

Memorandum

August 19, 2003

To: Don Hansen, Chairman of the Pacific Fishery Management Council

From: Dorothy Lowman, consultant for Environmental Defense
Johanna Thomas, Deputy Oceans Program Manager, Environmental Defense
Marion Larkin, Washington trawl vessel owner
Brad Pettinger, Oregon trawl vessel owner-operator
Richard Young, California trawl vessel owner-operator

Re: Report on Meeting with British Columbia Individual Vessel Quota (IVQ)
Participants

In 2000, the Pacific Council's SSC went on record identifying overcapitalization as the single most serious problem facing the West Coast groundfish fishery. That same year, the Secretary of Commerce declared the west coast groundfish fishery a disaster. The continuing problems facing the fishery are well known and include bycatch concerns, regulatory discards, economic instability and uncertainty, data collection and monitoring concerns and difficulty in competing in global markets.

By now, it is apparent that traditional fishery management tools used alone will not resolve these problems. Indeed, existing management tools such as trip limits exacerbate some of these problems (e.g., regulatory discards).

Individual Fishing Quotas (IFQs) have become the focus of increasing interest to managers, fishermen and environmentalists. Environmental Defense and leaders of the west coast trawl fishery joined forces in 2001-2002 to actively lobby for lifting the moratorium on IFQs in the Magnuson-Stevens Act. Over 150 industry and coastal community members sent letters to Congress asking that IFQs be made available as a management tool. The Council itself identified development of an IFQ program for groundfish as an intermediate/long-term goal in their 2000 Strategic Plan.

The multi-species trawl groundfish fishery in British Columbia offers a unique opportunity to learn more about how an IFQ system works successfully in a multi-species fishery. This fishery sells similar species caught with similar gear to the same markets as the west coast trawl fishery. Prior to the implementation of their IVQ program in 1997, the BC fishery operated under similar management to our current system and faced many of the same problems listed above.

On June 24, 2003, representatives of Environmental Defense and the trawl fishing industry, along with Council staff economist Jim Seger, met with a diverse group of Canadians involved in the development and operation of the IVQ system. Included in the group were government managers, fishermen, processors, union and association leaders, and consultants directly involved in the development and the ongoing review and improvement of the IVQ program.

During the six-hour meeting, we discussed at length (1) the situation prior to IVQ implementation, (2) the broad-based process through which their program was developed, (3) the key elements of the IVQ system and (4) how the fishery and management have changed as a result of the IVQ system. This information is described in detail in the attached report.

It is very clear that the British Columbia trawl groundfish fishery is far better off than before IVQs. Developed through an open process with strong leadership, the IVQ program has produced real conservation and economic benefits. TACs are no longer being exceeded, bycatch is reduced, data collection is greatly improved, and management is less contentious. The fleet has consolidated, so remaining vessels are profitable. Ex-vessel prices have increased, crew incomes have risen, and long-range planning is possible. BC is now a consistent supplier of good quality fresh groundfish. Processors can work with fishermen to plan landings to take advantage of market opportunities.

More information on the conservation and economic benefits that have been achieved are provided in the attached report. We also point out some lessons from the BC experience that may be useful for west coast IFQ discussions.

Bruce Turris, the lead DFO manager during the development of the IVQ program, will also be attending the Council meeting. Now a private consultant, Bruce continues to be actively involved in the evolution of the IVQ program and heads up the industry co-management organization. Bruce will also be happy to answer any questions you and others may have about the BC experience and its implications for west coast groundfish management.

We look forward to presenting our findings to the Council in September.

