SKEENA RIVER FISHERY

Commission for Environmental Cooperation

Response to Submission SEM 09-005

Fisheries and Oceans Canada
Pêches et Océans Canada
Environment Canada
Environnement Canada

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1. INTRODUCTION

On October 15, 2009 the North Coast Steelhead Alliance (NCSA), represented by Richard Overstall and Christina Cook, presented a submission to the Secretariat of the Commission for Environmental Cooperation (SEM-09-005) asserting that Canada is failing to effectively enforce the *Fisheries Act* by allowing marine commercial salmon fishers on the North Coast of British Columbia (BC), to ignore licence conditions aimed at protecting and conserving certain kinds of fish, mainly steelhead trout, that are caught as 'by-catch,' that is, during fisheries aimed at catching other kinds of fish, mainly sockeye salmon. More specifically, the submission alleges that Canada, in this case the Department of Fisheries and Oceans (DFO) is failing to effectively enforce the federal *Fisheries Act*, the *Pacific Fishery Regulations*, and, in particular, ss. 22(1) and 22(2) of the *Fishery (General) Regulations* (FGR) in connection with the alleged violation of commercial salmon fishing licence conditions and notices in the Skeena River, BC, Canada, beginning in 2006.

The Secretariat concluded that the submission met the criteria set out in Article 14 of the *North American Agreement on Environmental Cooperation* (NAAEC). In accordance with section 2 of the same article, it determined on May 18, 2010, that the submission merits a response from Canada.

This document represents Canada's response to the Secretariat, in accordance with NAAEC article 14(3). It has been prepared jointly by DFO and Environment Canada. In this response, the Government of Canada will address the two specific points identified by the CEC Secretariat in its May 18 determination.

Specifically, Canada will:

1) identify the enforcement efforts relating to the area concerned in the submission and the effectiveness of such efforts in conserving and protecting fish in accordance with the laws at issue; and,

2) provide information concerning the allocation of enforcement resources and the submitter's assertions of disproportionate targeting of non-commercial, i.e., recreational fisheries, allegedly causing negative impacts on the conservation and protection of fish.

This response may include information, provided for background purposes only, which predates the entry into force of the NAAEC on January 1, 1994. Consistent with Article 28 of the *Vienna Convention on the Law of Treaties*, Canada maintains that the NAAEC should not be applied retroactively.

Canada affirms its support for the citizen submission process on enforcement matters under Articles 14 and 15 of the NAAEC. We consider this process to be an essential element of the Agreement.

2. BACKGROUND

2.1 The Federal and British Columbia Roles in Managing Canada's Pacific Fisheries

Under the *Constitution Act*, 1867, the federal government of Canada is responsible for protecting and conserving the nation's fisheries resource. This responsibility includes protecting the intrinsic nature of the resource that will contribute to the preservation and enhancement of social, health and economic benefits derived by Canadians from fish habitats and the fisheries resource that those habitats support. One of the principal tools available to the federal government to ensure sustainable fisheries for Canadians is the *Fisheries Act*.

DFO's fisheries management program works to provide Canadians with a sustainable fishery resource that provides for an economically viable and diverse industry. Protection and conservation of fisheries resources are a key component of fisheries management. DFO manages fisheries in accordance with the roles and responsibilities outlined in the *Fisheries Act*, using credible, science-based, affordable and effective practices.[1]

Key priorities for DFO's fisheries management in Canada include environmental sustainability, economic viability, and the inclusion of stakeholders in decision-making processes. DFO manages and protects fisheries resources by:

- fostering sustainable resource use;
- promoting Canadian conservation interests internationally;
- allocating fishery resources;
- respecting Aboriginal and treaty rights;
- enforcing the *Fisheries Act*; and
- regulating the use of fishery resources.[2]

Specifically with regards to salmon, DFO has responsibility for managing salmon in both tidal and non-tidal waters including First Nation fisheries, commercial and recreational fisheries in tidal waters, salmon fisheries in non-tidal waters and has primary responsibility for fish habitat protection.

The federal government, through administrative arrangements and regulatory initiatives, has delegated responsibility to BC provincial officials for aspects of BC's non-salmon freshwater fisheries. As part of these arrangements, the province of BC is responsible for determining stock status, and manages fisheries that are directed towards steelhead, as well as other freshwater species in non-tidal waters.

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[1]Report on Plans and Priorities, Fisheries and Oceans Canada 2006-2007. See: http://www.tbs-sct.gc.ca/rpp/2006-2007/fo-po/fo-po02-eng.asp#Plans_SFA

[2] DFO 2005-2010 Strategic Plan: Our Waters, our Future. See: http://www.dfo-mpo.gc.ca/dfo-mpo/plan-eng.htm

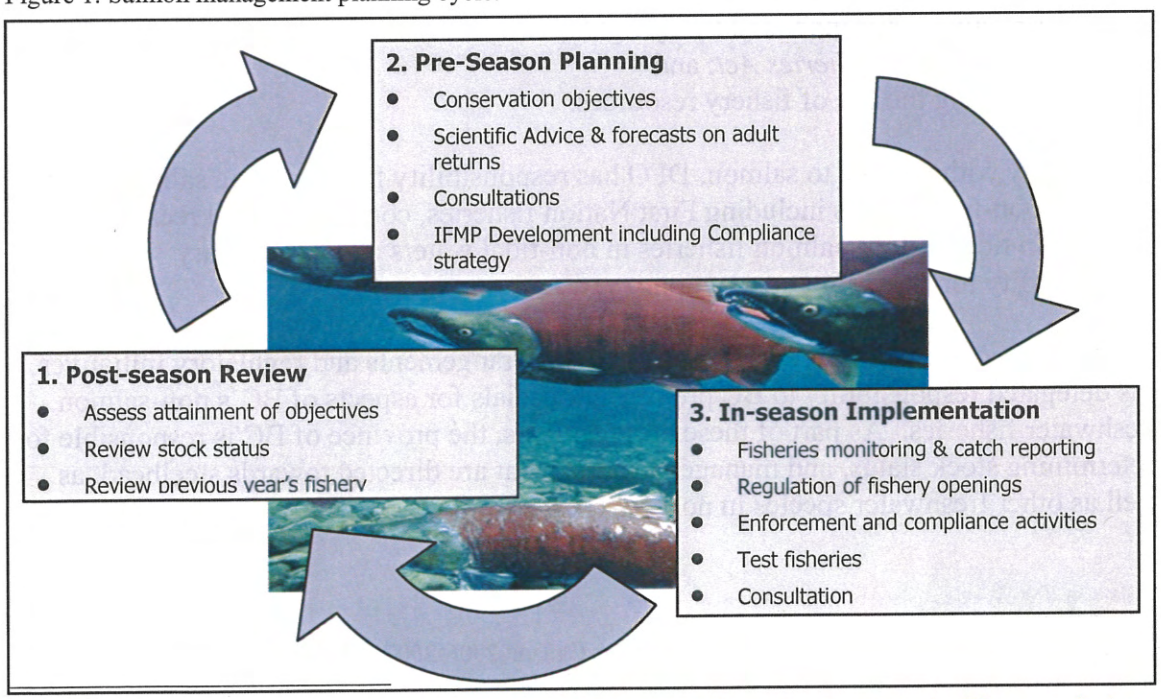
Concerning steelhead, the Fisheries Management Protocol under the *Canada-British Columbia Agreement on the Management of Pacific Salmon Fishery Issues* (1999) (Annex 1) was developed to guide the federal and provincial governments in cooperative management of steelhead populations.

