

SUMMARY OF RECOMMENDATIONS

Principles

All recommendations put forth by this committee take into account the 'Precautionary Principle' as we are dealing with a common public resource. The Precautionary Principle recognizes that the absence of full scientific certainty should not be used to delay actions or decisions when faced with threats of serious or irreversible harm.

Further, these recommendations are framed with the principles and vision of the New Relationship. First Nations, in whose traditional territory work is being conducted must be fully involved in decision making and provided with the capacity to do so.

1. Finfish Recommendations

- 1.1 A rapid, phased transition to ocean-based closed containment begin immediately. Within three years ocean-based closed containment must be developed. Once developed, industry must transition to this technology within the subsequent two years.
- 1.2 To meet the initial three year deadline, the provincial government, in partnership with the federal government and the salmon aquaculture industry, must urgently finance and conduct a full commercial scale ocean-based closed containment project.
- 1.3 The provincial government should develop and provide incentives to the aquaculture industry to facilitate the transition to ocean-based closed containment technology.

2. North and Central Coast

- 2.1 There be no new finfish sites approved north of Cape Caution.
- 2.2 The existing Klemtu sites be grandfathered subject to negotiations between First Nations of the area and Marine Harvest.
- 2.3 In light of the recommended time referenced transition to ocean-based closed containment, any expansion in Klemtu, as elsewhere, must utilize ocean-based closed containment technology.

3. Siting and Monitoring

Expansion and Monitoring

- 3.1 Once all of the existing sites have transitioned to ocean-based closed containment, the opportunity to expand to new sites with this technology can be considered with the following conditions:
 - 3.1.1 Restoration of local governments and residents' right to approve the siting of new finfish sites.
 - 3.1.2 Changes to the 'right to farm' legislation should be made accordingly – sections of the *Agriculture, Food and Fisheries Statutes Amendment Act, 2003 S.B.C. 2003, c.49* must be repealed.

- 3.1.3 Affected First Nations, local residents, local governments, regional districts, rural area representatives, town/village councils etc. must be fully involved in applications of aquaculture tenure siting. This should include early notification of applications, timely discussion and public hearings.
- 3.2 A “watchman” program should be established under which First Nations in whose territory fish farms are located are contracted to monitor farm sites for best practice.
 - 3.2.1 Financial and physical capacity of the First Nations should be ensured.
- 3.3 Priority be placed within the provincial and federal governments for increased capacity for monitoring.

Following

- 3.4 Effective following regimes similar to 2003’s Broughton Archipelago Action Plan must be developed to protect juvenile salmon populations during migration periods.
- 3.5 Following regimes for existing farms must be based on the Precautionary Principle, the best available science, local and cultural knowledge in order to protect wild salmon.
 - 3.5.1 By using this approach, the identified migratory routes should not have stocked adult fish in pens during times of migration.
- 3.6 Particular attention must be paid to safeguarding the migration of smolts in the Kingcome/Wakeman route of the Broughton Archipelago.

Density

- 3.7 There must be no increase in production levels per site or per tenure.
- 3.8 Both levels of government, industry, First Nations, and non-profit organizations must work together to build a stronger feedback monitoring regime in areas like the Broughton and Discovery Islands with a high density of operations. Following regimes must be constructed that monitor and control density and production intensity with the aim to control and limit mortality among migrating wild populations.

4. Other finfish species

Recommendations 4.1 through 4.4 apply until such time as the transition to ocean-based closed containment technology has been completed.

- 4.1 No new species of finfish should be introduced for ocean-based aquaculture in existing tenures.
- 4.2 Production levels on active tenures with finfish species other than Atlantic and Chinook salmon (eg. sablefish) must be frozen.
- 4.3 Inactive licenses to grow sablefish (including those within salmon tenures) must be suspended.
- 4.4 No additional finfish aquaculture tenures should be approved.
- 4.5 Government should ensure that the commercial farming of transgenic (genetically modified) salmon is prohibited, irrespective of containment technology.

5. Finfish - Regulatory

Accountability and Enforcement

- 5.1 There must be a clear division between Ministry of Agriculture and Lands and the Ministry of Environment. Programs that promote aquaculture development should be within the Ministry of Agriculture and Lands. All protection, regulation and monitoring of the aquaculture industry must be within the mandate of the Ministry of Environment.
- 5.2 Adequate resources should be distributed accordingly to ensure a robust compliance and enforcement regime is in place with adequate monitoring and feedback.
- 5.3 All fish health management plans must be made public, easily accessible on the Ministry's website, to increase transparency and to give greater confidence to British Columbians that all industry players are obeying best practice standards. This is already done voluntarily by some companies but we recommend that this should be mandatory.
- 5.4 Reporting can no longer rely on industry policing itself. The government as the regulator, must conduct random checks *without notice* to any fish farm operators.
- 5.5 The government must establish minimum fines that reflect the seriousness of the offences when infractions occur.

