkSafe BC website).

1.4. Other Issues

1.4.1. Weather

Vessel owners and masters are reminded of the importance of paying close attention to current weather trends and forecasts during the voyage. Marine weather information and forecasts can be obtained on VHF channels 21B, Wx1, Wx2, Wx3, or Wx4. Weather information is also available from Environment Canada website at:

http://www.weatheroffice.gc.ca/marine/index_e.html

1.4.2. Emergency Radio Procedures

Vessel owners and masters should ensure that all crew are able to activate the Search and Rescue (SAR) system early rather than later by contacting the Canadian Coast Guard (CCG). It is

strongly recommended that all fish harvesters carry a registered 406 MHz Emergency Position Indicating Radio Beacon (EPIRB). These beacons should be registered with the National Search and Rescue secretariat. When activated, an EPIRB transmits a distress call that is picked up or relayed by satellites and transmitted via land earth stations to the Joint Rescue Co-ordination Centre (JRCC), which will task and co-ordinate rescue resources.

Fish harvesters should monitor VHF channel 16 or MF 2182 Khz and make themselves and their crews familiar with other radio frequencies. All crew should know how to make a distress call and should obtain their restricted operator certificate from Industry Canada. However, whenever possible, masters should contact the nearest Canadian Coast Guard (CCG) Marine Communications and Traffic Services (MCTS) station (on VHF channel 16 or MF 2182 kHz) prior to a distress situation developing. Correct radio procedures are important for communications in an emergency. Incorrect or misunderstood communications may hinder a rescue response.

Since August 1, 2003 all commercial vessels greater than 20 metres in length are required to carry a Class D VHF Digital Selective Calling (DSC) radio. A registered DSC VHF radio has the capability to alert other DSC equipped vessels in your immediate area and MCTS that your vessel is in distress. Masters should be aware that they should register their DSC radios with Industry Canada to obtain a Marine Mobile Services Identity (MMSI) number or the automatic distress calling feature of the radio may not work. For further information see the Industry Canada site at: http://www.ic.gc.ca/eic/site/ic1.nsf/eng/h_00014.html.

A DSC radio that is connected to a GPS unit will also automatically include your vessel's current position in the distress message. More detailed information on MCTS and DSC can be obtained by contacting a local Coast Guard MCTS centre (located in Vancouver, Victoria, Prince Rupert, Comox and Tofino) or from the Coast Guard website:

<http://www.ccg-gcc.gc.ca/Pacific>

1.4.3. Collision Regulations

Fish harvesters must be knowledgeable of the *Collision Regulations* and the responsibilities between vessels where risk of collision exists. Navigation lights must be kept in good working order and must be displayed from sunset to sunrise and during all times of restricted visibility. To help reduce the potential for collision or close quarters situations which may also result in the loss of fishing gear, fish harvesters are encouraged to monitor the appropriate local Vessel Traffic Services (VTS) VHF channel, when travelling or fishing near shipping lanes or other areas frequented by large commercial vessels. Vessels required to participate in VTS include:

- a) every ship twenty metres or more in length,
- b) every ship engaged in towing or pushing any vessel or object, other than fishing gear,
- c) where the combined length of the ship and any vessel or object towed or pushed by the ship is forty five metres or more in length; or
- d) where the length of the vessel or object being towed or pushed by the ship is twenty metres or more in length.

Exceptions include:

- a) a ship towing or pushing inside a log booming ground,
- b) a pleasure yacht *less than* 30 metres in length, and
- c) a fishing vessel that is *less than* 24 metres in length and not *more than* 150 tons gross.

More detailed information on VTS can be obtained by calling (604) 775-8862 or from Coast Guard website:

<http://www.ccg-gcc.gc.ca/e0003901>

1.4.4. Buddy System

Fish harvesters are encouraged to use the buddy system when transiting, and fishing as this allows for the ability to provide mutual aid. An important trip consideration is the use of a sail plan which includes the particulars of the vessel, crew and voyage. The sail plan should be left with a responsible person on shore or filed with the local MCTS. After leaving port the fish harvester should contact the holder of the sail plan daily or as per another schedule. The sail plan should ensure notification to JRCC when communication is not maintained which might indicate your vessel is in distress. Be sure to cancel the sail plan upon completion of the voyage.

2. WORKSAFE BC

Commercial fishing is legislated by the requirements for diving, fishing and other marine operations found in Part 24 of the Occupational Health and Safety Regulation (OHSR). Many general hazard sections of the OHSR also apply. For example, Part 8: Personal Protective Clothing and Equipment addresses issues related to safety headgear, safety foot wear and personal floatation devices. Part 15 addresses issues on rigging, Part 5 addresses issues of exposure to chemical and biological substances, and Part 3 addresses training of young and new workers, first aid, and accident investigation issues. Part 3 of the Workers Compensation Act (WCA) defines the roles and responsibilities of owners, employers, supervisors and workers. The OHSR and the WCA are available from the Provincial Crown Printers or by visiting the WorkSafeBC website:

www.worksafebc.com

For further information, contact an Occupational Safety Officer (Shane Neifer, Terrace, (250) 615-6640), Bruce Logan (604) 244-6477 (Lower Mainland), David Clarabut (250) 881-7563 (Victoria), Pat Olsen (250) 334-8777 and Mark Lunny, (250) 334-8732 (Courtney) or the Focus Sector Manager for fishing Mark Peebles, (604) 279-7563.

For information on projects related to commercial fishing contact Ellen Hanson (604) 233-4008 or Toll Free 1-888 621-7233 ext. 4008 or by email: Ellen.Hanson@worksafebc.com.

3. FISH SAFE

Fish Safe is coordinated by Gina Johansen and directed by the Fish Safe Advisory Committee (membership is open to all interested in improving safety on board). The advisory committee meets quarterly to discuss safety issues and give direction to Fish Safe in the development of education and tools for fish harvesters.

Vessel masters and crew are encouraged to become more knowledgeable regarding vessel stability. FishSafe BC developed the Fish Safe Stability Education Course, which is available to all fish harvesters who want to improve their understanding of stability and find practical application to their vessel's operation.

Fish Safe also works closely with WorkSafeBC to improve the fishing claims process. For further information:

Gina Johansen, Safety Coordinator
Fish Safe
2-11771 Horseshoe Way
Richmond, BC V7A 4V4

Phone: 604-261-9700
Email: fishsafe@telus.net
Website: www.fishsafebc.com

Appendix 3: Rockfish Conservation Areas

A total of 164 Rockfish Conservation Areas (RCAs) have been implemented coastwide. With the onset of the Rockfish Conservation Strategy, the Department announced that it would create closed areas that encompassed up to 50% of the rockfish habitat within the Strait of Georgia and up to 20% on the West Coast of Vancouver Island, Central Coast, North Coast and the Queen Charlotte Islands.

Beginning in September 2005, Fisheries and Oceans Canada carried out further consultation to identify potential rockfish conservation areas within the Strait of Georgia. Additional RCAs have now been established within the Strait of Georgia. Upon completion of the closed area component of the strategy, 20% of outside rockfish habitat will have been described as RCA's. The goal for the Strait of Georgia is 30%.

Descriptions including maps of the RCAs can be found online at:

<http://www-comm.pac.dfo->

[mpo.gc.ca/pages/consultations/fisheriesmgmt/rockfish/default_e.htm](http://www-comm.pac.dfo-mpo.gc.ca/pages/consultations/fisheriesmgmt/rockfish/default_e.htm)

or check with your local Fisheries and Oceans Canada office for more information.

Permitted Fishing Activity in Rockfish Conservation Areas

The following fishing activities **will be permitted** in RCAs:

RECREATIONAL	COMMERCIAL
Invertebrates by hand picking or dive Crab by trap Prawn by trap Smelt by gillnet	Invertebrates by hand picking or dive Crab by trap Prawn by trap Scallops by trawl Salmon by seine or gillnet Herring by gillnet, seine and spawn-on-kelp Sardine by gillnet, seine and trap Smelt by gillnet Euphausid (krill) by mid-water trawl Opal Squid by seine Groundfish by mid-water trawl

Recreational and commercial fishing activities not listed in the tables above are *not* permitted.

First Nations are encouraged to employ fishing methods or fish in locations to avoid the harvest of inshore rockfish. First Nations fishing for food, social and ceremonial purposes is permitted in RCAs.