**The British Columbia Individual Vessel Quota Experience:
Lessons for the West Coast Trawl Groundfish Fishery
Report on June 24, 2003 Meeting**

Submitted by:

Marion Larkin, Washington Trawl Vessel Owner

Dorothy Lowman, Fisheries Consultant for Environmental Defense

Brad Pettinger, Oregon Trawl Vessel Owner-Operator

Johanna Thomas, Deputy Oceans Program Manager, Environmental Defense

Richard Young, California Trawl Vessel Owner-Operator

1. What prompted the meeting with BC IVQ Participants?

Problems Facing the West Coast Groundfish Fishery

- Management is contentious and difficult. Regulations are complex and enforcement is difficult.
- Significant overcapacity in the fleet
 - In 2000, the SSC estimated that 27-41% of the limited entry trawl fleet could harvest the allowable quota. Since then, quotas have declined while the fleet remained the same.
 - Buyback may reduce fleet capacity in 2004, but no mechanism exists to adjust future harvesting capacity for technical progress in fishing technology or for changes in the available resource.
- Excess fishing capacity causes a number of other problems:
 - Decreased trip limits resulting in increased regulatory discards.
 - Fleet is unprofitable
 - Inability to research/invest in new gear that would allow more selective fishing
 - Vessels are not adequately maintained
 - Declining crew wages have caused many qualified crew to leave the fishery
 - No demand for vessels, so current fishermen cannot retire.
- Fishery related data is degraded and it is difficult to accurately account for fishery-related mortalities
- Market concerns
 - Trip limits often result in timing of landings that do not match either market demand or processing capacity
 - Difficult to produce product forms desired by market.
 - Unable to plan for the future.

Management Policy Considerations

- Moratorium on IFQs in Magnuson-Stevens Act expired in 2002; making IFQ plan development possible
 - Environmental Defense and West Coast trawl fishermen joined forces in 2001-2002 to lobby Congress to lift the moratorium
 - Over 150 fishermen and coastal community members signed letters asking Congress to make IFQs available as a management tool
- The Pacific Council identified development of a comprehensive IFQ program for the limited entry trawl fishery as an intermediate to long-term goal in its 2000 Strategic Plan

2. The Who, What, When and Where of the Meeting

- Who: A coalition of west coast vessel owners and Environmental Defense staff/consultants, accompanied by Council staff met with a diverse group of IVQ participants including two

vessel owners, a processor, labor union representative, industry organization leaders, executive director of the Groundfish Development Authority, an IVQ broker, and DFO groundfish manager. A list of participants is attached.

- What: The purpose of the meeting was to learn about the development and operation of the IVQ program; what were the costs and benefits associated with the program; and what lessons could be learned from the BC situation
- When: June 24, 2003
- Where: New Westminster, British Columbia

3. The BC Individual Vessel Quota System

3.1 The BC Groundfish Trawl Industry prior to IVQs

General:

- 142 limited entry licensed vessel ranging from 30 feet to 150 feet
- About 135 active annually (most all of which fished bottom trawl and about 75 that fished midwater trawl for hake and pollock)
- 12 month season
- Catches consisted of more than 50 commercially valuable groundfish stocks, including rockfish, flatfish, cods, elasmobranchs, lingcod and sablefish
- Fishing occurred throughout the west coast from San Juan to Dixon Entrance with most fishing occurring in Hecate Strait, Queen Charlotte Sound, and off the west coast of Vancouver Island
- Most fish processed in Vancouver, Prince Rupert, and Ucluelet
- About 12 processors buying and processing groundfish from trawl fleet, including several plants in Washington State
- Less than half of the plants and virtually none of the vessel crews are unionized
- Most of the bottom fish sold to the U.S. (California) market with hake going to Surimi markets in U.S. and overseas (Asia)
- About one third of the vessels tied to processing companies through complete or partial vessel ownership and/or through marketing agreements

Management Regime (pre 1996):

- Individual groundfish species TACs managed on a coastwide basis (even though there were numerous area specific stocks of many different species) by simply adding the stock specific TACs together
- 12 month season (January 1 – December 31) broken into 4 quarters (pre-determined portions of TAC assigned to each quarter based on industry consultation)
- Monthly fishing periods
- Vessels could choose different fishing options (2, 4 or 15 trips per month)

