

AN ALLOCATION FRAMEWORK

FOR PACIFIC SALMON

1999 - 2005

A New Direction:

**The Second In A Series Of Papers From
Fisheries and Oceans Canada**

December 1998

Canada



OVERVIEW

June 19, 1998 was a turning point for Fisheries and Oceans Canada in Pacific Region. On that date, the Minister of Fisheries and Oceans laid out a new direction for Pacific salmon fisheries. It is a direction that will secure the future of the resource and those who derive their livelihood from it.

On that date, Minister Anderson announced a comprehensive Coho Recovery Plan in addition to new measures in three broad areas:

first; dramatically increased efforts in protecting and rebuilding salmon habitat;

second; restructuring the salmon fishery by moving to selective harvesting, diversifying fishing opportunities, and further reducing the commercial fleet; and

third; assisting people and communities to adapt to the changing fishery.

In total, these measures represent new investment of \$400 million by the Government of Canada.

In a report to the federal and provincial governments, the Province's Job Protection Commissioner put the challenge facing the Pacific salmon fishery in context. He outlined the pressures making fundamental change necessary for the survival of commercial fishing. He pointed out that plunging world prices, declining catch rates and over-capacity make the fleet's outlook uncertain – unless there is change. And he urged the industry to move from volume to value.

Based on the advice from the Job Protection Commissioner and input received from stakeholders, Fisheries and Oceans Canada has launched a new licence retirement program to reduce the number of licences in the commercial fleet. This initiative will reduce capacity, help achieve selective fishing objectives and improve industry viability.

To respond to this need and to establish a long-term foundation for salmon management, Fisheries and Oceans Canada released the paper "A New Direction for Canada's Pacific Salmon Fisheries" on October 14, 1998. This paper is part of a process that will clarify the policy direction for Pacific salmon, establish clear principles, and articulate operational policies. This process includes a commitment to more transparent and open salmon allocation, a commitment met through the release now of "*An Allocation Framework for Pacific Salmon 1999-2005.*"

The question will be asked, “What is new in this paper and what does it mean for fishermen?”

This framework has evolved from several years of debate and five independent studies on allocation. Fishermen from all sectors have been calling for greater predictability in salmon allocation but have been unable to reconcile the chronic lack of consensus themselves. In fact, all independent advisors have commented on this.

This framework represents a significant step towards providing certainty and fairness and establishing clear priorities for allocation between fishery sectors and within fishery gear types. The framework, which includes seven principles, is expected to guide salmon allocation decisions until at least 2005

The first salmon allocation principle confirms that conservation of Pacific salmon stocks is the primary objective and will take precedence in managing the resource. After conservation requirements are secured, the framework outlines a reasonable, balanced approach to the allocation issues:

- It recognizes the priority of First Nations for food, social and ceremonial purposes.
- It gives priority to the recreational sector for chinook and coho and provides for more predictable recreational fishing opportunities for sockeye, pink and chum.
- It confirms the commercial sector's share of total catch of sockeye, pink and chum will still be at least 95 per cent or higher. Commercial harvest of chinook and coho will occur when abundance permits.
- It encourages selective fishing by setting aside a portion of the total available catch for commercial licence holders to test more selective harvesting gear and technology.
- It establishes that target allocations for the commercial sector will be set on a coast wide basis by gear and will be subject to adjustments over time to account for conservation needs, and possible changes resulting from the commercial salmon licence retirement program.

Allocation will be founded on the principle that Pacific salmon belong to the people of Canada as a common property resource and must be sustainably managed by government for the benefit of present and future generations.

The framework includes a proposal for an independent board with coast-wide responsibilities to advise and assist the Minister of Fisheries and Oceans in implementing allocation policy in an open and transparent manner.

In addition to establishing the principles of an allocation framework, *Allocation Framework For Pacific Salmon 1999-2005* also outlines a number of areas for discussion. Improved catch reporting from all resource users will also be discussed.

This framework paper is being broadly distributed to all interested stakeholders, commercial and recreational fishing organizations, First Nations, community representatives and the Government of BC. It will provide a framework for those who want more information about allocation before deciding to participate in the licence retirement program.

Fisheries and Oceans Canada is seeking your views on the implementation issues associated with this salmon allocation framework. Facilitated workshops will be convened with representatives of the recreational and commercial fishing sectors and First Nations and other interested parties in early 1999. The workshops will provide stakeholders the opportunity to explore the discussion items identified in the framework.

All views received will be consolidated, summarized and released for public information. A final allocation policy will be released in spring 1999, in advance of the fishing season.

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October 1998

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1.0 INTRODUCTION

On October 14th 1998, the Honourable David Anderson, Minister of Fisheries and Oceans Canada, released a paper entitled *A New Direction for Canada's Pacific Salmon Fisheries*. The New Direction paper outlines key principles that will guide fisheries management in achieving conservation, sustainable use and improved decision making goals. To enable this new direction to take form, more details are required in a variety of operational areas, including domestic salmon allocation.

The purpose of this paper is to outline a long-term salmon allocation framework and initiate discussion on its implementation. Specifically, this paper presents a series of principles for sharing harvestable surpluses of Pacific salmon among First Nations, recreational and commercial users. Under some allocation principles, a number of specific implementation issues are raised to help focus the discussion.

The allocation paper is being distributed broadly. Interested parties will have an opportunity to provide views to the Minister and Fisheries and Oceans staff in writing or by taking part in facilitated meetings. The various views expressed will be carefully considered in developing a final allocation policy by the Spring of 1999.

It is important to note that this salmon allocation framework will apply within the context of Canada's international obligations and First Nations' food, social and ceremonial requirements and treaty obligations to First Nations.

Information is presented in Section 2 on the current circumstances which are influencing Pacific salmon fisheries. Section 3 provides an overview of recent consultations on salmon allocation and independent advice provided. Section 4 describes the salmon allocation framework. Section 5 describes the potential role of a salmon allocation board. Section 6 outlines the next steps.

1.0 INTRODUCTION

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2.0 A CHANGING ENVIRONMENT FOR PACIFIC SALMON FISHERIES: RECENT DEVELOPMENTS

During the 1990s, Pacific salmon fisheries experienced dramatic changes due to a variety of factors, including a shift in ocean climate conditions, significant conservation concerns, serious declines in salmon abundance, a drop in world prices for salmon and the introduction of new fisheries management approaches. The current situation is the appropriate context from which to design and implement an allocation framework for salmon.

2.1 Environmental Uncertainty

Scientists now advise that we may be facing a regime shift in the ocean - a change in ocean conditions leading to lower salmon productivity. Research indicates there are connections between long-term shifts in ocean climate conditions and harvests of salmon across the Pacific Rim. The late 1980s and early 1990s were periods of record high harvests of some species of salmon; as ocean climate conditions shift in the future, it is unlikely that these harvest levels will be repeated in the foreseeable future. Warming of the headwaters of major river systems such as the Fraser and Skeena due to climate change could also reduce fish production, particularly as some tributaries important to fish reach temperature levels which are stressful or near lethal for fish.

At present, some salmon stocks are extremely depressed. Under current ocean survival conditions, for example, some coho stocks are expected to decline even without a fishery, and some individual spawning populations are at high risk of biological extinction. Concerns for these stocks will affect fishing plans for at least the next six years (two coho generations).