Appendix 4: 2010 Pacific Salmon Allocation Implementation Plan

This document describes anticipated licence area allocations for each gear type and for each species of salmon. These anticipated licence area allocations are intended to guide fishing arrangements at the local level and are not fixed entitlements. Application of these sharing arrangements is subject to meeting all conservation objectives, First Nations obligations, international commitments, deliverability and manageability constraints and other management considerations including all conservation measures currently in effect. Where appropriate the potential harvest identified is a range that reflects the most recent approved forecasts for each stock grouping. In other cases, the potential harvest represents the informed point estimate of fisheries managers based upon historic average return rates and available PSARC approved analysis.

Although best efforts will be made to achieve these coast-wide allocation targets, no guarantees are offered that target allocations will actually be achieved in any given year. The achievement of these targets will depend upon the ability to fish selectively and the conservation needs of the resource. In the event that target allocations are not achieved, no compensatory adjustments will be made to future allocations. Specifically, as in 2009, “catch up/make up” adjustments to future target allocations will not be considered in the event that a gear type does not meet its target allocation.

The following specific operational guidelines for 2010 are noted:

- Individual licence holders and groups of licence holders will not be permitted to make their own allocation transfer arrangements unless agreed to by DFO under Demonstration Fisheries arrangements.
- As in recent years, there will be no directed commercial fisheries for Fraser River sockeye or Fraser River pink salmon in the north (i.e. area licence categories A, C and F).
- Harvest from assessment fisheries intended to obtain information that will benefit a specific fleet will be considered part of the allocation of the fleet conducting the exploratory fishery.
- The target allocations for gill net D and gill net E area licences will attempt to equalize the relative average catch per licence in sockeye equivalents.
- The target allocations for troll G and troll H area licences will attempt to equalize the relative average catch per licence in sockeye equivalents.
- If after spawning escapement objectives are met, and despite best efforts, it becomes apparent that an area licence group is unable to achieve its target allocation, subject to conservation requirements, uncaught balances will be given first to the same gear type in a different licence area and, second to different gear types in a manner that reflects their relative target allocations.

It is noted that these are not fixed entitlements but are a projection of available fishing opportunities given present forecasts of stock abundance and best efforts to achieve coast-wide target allocations by gear type. These represent the intentions of fisheries management if abundance is as expected and all other things are equal. However, in

many cases in-season adjustments will be necessary to address conservation concerns or other unforeseen events.

1. NORTH COAST

1.1. North Coast Sockeye

Areas	Potential Harvest (Pieces)	Seine A	Gill Net C	Troll F
1, 3 to 5, 101 to 105	350K	25%	74.8%	0.2%
6 to 10	-	25%	75%	0%

1.2. North Coast Pink

Areas	Potential Harvest (pieces)	Seine A	Gill Net C	Troll F
1 to 5, and 101 to 105	500K	80%	18%	2%
6 to 10	10K	90%	10%	0%

1.3. North Coast Chum

Areas	Potential Harvest (pieces)	Seine A	Gill Net C	Troll F
1,2,101 to 111,130,142	-	55%	45%	0%
3 to 5	-	0%	100%	0%
6 to 10	100K	55%	45%	0%

Notes on chum allocations:

- Catch shares in Areas 6 to 10 have been highly variable in recent years and depends on amount of gear fishing.

1.4. North Coast Coho

Areas	Potential Harvest (Pieces)	Seine A	Gill Net C	Troll F
1 to 10, 101, 102, 105-107, 130, 142	100K	20%	5%	75%

Notes on coho allocations:

- There will be opportunities for directed coho harvest in troll fisheries on the north coast of B.C. Non-retention of coho in net fisheries for Skeena salmon is planned.

1.5. North Coast Chinook

Areas	Potential Harvest (Pieces)	Seine A	Gill Net C	Troll F
1 to 5,101, 102, 130, 142	100K	0%	4.2%	95.8%
6 to 10	5K	0%	99%	1%

Notes on chinook allocations:

- There are no directed chinook fisheries on the north coast of B.C. for the seine fleet. Directed gill net fisheries occur in Areas 4 and 8 and there is some by-catch in other north coast fisheries.
- Areas 1-5 troll, the TAC is determined by the PST chinook model. The PST allocation for the Area F troll fleet is preliminarily set at 100K. However, due to conservation concerns for other stocks the expected harvest may be less than this level.

2. SOUTH COAST

2.1. South Coast Sockeye

Areas	Potential Harvest (Pieces)	Seine B	Gill Net D	Gill Net E	Troll G	Troll H
Area 23	90K	60%	40%		0%	
Fraser River Sockeye	1.75 M	48.5%	21.5%	25%	0%	5%

Notes on sockeye allocations:

- Fraser River sockeye: Based on pre-season information, the potential commercial harvest of Fraser River sockeye has a range of 750K to 2.5M. However, protective measures will be implemented to address uncertainty about returns, environmental conditions as well as conservation concerns for Sakinaw Lake, Cultus Lake and Late Run sockeye. These factors could substantially reduce opportunities to harvest the full TAC. The Fraser River sockeye TAC will be established based on in-season information
- Barkley sockeye: The current estimate of potential harvest is based on a pre-season estimate of a 600K return. Sockeye abundance will be reforecast in-season and as a result actual catch available could change.

2.2. South Coast Pink

Areas	Potential Harvest (Pieces)	Seine B	Gill Net D	Gill Net E	Troll G	Troll H
Fraser River	0	70%	4%	6.5%	6.5%	13%
Mainland Inlets (A12)	0	73%	9%	0%	0%	18%

Notes on pink allocations:

- This is an off cycle for Fraser pinks there no harvest anticipated.
- No surplus is expected for Mainland Pinks therefore no directed fishery anticipated.

2.3. South Coast Chum

Areas	Potential Harvest (Pieces)	Seine B	Gill Net D	Gill Net E	Troll G	Troll H
11 to 19, 28 to 29	605K	63%	19%	12%	0%	6%
21 to 22	0K	70%		29%	1%	
23 to 27	0K	0%	98%	0%	2%	0%

Notes on chum allocations:

- Commercial allocation sharing arrangements in Johnstone Strait are; seine Area B – 77 percent; gill net Area D – 17 percent; and troll Area H – 6 percent. Anticipated catch in Johnstone Strait is approximately 500K with an additional 105K estimated in the terminal areas.
- For Fraser River chum, harvest opportunities will be constrained by conservation concerns for Interior Fraser River steelhead.

2.4. South Coast Coho

Areas	Potential Harvest (Pieces)	Seine B	Gill Net D	Gill Net E	Troll G	Troll H
11 to 20, 29	0K	55%	15%	15%	0%	15%
21 to 27, 121, 123 to 127	0.5K	0%	0%	0%	100%	0%

Notes on coho allocations:

- Inside coho - no coho retention fisheries planned.

- WCVI coho - It is anticipated that retention of adipose clipped coho will be permitted in offshore troll fisheries in the latter half of September.