- Vessel trip limits for each species (calculated by estimating fishing effort for the season – trip limits reduced as total landed catch approached TAC)
- Trip limit amounts based on fishing option chosen – more trips per month option had smaller trip limits
- At-sea daily fishing logs of total catch to be completed by skipper (including discards)
- 100% monitoring of all landed catch by independent dockside monitors
- Various vessel and gear restrictions (i.e. limits on vessel length, license stacking, and mesh size restrictions)

3.2 What was wrong?

From a management perspective:

- Managers could not manage on a stock specific basis because information from fishery regarding catch and releases was not complete or credible
- The entire coastwide TAC could be taken entirely, or largely out of a single area (stock)
- Coastwide and stock specific TACs were being exceeded by more and more each year
- Harvesting capacity and effort continued to increase, resulting in increasingly smaller trip limits and higher levels of unreported discarding and misreported catch by area
- Stock assessment capabilities had been greatly eroded by poor information, reduced numbers of fishery independent surveys, and shrinking government resources

From an industry perspective:

- Costs of fishing were increasing
- Landed value of catch was decreasing due to poor quality and not properly servicing the market
- Fishing time was declining
- TACs were declining due to overharvesting, environmental conditions, and increased use of precautionary management
- Increasingly restrictive harvesting requirements
- Losing markets because of volatile landings patterns and closures
- Unable to make long-term plans
- Instability and high risk
- Poor earnings for vessel and crew

3.3 What brought about change?

- By September of 1995, three quarters of all coastwide TACs had been exceeded with still more than one quarter of the season to go (and this was based solely on landed catch)
- There were concerns for various stocks for which the TAC had likely been exceeded by even more than the coastwide TAC (on a percentage basis)

- Government had recently suffered through the Atlantic cod closure and did not want similar problems on the Pacific coast
- Strong leadership from both the federal and provincial governments
- Industry were going broke and under the status quo could not afford the additional costs associated with proper management of the resource (dockside monitoring, at-sea observers, stock assessment research)

3.4 What was the process?

- DFO initially held a number of meetings with the Groundfish Trawl Advisory Committee (GTAC) – an industry advisory board consisting of representatives from the harvesting and processing sectors, the United Fishermen and Allied Workers Union, and the provincial and federal governments
- Public meetings were also held in Vancouver and Prince Rupert
- The majority view from industry and GTAC was to pursue the development of an IVQ plan
- GTAC recommended, and the government accepted, the appointment of a mediator to consult with the groundfish industry and make recommendations on the allocation of groundfish TACs between trawl and hook and line sectors and amongst groundfish trawl license holders
- A retired judge is hired as a mediator – receives written submissions and holds public meetings throughout the coast to hear individual and sector positions
- Mediator submits recommendations to DFO
- A subcommittee of GTAC (consisting of several GTAC members and a non-GTAC member representing coastal communities) called the Groundfish Special Industry Committee (GSIC) was established to work through the details of an IVQ plan and present the results to GTAC and the federal and provincial governments
- GSIC consists of representatives from license holders, processors, Union, coastal communities, and the provincial and federal government
- GSIC develops consensus plan following months of meetings and negotiations and presents recommended IVQ plan to GTAC and government
- DFO consults with GTAC regarding GSIC plan and then submits recommendations regarding TAC and IVQ allocations and IVQ plan to Minister of Fisheries for approval
- Entire process takes about 16 months

3.5 What was implemented (IVQ program details)?

New season

- April 1 – March 31

Trawl specific TACs

- Following industry consultations and recommendations from a mediator, DFO approved an allocation formula that divided the rockfish, lingcod and dogfish TACs among trawl and hook and line gear

Breakdown of Trawl TAC allocations

- 80% of each TAC is allocated directly to individual trawl licensed vessels as area and species specific Individual Vessel Quota (IVQ) based on the IVQ allocation formula
- 10% of each TAC is automatically allocated to individual trawl licensed vessels as Code of Conduct (CCQ) IVQ (based on the IVQ allocation formula) assuming no advice has been received by the Minister of Fisheries from the Groundfish Development Authority recommending that a specific vessel receive less than their full CCQ allocation
- 10% of each groundfish TAC is allocated as Groundfish Development Quota (GDQ) to GDQ proposals jointly prepared by processors and trawl licensed vessel owners