2.2 Integrated Fisheries Management Plans

Enforcement efforts with respect to fisheries cannot be discussed in isolation from DFO's overall approach to management. The on–the-ground enforcement efforts of Fishery Officers represent the apex of a comprehensive and inclusive management framework that is encapsulated by DFO's Integrated Fisheries Management Plans (IFMPs[3]). DFO uses IFMPs to guide the conservation and sustainable use of marine resources and to manage the fishery of a particular species in a given region. IFMPs combine the best available science on a species along with data on capacity and methods for harvesting that species.

More specifically, the IFMP is both a process and a document. Its primary goal is to provide a planning framework for 1) the conservation and sustainable use of fisheries resources and 2) the process by which a given fishery will be managed for a set period of time. In the case of salmon, IFMPs are prepared on an annual basis for both the North and South coasts of BC. The process for the development of the IFMP is intrinsically linked with the Salmon Management Planning cycle shown in Figure 1.

Figure 1. Salmon management planning cycle.



[3] For more information on IFMPs, see: http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/ifmp-gmp/index-eng.htm

As a process, the IFMP integrates the expertise and activities of various DFO branches (e.g., Science; Conservation and Protection; Aboriginal Policy and Governance; Oceans and Habitat; Policy and Economics; and Aquaculture) in fisheries management planning under the leadership of DFO's Resource Management branch. It also allows for enhanced input from resource users and other stakeholders into decision-making processes regarding management and conservation measures affecting a fishery, usually via an advisory committee.

The development of the IFMP promotes the optimum level of knowledge transfer and communication within DFO (e.g., between scientists/biologists and managers) as well as between DFO, First Nations and stakeholders (e.g., harvesters and environmental groups). Each IFMP sets out the harvest plan for a specific fishery and deals with conservation objectives and strategies, exploitation rates, and priorities for enforcement.

The IFMP allows DFO to ensure that during the pre-season, all stakeholders and participants within a fishery are aware of what the targets will be and what types of enforcement actions will take place.

In general, the IFMP process begins with a post-season review meeting, involving relevant DFO branches, followed by meetings with separate advisory groups[4]. Advisory groups represent the interests of commercial harvesters, recreational groups, environmental groups, and First Nations bands or groups. Input is also sought from the province of BC and the general public.

Once the IFMP is publicly released, and the fishing season gets underway, biologists and managers from DFO and the province of BC monitor the progress of the fisheries and the status of stocks. Regular weekly meetings and conference calls between DFO and advisory group representatives are held to review the stock status and recommend potential changes to fishing patterns. If incoming information suggests that fish stocks are returning in greater or lesser numbers than forecasted, actions not already contemplated in the IFMP may be implemented. These would be discussed during the weekly meetings and conference calls. Any adjustments are always made in a manner consistent with overall management goals of the IFMP. In these cases, consultations with the affected advisory groups will occur, although in order to adequately protect affected stocks, the time period for consultation may be short.

As a document, IFMPs are an important reporting tool and valuable source of information on a given fishery for fisheries managers, other DFO branches (i.e., those having input into the fisheries management process), co-management partners, fishery participants, other stakeholders and the general public. The IFMPs provide a clear and concise summary of the characteristics of the fishery, scientific aspects, management objectives,

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[4] Advisory Groups are permanent bodies with selected representative and alternatives. See: http://www.pac.dfo-mpo.gc.ca/consultation/fisheries-peche/smon/csab-ccpcs/index-eng.htm

management measures used to achieve those objectives, and criteria by which attainment of objectives will be assessed. The specifications included in the IFMP will determine how the fishery will be managed and, where applicable, what will appear in licence conditions.

The IFMP also addresses numerous other issues, including reporting out on the achievements in meeting objectives from the previous year, the policy framework, and key objectives of the fishery. It also addresses general—and in some cases specific—decision rules, which are pre-arranged criteria for making in-season management decisions, to attempt to address various contingencies such as runs[5] that are in variance with predictions. Finally, the IFMP also provides an outlook on the anticipated fishing plan for that particular species for the upcoming year.

The inclusive nature of the process used in the development of IFMPs and during in-season management of the fisheries forms the foundation for the enforcement activities that are undertaken by DFO. For example, IFMPs may specify management measures that include certain gear restrictions or closed areas or times and it is the role of enforcement staff to monitor the fishery for compliance with these measures. The broad-based consultation of stakeholders undertaken during the IFMP process promotes understanding of the various management measures being proposed. In this way, the IFMP promotes voluntary compliance by those who will be undertaking the fishery.

The development of an IFMP specifically for Salmon – Northern British Columbia is the means by which DFO brings together all of the information necessary to inform the management of the Skeena salmon fishery. The ongoing IFMP process for fisheries in the Skeena is very inclusive and promotes compliance through the development of an understanding of the management measures being undertaken in the fishery. The IFMP process also provides an opportunity to evaluate the effectiveness of various enforcement activities. The 2007-2008 North Coast Salmon IFMP is provided (Annex 2).

2.3 Compliance and Protection Approach

Conservation and Protection (C&P) is the branch of DFO responsible for the enforcement of the *Fisheries Act* and regulations. For the purposes of program and service delivery, DFO divides the country into several Regions, with each Region then sub-divided into Area Offices. Each Area Office overseas a number of C&P Detachment Offices. Fishery Officers located in the detachments are the designated agents of fisheries enforcement activities, which are carried out across Canada.