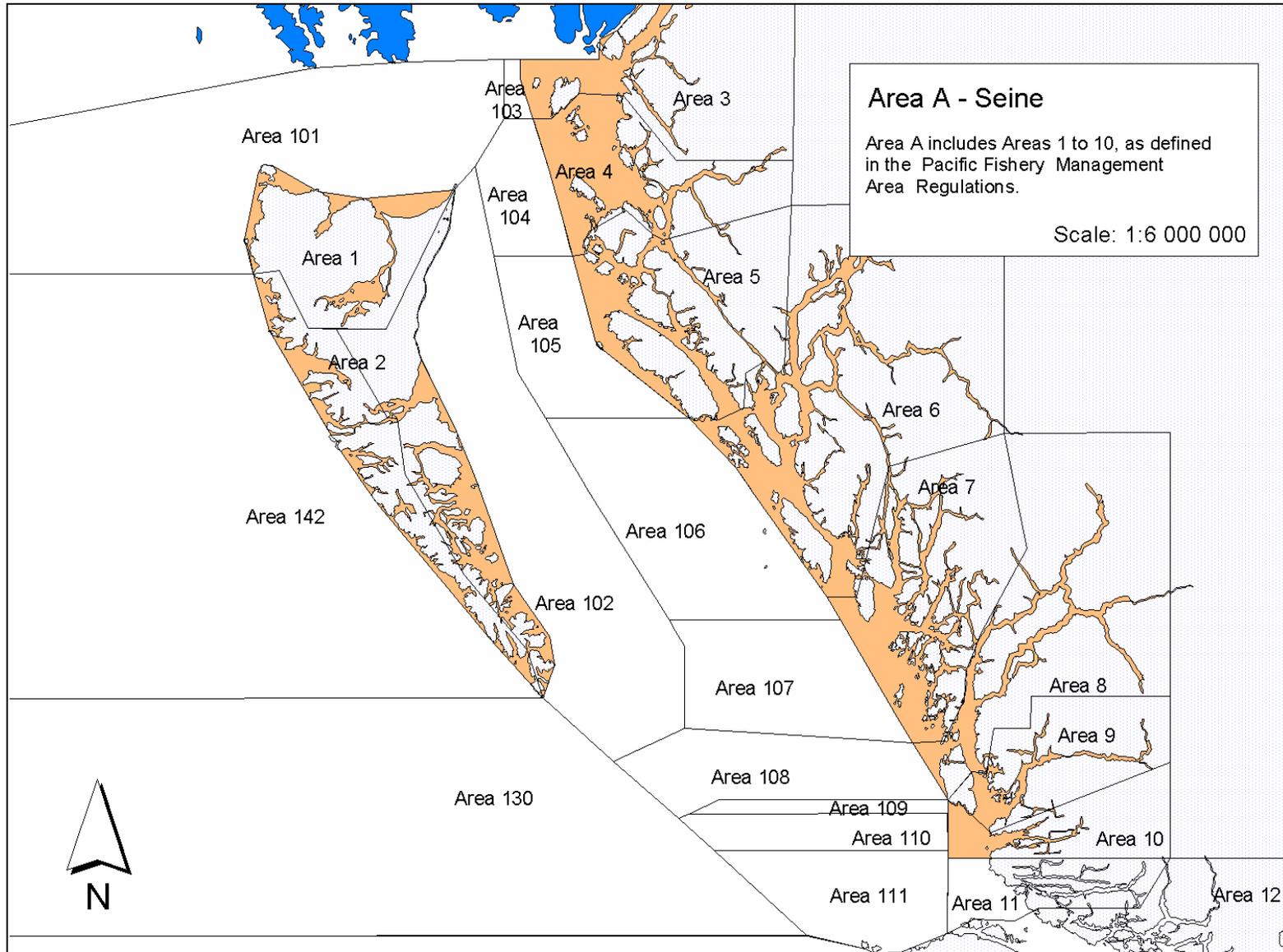
2.5. South Coast Chinook

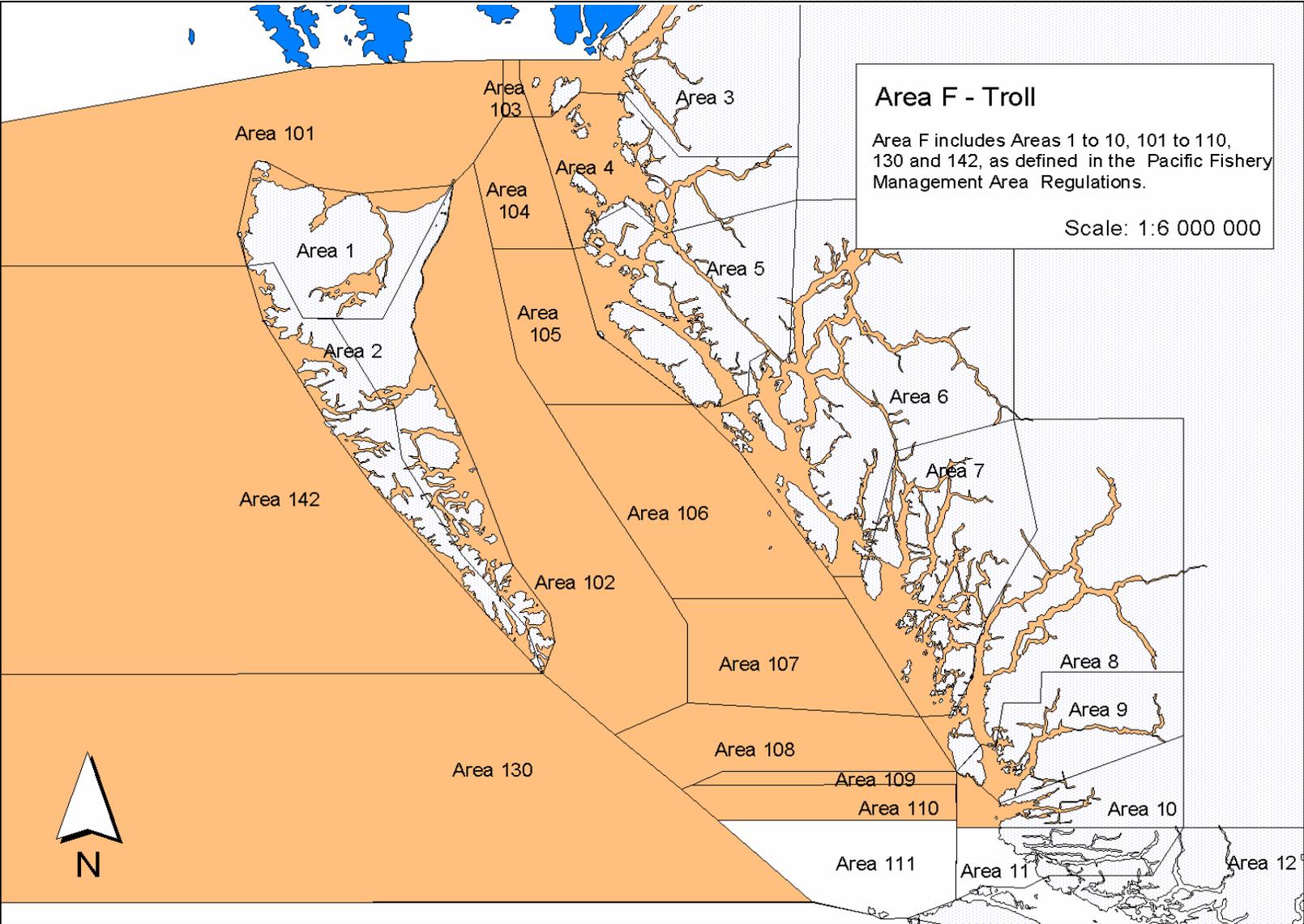
Areas	Harvest Forecast (Pieces)	Seine B	Gill Net D	Gill Net E	Troll G	Troll H
11 to 20, 29	3K	0%	0%	100 %	0%	0%
21 to 27, 121 to 127	83.7K	0%	0%	0%	100%	0%