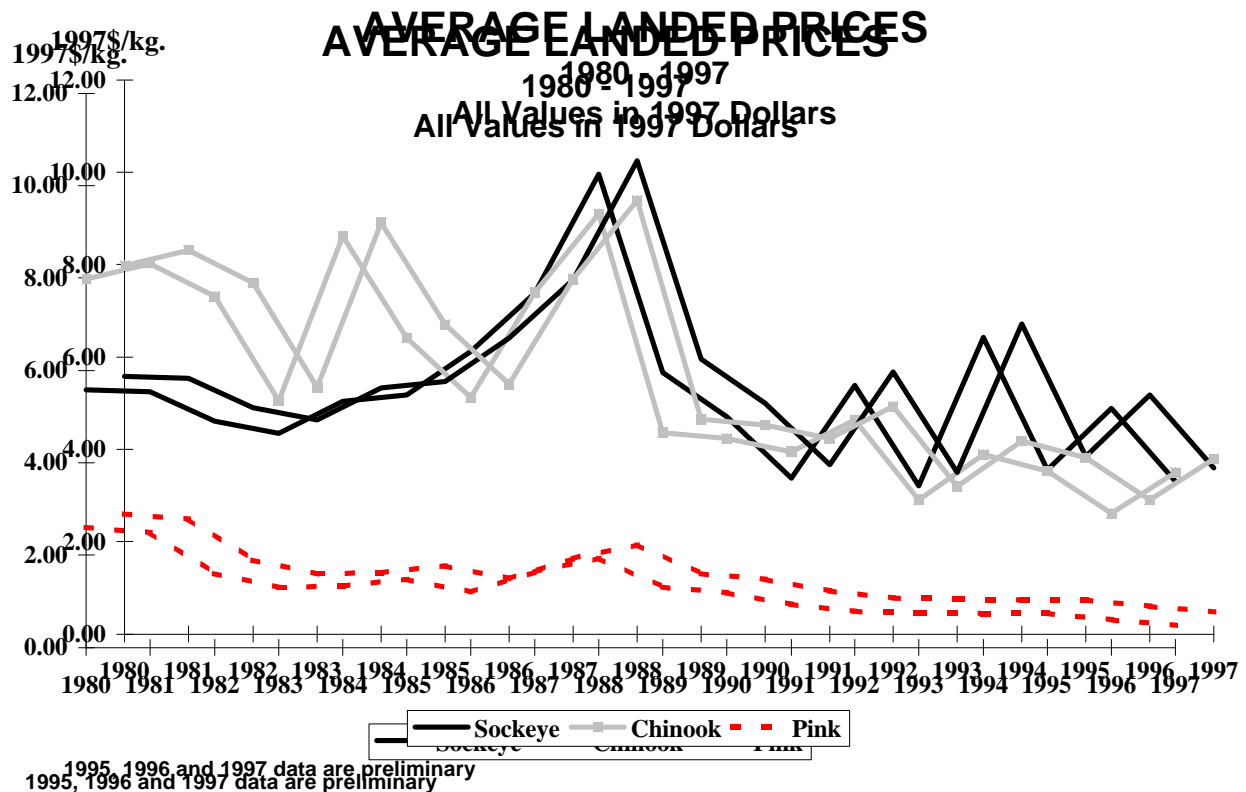
Overall, changes in the ocean and freshwater environment have reduced catches in the fishery and made it increasingly difficult to predict future returns of salmon. Lower returns of salmon are anticipated for a number of years. The need to respond quickly to unexpectedly low returns of the resource or lower survival rates is greater than in the past. Allocations between sectors and within the commercial fishery need to reflect current resource availability and be sufficiently flexible to meet present management needs.

2.2 Changing Market Conditions

British Columbia's seafood industry is export-oriented and a price taker in world markets dominated by farmed salmon and Alaskan supply. The fishing industry is vulnerable to changes in world salmon supply or demand. Landed prices for salmon are volatile due to the increasingly competitive nature of world salmon markets.

A major shift in global salmon markets began in the early 1990s. Supply increases from aquaculture and abundant wild harvests turned a seller's market into a buyer's market. Salmon prices plummeted. Figure 1 illustrates the landed prices for sockeye, chinook, and pink paid to commercial harvesters over the past two decades.

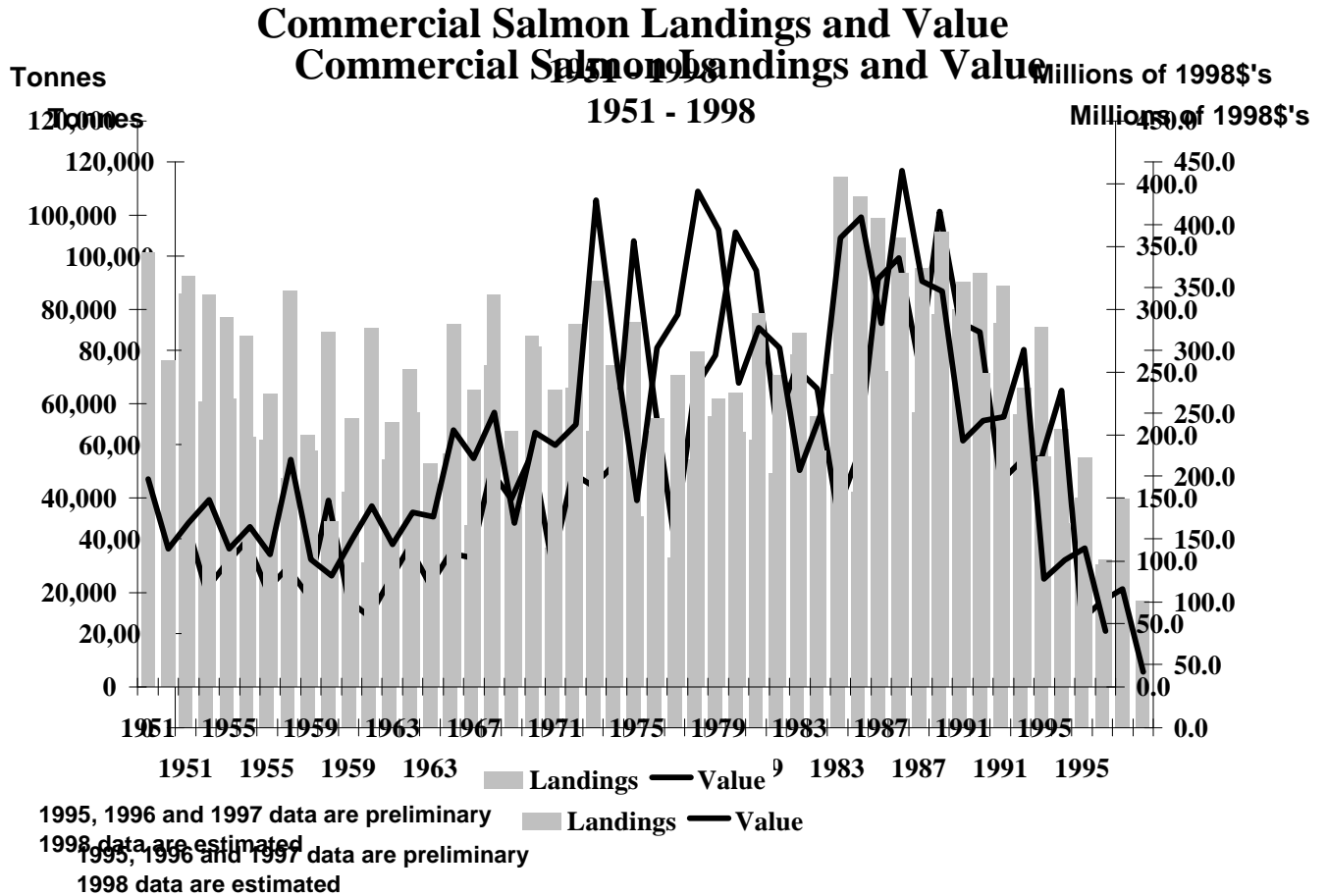
Figure 1



The long-term trend indicates that, in inflation-adjusted terms, sockeye, chinook and pink prices are all substantially lower than in the past. Figure 2 shows salmon

catches and landed values since 1951. This figure illustrates the dramatic decline in revenues from the commercial salmon fishery. During the early 1990's, the average annual landed value of the commercial salmon fishery was just over \$200 million. In contrast, since 1995 landed values have been in the order of \$50 to \$100 million.