For example, BC is located in DFO's Pacific and Yukon Region, and the North Coast Area Office, situated in Prince Rupert, is responsible for nine Detachment Offices

[5] Adult salmon return from the ocean to freshwater rivers to spawn, i.e., they are anadramous. The movement of these fish into the spawning rivers is referred to as a *run*.

(Annex 3). The Prince Rupert Detachment Office is responsible for compliance monitoring and enforcement of all fisheries (i.e., marine and freshwater including salmon, herring, groundfish, shellfish and other species) and habitat provisions of the *Fisheries Act*, in the area which is the subject of the Submission. More specifically, this Detachment Office covers the lower reaches of the Skeena River and the approaches to the river (Statistical Areas 3, 4 and 5) (Annex 4).

In carrying out its responsibility for the enforcement of the *Fisheries Act* and regulations, the C&P Branch of DFO follows three "pillars" of compliance management:

1. Education and Shared stewardship, involving the encouragement of voluntary compliance through formal (e.g., advertisements and promotional campaigns) and informal (e.g., presentations, meetings) educational initiatives as well as participation in planning processes, the building of relationships with stakeholder groups, and the provision of recommendations and advice on regulatory requirements.

2. Monitoring, control and surveillance, including observation of fishing activities, inspection of gear, vessels and facilities, verification of compliance with regulations and licence conditions, and, when required, the initiation of judicial or other proceedings in response to non-compliance.

3. Major case investigation, the long-term in-depth investigation of egregious cases of non-compliance and/or wide-spread collusion in unlawful activity related to the harvest and sale of fish.

Besides the traditional, on the ground DFO practices of monitoring compliance in the fisheries, the department is also very active in a number of other areas that could also be considered enforcement action, particularly in light of NAAEC Article 5.
Examples include efforts to appoint and train Fishery Officers (see section 5.1 of the response), the IFMP process used to seek voluntary compliance (section 2.2 of the response), the issuance of licences, and the regular issuance of bulletins on enforcement procedures (section 5.2 of the response).

2.4 The Skeena River - a Complex System

In order to understand the magnitude of the management and enforcement challenge of the Skeena River salmon fisheries, it is important to have a sense of the complexity of the Skeena River salmon runs, their timing and some of the fisheries that are dependent upon them.

- Salmon fishing activity in Areas 3/4/5 (Annex 4) involves the runs of several targeted salmon species (e.g., coho, chum, pink, and chinook) and, in some cases, several stocks of the same species (e.g., sockeye salmon). It provides Aboriginal groups with

opportunities to fish for food, social and ceremonial purposes, as well as providing for recreational and commercial fisheries.

- The Skeena River region is the second largest producer of sockeye in BC, and includes stocks that spawn in Babine and Fulton rivers and Pinkut Creek. Co-migrating with these strong sockeye stocks are weaker runs of sockeye, as well as stocks of all the northern Pacific salmon species.

- Steelhead is a highly valued sport-fish and their retention throughout BC is prohibited in commercial fisheries. All steelhead captured must be released to the water with the least possible harm.

- There are 154 recorded coho streams in Area 4 alone. The timing of stock arrivals varies but generally stocks arrive first at streams of the upper Skeena, from late July to early August, next at middle streams, and finally the stocks arrive at the coast.

- There are 128 systems in the Skeena River that have recorded pink salmon and 43 streams or rivers in Area 4 with chum salmon present.

- The Skeena River is the second largest chinook producer on the BC coast. Skeena chinook are taken in all northern BC fishing areas as well as southern Alaskan troll and net fisheries. Peak timing of chinook is in the last week of June and first week of July, with some fish moving onto spawning grounds continuing into late August.

- Skeena salmon are taken in virtually all northern BC and southern Alaskan fisheries. In BC, directed commercial net fisheries for sockeye and pink salmon occur in Areas 3/4/5. 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.

2.5 Incidental Catch

As explained above, the Skeena River runs of the various target fish species often overlap with each other in terms of timing and availability for harvest. They can also overlap with runs of non-target species, such as steelhead. As a result, during the Skeena River commercial salmon fishery, non-target fish such as steelhead, can also be caught. This is referred to here as *incidental catch*. A high level of incidental catch can have detrimental impacts on non-target fish, including steelhead and other stocks, because it could prevent fish from reaching spawning grounds. The number of fish making it to the spawning grounds is referred to here as *escapement*.

Measures have been taken to reduce fishery impacts (e.g., incidental catch) on Skeena River coho, chum, steelhead, and some weaker sockeye stocks. These measures include

non-retention of some species, gear and fishing modification, and specific timing closures or sockeye harvest rate reductions when weak stocks are present. The management measures may be implemented through licence conditions pursuant to the *Fisheries (General) Regulations* (s. 22(1) and (2)), which are the subject of the submission. These Regulations allow for the specification of licence conditions respecting, for example, the species of fish and quantities thereof that are permitted to be taken or transported (FGR s. 22(1)(a)); the type, size and quantity of fishing gear and equipment that is permitted to be used and the manner in which it is permitted to be used (FGR s. 22(1)(h)); and the segregation of fish by species on board the vessel (FGR s. 22(1)(s)). As well, the IFMP process provides an opportunity to evaluate the effectiveness of various management measures, including those related to incidental catch.

There are two important variables when considering efforts to conserve and protect steelhead from the effects of incidental catch in the Skeena River commercial fisheries: 1) an agreed-upon incidental catch rate and 2) the model used to quantify the incidental catch rate.

Incidental Catch Rate

For the purposes of conservation and protection of fish, the maximum incidental catch rate is one that allows sufficient escapement to conserve and maintain the health and sustainability of the stock, while still providing economic opportunities for commercial salmon fishing. Therefore, incidental catch resulting from commercial fishing at or below the agreed-upon rate would not be considered harmful for the conservation of non-target species.

Specifically for steelhead, in the early 1990s, the Skeena Watershed Committee was formed to develop an appropriate incidental catch rate for steelhead stocks and by 1997 agreement was reached to establish the rate at 24% for the Skeena River and approach areas. The 24% incidental catch rate has remained in place since the 1997 season and has been incorporated on an annual basis into each North Coast Salmon IFMP.