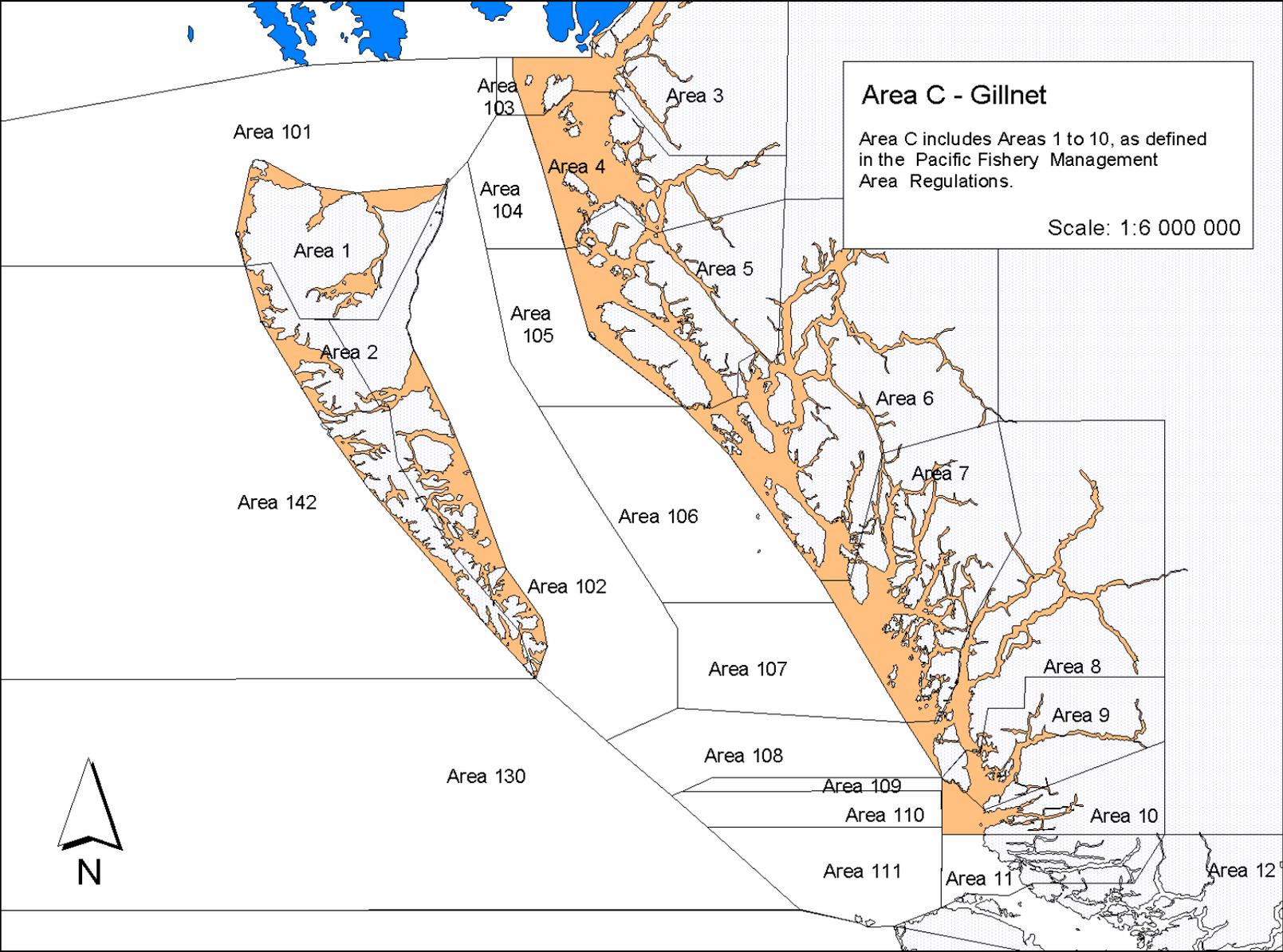
Notes on chinook allocations:

- Inside chinook - chinook by-catch during Area E sockeye directed fisheries in Area 29. Discussions are also occurring about a possible Chinook demonstration fishery in area 29.
- AABM Chinook - A troll catch of 83.7K is estimated. The commercial target may be adjusted in-season if observed First Nation and recreational catches differ from anticipated levels.

Appendix 5: Maps of Commercial Salmon Licence Areas







Appendix 6: Freshwater Salmon Sport Fishing Regulations

REGION 5: CARIBOO (PART B: Coastal Watershed - Management Units 5-6 to 5-11)

Please read these regulations in conjunction with the *Freshwater Fishing Regulations Synopsis*.

1. Unless otherwise stated in the table, the daily limit in all waters of Region 5 is zero (0).
2. The aggregate daily limit for all species of Pacific salmon (other than kokanee) from tidal and non-tidal waters combined is four (4).
3. All retained chinook, sockeye, pink, coho, and chum must measure 30 cm or more from tip of nose to tail fork.
4. A single, barbless hook is in effect year round for all streams in Region 5.
5. There is an annual limit of 10 adult chinook from non-tidal waters. All retained adult chinook must be recorded on the back of your freshwater angling licence. An "adult chinook" is defined as being over 65 cm in the Bella Coola/Atnarko River.
6. An adult coho salmon in Region 6 is defined as being greater than 50 cm measured from the tip of the nose to the fork in the tail (fork length). "Jack" coho salmon is defined as being a coho between 30-50 cm fork length.

WATERS	SPECIFIC AREA	SPECIES	DATES	LIMITS/GEAR
Any lake or stream or part thereof in Management Units 5-6 to 5-11 in Region 5B, unless otherwise stated below (i.e. Region 5 not including the Fraser River watershed)		Chinook	Jan 01-Dec 31	4 per day, only 1 over 50cm.
		Coho	Jan 01-Dec 31	4 per day only 2 over 50cm.
Atnarko River	Including tributaries	Chinook	Jan 01-Jul 22	4 per day, only 1 over 65cm.
			Jul 23-Dec 31	<i>No fishing for chinook.</i>
		Coho	Jan 01-Dec 31	<i>No fishing for coho. (see exception below)</i>
		Sockeye	Jan 01-Dec 31	<i>No fishing for sockeye.</i>
		Pink	Jan 01-Dec 31	2 per day.
		Chum	Jan 01-Dec 31	1 per day.
	Below signs located approx. 50m below Corbould Bridge	Coho	Jan 01-Oct 15 Oct 16-Dec31	4 per day, only 2 over 50cm. <i>No fishing for coho.</i>
Bella Coola River	Including tributaries (not including Atnarko River)	Chinook	Jan 01-Dec31	4 per day, only 1 over 65cm. (See exception below)
		Coho	Jan 01-Dec 31	4 per day, only 2 over 50cm.
		Pink	Jan 01-Dec 31	2 per day.
		Chum	Jan 01-Dec 31	1 per day.
		Sockeye	Jan 01-Dec 31	<i>No fishing for sockeye.</i>
	All tributaries to the Bella Coola River.	Chinook	July 16 - Dec 31	<i>No fishing for chinook.</i>
	Chuckwalla River		Chinook	Jan 01-Dec 31
Coho			Sep 01-Oct 31	4 per day only 2 over 50cm
			Nov 01-Aug 31	<i>No fishing for coho.</i>
Sockeye			Jan 01-Dec 31	<i>No fishing for sockeye.</i>
Pink			Jan 01-Dec 31	<i>No fishing for pink.</i>
Chum	Jan 01-Dec 31	<i>No fishing for chum.</i>		
Docee River		All	Jan 01-Dec 31	<i>No fishing for salmon.</i>

WATERS	SPECIFIC AREA	SPECIES	DATES	LIMITS/GEAR
Kilbella River		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
		Coho	Sep 01-Oct 31	4 per day only 2 over 50cm.
			Nov 01-Aug 31	<i>No fishing for coho.</i>
		Sockeye	Jan 01-Dec 31	<i>No fishing for sockeye.</i>
		Pink	Jan 01-Dec 31	<i>No fishing for pink.</i>
		Chum	Jan 01-Dec 31	<i>No fishing for chum.</i>
Long Lake	Including tributaries	All	Jan 01-Dec 31	<i>No fishing for salmon.</i>
Wannock River		All	Jan 01-Dec 31	<i>No fishing for salmon.</i>

REGION 6: SKEENA

Please read these regulations in conjunction with the *Freshwater Fishing Regulations Synopsis*.

7. Unless otherwise stated in the table, the daily limit in all waters of Region 6 is zero (0).
8. The aggregate daily limit for all species of Pacific salmon (other than kokanee) from tidal and non-tidal waters combined is four (4) and the possession limit is eight (8).
9. All retained chinook, sockeye, pink, coho, and chum must measure 30 cm or more from tip of nose to tail fork.
10. A single, barbless hook is in effect year round for all streams in Region 6.
11. There is an annual limit of 10 adult chinook from non-tidal waters. All retained adult chinook must be recorded on the back of your freshwater angling licence. An "adult chinook" in Region 6 (other than Fraser River Watershed) is defined as being over 65 cm measured from the tip of the nose to tail fork.
12. An adult coho salmon in Region 6 is defined as being greater than 50 cm measured from the tip of the nose to the fork in the tail (fork length). "Jack" coho salmon is defined as being a coho between 30-50 cm fork length.