Groundfish Development Authority (GDA)

- The GDA was created as a means of addressing various concerns about IVQs held primarily by processor, union and coastal community representatives (i.e. this was the compromise negotiated to address the processor's, union's and coastal communities' requests for direct IVQ allocations)
 - Processors originally asked for 50% of the TACs allocated to processors
 - The United Fishermen and Allied Workers Union (UFAWU) wanted 25% of the TACs allocated to crewmen
 - Coastal communities wanted Community Development Quotas (CDQs)
- Processors, the union and coastal communities were concerned that allocating the entire TAC to license holders would result in a significant change in the industry that would seriously undermine substantial existing investments in capital and labour
- The GDA's purpose is to ensure fair crew treatment, aid in regional development, promote the attainment of stable market and employment conditions, and encourage sustainable fishing practices
- The GDA consists of a seven member Board of Directors and a Steering Committee of nine advisors whose role it is to provide background information and expertise to the Board of Directors
 - Board of Directors (seven members):
 - 3 Community Directors (North Coast, South Coast, and Vancouver Island) selected by the Coastal Community Network
 - 2 UFAWU Directors (1 shore worker and 1 vessel crew representative) selected by the UFAWU
 - 1 United Food and Commercial Workers Union (UFCWU – north coast union representing shore workers) selected by the UFCWU

- 1 independent fishermen’s Director (must have no vessel ownership or vessel license holdings) selected by GSIC
- Steering Committee (nine members):
 - 3 processing company representatives selected by GSIC
 - 3 groundfish trawl license holder representatives selected by GTAC
 - 1 First Nations representative
 - 1 Provincial Ministry of Agriculture, Food and Fisheries representative selected by the provincial government
 - 1 Federal government representative from the Department of Fisheries and Oceans
- The 20% of the groundfish TACs influenced by the GDA is divided into two parts:
 - 10% Code of Conduct Quota (CCQ) to protect the interests of crews under the IVQ management plan
 - 10% Groundfish Development Quota (GDQ) to aid in regional development in coastal communities, attain market and employment objectives, and encourage sustainable fishing practices

Code of Conduct Quota (CCQ)

- The CCQ is designed to ensure “fair treatment of crew” and “safe vessel operation”
 - “Fair treatment of crew” means that crew sharing arrangements will not be adversely affected by the introduction of an IVQ system
 - “Safe vessel operation” means that changes in crew size or vessel maintenance practices that could affect the safety of the crew or the vessel will not occur as a result of the introduction of an IVQ system
 - Any crewmember, his legal representative or any other third party who believes that a crewmember has been unfairly treated or that his safety has been in any way compromised according to the guidelines may file a complaint with the GDA

Groundfish Development Quota (GDQ)

- GDQ is allocated to trawl licensed vessels involved with proposals submitted to the GDA jointly by processors and T licensed vessel owners
- The amount of GDQ allocated to a proposal is based on the amount of fish in the proposal, processor production history, and the proposal rating by the GDA
- Proposals are rated on how well they achieve the following objectives:
 - Market stabilization
 - Maintenance of existing processing capability
 - Employment stabilization in the groundfish industry
 - Economic development and benefits in coastal communities
 - Increasing the value of groundfish production
 - Industry training opportunities
 - Sustainable fishing practices