Figure 2



2.3 BC Job Protection Commission Report

Fishing for Money, a report by British Columbia's Job Protection Commissioner on challenges and opportunities in the BC salmon fishery, was jointly commissioned by the Government of Canada and the Province of BC to analyze the 1997 salmon season and the challenges and opportunities facing the fishery in the future.

Some of the highlights of the report are presented below.

Commercial Salmon Fishery

- *The last three years have seen terrible financial results for the fleet, with low catches and low prices. However, as bad and unprecedented as the 1996 and 1997 seasons were from a financial viewpoint, they would have been significantly worse in the absence of the federal fleet reduction program. (Summary Page 3)*
- *The declines reflect weak prices and the low catch level in 1997, and not the fleet reduction program. In fact, without fewer vessels under the Mifflin Plan, operating income would have been \$27 million lower and pre-tax income \$30 million lower, in 1997. (Pages 4 -7).*

The report notes that the salmon fishery faces a gloomy outlook if there are no changes in business practices.

- *Under all scenarios, the short-term (1998 to 2000) financial outlook for the commercial fleet is gloomy, with massive losses anticipated due to low catch levels. Similarly, bleak prospects face the processing industry, which has seen near-zero profits on average over the last two decades. (Summary Page 4)*
- *It appears that another fleet reduction - in the order of 900 vessels and 1,100 licences under the Mid-Low catch projection, and 1,500 vessels and 1,900 licences under the Low catch projection, or some other significant change to fisheries management or business practices can improve long-term viability of the sector. - (Summary Page 4)*
- *Of the three factors that can solve the fleet's financial problems - volume, prices, and fleet size - only the third can be realistically influenced by government. The other two factors are largely at the whim of Mother Nature or world markets. (Page 5-6)*
- *The industry as we know it today will not survive unless fundamental change is embraced and implemented... (Summary Page 4)*

Recreational Salmon Fishery

- *Tidal anglers spent an estimated \$485 million on fishing in 1997,*

broken down as follows: \$81 million on fishing lodges, \$26 million and \$187 million on other goods and services. (Summary Page 5)

- *Industry revenues of \$485 million in 1997 were 21 per cent less than the \$611 million revenue base of 1994 for several reasons, regulations and weakness in the BC economy. (Pages 8-4)*
- *Regulatory uncertainty is the number one factor affecting business prospects in the recreational fishery. The business outlook for DFO's May 21, 1998 announcement on coho catch limits this year:*
 - *zero retention on coho, which takes away the*
 - *many tourists to book their holidays somewhere else and many local anglers to leave their boats in storage.*

experienced a decline in financial performance since the mid-1990s and that it faces a gloomy outlook in the absence of significant changes.

The JPC report. The consequences of r one factor affecting business prospects in the recreational fishery.

It is important to consider these factors in developing an allocation policy for salmon.

2.4 Pacific Fisheries Adjustment and Restructuring

On June 19th 1998, the Minister of Fisheries and Oceans announced a commitment of \$400 million to rebuild the resource, restructure the fishery and assist people and communities to adjust to the changing fishery.

¹ Annex 1 presents a complete list of principles presented in the New Directions document.

3.0 CONSULTATION AND INDEPENDENT ADVICE

Over the past two decades, the issue of salmon allocation among First Nations, recreational and commercial user groups has become increasingly controversial.

By the mid-1990s, there was growing recognition that changes in the management of the commercial salmon fisheries were required. Expert reports, including the Fraser River Sockeye Public Review Board report, pointed to the need for a substantial reduction in the size of the commercial fishing fleet to address worsening conservation and economic problems. In 1995, a Roundtable on Pacific Fisheries Policy was convened which identified harvest allocation as an important constraint to fleet restructuring. Commercial industry participants expressed serious reservations about participating in fleet reduction programs, aimed at conservation and industry viability objectives, without assurance that their share of the harvest would be maintained.

While it was noted that catch shares could not be guaranteed to each sector in perpetuity, it was recognized that more certainty over allocation arrangements was required.

Since 1995, five consultation processes have been conducted to review options to resolve allocation issues. The areas studied included allocation within the commercial sector (intrasectoral), allocation between the commercial and recreational sectors (intersectoral) and a review of the Aboriginal Pilot Sales Program.

The following consultation processes have taken place since 1995:

Dr. Art May	Intersectoral Allocation	Jan/96 to Dec/96
Mr. James Matkin	AFS Pilot Sales Program	Dec/96 to Feb/97
Mr. Stephen Kelleher	Commercial Allocation	Mar/96 to June/97
Mr. Stephen Kelleher	Commercial Allocation	Oct/97 to Apr/98
Mr. Samuel Toy	Intersectoral Allocation	Oct/97 to Mar/98

This section outlines some of the issues addressed by independent advisors and the advice provided¹.

¹Advisors, pursuant to their terms of reference, did not address issues associated with First Nations priority access to salmon.

3.1 Independent Advice on Intersectoral Allocation

In 1996, Dr. Art May was asked to provide advice on establishing initial shares for each sector, rules and mechanisms for changing those shares over time and options for accommodating those displaced or disrupted by changes in allocations.

Dr. May recommended that initial salmon allocations be based on catches during the early 1990's. Further, Dr. May recommended that the recreational sector should have priority over directed commercial fisheries for chinook and coho when quantities of these salmon are low. Dr. May was persuaded that a fish caught in the recreational fishery is worth more to the British Columbia economy than the same fish caught in the commercial sector. This recommendation was conditional on the recreational sector compensating commercial licence holders for shifts in allocation from the commercial to the recreational sector. Compensation was to be accomplished by the recreational sector funding temporary lease of commercial licences or permanent retirement of an appropriate number of commercial licences.

In 1997, Mr. Samuel Toy was asked to consult with stakeholders on the implementation of Dr. May's recommendations.

Consistent with the Canada – British Columbia Agreement on Management of Pacific Salmon Fishery Issues, government officials jointly provided Mr. Toy a series of principles to guide the consultative process design, a summary of stakeholder interests related to intersectoral allocation and specific information concerning existing fishing organizations, as well as federal and provincial fishery advisory groups.

During Mr. Toy's consultations, representatives of some recreational and commercial organizations agreed on an approach to chinook and coho allocation. If abundance was not adequate to allow both commercial and recreational fisheries to proceed, the agreed approach meant that the recreational fishery would be managed on the basis of reasonable limits and permitted to remain open, after the directed commercial fishery ceased, and the commercial fishery would receive a minimum by-catch allowance to enable fisheries on other target species. Their agreement also called for the establishment initial allocations based on an area by area examination of catches during 1991-1994, an accounting framework and government responsibility to fund all changes in allocation. Mr. Toy endorsed this agreement and included it as one of his key recommendations.