Sea Lice

- 5.6. Establish protocols which specifically refer to sea lice monitoring and control, including:
 - Separation of generations (no smolts placed beside growers)
 - Regular fallowing of farm sites
 - Early harvest of two-sea-winter fish
 - Adult fish should not be placed in the pens until smolts have traveled through the migratory areas
 - Synchronous treatment of farms in the same geographic areas
 - Consideration of tidal effects on disease transfer (e.g. the separation distance of farms and wild fish established according to tidal excursion distances, not randomly-chosen distances).
- 5.7 Government continue its stringent action level of 3 motile lice (all stages) and introduce a measurement of 0.5 egg producing female lice throughout the year as is the best practice in Norway. We recognize that this will lead to the continued use of SLICE but want the industry to continue in their efforts to find alternative management techniques to mitigate the effects of sea lice.
- 5.8 Locally and strategically placed research centres such as the BC Centre for Aquatic Health Sciences be encouraged to continue to examine fish health and possible solutions.

General

- 5.9 During the transition to ocean-based closed containment, the use of anti-fouling paint on nets must be prohibited to protect the marine habitat. We recommend that industry phase out the use of anti-fouling paint within one year.
- 5.10 Use of fish meal and fish oil derived from wild sources must not exceed one pound of wild fish harvested for every pound of aquatic animals grown.
- 5.11 After the transition period to ocean-based closed containment, all fish meal and fish oils used in BC must be harvested from independently verified sustainable sources. Much work has been done on this front and is based on the United Nations Food and Agriculture Organization's Code of Conduct for Responsible Fisheries. From

this document, certification bodies such as the Marine Stewardship Council, KRAV, Naturland and others are developing sustainable fisheries harvesting standards.

- 5.12 The province must work with industry and the federal government to bring forward a new labelling regime to keep consumers better informed. This should include:
- Mandatory labelling of contents of feed
 - Mandatory labelling of additives in final product
 - Mandatory labelling on final product as product of a fish farm
 - Mandatory labelling on final product to distinguish open net-cage product from fish grown in closed containment, which should have a “BC eco-farmed salmon” type designation.
- 5.13 The BC government should invest in a reinvigorated ‘Buy BC’ program that supports and markets products such as salmon and shellfish aquaculture goods.

6. Wild Salmon

- 6.1 The Ministry of Environment take a lead role in creating a Living Rivers Strategy similar to the one proposed by the government in 2001 which promised to protect and improve BC’s river systems with scientifically based standards for watershed management, enhancement to fish habitat, and a 10-year program to correct past damage.
- 6.2 Appropriate funding, measurable goals, targets and outcomes be put in place with an annual report by the Ministry of Environment on progress made.
- 6.3 Enhancement projects such as stream restorations be given a 250 metre clearance and guarantee that no development can take place so as to undo the work of salmon enhancement.
- 6.4 The provincial government urge Fisheries and Oceans Canada to commit to increasing its budget, staffing and support for fisheries enhancement and hatcheries.
- 6.5 More study be done by the Ministry of Agriculture and Lands, in conjunction with the Ministry of Environment and using the expertise of First Nations, on the salmon ranching industry to see if this form of aquaculture would be feasible in British Columbia.
- 6.6 The provincial government should establish Marine Protected Areas representing a minimum of five times the area licensed for aquaculture in each area. These MPA’s must be in prime, representative habitat.

7. Shellfish Recommendations

Siting

- 7.1 The provincial government should designate coastline where shellfish farms can be sited that minimize competition with residential and recreational use. These areas should be close enough to transportation links and energy supplies that are needed for a processing plant.
- 7.2 Notwithstanding 7.1, municipalities/regional governments and First Nations must have the authority to approve siting of tenures.

- 7.3 Industrial-scale operations should have clear siting criteria policy to ensure there are adequate buffers from residential/recreational properties. Industrial scale operations are those which regularly use machinery and large-scale structures.
- 7.4 Operations must not interfere with navigation in the waterways they occupy or make the coastline inaccessible or inhospitable to recreational boaters, swimmers, or pedestrians.

Regulation

- 7.5 No new species are to be approved for commercial aquaculture without a consensus of independent peer-reviewed science affirming that the potential impact on the marine environment is minimal.
- 7.6 Recently approved geoduck clam tenures must be rescinded until conditions in Recommendation 7.5 are met.
- 7.7 A Code of Practice must be developed and implemented that respects the interests of other coastal stakeholders, including First Nations, residential communities, small shellfish operators, tourism and other businesses, and recreational users.
- 7.8 Ministry of Environment must increase enforcement to eliminate release of debris from shellfish operations.
- 7.9 All shellfish operations must submit an annual inventory of plastics and Styrofoam used on farm, and report any loss of such material/equipment to the ministry responsible within 30 days.
- 7.10 The government should work with growers to reduce overall use of plastics, Styrofoam and other equipment/materials with known toxins (such as treated wood).
- 7.11 Enforcement must take place to ensure that underwater nets around suspended strings which violate HADD (Harmful Alteration, Disruption or Destruction of fish habitat) under the federal *Fisheries Act* are not in use.
- 7.12 Efforts should be made to simplify the regulatory burden for smaller growers.
- 7.13 A liaison should be established within the Ministry of Agriculture and Lands to assist First Nations and potential industry partners to set up commercial joint ventures.
- 7.14 Shellfish testing facilities must be financed by the Ministry of Environment on the North Coast and other suitable regions, (as was done on the South Coast) so that the shellfish aquaculture industry can better serve that area.