IVQ Allocation Formula

- For groundfish (excluding Pacific hake) the initial allocation was based:
 - 30% on vessel length – length of vessel used in the calculation is the length recorded in the DFO Pacific Licensing System on January 31, 1997
 - 70% on average catch of groundfish (excluding hake) during the five year term 1988-1992 – the groundfish species included in the catch history calculations are all rockfish, soles, Pacific cod, lingcod, dogfish, sablefish and pollock
- For Pacific hake the initial allocation was based:
 - 30% on vessel length – based on the total length of the hake vessels only
 - 70% on average hake catch history for the five year term 1987-1991
- There are 55 different IVQ allocations and they are expressed as a percentage of the respective stock TAC
- Vessels exceeding their IVQ allocation of a species will not be permitted to continue fishing in the area for which the species is allocated until additional IVQ for that species is transferred onto the vessel to cover the overage – if the IVQ is a coastwide allocation the vessel cannot fish bottom trawl anywhere until enough IVQ for that species is transferred on to cover the overage

IVQ Transferability

- IVQ can only be transferred among trawl licensed vessels
- Currently, IVQ is freely transferable subject to quota caps. In 2004, some restrictions on transferability will be implemented for the period 2004-2007.
- Because IVQ transferability has a significant impact on the operational effectiveness of the IVQ program as well as many other issues of importance to the industry (i.e. fleet rationalization, leasing, impacts on crew, distribution of benefits, stabilization, etc.), the transferability rules are reviewed every 3 years
- Industry aims for transferability rules that provide for the necessary operational flexibility that enables the fleet to catch the TAC but also limits or avoids the pitfalls that wide open transferability have created in other fisheries
- The objective is to limit fleet rationalization to the levels envisioned (60-80 vessels) and to keep most of the IVQ on working boats

Individual Species Caps

- Individual coastwide species caps are set for each species at a level which will allow vessel owners to adjust their quota holdings to a viable level, but which ensures they cannot accumulate an unreasonably large amount of a species IVQ – species caps range from 4% - 10%

Total Holdings Caps

- Each trawl license is subject to a total holdings cap set at a level which allows vessel owners to adjust their IVQ holdings to a viable level but also ensures operators cannot accumulate an unreasonably large amount of IVQ
- For the purpose of calculating the total holdings cap for each license, and for measuring holdings of a license against its cap, Groundfish Equivalents (GFEs) have been established based on relative prices of groundfish – Pacific Ocean Perch is used as the base (POP = 1.00)

Individual Vessel Halibut Bycatch Quota

- The groundfish trawl fishery halibut bycatch mortality cap (1,000,000 lbs dressed weight) is allocated as an IVQ bycatch cap to each licensed vessel in proportion to its initial groundfish IVQ holdings
- Vessels catching halibut by trawl gear are not permitted to retain the catch and must return the halibut to the water
- Halibut bycatch IVQ is freely transferable and no license can hold more than 4% of the total halibut bycatch mortality cap
- Vessels exceeding their bycatch IVQ are restricted to midwater fishing until the following season or until additional bycatch IVQ is transferred on to the vessel to cover the overage

Fish Released at Sea

- Weights of fish released at sea which are considered marketable (determined by size) will be deducted from the vessel's IVQ
- Non-marketable fish discards will be recorded (total weights by species and area) but will not be deducted from the vessel's IVQ
- There are set mortality rates for marketable fish released at sea – rates are based on species (rockfish rate is 100%), towing time (i.e. 10% - 25% per hour), or condition factors (halibut)

At-sea Monitoring (2/3 industry funded)

- Trawl vessels are required to carry DFO certified observers on every trip – the only exemption from this requirement are vessels fishing midwater trawl for hake

Port Monitoring and Validation (industry funded)

- All trawl vessels must have all their groundfish catch validated, whether landed in Canada or the U.S., to ensure proper enumeration by species
- Monitoring requirements include hail-out and hail-in requirements and designated offloading locations

Quota Overage/Underage and Quota Carryover

- For all species of groundfish subject to IVQs, other than hake and halibut, the carryover/underage limit is 30% of the vessels IVQ holdings for that species and species area group (for hake and halibut the limit is 15%)
- Vessels exceeding their IVQs up to the allowable limit can keep the proceeds from the overage but will have the equivalent poundage deducted from their IVQ in the following year
- Vessels exceeding their IVQ by more than the allowable limit can keep the proceeds for the fish up to the allowable limit but must relinquish the balance and will have the entire amount of the overage deducted from the vessels IVQ in the following year
- Vessels fishing under their IVQ up to the allowable limit will have the equivalent poundage added to their IVQ in the following year