In addition, both Dr. May and Mr. Toy recommended processes to provide ongoing external advice on allocation issues. Dr. May suggested that an independent Tribunal connected to local organizations be established to manage and implement allocation policy, while Mr. Toy recommended a series of regional management boards linked to a province-wide board.

3.2 Intersectoral Allocation in the Current Context

The work of Dr. Art May and Mr. Samuel Toy on salmon allocation has done much to clarify the issues and provide numerous useful suggestions which are incorporated into the allocation framework. However, circumstances have changed considerably during the past several years and there are several operational concerns associated with aspects of their recommendations.

First, the degree of uncertainty about future catch levels has increased dramatically. Salmon catches during the early 1990's were relatively high and much more stable than today. As a result, using the early 1990's as a basis for future allocations would fail to reflect current resource availability.

Second, recent conservation concerns have increased the need to respond quickly to unexpectedly low returns of the resource, or declining survival rates. Allocations between sectors and within the commercial sector need to be sufficiently flexible to reflect these realities. A requirement to deliver fixed shares of the resource to different user groups may compromise the ability to respond appropriately to conservation concerns when they arise.

Third, the ongoing administration of fixed sharing arrangements would be extremely complex and costly. Continuing judgements would be required to determine whether the harvesting shifts are temporary or permanent. Mechanisms would be required to facilitate the ongoing funding of allocation shifts between sectors. All of this would be required against the background of a fishery where overall abundance is typically volatile and subject to large fluctuations from year to year and cycle to cycle.

Finally, a commitment by government to fund all future allocation transfers between sectors would be inconsistent with the common property nature of the Pacific salmon resource. A perpetual government commitment to fund allocation transfers between sectors would result in a proprietary interest to a share of the resource to each sector, committing Canadian taxpayers to an open-ended and uncertain financial burden.

Moreover, biological and environmental factors beyond the control of government can and will affect harvest levels and allocation shares. In this context, it would be an inappropriate role for government, on behalf of all Canadians, to guarantee shares with an undertaking to compensate for any share changes.

3.3 Independent Advice on Commercial Allocation

Mr. Stephen Kelleher consulted extensively with the commercial salmon sector in 1997 and 1998. In 1998, Mr. Kelleher recommended a long-term allocation framework for different gear types (gillnet, troll and seine) within the commercial fleet. Mr. Kelleher proposed a specific coast-wide sharing arrangement among all three gear types in the commercial fishery that encompassed all five species of Pacific salmon. In addition, he proposed specific procedures for dealing with any failure to achieve target shares and for adjusting target shares over time.

A number of Mr. Kelleher's recommendations were reflected in interim commercial sector arrangements for the 1998 salmon fishing season.

3.4 Independent Advice on the AFS Pilot Sales Program

The Department of Fisheries and Oceans authorizes the harvest and sale of fish by certain First Nations under Aboriginal Fisheries Strategy (AFS) Pilot Sales Program. This program was introduced in 1992 as one component of the AFS.

In December 1996, Mr. James Matkin was asked to oversee a fact-finding review of the AFS Pilot Sales Program. The review sought ways of reducing the conflict and uncertainty associated with the program and attaining more stability. Mr. Matkin recommended a continuation of the status quo in the short-term. Over the longer term, he concluded that combining pilot sales and the commercial fishery into one system in which the current AFS Pilot Sales Program would be treated like a "fourth gear type" offered the best chance for future consensus and the conservation of the resource.

3.5 Conclusion

The response from representatives of First Nations, recreational and commercial fishing interests to the various reports on salmon allocation and associated recommendations is mixed.

First Nations represented by the BC Aboriginal Fisheries Commission oppose the implementation of any short or long term intersectoral allocation plans pending settlement of aboriginal land claims. Commercial and recreational fishers are split in their positions on specific proposals. Although some representatives of the recreational and commercial sectors reached agreement on an intersectoral allocation approach that was a key element of Mr Toy's recommendations, the degree of support for this agreement is unclear. In his report, Mr. Toy noted that the commercial sector representatives "speak only for four of the 17 associations comprising (the Commercial Fishing Industry Council)."

The relationship between pilot sale fisheries and the commercial fishery continues to be a contentious issue. The government has addressed commercial sector concerns over the creation of pilot sales opportunities for First Nations through targeted retirement of commercial licences. However, a number of commercial fishermen hold the view that past retirements were inadequate. On the Lower Fraser and Somass Rivers, First Nations prefer to have pilot sales continue separately from the commercial fishery while participants in the commercial fishery prefer a single commercial fishery that would include pilot sales.

In summary, there is no consensus among the various user groups on how to share the harvestable surpluses of Pacific salmon. This lack of consensus diminishes stakeholder opportunities to work together in support of conservation and an economically viable, sustainable fishery.

Throughout this time period, all sectors have called for greater certainty and predictability in salmon allocation. However, any progress on allocation has been stalled not only by this chronic lack of consensus over how to share the fish available for harvesting but also by changes in the number of salmon available. At this time, it is appropriate for Fisheries and Oceans to present an allocation framework that provides the clarity that sectors have requested.

4.0 SALMON ALLOCATION FRAMEWORK

All the information summarized above has been considered in preparing this salmon allocation framework. The intent is to provide greater certainty on how harvestable surpluses of Pacific salmon will be allocated among various user groups. The framework, which includes seven principles, is intended to guide salmon allocation decisions until at least 2005. There will be an opportunity to review this framework in the future.

Scientists need accurate, comprehensive and timely catch data to provide sound scientific advice. A review of catch monitoring systems for all sectors is currently underway and will need to be further developed in order to ensure proper implementation of the following allocation framework.

Under the salmon allocation framework, a number of important implementation issues are identified for discussion with interested parties.

4.1 OVERARCHING PRINCIPLES

Allocation Principle 1 - Conservation

Conservation of Pacific salmon stocks is the primary objective and will take precedence in managing the resource -- conservation will not be compromised to achieve salmon allocation targets.

Opportunities to harvest salmon allocations by all user groups will be subject to the primary objective of conservation. To support this conservation objective, salmon will continue to be allocated for stock assessment purposes which are required, in part, to identify potential harvest levels. In addition, Fisheries and Oceans Canada will work with all user groups to improve both comprehensiveness and timeliness of catch data. These data are required to ensure that harvest levels are consistent with conservation objectives.

Allocation Principle 2 - First Nations

After conservation needs are met, First Nations' food, social and ceremonial requirements and treaty obligations to First Nations have first priority in salmon allocation.

The Aboriginal right to fish for food, social and ceremonial purposes has priority, after conservation, over other resource users. Where a treaty exists, fisheries must be managed in a manner consistent with the provisions of the treaty.

At the present time, consultations are taking place with First Nations on their needs for food, social and ceremonial fish, matters which may affect their fishing and their preferred fishing methods. Where Fisheries and Oceans has co-operative fisheries management agreements in place, these consultations will continue and communal licences, which establish appropriate management measures for these fisheries, will be issued. Where agreements are not possible, Fisheries and Oceans will provide communal licences reflecting the department's best estimate of First Nations' needs for food, social and ceremonial purposes.

Integrated salmon management plans will reflect the access provided to First Nations for food, social and ceremonial purposes and the harvesting provisions of treaty settlements.

When the settlement of treaties with First Nations involves salmon resources, the Government of Canada's policy is that the interests of third parties, including participants in commercial and recreational fisheries, and non-consumptive uses of the resource will be identified and taken into account in the development of negotiating mandates and the negotiation of treaties.