In other words, the stakeholder community involved in the IFMP process (including government officials, First Nations representatives, commercial harvesters, recreational fishers, and conservation groups) has consistently established an incidental catch limit of 24% for steelhead as the acceptable level that would permit steelhead to reach spawning grounds in numbers sufficient to conserve and maintain the health and viability of the species, while still providing economic opportunities for salmon harvesters.

Model Used to Quantify the Incidental Catch Rate

The primary tool for estimating steelhead incidental catch rates in Areas 3/4/5 is the *Skeena Management Model* (Annex 5). This model was developed jointly in 1992 between BC and DFO scientists. Since its first use in 1994, the Skeena Management Model has undergone significant change and can now account for various fishing methods that have been brought into the fishery since 1994 to reduce incidental catch.

These methods include the use of gillnet weedlines, brailing by seines, short gillnet sets, half-length gillnets, and other practices and factors, including revival boxes, catch-and-release, harvesters' compliance rates, sub-area closures, etc.

3. ENFORCEMENT EFFORTS IN THE SKEENA RIVER AND THEIR EFFECTIVENESS IN CONSERVING AND PROTECTING FISH

3.1 Enforcement in 2006

Canada notes that 2006 was an anomalous year with respect to the level of available Fishery Officers across the country, within the Pacific Region, and at the Prince Rupert detachment. Section 4.1 below provides greater factual information on the availability of Fishery Officers. In essence, the 2006 anomaly resulted in fewer Fishery Officers at the Prince Rupert detachment, which is responsible for compliance monitoring and enforcement of all fisheries in the area of concern to the submitters in the Skeena River.

The reduced capacity of the Prince Rupert detachment in 2006 is reflected in the total fisheries patrol hours conducted that year, as illustrated in Table 1 below. Note that Table 1 presents data for Prince Rupert detachment only, which is responsible for the area of concern to the submitters, not the data for all North Coast detachments as presented at p.12 of the Submission.

From Table 1, it is apparent that total fisheries patrol hours during the 2006 period was lower than in the subsequent years of 2007-2009. This lower level in total patrol hours was seen across the board for salmon fisheries in 2006, both for commercial (20.5 h in 2006 v. 187.5 h in 2007) and recreational (182.25 h in 2006 v. 442.75 h in 2007). The values for 2006 illustrate a considerably reduced enforcement effort overall as a result of the reduced staffing levels that year (see section 4.1 for a full explanation of the reduced availability of Fishery Officers in 2006).

Table 1. FEATS[a] data for April 1, 2005 – March 31, 2010 Prince Rupert Detachment Patrol Summary – Salmon Related Fisheries (excluding Nisga'a Treaty Fisheries).

Year	Total Fisheries Patrol Hours[b]	Total Salmon Fisheries[c] Patrols	Commercial Salmon Net Patrols	Recreational Salmon Patrols
2006	856.25	278.50	20.50	182.25
2007	1879.25	679.00	187.50	442.75
2008	1255.50	435.25	193.75	213.00
2009	1569.25	713.25	241.50	334.75

a. Fishery Enforcement Tracking System, report run May 28, 2010.
b. Total Fisheries Patrol Hours includes patrols on the salmon fisheries, plus those fisheries for herring, groundfish, shellfish, and other species which are not shown.
c. Total Salmon Fisheries Patrols is the sum of commercial, recreation and aboriginal (not shown) fisheries patrols.

Notwithstanding the above, it is Canada's assertion that a direct comparison of hours between commercial and recreational fisheries does not provide an accurate reflection of the enforcement effort, given that the two fisheries differ significantly in their timing. For example, the 2006 commercial fishery comprised a total of 39 days whereas the recreational fishery took place over the entire year. It is Canada's view that it is more accurate to analyze the enforcement effort relative to the length of the fishery itself.

Table 2 calculates a relative level of enforcement coverage for commercial and recreational fisheries, using the hours per fishery and the number of enforcement hours attributed to that fishery. This table clearly shows that enforcement effort, as measured by percentage of coverage, increased for both fisheries subsequent to 2006, reflecting the trend seen in Table 1. In fact, coverage increased from 3% of commercial fisheries in 2006 to over 50% in each subsequent year. However, more importantly, Table 2 demonstrates that DFO enforcement effort does not disproportionately target recreational fisheries. In 2006, coverage of recreational fisheries marginally exceeded commercial fisheries; however, during subsequent years, it is clearly evident that, contrary to the Submitters' assertion, the enforcement effort on recreational fisheries was less than commercial fisheries.

Table 2. Comparison of enforcement coverage[a] by Prince Rupert Detachment in Commercial and Recreational Salmon Fisheries from 2006-2009.

Year	Commercial Salmon Net Fisheries			Recreational Salmon Fisheries		
	Hours of Fishing[b]	Patrol hours	% coverage	Hours of Fishing[c]	Patrol hours	% coverage
2006	608 hours *(38 days x 16 hr/day*	20.5	3%	1680 hours *(210 days x 8hr/day*	182.25	11%
2007	320 hours *(20 days x 16 hr/day)*	187.5	59%	1680 hours *(210 days x 8hr/day*	442.75	26%
2008	352 hours *(22 days x 16 hr/day)*	193.75	55%	1680 hours *(210 days x 8hr/day*	213	13%
2009	144 hours *(9 days x 16 hr/day)*	241.5[d]	167%	1680 hours *(210 days x 8hr/day*	334.75	20%