Other measures

- A number of traditional management measures remained in place, such as:
 - Size limits
 - Gear restrictions
 - Logbooks and sales slips
 - Area closures
 - 15,000 pound trip limit of combined non-TAC rockfish

3.6 What were the Objectives?

Ensure Conservation

- Ensure that catch stays within TACs and bycatch targets
- Encourage sustainable fishing practices

Increase benefits derived from the groundfish trawl fishery

- Greater economic benefits
- Increase the value of groundfish production
- Improve or maintain market stabilization
- Allow for fleet regionalization and specialization
- Encourage safe vessel operation
- Provide for industry training opportunities

Fair distribution of benefits arising from the IVQ Plan

- Avoid pitfalls associated with leasing and quota concentration
- Maintain existing processing capability

- Groundfish employment stabilization
- Economic development in coastal communities
- Fair treatment of crews (crew shares and working conditions)

3.7 Have the Objectives been achieved?

Conservation

- Catches are within allowable TACs and bycatch targets
 - No species TAC has been exceeded since the implementation of IVQs
- Catch utilization is improving
- Sustainable fishing practices are more evident and continue to be developed
 - Vessels using shorter tows, avoiding high bycatch areas, using net mensuration, larger mesh in nets
- Increased individual accountability
- Greatly improved data collection and information for determining resource status
 - Now have reliable information on stock specific catch and mortality – including discards
- Improved cooperation amongst fishermen to share information on bycatch hotspots
- Bycatch rates and mortality have declined – i.e. halibut bycatch mortality of nearly 2 million lbs prior to IVQs now down to 300,000 lbs

Increase benefits derived from the groundfish trawl fishery

- The IVQ program eliminated the “race for fish”
- The focus changed from “maximizing catch” to “maximizing value of catch”
- The environment in the IVQ fishery is conducive to focusing on quality, servicing markets, planning and executing plans
- While some operating costs have increased, benefits to remaining industry participants have increased by more than the additional costs
- Provision of a product mix that better serves the market and reduces processing and handling costs
- Total value of landed groundfish has risen even though less fish is being landed
 - In 2000 a total of 26,000 mt of groundfish worth Can \$34 million was landed by bottom trawl gear compared to 29,000 mt worth Can \$21 million in 1996
- Using current fish prices and lease rates, earnings to both vessel owners and crew have improved under the IVQ program despite increased incremental costs associated with at-sea observers and acquiring quota (via purchase or lease)
- Groundfish markets have improved under the IVQ plan:
 - Some of the improvement is related to restricted supply from the U.S.
 - Some improvement is attributable to strong fresh fish market fundamentals
 - Some of the increase stems from quality/consistency/value improvements in British Columbia

- BC is now a consistent supplier of good quality fresh groundfish
 - Fresh fillets are available 48 weeks per year
 - Better quality – shorter trips, improved handling
 - Supply gluts less severe and better handled
- Groundfish prices are dramatically higher now than prior to IVQs (i.e. POP average landed price has increased from Can \$0.29/lb in 1994 to Can \$0.61/lb in 2001 and lingcod has gone from Can \$0.39/lb to Can \$0.76/lb in the same period)
- Although overall price levels have improved, severe price fluctuations over the short term do still occur on occasion
- The IVQ plan has enabled the BC groundfish trawl industry to exploit market opportunities
- Fleet rationalization has allowed for greater efficiency
 - About half of the 142 trawl licenses hold quota
 - The “truly” active fleet is 40-45 groundfish bottom trawl vessels, and 30-40 hake vessels (some overlap)