Where treaties exist, or are negotiated in the future, fisheries will be managed in accordance with the provisions of the treaties. Where changes in commercial fisheries allocations in fully subscribed fisheries will result from the provisions of treaty settlements, steps will be taken for an appropriate number of commercial licences to be voluntarily retired from the commercial fishery. This may be done in advance of treaty settlements, where arrangements such as the Pilot Sales Program are put in place.

Allocation Principle 3 - Common Property Resource

Salmon is a common property resource that is managed by the federal government on behalf of all Canadians, both present and future.

Consistent with the common property nature of the salmon resource, no individual or user group owns an allocation. Further, the relative priorities and specific target allocations may change over time as conditions vary. For example, specific conservation measures may be required to protect an individual stock, which could affect current target allocations.

4.2 ALLOCATIONS BETWEEN THE RECREATIONAL AND COMMERCIAL SECTORS

Recreational and commercial salmon fisheries operate very differently. The recreational fishery accounts for a relatively small portion of the total annual harvest of salmon. It is primarily concerned with the quality of the angling experience and with the opportunity to fish throughout the year. In contrast, the commercial fishery, which takes place mainly from July to November, accounts for the vast majority of the total salmon harvest and is primarily concerned with the quantity and value of the catch.

Table 1 summarizes average recreational and commercial salmon catches for the 1991-1994 and 1994 -1997 time periods. The majority of the commercial catch is comprised of sockeye, pink and chum while chinook and coho have been the traditional mainstay of the recreational fishery.

Figure 3 illustrates average commercial and recreational catches during 1991-1994 and 1994-1997 time periods. During the period 1991 to 1994, the recreational sector caught about 20% of the combined recreational and commercial catch of chinook and coho. More recently, during the period 1994-1997, the recreational sector catch share of chinook and coho was approximately 17%.

The recreational sector catch of sockeye, pink and chum during the 1991-1994 time period was about 1% of the combined recreational and commercial catch. This remained relatively unchanged during the 1994-1997 time period (Figure 3).

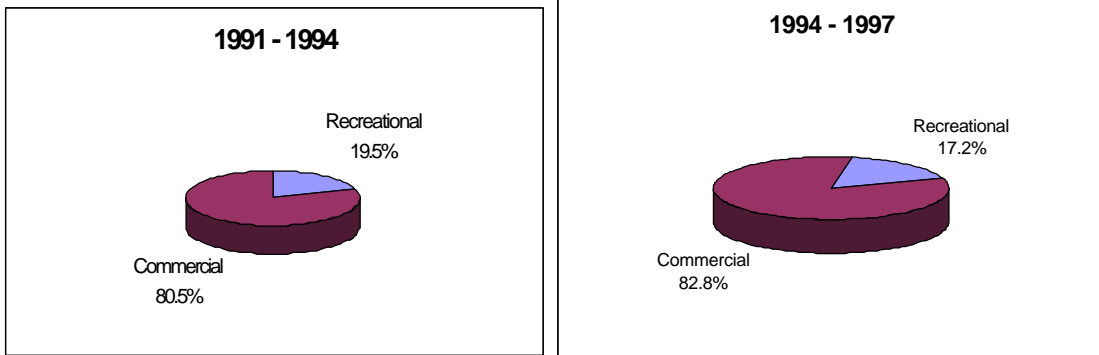
Since the early 1990s, the commercial sector has harvested about 97% of the total salmon taken by the commercial and recreational fisheries (Figure 3).

Table 1
Average Recreational And Commercial Salmon Catches

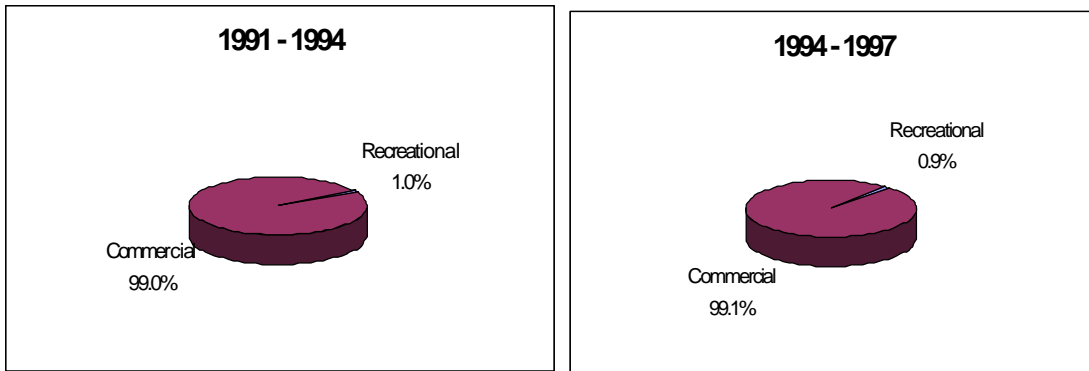
	Recreational Catch		Commercial Catch		Recreational And Commercial Total
Chinook	# of Pieces	% of Total	# of Pieces	% of total	Total
Av. 1991-94	228,274	27%	603,304	73%	831,578
Av. 1994-97	137,549	38%	228,211	62%	365,760
Coho					
Av. 1991-94	575,891	17%	2,725,612	83%	3,301,503
Av. 1994-97	222,243	13%	1,505,595	87%	1,727,837
Sub-Total (Chinook and Coho)					
Av. 1991-94	804,165	19.5%	3,328,916	80.5%	4,133,081
Av. 1994-97	359,792	17.2%	1,733,806	82.8%	2,093,597
Sockeye					
Av. 1991-94	103,619	0.9%	12,016,128	99%	12,119,747
Av. 1994-97	56,765	0.7%	7,980,246	99%	8,037,010
Pink					
Av. 1991-94	158,438	1.3%	11,643,608	99%	11,802,046
Av. 1994-97	96,686	1.5%	6,480,660	99%	6,577,345
Chum					
Av. 1991-94	7,081	0.2%	3,736,714	100%	3,743,795
Av. 1994-97	5,865	0.2%	2,415,376	100%	2,421,242
Sub-Total (Sockeye, Pink and Chum)					
Av. 1991-94	269,138	1.0%	27,396,450	99.0%	27,665,588
Av. 1994-97	159,316	0.9%	16,876,282	99.1%	17,035,597
All Species					
Av. 1991-94	1,073,303	3.4%	30,725,366	96.6%	31,798,669
Av. 1994-97	519,108	2.7%	18,610,088	97.3%	19,129,194

Source: Fisheries And Oceans Canada. (details presented in Annex 2)

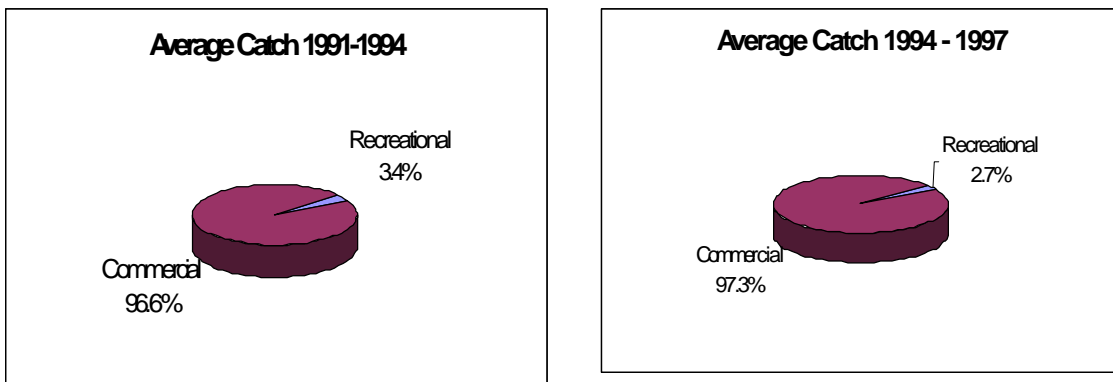
Figure 3
Commercial And Recreational Catches
Average Catch of Chinook and Coho



Average Catch of Sockeye, Pink and Chum



Average Catch of All Species



Both the recreational and commercial sectors make a significant contribution to the British Columbia economy. Each generates millions of dollars in revenues, consumer spending, wages, salaries and government revenues. A 1996 federal-provincial study on chinook and coho salmon indicated that the recreational fishery on these species generates more revenues, value and other economic impacts with a lower harvest of salmon than the commercial sector¹.