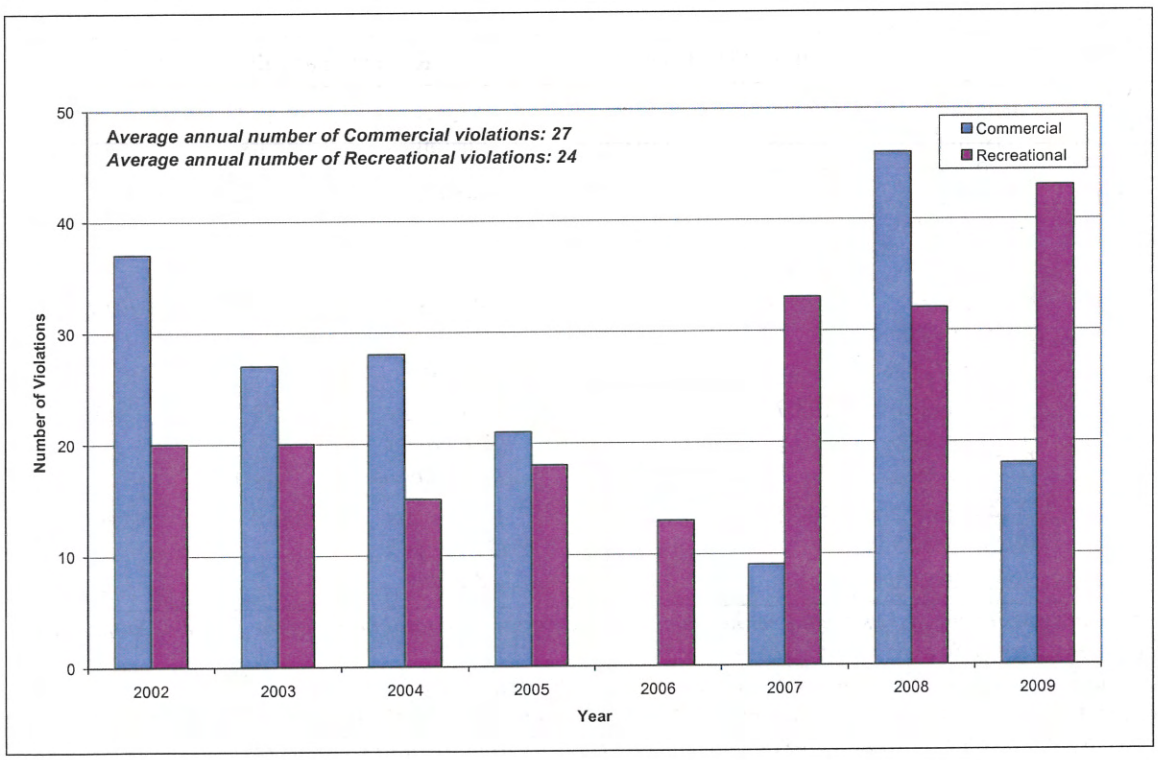
a. Coverage is expressed as the patrol hours as a percentage of the total hours of the fishery. Number of boats or geographic area is not taken into account.
b. Number of hours is the combined Gill Net and Seine fisheries.
c. Salmon recreational fisheries are open 365 days/year; however, for the purposes of this comparison, the recreational fishery is estimated to be undertaken primarily from April to October (210 days).
d. As there was more than one patrol boat operating, the number of patrol hours exceeded the number of fishery hours.

3.2 Results of Enforcement in 2006

Figure 2 below shows the historic trend of charges laid in the commercial and recreational salmon fisheries by the Prince Rupert detachment from 2002-2009. It illustrates a fairly consistent level of violations for the years preceding the 2006 season, and a decline in 2006, reflecting the resource challenges briefly mentioned above and fully explained in section 4.1. The level of decline in detected violations for the 2006 season is not as dramatic in the recreational fishery as it is for the commercial; however, 2006 detected violations are the lowest in the series for both fisheries.

Following the anomalous 2006 year, the number of detected violations rises and, in some cases, exceeds the pre-2006 level. In 2008, the violations detected in the commercial fishery exceeded those of the recreational fishery, as per the trend seen before 2006. It is important to note that when resources are limited, as was the case during the 2006 fishery, violations in the recreational fishery can sometimes be more easily detected by a single officer conducting a land-based patrol than in the commercial fishery, where 2-officer patrols on vessels are required (see section 4.2 of this response for more information).

Figure 2. Salmon violations detected by the Prince Rupert Detachment 2002-2009.



Compliance monitoring, and the subsequent issuing of violations, is just one example of government enforcement actions. The number of violations is just one parameter in analyzing the effectiveness of such enforcement actions. For the purposes of assessing whether the minimal enforcement presence during the Skeena River commercial net fisheries in 2006 resulted in harm to steelhead stocks, one must also look at the rate of incidental catch.

As mentioned, incidental catch at or below the agreed rate of 24% (and as referenced within the annual North Coast Salmon IFMPs) would meet agreed-upon conservation objectives for steelhead. Table 3 shows the steelhead incidental catch rates in Areas 3/4/5 from 1994 to 2006. As shown, from 1998 until 2006, the rate of incidental catch did not exceed 24%. Canada notes that in 2006 there was some uncertainty involved in estimating the incidental catch rate, with values ranging from 18.4% to 29.7%. However, as stated in the post-season review of the 2006 fishery contained in the 2007-2008 IFMP (Annex 2, section 8.1.6), the most probable rate was 24%:

> *"By estimating steelhead impact in-season by the Skeena Management Model, managers determined in 2006 that the 24% steelhead incidental harvest had been reached. The commercial fishery was promptly closed, for an eight day period, with a further fishery only allowed after further analysis and after the majority of the summer run steelhead had already entered the river. Post-season, DFO and their provincial colleagues have used a run-reconstruction method to estimate the actual impact. While there is a lot of uncertainty involved, estimates put the actual impact between 18.4% and 29.7%, with the most probable impact around 24%, as estimated in-season."*

Table 3. Rates of incidental catch of Steelhead on the Skeena River from 1994 to 2006.

Year	Incidental catch rate
Area 3/4/5 rate[a]	*24%*
1994	29%
1995	25%
1996	39%
1997	31%
1998	1%
1999	0
2000	5%
2001	9%
2002	12%
2003	6%
2004	6%
2005	1%
2006	24%

a. This rate was determined by the Skeena Watershed Committee and subsequently incorporated into the annual IFMPs

4. INFORMATION CONCERNING THE ALLOCATION OF ENFORCEMENT RESOURCES

4.1 Availability of Fishery Officers in 2006

Regular recruitment of Fishery Officers is required to deal with attrition and ensure that vacant positions are filled without undue delays. However, as a result of budget constraints, a decision was made at the national level to not proceed with regular, annual recruitment of fishery officers in 2004 and 2005. Consequently, by 2006 there was a significant number of vacant fishery officer positions across all DFO regions in the country.

Specifically within the Pacific Region, there was further uncertainty in the 2005-2006 period as additional cuts potentially affecting 28 positions were being proposed for the C&P program. Subsequently, a decision was taken to not implement these reductions, and recruitment and training of new Fishery Officers for Pacific Region resumed in late 2006. However, the staffing process takes approximately four months, followed by 17 weeks of intensive fisheries and enforcement training. Therefore new recruits hired in 2006 were not put into the field until early summer of 2007.