Fair distribution of benefits

- The GDA has provided incentives for vessel owners and processors to conduct their business so as to generate broad industry benefits
- Holdings caps and transferability rules have been safeguards against excessive rationalization and IVQ concentration
- The working fleet size is within the 60-80 boat range envisioned at the outset of the IVQ plan
- Active fleet size is now similar to historical patterns of the 1970s and early to mid 1980s
- Boat-by-boat analysis suggests that approximately 90% of quota is now held within the “active” fleet.
- The number of processing plants has increased slightly since the inception of the IVQ program
- All of the processors in existence prior to IVQs are still in operation
- The percentage of bottom trawl groundfish purchased by the top 5 processors has increased slightly (from 53% between 1994-1996 to 58% between 1997-1998)
- The percentage of hake purchased by the top 5 processors has increased (from 83% between 1994-1996 by the top 5 processors 96% between 1997-1998)
- Some crew members own IVQ – although not many
- Based on financial analysis for a typical working vessel, crew are better off now than before IVQ (note that model overstates pre-IVQ earnings since TACs were over harvested)
- Based on various program reviews the groundfish trawl fishery is providing a good living for current participants through
 - Improved earnings for both vessel owners and crew
 - Flexible crewing arrangements (crew rotation)
 - A safer work environment

- More groundfish is also being “handled” (i.e. offloaded and/or processed) in coastal communities (comparing the 1994-1996 and 1997-1999 periods, the percentage of total groundfish landed annually in Vancouver has declined from 36% to 30% while the percentage landed has increased in coastal communities such as Prince Rupert (15% to 23%) and North Island (10% to 16%)
- The percentage of groundfish landed annually in the U.S. has declined from 17% to 12%

3.8 Other Impacts

- Vessel size composition has changed – before IVQs vessel size ranged from 30 – 150 feet, now vessel sizes are between 50 and 120 feet
- Considerable amount of fleet specialization (i.e. midwater vs bottom trawl; deepwater vs. shallow; fresh vs. frozen) and regionalization (north coast vs south coast)
- Industry participants, especially license and IVQ holders, are more concerned about the long-term health of the resource
- Co-management initiatives have increased substantially
 - Industry currently conducting and funding 3 surveys
 - Contract with stock assessment scientists
 - Provide cost recovery funding for various DFO science projects

4. Key Lessons Learned from BC Experience

- Leadership was important in achieving success
- All interest groups were involved in designing program
- System is designed specifically for the needs of the BC industry
- The system is not perfect but is a significant improvement over the prior system
- Improvements to the system are constantly being considered and, where agreeable, adopted
- System is expensive (about \$0.04/GFE)
 - Annual cost of at-sea and dockside monitoring is approximately \$3 million
 - Annual industry funded science activities cost \$800,000
 - GDA expenses of \$80,000 annually
 - Annual license fees of \$800,000
- Purchasing IVQ can be expensive
 - 2002 IVQ value of \$2.50/lb uncut
 - 2002 lease value of \$0.20/lb uncut
 - Banks do not recognize IVQ or trawl license as lienable asset
- Conservation benefits are real
- Economic benefits are real
- Operational flexibility is important to success
 - Real time transfers
 - Carryover of underages and overages
 - 30 days to correct overage
- Personal accountability is what drives the system

- If you exceed your IVQ you suffer the consequence or you take actions to correct the situation
- Individuals can live within caps given transferability and a system for corrective action
- Operators who cannot adhere to the principals of personal accountability tend to leave the fishery
- Comprehensive at-sea and dockside monitoring are important to ensure compliance and level the playing field
- The GDA process appears to address the concerns of communities and processors without unduly restricting vessels
- CCQ system was designed to protect crews (and likely has to some extent) but system creates disincentives for crews to file complaints
- Overall, fishermen, processors and managers all have a positive long-range view of the fishery; a far different situation than before IVQs in British Columbia or the current view of the our west coast groundfish fishery

List of Participants
British Columbia Individual Vessel Quota System Meeting

British Columbia Participants:

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