The study compared the value of chinook and coho in the two fisheries using two standard economic techniques:

- Economic value analysis measures the net benefits (benefits minus costs) that consumers and producers receive from fish and fishing, based on what they would be willing to spend to fish and the actual costs to the economy.
- Economic impact analysis measures the total economic activity generated by fishing in terms of jobs, income and other common indicators.

The study concluded that although both fisheries would clearly receive significant additional value from having more chinook or coho allocated to them, the value of an extra chinook or coho salmon is greater to the recreational fishery than the commercial fishery. (Refer to Annex 2 for more details.) As well, the BC Job Protection Commissioner in 1998 highlighted that regulatory uncertainty for the recreational sector was the number one factor affecting business prospects.

In addition to the value of fish harvested by the commercial fleet and the economic importance of the recreational fishery, both sectors are of significant social and economic importance to numerous communities in British Columbia.

¹ The Economic Value of Salmon: Chinook and Coho in British Columbia – Discussion Document. Prepared for Canada Department of fisheries & Oceans, BC Ministry of Agriculture, Fisheries & Food, BC Ministry of Environment, Lands & Parks, and BC Ministry of Small Business, Tourism & Culture. Prepared By The ARA Consulting Group Inc. Vancouver, February 1996.

Allocation Principle 4 – Recreational Allocation

After conservation needs are met, and priority access for First Nations is addressed, recreational anglers will be provided:

- **priority to directed fisheries on chinook and coho salmon; and,**
- **predictable and stable fishing opportunities for sockeye, pink and chum salmon.**

The opportunity to harvest chinook and coho salmon is the mainstay of the recreational fishery. It is also a major contributor to the tourism industry that in recent years is British Columbia's second largest sector, after forestry. Based on the evidence presented in the previous section, providing a priority allocation for chinook and coho to the recreational sector, represents the best economic use of the resource.

Furthermore, it is consistent with recommendations from both Dr. Art May and Mr. Samuel Toy, the independent advisors appointed by the Minister of Fisheries and Oceans to provide advice on intersectoral allocations. This priority to chinook and coho does not suggest exclusive access since directed commercial fisheries will still occur when resource abundance levels allow.

The recreational harvest of sockeye, pink and chum salmon has become increasingly important in some areas. However, the present harvest of these species is currently only about 1 per cent of the combined commercial and recreational harvest. Since sockeye, pink and chum are relatively abundant and only available for harvest during the short period of their spawning migration, a small proportion of these species is more than adequate to sustain reliable and stable angling opportunities well into the future. As a result, the recreational harvest of sockeye, pink and chum salmon will be limited to a maximum annual average of 5 % of the total combined recreational and commercial harvest on a coast-wide basis over the period 1999 to 2005.

Recreational anglers are most concerned with protecting fishing time and the opportunity to fish rather than the explicit amount of fish. In applying the above principle, there is a need to define appropriate daily and annual catch limits and other controls on the recreational fishery. This can ensure that fishing time and the opportunity to fish are protected while avoiding unnecessary adverse impacts on the commercial sector.

There is a related question of whether there should be restrictions on the growth of the businesses associated with the recreational fishery, including lodges and charter boats. This is an area that falls within provincial jurisdiction.

Issues For Discussion

- What criteria should be used to establish individual daily and annual catch limits for directed recreational fisheries?
- What, if any, special licencing provisions should apply to foreign non-resident anglers?
- How should recreational access to sockeye, pink and chum be managed to allow for an orderly expansion of this fishery while minimizing adverse impacts in the commercial fishery?
- How can salmon catch reporting be improved to ensure timely and accurate information e.g. including mortality rate on catch and release fisheries?

Allocation Principle 5 – Commercial Allocation

After conservation needs are met, and priority access for First Nations is addressed:

- **the commercial sector will be allocated at least 95 per cent of combined commercial and recreational harvest of sockeye, pink and chum salmon; and,**
- **the commercial harvest of chinook and coho will occur when abundance permits.**

The harvest of sockeye, pink and chum salmon is the mainstay of the commercial fishery. The commercial industry harvests the vast majority of these species. Special consideration for the commercial sector with respect to these species is appropriate in support of a viable commercial industry.

In addition, the commercial harvest of chinook and coho salmon will occur when abundance permits. When harvestable surpluses are high, chinook and coho salmon will be available in directed commercial fisheries. When harvestable surpluses are lower, commercial by-catch taken when fishing for other species, may still be permitted although this will be subject to caps or limits.

The present Licence Retirement Program represents a significant expenditure of public funds to assist the Pacific commercial fishery to restructure. Licence retirement will significantly improve the financial viability of those who remain in the commercial fishery by substantially and permanently reducing the size of the commercial fishing fleet. At the same time, it will allow for increased recreational fishing opportunities.

While additional recreational access could have impacts on the commercial sector, they are expected to be modest. In spite of these modest impacts, the commercial sector is expected to be substantially better off following the current Licence Retirement Program.

In conjunction with other conservation measures, licence retirement is expected to generate significant long run benefits in terms of overall harvest levels in the fishery. The remaining commercial fleet will be the primary beneficiary of these increased harvest levels.

Issues For Discussion

- How should by-catch limits on chinook and coho be administered?
- How can commercial salmon catch reporting be improved to ensure timely comprehensive and accurate information?

4.3 ALLOCATIONS WITHIN THE COMMERCIAL SECTOR

Allocation Principle 6 – Selective Fishing

To encourage selective fishing:

- **a portion of the total available commercial catch will be set aside for existing commercial licence holders to test alternative, more selective harvesting gear and technology; and,**
- **over time, commercial allocations will favour those that can demonstrate their ability to fish selectively.**

Given the mixed stock nature of the Pacific salmon fishery, more selective fishing practices are required in order to maximize the harvest of target species, in particular sockeye, pink and chum, and minimize the by-catch of other species.

Two kinds of selective fishing initiatives are presently being pursued and tested. First, alternative harvesting technologies are being tested. Second, all commercial fleets are required to improve their selectivity by modifying their gear and fishing methods.

For a two year period, up to 5% of the total available commercial catch (converted and expressed on a sockeye equivalent basis) will be available to licence holders who wish to experiment with alternative fishing gear and technology such as salmon traps, fish wheels and tooth tangle nets. The results of these selective fishing trials will be reviewed and evaluated. At the end of the two-year period, the adequacy of the allocation for experimental trials will be assessed and revised if necessary. Initial longer-term allocations to alternative gear and technology will also be considered at that time.