Consequently, in the summer of 2006, there were significant vacancies in Pacific Region, including the Prince Rupert detachment, which was operating at only 44% of its regular complement of nine Fishery Officers, i.e., with only four.

4.2 Enforcement Priorities in 2006

Fraser River

During 2006, the enforcement on the lower Fraser River became a regional priority. This was the result of a sharp and unexpected decline in sockeye salmon returns to the Fraser River in 2004, which prompted the 2004 Southern Salmon Fishery Post-Season Review, independently chaired by Mr. Justice Bryan Williams, and a series of hearings by the Parliamentary Standing Committee on Fisheries and Oceans. In their 2005 reports (Annexes 6 and 7), both panels identified large-scale unlawful harvest as a prime contributor to the decline of the Fraser River sockeye. As a result, the enforcement presence (including night-time patrols) on the Fraser River was increased immediately and made a priority in Regional planning.

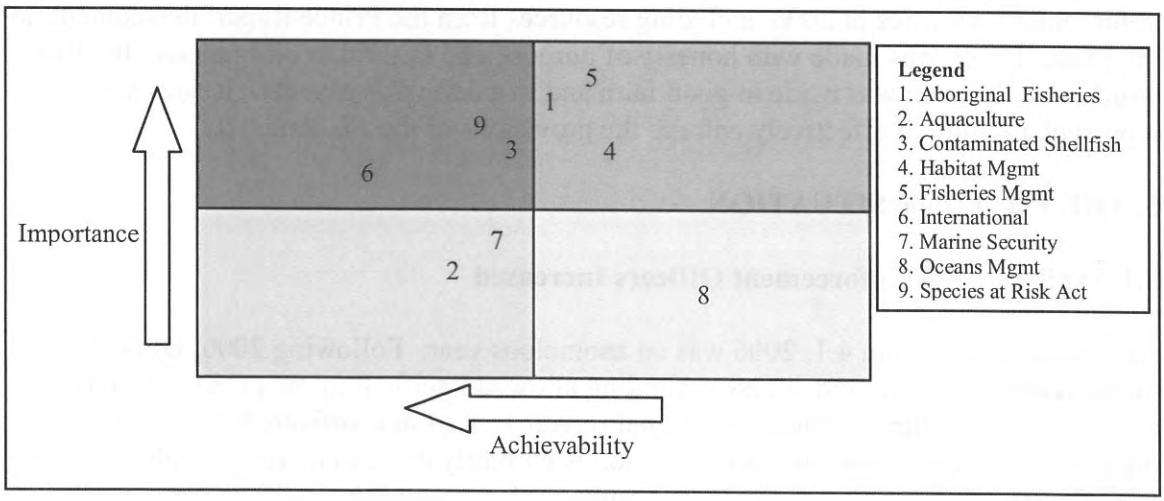
In order to increase enforcement presence on the Fraser in the absence of available recruits (as mentioned in section 4.1), and to provide relief for already over-subscribed Fraser River officers, officers from the North Coast Area (which includes the Skeena River), South Coast Area, and Yukon, as well as the Central and Arctic Region, were rotated into the affected areas. While this bolstered the presence on the Fraser, it severely impacted the C&P program elsewhere in the Pacific Region.

As mentioned in section 4.1, the Prince Rupert detachment has a regular complement of nine Fishery Officers, however, during the 2006 season, the detachment was staffed at four officers. Of those officers, two were deployed to the lower Fraser River as North Coast's contribution to the Regional priority set as a result of the Williams and Standing Committee reports. The presence of only two remaining Fishery Officers within the Prince Rupert detachment effectively limited the number of hours available for patrols and inspections, as officers had other regular draws on their time (e.g. court obligations, administrative duties, scheduled days off, illness). It also limited the patrol options available, as the *National Directive on Fishery Officers Working Alone* (Annex 8) states that "boardings at sea shall not be conducted with fewer than two Officers." When one officer was not available, the remaining officer was unable to carry out commercial at-sea patrols and inspections.

Other Priorities

In 2005, C&P introduced a formal Integrated Risk Management (IRM) process as a pilot priority-setting project in the Pacific Region. In subsequent years, this process was refined and it now forms a cornerstone of priority-setting at the National, Regional and Area level. DFO detachments use the information developed through the IRM and apply a planning and budgeting tool to allot resources for the year to meet the priorities identified. The plans are reviewed and approved by the Area Chief, and performance against the planned activities is measured quarterly. In 2006, the Pacific Region also piloted an IRM framework, developing the following "heat map" (Figure 2), as a means by which enforcement activities are characterized in a matrix, taking into account relative importance and relative achievability.

Figure 3. Heat Map of Pacific Region Priorities.



The two highest priorities for the Pacific Region in 2006 were identified as Fisheries Management (#5 in Fig. 3), which includes monitoring and enforcement of recreational and commercial fisheries, and Aboriginal fisheries (#1 in Fig. 3). Following from this, operational priorities were established at the Regional and Area levels that linked to these over-arching priorities. Finally, the Prince Rupert detachment's specific priorities were identified as illegal sales/laundering of fish into the commercial fishery, as well as recreational charter fishery. These priorities link directly to the two main priorities established for the region: fisheries management and Aboriginal fisheries.

The decision in 2006 to target illegal sales and recreational non-compliance was made at the Area and detachment level. Illegal sales was deemed to be a matter of public health and safety as fish sold illegally do not pass through a registered inspection facility; this takes precedence over all other priorities. Recreational enforcement was targeted in response to high reported levels of non-compliance in the previous year.

While notice was taken of reports of non-compliance in the commercial net fishery, as a result of the Regional, Area and Prince Rupert detachment priorities established for the 2006 season and the reduced staff, fewer resources were available to be directed toward the commercial salmon fisheries. However, even this reduced level of resources did not result in unacceptable incidental catch rates of steelhead.

Parts 3 and 4 above clearly demonstrate two factors that impacted enforcement in 2006: 1) the allocation of enforcement resources to the Prince Rupert detachment, and 2) the enforcement priorities established for the detachment along with the process by which these priorities were established. Canada recognizes that the reduced enforcement resources available for the Skeena River fishery in 2006 resulted in the detection of fewer violations that year. However, the management decision taken to direct regional enforcement priorities in 2006, including resources from the Prince Rupert detachment, to the Fraser River, was made with honesty of purpose and faithful to obligations. In other words, this decision was made in good faith and in a *bona fide* manner. It does not represent a failure to effectively enforce the provisions of the *Fisheries Act*.