WATERS	SPECIFIC AREA	SPECIES	DATES	LIMITS/GEAR
A. All Region 6 Waters	Any lake or stream or part thereof in Region 6, unless otherwise stated below. Please review sections B, C, D, and E carefully.	Chinook	Jan 01-Dec 31	4 per day, only 1 over 65cm. (1 over 50cm in Fraser River Watershed)
		Coho	Jan 01-Dec 31	4 per day, only 1 over 50cm.
B. Skeena River Watershed- Section "A" applies if stream, specific area, time period, quotas or other species restrictions are not listed in the following sections:				
B. Part (i): Skeena River Watershed-Waters upstream of CNR Railway Bridge at Terrace				
All waters in section "B(i)" - Skeena River Watershed upstream of the CNR Railway Bridge at Terrace, unless otherwise stated below		All	Jan 01-Jun 15	<i>No fishing for salmon.</i>
		Coho	Jan 01-Dec 31	<i>No fishing for coho.</i>
		Sockeye	Jan 01-Dec 31	<i>No fishing for sockeye.</i>
		Chum	Jan 01-Dec 31	<i>No fishing for chum.</i>
Babine Lake	Including tributaries	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Babine Lake	Not including tributaries	Sockeye	Aug 01-Sep 15	Opportunities to be determined in-season.
Babine Lake	Within a 400 metre radius of the mouth of Pinkut Creek	All	Aug 15-Sep 15	<i>No angling.</i>
Babine River		Chinook	Jun 16-Dec 31	4 per day, only 1 over 65cm. <i>No fishing for chinook from a point 100m above Fort Babine bridge to Nichyeskwa Creek.</i>
		Sockeye	Aug 01-Aug 31	Opportunities to be determined in-season.
		Coho	July 15-Oct 15	4 per day, only 2 over 50 cm

WATERS	SPECIFIC AREA	SPECIES	DATES	LIMITS/GEAR
Bear River	Including tributaries	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
		Coho	Jan 01-Dec 31	<i>No fishing for coho.</i>
Bulkley River	Downstream of the Morice River confluence.	Chinook	Jun 16-Dec 31	4 per day, only 1 over 65cm.
		Pink	Jun 16-Dec 31	2 per day.
		Coho	July 15-Oct 15	4 per day, only 2 over 50 cm
Fulton River		Sockeye	Aug 01-Aug 14	Opportunities to be determined in-season.
Kispiox River (including tributaries)		Chinook	Jun 16-Jul 31	4 per day, only 1 over 65cm. Monthly quota = 1 over 65 cm.
			Aug 01-Aug 31	4 per day, none over 65cm.
		Coho	July 15-Oct 15	4 per day, only 2 over 50 cm
		Downstream of boundary signs near Kispiox River Resort	Pink	Jun 16-Aug 31
Kitsegucla River	Including tributaries	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Kitwanga River	Including tributaries	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Morice Lake	Including tributaries	All	Jan 01-Dec 31	<i>No fishing for salmon.</i>
Morice River (including tributaries)				
	From boundary signs located approximately 100 metres downstream of Gosnell Creek to Lamprey Creek	Chinook	Jun 16-July 31	4 per day, only 1 over 65cm.
	Below Lamprey Creek	Chinook	Jun 16-Aug 31	4 per day, only 1 over 65cm.
			Sep 01-Dec 31	<i>No fishing for chinook.</i>
		Coho	July 15-Oct 15	4 per day, only 2 over 50 cm.
	From Gosnell Creek to Lamprey Creek	Coho	Sep 01-Sep 30	4 per day, only 2 over 50 cm. Flyfishing only.
From the confluence of the Bulkley and Morice Rivers upstream to the Bymac Bridge on Walcott Road	Pink	Jun 16-Aug 31	2 per day.	
	Upstream of the Bymac Bridge on Walcott Road	Pink	Jan 01-Dec 31	<i>No fishing for pink.</i>
Nilkitkwa Lake		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Pinkut Creek	Downstream of boundary signs located approx. 25 m downstream of fish counting fence.	Sockeye	Aug 01-Aug 14	Opportunities to be determined in-season.
		All	Aug 15-Sep 15	<i>No Angling</i>
Shegunia River	Between signs located above and below logging road bridge	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>

WATERS	SPECIFIC AREA	SPECIES	DATES	LIMITS/GEAR
Skeena River	Mainstem waters only, between Cedarvale and the CNR Railway Bridge at Terrace	Chinook	Apr 01-Dec 31	4 per day, only 1 over 65cm.
	Mainstem waters only, upstream of Cedarvale.	All	Jan 01-May 31	<i>No fishing for salmon.</i>
		Chinook	Jun 01-Dec 31	4 per day, only 1 over 65cm.
	Mainstem waters only.	Pink	Jun 16-Dec 31	2 per day.
	downstream of point above confluence with Babine River to the CNR Railway Bridge at Terrace.	Sockeye	Jun 16-Sep 15	Opportunities to be determined in-season.
	mainstem waters within 3 white boundary signs located at the confluence of the Skeena River and Kispiox River	Chinook	Jun 01-Jul 31	4 per day, only 1 over 65cm. Monthly limit=1 over 65cm. Adult chinook caught and retained from these waters must be recorded on your licence as having been caught from the Kispiox River.
			Aug 01-Aug 31	4 per day, none over 65cm.
Upstream of the CNR Bridge located at Terrace	Coho	July 15-Oct 15	4 per day, only 2 over 50 cm.	
Suskwa (Bear) River		Chinook	Jun 16-Dec 31	4 per day, only 1 over 65cm.
Sustut River	Including tributaries	Chinook	Jun 16-Dec 31	4 per day, only 1 over 65cm.
Telkwa River	Downstream of Howson Creek	Coho	Jul 15–Oct 15	4 per day, only 2 over 50cm.
Zymoetz (Copper) River		Chinook	Apr 01-Dec 31	4 per day, only 1 over 65cm.
	Upstream of Highway # 16 bridge	Chinook	Jul 23-Dec 31	<i>No fishing for chinook.</i>
B(ii). Skeena River Watershed-Waters downstream of CNR Railway Bridge at Terrace				
<i>All waters in section "B(ii)" - Skeena River Watershed downstream of the CNR Railway Bridge at Terrace, unless otherwise stated below</i>		Sockeye	Jan 01-Dec 31	<i>No fishing for sockeye.</i>
		Coho	Jan 01-Dec 31	<i>No fishing for coho.</i>
Ecstall River (including tributaries)		Coho	Sep 01-Oct 31	4 per day, only 1 over 50cm.
		Chinook	Apr 01-Jul 31	4 per day, only 1 over 65cm.
			Aug 01-Mar 31	4 per day, none over 65cm.
Upstream of signs near confluence with Johnston Creek	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>	
Exchamsiks River (including tributaries)		Coho	Sep 01-Oct 31	4 per day, only 1 over 50cm.
	Upstream of Highway # 16 bridge	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Exstew River (including tributaries)		Coho	Sep 01-Oct 31	4 per day, only 1 over 50cm.
	Upstream of Hwy # 16 bridge	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Gitnadoix River (including tributaries)		Coho	Sep 01-Oct 31	4 per day, only 1 over 50cm.
	Upstream of powerline crossing near river mouth	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Kasiks River (including tributaries)	Downstream of boundary signs located below the Upper Pool	Coho	Sep 01-Oct 31	4 per day, only 1 over 50cm.
	Upstream of Hwy # 16 bridge	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>

WATERS	SPECIFIC AREA	SPECIES	DATES	LIMITS/GEAR
Khyex River (including tributaries)	Upstream of Hwy # 16 bridge	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Kitsumkalum River (including tributaries) Note: The mouth of the Kisumkalum River is designated by boundary signs located approx. 1.25 km downstream of the CNR bridge and approx. 200 m east of the CNR bridge.	upstream of signs below lower canyon	Coho	Sep 01-Oct 31	4 per day, only 1 over 50cm.
		Chinook	Jan 01-May 24	4 per day, none over 65cm.
	downstream of signs below lower canyon	Chinook	May 25-Dec 31	<i>No fishing for chinook.</i>
			Jan 01-Jun 30	4 per day, none over 65cm.
	downstream of railway bridge	Pink	Jan 01-Dec 31	2 per day.
Kitsumkalum Lake	including tributaries	Coho	Sep 01-Oct 31	4 per day, only 1 over 50cm.
		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Lakelse River (including tributaries)	Downstream of the CNR bridge	Coho	Sep 01-Oct 31	4 per day, only 1 over 50cm.
	Below logging road bridge near the mouth	Chinook	Jan 01-Dec 31	4 per day, only 1 over 65cm.
	Above logging road bridge near the mouth	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Redsand Lake	Including tributaries	Coho	Sep 01-Oct 31	4 per day, only 1 over 50 cm.
		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Scotia River	including tributaries	Coho	Sep 01-Oct 31	4 per day, only 1 over 50 cm.
		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Skeena River	mainstem waters downstream of CNR Railway Bridge at Terrace	Coho	July 15-Aug 31	4 per day, only 2 over 50 cm.
			Sep 01-Nov 30	4 per day, only 1 over 50cm
		Chinook	Jan 01-Dec 31	4 per day, only 1 over 65cm.
		Sockeye	Apr 01-Sep 15	Opportunities to be determined in-season.
		Pink	Jan 01-Dec 31	2 per day.
	Chum	Jan 01-Dec 31	<i>No fishing for chum.</i>	
	from Lakelse River mouth upstream to the Skeena River Overpass (New Hwy Bridge) at Ferry Island.	Chinook	Aug 07-Dec 31	<i>No fishing for chinook.</i>
Treston Lake		Coho	Sep 01-Oct 31	4 per day, only 1 over 50 cm.
		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Zymagotitz River (including tributaries)	upstream of Highway # 16 bridge	Coho	Sep 01-Oct 31	1 per day.
		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>