In addition to experiments with alternative fishing gear and technology, all participants in the commercial sector are required to adopt more selective harvesting practices. Over time, allocations by gear (gillnet, seine and troll) may be adjusted to favour those that can demonstrate their ability to fish selectively.

A selective fishing policy requires further detailed discussions with stakeholders before its full implementation. A separate paper is being written to facilitate discussion on selective fishing. However, some initial guidelines that pertain to selective fishing by the commercial sector are discussed below.

Over the longer term, target allocations for seine, gillnet and troll gear will reflect the relative ability of each gear type to harvest selectively through modification of existing gear and fishing operations. Where an existing gear type cannot achieve its initial target allocation because of conservation concerns, this target allocation may be adjusted downwards over the longer term. This reduced allocation may be used to facilitate the introduction of alternative more selective gear and technology to the commercial fishery or re-allocated to an existing selective gear type. An allocation board (see section 5) would be useful in this context – by providing direction on steps to facilitate changes in allocation resulting from selective fishing.

Allocation Principle 7 – Gear Allocations

Target allocations for the commercial sector will be:

- **established on a coast-wide basis by gear, with the catch of all species expressed on a sockeye equivalent basis; and,**
- **subject to adjustments over time to account for conservation needs, including selective fishing, and possible changes resulting from the Salmon Licence Retirement Program.**

Initial coast-wide target allocations of the total allowable catch will be 34% gillnet, 42 % seine and 24% troll, consistent with the recommendations of Mr. Stephen Kelleher.

Coast-wide target allocations by gear type will be used to guide fisheries management. However, no guarantees can be offered that target allocations will be achieved in any given year or over any given period of years. The achievement of these targets will depend upon the conservation needs of the resource that often necessitates in-season management changes. In addition, target allocations by gear type may change over time to address conservation concerns.

A number of issues have been raised regarding the impact of the recently announced Licence Retirement Program on allocation within the commercial fishery. This recently announced program is voluntary and the number and mix of licences to be retired remains to be determined. The program is not intended to target one gear type or another. In the event of a substantially larger reduction in one gear category, adjustments to target allocations will be considered to accommodate changes in fleet composition.

Whether such adjustments in allocations by gear should be made cannot be decided in isolation from the other changes in the fishery. Specifically, conservation measures, including selective fishing practices, may substantially change the allocation arrangements in the fishery. The need for adjustment will be carefully assessed as licence retirement proceeds in light of conservation impacts.

Anticipated allocations by species and by individual licence area will be developed annually for planning and information purposes. These allocations will be used to guide the development of annual commercial fishing plans.

For information and planning purposes, coast-wide target allocations by gear type will be translated, on an annual basis, into anticipated licence area allocations by gear and species. Over time, there will be an attempt to move to more clearly defined geographical area allocations.

The management principles being applied to achieve conservation goals will tend to reduce harvest rates and harvest levels in more seaward fishing areas where uncertainties in run size and survival rates are greatest. This transition to harvesting in more terminal areas will be reflected over time in these anticipated local allocations. In addition, flexibility is needed to make necessary in-season adjustments to the mix and quantity of species available in a given licence area. In cases of conflict between coast-wide and area allocations, coast-wide allocations will be the primary management target, subject to conservation concerns and the priority that users have for accessing the salmon resources.

Issues For Discussion

- What procedures should be used for shifting salmon allocations between gear types?
- Should adjustment provisions be considered if gear shares are not achieved? If yes, what should they be?

4.4 AFS PILOT SALES PROGRAM AND EXCESS SALMON TO SPAWNING REQUIREMENTS

Currently, the sale of salmon by First Nations is allowed under the AFS Pilot Sales Program in three areas: the Skeena River, the Alberni Inlet (Somass River) and the Lower Fraser River. These arrangements are part of Fisheries and Oceans measures that occur prior to treaty settlements.

In considering the status of the sales component of pilot sales fisheries agreements, it is important to note that the circumstances and conditions of the AFS Pilot Sales Program fisheries agreements vary greatly among the three areas. In some cases, food requirements are inseparable from the sales component of an agreement.

In consultation with First Nations, the sales components of pilot sale fisheries would be accorded the same priority as the commercial harvest.

Issues For Discussion

- What conditions are required to open a pilot sale fishery relative to the commercial fishery (e.g. what triggers pilot sales)?

Excess Salmon to Spawning Requirements (ESSR) fisheries occur when salmon stocks return to a system after passing through the various fisheries and are at a level in excess of their required habitat or hatchery spawning capacity.

Salmon fisheries are managed to minimize surpluses to both naturally spawning stocks and returns to federal enhancement facilities. The first opportunity to access any surpluses identified after outstanding First Nations' need for food, social and ceremonial fish requirements have been addressed, is provided to First Nations who live in the area. These fish may be sold, subject to certain harvest, stock assessment and reporting requirements. If sold, First Nations direct all revenues from sale of fish towards the cost of fisheries activities such as enhancement, stock restoration, habitat restoration, fishery or habitat management, or research, as agreed to by DFO. If the First Nations decline the offer to harvest the identified surpluses, the fish will be offered for sale through public tender.

5.0 POTENTIAL ROLE OF ALLOCATION BOARD

Advisors have consistently recommended the establishment of an independent body to deal with salmon allocation issues in an open and transparent manner. Consistent with these recommendations, an independent board with coast-wide responsibilities will be established to advise and assist the Minister in implementing salmon allocation policy.

The primary role of the allocation board will be to provide independent public advice to the Minister of Fisheries and Oceans on salmon allocation issues. Allocations for First Nations' food, social and ceremonial fisheries, treaty obligations and Canada's international obligations will take place outside the mandate of the Board.

The allocation board will consider a wide range of interests and input in providing advice and assistance to the Minister, including that from community or area-based groups. Since allocation decisions can have important impacts on individual communities and areas, these impacts need to be duly considered in implementing allocation policy. At the same time, interest in allocation in a given area is often not limited to local residents or those licensed to fish in given area.

It is evident that allocation issues cannot be addressed solely on a coast-wide basis nor solely on an area basis. Therefore, arrangements involving area-based interests and the coast-wide allocation board must be designed to ensure a co-ordinated approach to salmon allocation. This co-ordination can be facilitated, in part, through multi-sector area based groups that are inclusive (open to all interested parties), have transparent and fair selection processes for their representatives and a mandate that is broadly endorsed by a broad range of fisheries interest groups. The specific relationship between area-based groups and the coast-wide allocation board needs to be considered.

Aside from allocation issues, area-based groups could support a wide range of activities including, but not limited to, watershed production, integrated coastal zone planning, fishery enforcement and compliance, and habitat protection, enhancement and restoration. Many communities are already actively involved in stream and habitat restoration and stewardship; however, there is enormous potential for area-based groups to assume an even greater role in fisheries resource and oceans activities.

A separate paper will be written to facilitate discussion on the above issues with a view to establishing an allocation board for the year 2000.

6.0 NEXT STEPS

This paper is being broadly distributed to all interested parties including First Nations, the Province of British Columbia, commercial and recreational fishing organizations, community representatives and other interested individuals. Copies are available upon request at Fisheries and Oceans Canada offices and at the following internet site: *<http://www.comm.info.pac.dfo.ca>*

The information in this paper outlines a long-term salmon allocation framework that includes a series of principles for sharing harvestable surpluses of Pacific salmon among First Nations, recreational and commercial users and identifies a series of associated implementation issues. Improved catch reporting from all resource users will be explored in conjunction with consultations on salmon allocation.