5. THE POST-2006 SITUATION

5.1 Availability of Enforcement Officers Increased

As explained in section 4.1, 2006 was an anomalous year. Following 2006, DFO management decisions and access to funding allowed Pacific Region's C&P program to actively recruit Fishery Officers. National recruitment of new officers has continued regularly since 2006, and the Pacific Region is currently close to its full complement with 170 officers. Table 4 demonstrates the results of these recruitment efforts from 2007 onward. As a result, the North Coast is expected to be at full complement by July 2010 and the Prince Rupert detachment has risen to its full complement of nine officers.

Table 4. Pacific Region Fishery Officer Recruitment 2007-2010 as of May 2010.

Recruitment Year	Number of Fishery Officers Hired
2007	23
2008	7
2009	2
2010 (to May 2010)	10
2010 (December-anticipated)	14

5.2 Enforcement Priorities and Actions Renewed

As previously noted, C&P conducts an annual Integrated Risk Management process. Compliance in commercial fisheries consistently ranks as a high priority and detachment work plans are drawn up to reflect identified risks and priorities. Additional enforcement officers on the Skeena River have led to an increase in patrols and compliance programs to address concerns in commercial, recreational and First Nations fisheries. Following the 2006 season, with increased staffing levels in the Region and in part as a result of the 2006 fishing season experience discussed and documented in the 2007-2008 IFMP process (Annex 2), officers have increased their patrol coverage on the commercial gillnet and seine fisheries (Tables 1 and 2). This is in response to observations and complaints received from advisory groups during post-season IFMP meetings and the identification of these issues as high priorities during the Integrated Risk Management process.

As part of this increased effort, the Area Chief attends regular management meetings with DFO's Resource Management and Stock Assessment units, the Area Director and Regional Salmon Manager to discuss the Area's fisheries and any issues, including compliance. In addition, the Prince Rupert C&P Detachment Supervisor attends weekly industry meetings to discuss commercial compliance issues encountered in the commercial gillnet and seine fleets during the previous week.

In considering the post-2006 situation, Canada insists that statements from the 2008 North Coast Compliance and Enforcement Summary and Protection Report cited by the submitters be considered in their full context. The report highlights "a significant problem with gillnet vessels failing to have operational revival boxes operating during the salmon gillnet Fishery. <u>This practice was a focus of our enforcement efforts and resulted in several charges and in the future may curtail commercial gillnet openings.</u>" (emphasis added) (Annex 9). As previously mentioned, Table 2 demonstrates the increase in detected violations.

Further, the commercial fleet was notified that if the revival boxes problem persisted, it would result in a closure of the fishery. A Fishery Notice was issued on July 24, 2008 to this effect (Annex 10), and, in fact, a planned commercial fishery opening on July 25,

2008 did not take place in order to emphasize the point with the commercial fleet that non-compliance would not be tolerated.

Other initiatives have included increased effort on education of the commercial fleet during pre-season and increased in-season patrols. In 2009, the C&P Supervisor for the Prince Rupert Detachment commented that "revival box compliance in the commercial salmon fisheries improved drastically from last year." (Annex 11, p. 71).

5.3 Skeena River Fisheries Management Being Reviewed

In 2007, the BC and federal governments commissioned an expert panel of three eminent scientists to review the Skeena River fishery. While awaiting the results of the Independent Science Review Panel, the in-season use of the Skeena Management Model to estimate steelhead incidental catch was stopped. Since then, the *Report of the Skeena Independent Science Review Panel* (Annex 12), has been submitted to both governments. It states:

> *"There is no clear relationship in the data for 1982-2006 between Tyee test indices of steelhead escapement and harvest rate for Area 3-5 commercial fisheries... It is <u>not</u> true that steelhead escapement is higher on average when the Area 3-5 commercial fisheries are substantially reduced (and the data for this relationship span fishing efforts ranging from zero—complete fishery closure — to harvest rates above 60%)."*

This report also 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, has been overharvested. <u>Available run timing and escapement data do not support such assertions for Skeena steelhead as a whole</u>, and better quantitative information is needed to fully address these objectives."* (emphasis added)

In essence, the panel concluded that data concerning steelhead spawning numbers indicate that the variability in these numbers is not directly related to whether or not a commercial salmon fishery took place, or to the harvest rates of those fisheries when they did occur.

Since the report was released, BC has undertaken steelhead assessment work on the Skeena River. Once this assessment is completed, the results of these studies will be reviewed and may inform future management actions.

6. CONCLUSIONS

DFO undertakes deterrence-based enforcement activities on the Skeena River salmon fishery to ascertain compliance with all regulations, including licence conditions. These efforts are effective and are buttressed by a strong policy and planning framework for the overall conservation and management of all species of salmon, including steelhead. In addition, enforcement resources are allocated according to agreed-upon priorities at the Regional, Area and detachment office levels. These allocations are made based on a risk management approach that was piloted in 2006 and has since been fully implemented.

6.1 DFO Enforcement Activities are Effective

Canada acknowledges that due to a variety of circumstances, including the *bona fide* reallocation of enforcement resources to other regional priorities, the enforcement presence during the Skeena River fishery of 2006 was limited. Nonetheless, the steelhead incidental catch rate in 2006 was at the agreed-upon rate of 24%. Therefore, Canada cannot support the submitters' conclusion that the minimal enforcement presence in 2006 reduced viability of fish stocks causing "harm to the entire ecosystem, including people, other species of fish and their habitat."

Subsequent to 2006, Canada refers to the Skeena Independent Science Review Panel which concluded, as previously indicated, that there is no relationship between commercial fishing activities in Areas 3/4/5 and the steelhead escapement, i.e., there are no indications that steelhead have been overharvested.

Moreover, Canada notes that enforcement actions are not the sole determinant of the health of fish stocks, including steelhead stocks, as they represent only one component of a management regime. Enforcement efforts with respect to the Skeena River commercial fishery cannot be discussed in isolation from the overall management of the Skeena salmon fishery. In that sense, it is important to understand both the basis on which management decisions were made, particularly with respect to the incidental catch of steelhead salmon, and the efforts made by DFO in managing the impacts on steelhead from commercial, recreational and First Nation fisheries. Canada's response provides information on both issues.