WATERS	SPECIFIC AREA	SPECIES	DATES	LIMITS/GEAR
C. Nass River Watershed- Section "A" applies if stream, specific area, time period, quotas or other species restrictions are not listed in the following sections:				
<i>All waters in section "C" - Nass River Watershed unless otherwise stated below</i>		Coho	Jan 01-Oct 31	4 per day, only 2 over 50 cm.
		Coho	Nov 01-Dec 31	<i>No fishing for coho.</i>
		Chinook	Jan 01-Dec 31	4 per day, only 1 over 65 cm.
Cranberry River	including tributaries NOTE: the section of river from Cranberry-Kiteen junction to Nass R. is part of the Cranberry R.	Chinook	Jun 16-Jul 31	4 per day, only 1 over 65 cm. Monthly Quota = 1 over 65cm.
Iknouk River		Chinook	Jan 01-Dec 31	<i>No fishing for Chinook</i>
Kiteen River	including tributaries	Chinook	Jun 16-Jul 31	4 per day only 1 over 65 cm. Monthly Quota = 1 over 65cm.
Meziadin Lake	Including tributaries	Coho	Jan 01-Dec 31	<i>No fishing for coho.</i>
	Excluding tributaries	Sockeye	Jul 1-Sep 06	2 per day.
		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Meziadin River	Including tributaries	All	Jan 01-Dec 31	<i>No fishing for salmon.</i>
Nass River	Portions from the Canyon City Bridge located approximately 5.75 km downstream of the Tseax confluence to the water survey station line crossing approximately 5.78 km upstream of the Tseax confluence.	Chinook	Jan 01 – Dec 31	<i>Chinook salmon over 65cm caught and retained in this portion of the Nass River shall be recorded as being caught in the Tseax River and shall be included in the Tseax monthly quota of one.</i>
		Coho	Jan 01-Dec 31	4 per day, only 2 over 50 cm.
	mainstem waters downstream of the confluence with the Meziadin River	Sockeye	Jul 01-Sep 15	2 per day.
	mainstem waters upstream of the confluence with the Meziadin River	Pink	Jan 01-Dec 31	2 per day.
Oweegee Creek		All	Jan 01-Dec 31	<i>No fishing for salmon.</i>
Oweegee Lake		All	Jan 01-Dec 31	<i>No fishing for salmon</i>
Tseax River (including tributaries) Note: The mouth of the Tseax river is designated by boundary signs located where what was formerly known as the Nass Back Channel enters the Nass R.	upstream of Nisga'a Hwy Bridge	All	Aug 01-Dec 31	<i>No fishing for salmon.</i>
	downstream of Nisga'a Hwy Bridge	Coho	Jan 01-Nov 30	4 per day, only 2 over 50 cm.
		Chinook	Jul 01-Sep 15	4 per day only 1 over 65 cm. Monthly Quota = 1 over 65cm.
			Sep 16-Mar 31	4 per day, none over 65cm
Ishkheenickh River	including tributaries	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
D. Queen Charlotte Islands Watersheds- Section "A" applies if stream, specific area, time period, quotas or other species restrictions are not listed in the following sections:				
<i>All waters in section "D" - Queen Charlotte Islands</i>		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>

WATERS	SPECIFIC AREA	SPECIES	DATES	LIMITS/GEAR
<i>Watersheds unless otherwise stated below</i>		Coho	Apr 01 - Oct 31	4 per day, only 1 over 50cm.
			Nov 01-Mar31	<i>No fishing for coho.</i>
		All	Jan 01-Dec 31	Single, barbless hook in tidal and non tidal portions of all streams.
Braverman River		Coho	Apr 01-Oct 31	4 per day, only 2 over 50 cm.
Pallant Creek		All	Aug 01-Oct 31	<i>No fishing for salmon.</i>
	upstream of signs located 100m above fish counting fence	Coho	Apr 01-Oct 31	4 per day, only 2 over 50 cm.
Sheldens Creek	Upstream of boundary signs located at the Spur 19 Bridge site.	Coho	Jan 01-Dec 31	0 per day
Tlell River	Anglers should note that tidal water regulations apply to waters below tidal boundary sign located approx. 1.5km above Hwy. 16 Bridge. Refer to the Bc Tidal Water Sport Fishing Guide section of this book.			
Yakoun River	Downstream of the 6 mile Bridge	Pink	Aug 01-Sep 30	2 per day
E. Other Mainland Watersheds- Section "A" applies if stream, specific area, time period, quotas or other species restrictions are not listed in the following sections:				
<i>All waters in section "E" - Other Mainland Watersheds unless otherwise stated below</i>		Coho	Nov 01-Dec 31	<i>No fishing for coho.</i>
<i>All streams flowing into tidal water Area 5 (refer to the BC Tidal Waters Sport Fishing Guide for Area 5 description)</i>		Coho	Jan 01- Dec 31	<i>No fishing for coho.</i>
		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
<i>All streams flowing into tidal water Area 6 unless stated below (refer to BC Tidal Waters Sport Fishing Guide for Area 6 description)</i>		Coho	Jan 01- Oct 31	<i>Non-retention of coho.</i>
Bish Creek	Including tributaries	Coho	Jan 01- Dec 31	<i>No fishing for coho.</i>
Brim River	Including tributaries	Chinook	Jan 01-Dec 31	<i>No fishing for chinook</i>
Dala River	Including tributaries	All	Jan 01-Aug 15	<i>No fishing for salmon.</i>
			Oct 01-Dec 31	<i>No fishing for salmon.</i>
		Chinook, Sockeye, Pink, Chum	Aug 16-Sep 30	<i>No fishing for chinook, sockeye, pink, chum</i>
		Coho	Aug 16-Sep 30	4 per day only 1 over 50 cm.
Endako River		All	Jan 01-Dec 31	<i>No fishing for salmon.</i>
Giltoyees Creek		Coho	Aug 01-Sep 30	4 per day only 1 over 50 cm.
Illiance River (including tributaries)	Upstream of signs located near mouth of river	Coho	Sep 21-Dec 31	<i>No fishing for coho.</i>
Kemano River		Coho	Aug 01-Sep 30	4 per day only 2 over 50 cm
Khutze	Including tributaries	Chinook	Jan 01-Dec 31	<i>No fishing for chinook</i>
Khutzymateen River	Including tributaries	All	Jan 01-Dec 31	<i>No fishing for salmon.</i>
Kildala River		Chinook	Jan 01-Dec 31	4 per day only 1 over 65 cm. Monthly quota = 1 over 65cm
		Coho	Aug 01-Sep 30	4 per day only 1 over 50 cm.
Kiltuish River	Including tributaries	Chinook	Jan 01-Dec 31	<i>No fishing for chinook</i>

