

# Environmental and Social Responsibility for Aquaculture: the British Columbia Experience



International Workshop, Puerto Montt, Chile  
March 21, 2006

# Social and Environmental Sustainability

## Context – Commonalities Between Growing Areas

- Atlantic salmon farming takes place in Norway, Scotland, Ireland, Faroes, Eastern Canada, British Columbia, the U.S., Chile and Tasmania
  - Interests of business, profit, access to markets
  - Interests of government
    - jobs, economy, health and safety
  - Stakeholders
  - All have a short history of rapid development

# Context – Differences Between Growing Areas

- Ecosystems and native fish species – Atlantic salmon, Pacific Salmon, no salmon – salmon as an icon
- Degree of environmentalism – local, national, international
- Levels of government – in Canada now includes government to government relationship with First Nations – aboriginal people
- Degree of government engagement – supportive programs, policy and legislation
- Stakeholders – upland owners, fishermen etc.
- Degree of coastal planning

# A Brief History of Salmon Farming in British Columbia

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**1970s** - Salmon farming started

**1980s** - Rapid increase in number of farms, low production

- several reviews, issue of farm placement

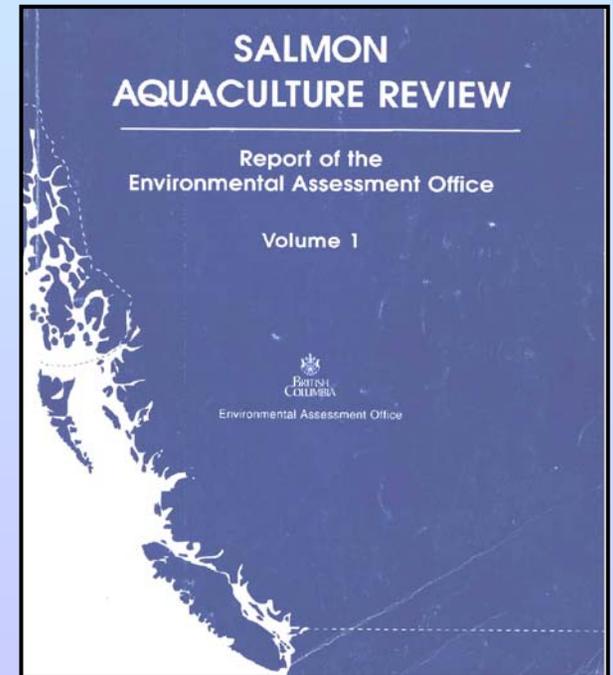
- Federal/Provincial MOU on Aqua Development

**1995** - Moratorium placed on new applications;  
Salmon Aquaculture Review (SAR) by  
Environmental Assessment Office

# History of Aquaculture in BC

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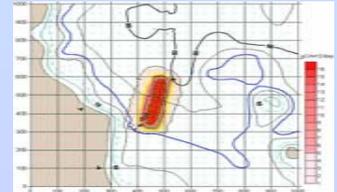
- Response to increasing concerns about environmental sustainability in mid-90's
- Major Issues:
  - Siting
  - Marine Mammals
  - Waste Management
  - Escapes
  - Fish health
- Forty-Nine recommendations
- Policy Response: Salmon Aquaculture Policy Framework



# BC Salmon Aquaculture Policy Framework Implementation

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- **New and consolidated siting guidelines**
- **Relocation Initiative**
- **Pilot projects**
- **Binding escape prevention and response plans**
- **New performance-based waste management regulations**
- **Atlantic Salmon Watch Program continued**



# **BC Salmon Aquaculture Policy Framework Implementation**

- **New fish health management program, mandatory Fish Health Management Plans and monitoring and surveillance**
- **Enhanced Compliance and Enforcement Program**
- **Research Support – Aquaculture Environment Fund established. Chair in Sustainable Aquaculture endowed at the University of British Columbia**

# Application Process

- Farmers submit detailed proposal describing all aspects of site/ facility
- Applications reviewed by government agencies who make statutory decisions required under legislation (e.g., environmental assessment, permits, approvals, licences, etc.)
- Applications also reviewed by local governments (Crown land), other stakeholder groups with interest or local knowledge
- Consultation process includes First Nations referrals and public open houses



GUIDE TO INFORMATION REQUIREMENTS FOR  
MARINE FINFISH AQUACULTURE APPLICATIONS



# Compliance and Enforcement

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## **Primary inspection categories include:**

- **Review of site management plans**
- **Therapeutant use and drug record-keeping**
- **Stock inventory records and record-keeping**
- **Net maintenance, marking and record-keeping**
- **Frequency of net inspections including dive inspections**
- **Escape prevention plan and escape response plan**
- **Farm site operations including net cage deployment, weighting systems, boat docking, use of catch nets, feed storage and predator control**
- **Report annually on industry's performance - 81 point checklist**
- **100% of active farms inspected annually**

# Miscellaneous Comments

- Integrated Coastal zone planning is becoming more important – sector-specific planning is inadequate
- Harmonization with the federal government in approvals processes is a major objective
- Salmon farming is very significant to some First Nations communities, others are opposed
- Industry has cooperated fully with the changes – fish health database, codes of practice, best management practices and has initiatives in social and environmental sustainability

# Miscellaneous Comments

- Framework for Dialogue between the Coastal Alliance for Aquaculture Reform and Marine Harvest Canada
- Memorandum of Understanding with First Nations group – development of an area “Stewardship Plan”
- Salmon farming supports over 4,000 jobs in British Columbia most in coastal communities, 20% are aboriginal
- Industry development and government management will continue to evolve based on new information
- Social and environmental sustainability is a joint responsibility of industry and governments

# Further Information

- <http://www.agf.gov.bc.ca/fisheries>