As previously mentioned, the IFMP for Salmon – Northern British Columbia brings together all of the information necessary to inform the management of the Skeena salmon fishery, is very inclusive, promotes compliance through the development of an understanding of the management measures being undertaken in the fishery, and provides an opportunity to evaluate the effectiveness of various enforcement activities.

Besides the deterrence-based DFO practice of monitoring compliance, the department is also very active in a number of other areas that are also considered enforcement action, particularly in light of NAAEC Article 5. As mentioned in the main body of the

response, these include appointing and training Fishery Officers, using the IFMP process to seek voluntary compliance, issuing licences and regularly issuing bulletins on enforcement procedures. It is Canada's position that DFO's full suite of enforcement actions are effective.

6.2 DFO Priority Setting is made in Good Faith

Canada asserts that the process by which DFO develops its enforcement priorities on a Regional, Area, and Detachment basis, i.e., the Integrated Fisheries Management Plan and the Integrated Risk Management processes, constitutes a *bona fide* decision making process. Canada has presented significant factual information on these processes and their results. Canada also wishes to reiterate that the decision taken to reallocate Prince Rupert enforcement resources to the Fraser River in 2006 represents a *bona fide* decision and insists that this does not represent a failure to effectively enforce the environmental laws at issue.

It is Canada's position that the allocation of DFO's enforcement resource in 2006—and in subsequent years—was made in line with the North Coast Salmon IFMP, the C&P IRM and, in the case of 2006 in particular, with other regional matters of higher priority, and therefore in good faith.

Canada's response has provided factual information on the allocation of enforcement resources and priorities in the area of concern to the submitters, and an explanation of why this allocation of resources is *bona fide* in light of those priorities.

6.3 DFO Enforcement Activities are not Disproportionate

The submitters assert that there is a disproportionate targeting of recreational harvesters over commercial harvesters, causing negative impacts on the conservation and protection of fish. The submitters present data on absolute hours of enforcement to substantiate this point. Canada insists, however, that the comparison of absolute hours of enforcement effort across fishing types is problematic, given the significant differences in length of the various fishing seasons. Canada presents enforcement coverage data that takes into account enforcement patrol hours and the length of the fishing activity.

Based on this data, Canada cannot support the submitters' allegation of disproportionate targeting on recreational fisheries. Firstly, in 2006, the coverage rate for recreational fisheries only marginally exceeded that of the commercial fisheries. Secondly, for each year subsequent to 2006, the coverage rates for commercial fisheries exceeded those for recreational fisheries, in some cases by a significant amount.

It is Canada's position that the C&P activities conducted during the Skeena River fishery in 2006 were conducted in accordance to the resources available and in accordance to a risk analysis as part of the planned program of compliance management and enforcement.

The effort devoted to each sector (commercial, recreational, First Nation, fresh water, marine, habitat, etc.) was in accordance with planning detailed at the detachment level and validated against Area, Regional and national priorities. The allocation of patrol hours in 2006 reflected the application of very limited resources in disparate fisheries in response to identified compliance concerns. As noted, the commercial fishery of 2006 was conducted within the parameters set out for steelhead incidental catch in the IFMP, despite the reduced capacity of the Prince Rupert C&P detachment.

6.4 The Year 2006 was Anomalous and Does Not Represent an Ongoing Issue

Canada acknowledges that 2006 was an anomaly with respect to the enforcement activity and with respect to unanticipated higher priorities that required a *bona fide* reallocation of resources, but insists that it does not represent an ongoing failure to effectively enforce environmental laws with respect to the Skeena River salmon fishery. Budget constraints and decisions taken in 2004-05 led to shortfalls with respect to the number of Fishery Officers, including at the Prince Rupert detachment. Compounding this situation was the Fraser River priority. However, subsequently to 2006, the Prince Rupert detachment has reached its full complement of nine officers.

In the years subsequent to 2006, enforcement coverage rates increased. Further, the compliance issues identified in the submission were in fact the focus of enforcement efforts, which resulted in laying of several charges and even the temporary closing of the commercial fishery. In fact, in 2008, commercial compliance issues were again identified with failure to operate revival boxes on board gillnet boats. Enforcement efforts were focused on this issue and several charges were laid. Canada has presented data to demonstrate that these issues have been effectively addressed.

In summary, Canada has identified the enforcement efforts relating to the area concerned in the submission and the effectiveness of such efforts in conserving and protecting fish in accordance with the laws at issue. Canada has also provided information concerning the allocation of enforcement resources and the submitter's assertions of disproportionate targeting of non-commercial, i.e., recreational fisheries, allegedly causing negative impacts on the conservation and protection of fish.

Canada reaffirms its support for the citizen submission process on enforcement matters under Articles 14 and 15 of the NAAEC and trusts that the information provided herein will enable the Secretariat to consider this submission resolved.

ANNEXES

Annex 1:	Fisheries Management Protocol under the Canada-British Columbia Agreement on the Management of pacific Salmon Issues (1999)
Annex 2:	2007-2008 North Coast Salmon IFMP.
Annex 3:	Map of Conservation and Protection Detachments 2007
Annex 4:	North Coast Statistical Area Map
Annex 5:	Cox-Rogers, S. Description of a daily simulation model for Area 4 (Skeena) commercial gillnet fishery. Can. Man. Rept. Of Fish and Aquat. Science No. 2256. 46pp
Annex 6:	2004 Southern Salmon Fishery Post-Season Review; Part I: Fraser River Sockeye, Chaired by Mr. Justice Bryan Williams, former Chief Justice of BC Supreme Court
Annex 7:	Here we go Again… or the 2004 Fraser River Salmon Fishery, Standing Committee on Fisheries and Oceans
Annex 8:	National Guidelines with respect to Fishery Officer Working Alone ***PLEASE TREAT AS CONFIDENTIAL***
Annex 9:	North Coast C & P Compliance and Enforcement Mid-Season Summary April 1 to November 1 2008
Annex 10:	Fishery Notice FN 0501 – July 24, 2008. Commercial – Salmon: Gillnet Area C-. 3, 4 &5 – Poor Compliance
Annex 11	2009 Post Season Review Salmon
Annex 12:	Walters, C.J., Lichatowich, J.A., Peterman, R.M. and Reynolds, J.D. 2008. Report of the Skeena Independent Science Review Panel. A report to the Canadian Department of fisheries and Oceans and the British Columbia Ministry of the Environment May 15, 208. 144p