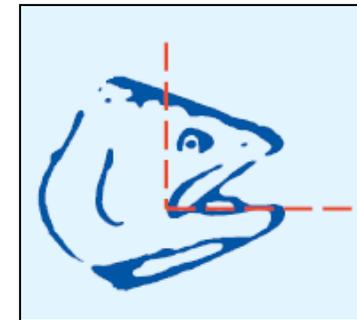
WATERS	SPECIFIC AREA	SPECIES	DATES	LIMITS/GEAR
Kincolith River	Upstream of white triangle boundary signs located at the Kincolith River Bridge.	Coho	Aug 01-Dec 31	4 per day, only 2 over 50 cm.
		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Kitimat River (including tributaries)	On west bank between signs at Kitimat hatchery outfall	All	Jan 01-Dec 31	<i>No fishing for salmon.</i>
	Downstream of Highway # 37 bridge	Chinook	Apr 01-July 31	4 per day, only 1 over 65 cm.
			Aug 01-Dec 31	<i>No fishing for chinook.</i>
		Coho	Apr 01- Oct 31	4 per day, only 2 over 50 cm.
			Nov 01-Dec 31	<i>No fishing for coho.</i>
		Chum	Apr 01-Aug 31	2 per day
	Pink	Apr 01-Aug 31	Opportunities to be determined in-season.	
Upstream of Highway # 37 bridge	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>	
	Coho	Jan 01-Dec 31	<i>No fishing for coho.</i>	
Kitlope River		Coho	Aug 01-Sep 30	4 per day only 2 over 50 cm.
Kitsault River (including tributaries)		Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
	Upstream of signs located near mouth of river	Coho	Oct 01-Dec 31	<i>No fishing for coho.</i>
Kloiya River	Including tributaries	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
Kwinimass River (including tributaries)	upstream of lower bridge abutments	Chinook	Jan 01-Dec 31	<i>No fishing for chinook.</i>
	downstream of lower bridge abutments	Coho	Jan 01-Dec 31	4 per day, only 2 over 50 cm.
		Chinook	Apr 01-Jul 09	4 per day, none over 65cm.
			Jul 10-Dec 31	<i>No fishing for chinook.</i>
Nakina River		Chinook	Jan 01-Dec 31	4 per day, only 2 over 65cm.
		Coho	Jan 01-Dec 31	4 per day, only 2 over 50cm.
Quaal River	Including tributaries	Chinook	Jan 01-Dec 31	<i>No fishing for chinook</i>
Rainy Creek		Chinook	Aug 15-Mar 31	<i>No fishing for chinook.</i>
		Coho	Aug 15-Mar 31	<i>No fishing for coho.</i>
Stikine River	Including tributaries	Chinook	Jan 01-Dec 31	4 per day, only 2 over 65cm.
		Coho	Jan 01-Dec 31	4 per day, only 2 over 50cm.
Swift River	including tributaries	Chinook	Jan 01-Dec 31	2 per day, only 1 over 65cm. Anglers may now fish this river with either a Yukon or BC angling licence.
Tahltan River	including tributaries	Chinook	Jan 01-Dec 31	4 per day, only 2 over 65cm.
Taku River	including tributaries	Chinook	Jan 01-Dec 31	4 per day, only 2 over 65cm.
		Coho	Jan 01-Dec 31	4 per day, only 2 over 50cm.
Tatsamenie Lake's outlet streams	between Tatsamenie L. and Tatsatua Creek	Chinook	Jan 01-Dec 31	4 per day, only 2 over 65cm.
		Coho	Jan 01-Dec 31	4 per day, only 2 over 50cm.
Tatshenshini River (downstream of the BC/Yukon border)	including tributaries	Chinook	Jan 01-Dec 31	2 per day, single barbless hook
		Coho	Jan 01-Dec 31	2 per day, single barbless hook
		Sockeye	Jan 01-Dec 31	2 per day, , single barbless hook

WATERS	SPECIFIC AREA	SPECIES	DATES	LIMITS/GEAR
Tatshenshini River (upstream of the BC/Yukon border – along the Haines Hwy.)	Blanchard River	Chinook	Jan 01-Jul 23	2 per day, , single barbless hook
			Jul 24-Dec 31	<i>No fishing for chinook.</i>
		Coho	Jan 01-Dec 31	2 per day, , single barbless hook
		Sockeye	Jan 01-Dec 31	2 per day, , single barbless hook
	Kwatini Creek, Stanley Creek and Goat Creek	Chinook, Coho, Sockeye	Jan 01-Dec 31	<i>No Fishing for chinook, coho or sockeye.</i>
	Tatshenshini mainstem and all other tributaries	Chinook	Jan 01-Dec 31	2 per day, single barbless hook
	Coho	Jan 01-Dec 31	2 per day, single barbless hook	
	Sockeye	Jan 01-Dec 31	2 per day, single barbless hook	
Wahoo River	Including tributaries	Chinook	Jan 01-Dec 31	<i>No fishing for chinook</i>
Weeanie River		Coho	Jan 01-Dec 31	<i>No fishing for coho.</i>
Wilauks Creek (including tributaries)	Upstream of signs located near mouth of creek	Coho	Sep 20-Dec 31	<i>No fishing for coho.</i>

Appendix 7. Chinook and coho head retention, storage and delivery requirements.

These requirements apply to all Area F troll licences, except those where the licence holder has received a letter from the DFO North Coast Area Chief of Resource Management exempting them from the head retention requirements in Part 1, Section 2 of their conditions of licence.

- 1. Head Retention:** Troll vessel masters that are freezing their catch at sea must retain all heads from all Chinook and coho kept. At a minimum, the portion of each head retained must include the upper portion of the head extending from the tip of the snout to a cut travelling from the top of the head, passing 1 centimetre behind the eye, and ending at the back corner of the mouth. The figure to the right indicates the minimum portion of each head that must be retained.



- 2. Head Storage:** Heads must be stored using special purpose bags and labels available free of charge from the Department. These bags and labels are supplied free of charge by the Department and can be obtained in three ways:
 - a) Pick them up at Pacific Fishery Licencing Unit offices in Nanaimo, Prince Rupert, and Vancouver.
 - b) Make arrangements for delivery by contacting the Department toll-free at 1-866-483-9994.
 - c) Get them from coded-wire tag samplers at fish plants.

Each bag must contain only the heads from a single week of fishing (where weeks run from Sunday to Saturday). This requirement had been added to maximize the run timing information obtained through coded wire tag sampling of the heads.

Finally, heads must be kept frozen until delivery.

- 3. Head delivery:** The vessel master shall ensure that all bags containing heads are offloaded at the first designated fish landing station at which Chinook and/or coho catch is offloaded. All bags must be securely closed, and labelled with vessel name and V.R.N., the first and last day of fishing on which the heads contained in the bag were caught, and the Management Area(s) in which those salmon were caught. Contact J O Thomas & Assoc. for sampling and collection details: phone toll-free 1-800-663-3344. Please call one day in advance of offload.

For exact head retention requirements, trollers freezing their catch should refer to their Conditions of Licence.

Appendix 8: Salmon Logbook Examples

SALMON GILLNET Logbook I.D. # **G SAMPLE** Report Catch to: 1-(888) 387-0007 Record all catch in pieces Page #

Vessel Name: Pacific Blue		VRN (CFV#): 12346		Vessel Master Name: Dan Doe		FIN: #####											
Net Details		Type ¹ : A	# Strands ² : 6	Length: 200 (fathoms)	Weedline Depth ³ : 30cm	Hang Ratio: 3 :1	Mesh Size ³ : 4 7/8"	# Meshes: 90									
Date	Mgmt. Area	Sub-area(s)	Hours fished	# of sets	⁴ Kept or Released	Sockeye	Coho	Pink	Chum	Chinook	Steel-head	Atlantic	Dogfish	Sturg-eon	⁵ Other Fish	⁶ Non fish	
3	Aug	4	4-12	5.5	5	Kept	4	0	23	127	0	0	0	0	0	0	Yes
Trip ID #: ⁷ FOS-12345					Rel.	0	9	0	0	0	0	0	0	0	0	0	No
Comments: 2 birds killed in 10AM set, kept for research program. Probably surf scoters.															Confirmation #: FOS-12346		
5	Aug	4	4-12, 4-15	4	3	Kept	73	0	245	4	0	0	1	0	0	0	Yes
Trip ID #: ⁷ FOS-12480					Rel.	0	2	0	0	0	0	0	2	0	2M, 1 salmon shark	0	No
Comments: Both coho put in rev. tank, one died, one released in good condition															Confirmation #: FOS-12367		
5	Aug	5	5-1	2	3	Kept	88	0	116	7	0	0	2	0	0	0	Yes
Trip ID #: ⁷ FOS-12480					Rel.	0	0	0	0	0	1	0	0	0	11 M, 2 R	0	No
Comments: Steelhead released in good condition. 2 sealions released alive around 11AM.															Confirmation #: FOS-12372		
8	Aug	29	29-13	6	6	Kept	163	0	328	0	0	0	0	0	0	0	Yes
Trip ID #: ⁷ FOS-12773					Rel.	0	0	0	0	3	1	0	0	0	0	0	No
Comments: 4 coho put in rev. tank, 2 of them died, 2 released in good condition															Confirmation #: FOS-12502		
9	Aug	29	29-13	6	6	Kept	205	0	493	0	0	0	0	0	0	0	Yes
Trip ID #: ⁷ FOS-12773					Rel.	0	0	0	0	1	1	0	0	0	0	0	No
Comments: Net changed this AM to one with weedline at 0" (otherwise the same).															Confirmation #: FOS-12521		
					Kept												Yes
Trip ID #:					Rel.												No
Comments:															Confirmation #:		

- Net Types:** enter 'A' for Alaska Twist, 'M' for Multi Strand or 'C' for Combination.
- Enter number of strands if net is 'Alaska Twist' type mesh.
- Give measurement units (in or " = inches, cm = centimeters, mm = millimeters).
- Kept** are species retained on board; **Released** are species returned to the ocean.
- Other Species:** M= Mackerel, L= Lingcod, H= Halibut, R= Rockfish. Give full name for other species.
- Circle Yes or No as appropriate if any **birds, marine mammals, or turtles** were encountered. Give time of capture and species details in comments.
- Fill in if Start Fishing Report is required by Licence Condition.