We are seeking your views on the implementation issues associated with this salmon allocation framework. There will be a variety of opportunities to express your views on these issues.

- Fisheries and Oceans staff will meet with representatives of individual sectors.
- Fisheries and Oceans staff will also convene facilitated cross-sectoral workshops with representatives of the First Nations, recreational, commercial fishing sectors and other interested parties in early 1999.

Over the next several months, there will also be ongoing discussions with the Province of British Columbia.

All of the views and input received will be consolidated, summarised and released for public information. A final allocation policy will be released in the Spring of 1999 in advance of the fishing season.

Written comments can be sent to:

Mr. T. Tebb, A/Regional Director Fisheries Management
Suite 400 - 555 West Hastings St.,
Vancouver, BC, V6B 5G3
Fax: (604) 666-8069
Email: allocation@pac.dfo-mpo.gc.ca

ANNEX 1

A NEW DIRECTION FOR CANADA'S PACIFIC SALMON FISHERIES OCTOBER 1998

Principle 1

Conservation of Pacific salmon stocks is the primary objective and will take precedence in managing the resource.

Principle 2

A precautionary approach to fisheries management will continue to be adopted.

Principle 3

Continue to work toward a net gain in productive capacity for salmon habitat in British Columbia.

Principle 4

An ecological approach will guide fisheries and oceans management in the future.

Principle 5

The long term productivity of the resource will not be compromised because of short term factors or considerations – tradeoffs between current harvest benefits and long term stock well-being will be resolved in favour of the long term.

Principle 6

All sectors – First Nations, recreational and commercial – will use selective methods to harvest salmon.

Principle 7

First Nations' requirements for food, social and ceremonial purposes will continue to have first priority after conservation requirements.

Principle 8

Whenever possible, the recreational fishery will be provided with more reliable and stable fishing opportunities.

Principle 9

The commercial fishery will be a more diversified (less dependent on salmon) and economically viable sector, better able to withstand fluctuations in the cycles of the resource and the market.

Principle 10

Clear, objective and relevant information on major issues requiring decisions will be provided to the public with sufficient time and opportunity for review, comment and feedback. Periodic review of progress and achievements will be initiated to facilitate accountability for the sound management of the salmon resource and its habitat.

Principle 11

Government and stakeholders will together be responsible and accountable for sustainable fisheries.

Principle 12

Enhanced community, regional and sector wide input to decision making will be pursued through a structured management and advisory board system.

ANNEX 2
DATA ON RECREATIONAL AND COMMERCIAL CATCH AND VALUE

Table 1: 1991-1997 Commercial And Recreational Historical Catches¹

Chinook					
	Sport		Commercial		Total
	# Caught	%	# Caught	%	# Caught
1991	245,982	28%	647,745	72%	893,727
1992	229,422	25%	694,124	75%	923,546
1993	257,235	29%	632,586	71%	889,821
1994	180,457	29%	438,760	71%	619,217
1995	132,831	40%	202,548	60%	335,379
1996	114,943	67%	57,836	33%	172,779
1997	121,965	36%	213,700	64%	335,665
Averages					
1991-1994	228,274	27%	603,304	73%	831,578
1994-1997	137,549	38%	228,211	62%	365,760
Coho					
	Sport		Commercial		Total
	# Caught	%	# Caught	%	# Caught
1991	281,222	7%	3,506,504	93%	3,787,726
1992	727,407	20%	2,957,281	80%	3,684,688
1993	923,885	33%	1,890,216	67%	2,814,101
1994	371,050	13%	2,548,448	87%	2,919,498
1995	155,738	8%	185,384	92%	2,011,122
1996	215,288	13%	1,389,546	87%	1,604,834
1997	146,894	39%	229,000	61%	375,894
Averages					
1991-1994	575,891	17%	2,725,612	83%	3,301,503
1994-1997	222,243	13%	1,505,595	87%	1,727,837

¹ **Notes:** Data from Fisheries and Oceans Canada

1. Catch data for 1995, 1996 and 1997 are preliminary.
2. Recreational catch data are obtained from creel surveys.
3. This table does not include salmon harvested under AFS Pilot Sale Agreements.

Table 1: Continued**Sockeye**

	Sport		Commercial		Total
	# Caught	%	# Caught	%	# Caught
1991	107800	1.0%	10,335,146	99%	10,442,946
1992	122064	1.5%	8,168,808	99%	8,290,872
1993	138921	0.8%	18,059,772	99%	18,198,693
1994	45689	0.4%	11,500,786	100%	11,546,475
1995	18269	0.4%	4,361,503	100%	4,379,772
1996	41754	0.8%	5,395,694	99%	5,437,448
1997	121346	1.1%	10,663,000	99%	10,784,346
Averages					
1991-1994	103,619	0.9%	12,016,128	99%	12,119,747
1994-1997	56,765	0.7%	7,980,246	99%	8,037,010

Pink

	Sport		Commercial		Total
	# Caught	%	# Caught	%	# Caught
1991	309,806	1.3%	23,977,791	99%	24,287,597
1992	73,324	0.7%	10,262,741	99%	10,336,065
1993	226,274	2.2%	10,126,973	98%	10,353,247
1994	24,349	1.1%	2,206,926	99%	2,231,275
1995	221,536	1.9%	11,546,215	98%	11,767,751
1996	19,844	0.3%	5,677,498	100%	5,697,342
1997	121,013	1.8%	6,492,000	98%	6,613,013
Averages					
1991-1994	158,438	1.3%	11,643,608	99%	11,802,046
1994-1997	96,686	1.5%	6,480,660	99%	6,577,345

Chum

	Sport		Commercial		Total
	# Caught	%	# Caught	%	# Caught
1991	6,958	0.3%	2,358,336	100%	2,365,294
1992	7,284	0.2%	4,023,020	100%	4,030,304
1993	7,363	0.2%	4,229,062	100%	4,236,425
1994	6,718	0.2%	4,336,438	100%	4,343,156
1995	6,648	0.3%	2,226,668	100%	2,233,316
1996	6,462	0.5%	1,212,099	99%	1,218,561
1997	3,633	0.2%	1,886,300	100%	1,889,933
Averages					
1991-1994	7,081	0.2%	3,736,714	100%	3,743,795
1994-1997	5,865	0.2%	2,415,376	100%	2,421,242

Table 2

1994 Commercial and Recreational Fisheries for Chinook and Coho: Harvest, Expenditures and Values

	Commercial	Recreational
Harvest (000 fish)	2,987	746
Expenditures (\$millions)	\$78	500.9
Net Economic Value (\$millions)	\$24.2	\$176.3

Source: The Economic Value of Salmon; ARA Consulting Group Inc.; February, 1996; Prepared for Fisheries and Oceans Canada, BC Ministry of Agriculture, Fisheries and Food, BC Ministry of Environment Lands and Parks, and BC Ministry of Small Business Tourism and Culture.

Table 3

1994 Estimated Value of an Extra Chinook and Coho in the Commercial and Recreational Fisheries

	Chinook		Coho	
	Commercial	Recreational	Commercial	Recreational
Expenditures	\$68	\$83-\$249	\$20	\$32-\$64
Net Value	\$27	\$23-\$67	\$8	\$10-\$20

Source: The Economic Value of Salmon; ARA Consulting Group Inc.; February, 1996; Prepared for Fisheries and Oceans Canada, BC Ministry of Agriculture, Fisheries and Food, BC Ministry of Environment Lands and Parks, and BC Ministry of Small Business Tourism and Culture.