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Appendix 8: Salmon Logbook Examples

SALMON TROLL Logbook I.D. # T **SAMPLE** Report Catch to: 1-(888) 387-0007 Record all catch in pieces Page #

Date		Mgmt. Area	Zone or Subarea	Hours fished	Catch frozen or iced?	Kept or Released	Sockeye	Coho	Pink	Chum	Legal Sized Chinook	Sublegal Sized Chinook	Grilse	Atlantic	Rockfish	Other Species
Day	Mon															
Vessel Name: Pacific Blue VRN (CFV#): 12346 Vessel Master Name: Dan Doe ¹ FIN: #####																
15	Jul	4	9	3	(F)	Kept	25	0	12	0	0	X	X	3	0	0
Trip ID #: FOS-12345						Rel.	0	0	0	0	3	3	5	0	8 Yellowtail, 3 Canary, 6 Silvergrey 4 L, 2 D	
Comments: 8 Hake released, lots of seals around															Confirmation #: FOS-12346	
15	Jul	4	5	8½	(F)	Kept	42	0	8	0	0	X	X	0	0	0
Trip ID #: FOS-12345						Rel.	0	0	0	0	2	5	1	0	2 Yelloweye, 6 unknown rockfish 0	
Comments:															Confirmation #: FOS-12346	
16	Jul	5	1	10	F	Kept	12	0	0	0	0	X	X	0	0	0
Trip ID #: FOS-12345						(I)	Rel.	0	0	0	0	1	2	0	2 Chilepepper, 2 unknown rockfish 0	
Comments:															Confirmation #: FOS-12349	
18	Jul	5	1	6	F	Kept	0	0	0	0	8	X	X	0	0	0
Trip ID #: FOS-12398						(I)	Rel.	0	0	0	0	1	0	0	0	1L
Comments: 1 Coho dead, 5 released in good condition															Confirmation #: FOS-12402	
18	Jul	5	3	5½	F	Kept	0	0	0	0	12	X	X	0	0	0
Trip ID #: FOS-12398						(I)	Rel.	0	0	0	0	0	0	0	0	2D
Comments:															Confirmation #: FOS-12402	
19	Jul	5	3	11	F	Kept	0	0	0	0	7	X	X	0	0	0
Trip ID #: FOS-12398						(I)	Rel.	0	1	0	0	1	3	0	3 Canary	0
Comments:															Confirmation #: FOS-12491	

1. Enter the vessel master's Fisher Identification Number.
2. **Kept** are species retained on board; **Released** are species returned to the ocean.
3. As defined in the applicable Fishery Notice.
4. **Grilse** are juvenile salmon under 30 cm.
5. If possible, rockfish are to be identified by species (using names in accompanying guide); if unsure of species, record as Unknown Rockfish.
6. Other Species: L=Lingcod, H=Halibut, D=Dogfish, M= Mackerel, S= Steelhead, B=Bird.

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Appendix 8: Salmon Logbook Examples

SALMON SEINE Logbook I.D. # **S** **SAMPLE** Report Catch to: 1-(888) 387-0007 Record daily catch in pieces **Page #**

Vessel Name: **Pacific Blue** VRN (CFV#): **12346** Vessel Master Name: **Dan Doe** ¹FIN: **#####**

Daily Catch Records

Date		Mgmt. Area	Sub-area(s)	Hours fished	# of sets	² Kept or Released	Sockeye	Coho	Pink	Chum	Adult Chinook	³ Jack Chinook	Steel-head	Atlantic	⁴ Non-fish	⁵ Other Fish
Day	Mon.															
14	Aug	3	3-3, 3-2	8	5	Kept	42	0	431	0	0	0	0	6	<input checked="" type="radio"/> Yes	0
Trip ID #: ⁷						Rel.	0	3	0	12	2	0	0	0	<input type="radio"/> No	0
Comments: 2 scoters released alive at 10 AM, 1 coho clipped, 2 coho dead, 1 alive at release													DCR Confirmation #: ⁶ FOS-12346			
15	Aug	4	4-5	5½	2	Kept	38	0	850	0	0	0	0	0	<input checked="" type="radio"/> Yes	0
Trip ID #: ⁷						Rel.	0	0	0	2	1	0	1	0	<input type="radio"/> No	4 D, 1 L, 1 salmon shark
Comments: 1 harbour seal released, steelhead revived in tank, then released in good condition													DCR Confirmation #: ⁶ FOS-12358			
19	Aug	4	4-5	9	4	Kept	53	0	560	0	0	0	0	0	<input type="radio"/> Yes	0
Trip ID #: ⁷						Rel.	0	2	0	17	4	12	0	0	<input checked="" type="radio"/> No	0
Comments: Both coho rel'd in good condition 12 jack chinook squishers all dead.													DCR Confirmation #: ⁶ FOS-12428			

Offload Catch Records										Sockeye		Coho		Pink		Chum		Chinook		(Other)		Complete if catch pooled with that of another vessel:	
Dates Fished				#	Date		<input type="checkbox"/> Pieces	<input type="checkbox"/> Pcs	<input type="checkbox"/> Pieces	<input type="checkbox"/> Pieces	<input type="checkbox"/> Pieces	<input type="checkbox"/> Pieces	<input type="checkbox"/> Pcs										
First day		Last day		Days	Offloaded		<input type="checkbox"/> Lbs	<input type="checkbox"/> Lbs	<input type="checkbox"/> Lbs	<input type="checkbox"/> Lbs	<input type="checkbox"/> Lbs	<input type="checkbox"/> Lbs	<input type="checkbox"/> Lbs										
Day	Month	Day	Month	fished	Day	Month	<input type="checkbox"/> Kgs	<input type="checkbox"/> Kgs	<input type="checkbox"/> Kgs	<input type="checkbox"/> Kgs	<input type="checkbox"/> Kgs	<input type="checkbox"/> Kgs	<input type="checkbox"/> Kgs	Received from:	Offloaded to:	Vessel							
14	Aug	14	Aug	1	15	Aug	471	0	3958	0	0	0	42	<input type="checkbox"/>	<input type="checkbox"/>	Name: _____							
Business and port offloaded to: Canfisco, Pr. Rupert								Fish slip #: 79768				OCR Confirmation #: ⁶ FOS-12380				VRN (CFV#): _____							
19	Aug	19	Aug	1	19	Aug	310	0	1692	0	0	0	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Name: Home Run II							
Business and port offloaded to: _____								Fish slip #: 79801				OCR Confirmation #: ⁶ FOS-12482				VRN (CFV#): 12347							

1. Enter the vessel master's Fisher Identification Number.
 2. Kept are species retained on board; Released are species returned to the ocean.
 3. **Jack Chinook** are all chinook smaller than 67 cm fork length. Note that 67cm is approximately 26 inches.
 4. Circle Yes or No as appropriate if any **birds, marine mammals, or turtles** were encountered. Give time of capture and species details in comments.
 5. **Other Species:** M= Mackerel, L= Lingcod, H= Halibut, D= Dogfish, R=Rockfish. Give full name for other species.
 6. **DCR Confirmation #** is the confirmation number received upon completion of the Daily Catch Report. **OCR Confirmation #** is the confirmation number 7.
- Fill in if Start Fishing Report is required by Licence Condition.

2010