

Exhibit E

Previous Failed Attempts Address Fish Feedlot Impacts on Wild Salmon

In 1986, due to massive losses of feedlot salmon, poor placement of salmon feedlots and growing complaints from First Nations, local communities, fishermen and environmentalists, the provincial government in British Columbia was forced to impose a month-long moratorium against approving new salmon feedlot sites and initiate the first environmental review of the aquaculture industry, the Gillespie Inquiry.

In 1988 the British Columbia provincial government was given jurisdiction over fish feedlots, without any mandate or responsibility to protect wild fish. The provincial government conducted a Coastal Resource Interest Study, ostensibly to create feedlot-free zones in British Columbia based on local knowledge of wild fish abundance. In 1989 the province produced a map with input from local stakeholders dividing the Broughton Archipelago waters into green (go for fish feedlots), yellow (go with caution) and red (where no applications for finfish aquaculture would be accepted). The red zones highlighted where wild salmon schooled, prawns were most abundant, whales summered and rock cod lived. However, fish feedlots were then placed in these very locations and within a year there were more salmon feedlots in red zones than in any other areas (BC Legislative Assembly 1988).

As a result of the Gillespie Inquiry, the provincial government implemented a moratorium on new fish feedlots in 1995 and capped the number of feedlots at 121. However, the size of fish feedlots and intensity of production were allowed to increase so that fish production in British Columbia salmon feedlots actually increased during the “moratorium.”

From 1995 to 1997 a second environmental review of the aquaculture industry (the Salmon Aquaculture Review) was initiated by the provincial government to address public concerns. The review’s 49 recommendations were made public in 1997 and the provincial government and the British Columbia Salmon Farmers Association announced plans to implement them (EAO 1997).

In 2000, a Federal Auditor General report identified a conflict of interest between DFO’s promotion of salmon aquaculture and its mandate to protect wild fish and wild fish habitat (AGC 2000). In 2001, a Standing Senate Committee on Fisheries issued a report revealing that DFO disregards its mandate to protect wild fish stocks (SSCF 2001). Also in 2001, the David Suzuki Foundation sponsored a review that critiqued the many failings of the British Columbia aquaculture industry (Leggatt 2001). In 2002 the provincial government lifted the 1995 moratorium on new salmon feedlots.

In 2002, Broughton Archipelago pink salmon stocks crashed. The Pacific Fisheries Resource Conservation Council released an advisory to federal and provincial fisheries ministers, urging the immediate removal of Broughton Archipelago salmon feedlots in order to protect outward-bound juvenile pink salmon (PFRCC 2002), which was ignored by the provincial and federal governments.

In 2003, DFO developed a Pink Salmon Action Plan to determine the cause of low 2002 pink salmon returns. The plan recommended following salmon feedlots on the pink salmon migration route and a marine monitoring program to determine where and how badly sea lice

infect juvenile salmon in the Broughton Archipelago, identifying migration corridors more clearly, and a strategic fallowing plan to create a safe juvenile pink salmon migratory corridor. The Provincial Pink Salmon Action Plan did a good job of clearing the major pink salmon migration route of sea lice in 2003. Pink salmon survival from 2003 was better than any other year ever recorded, but the provincial government never announced the spectacular result nor ever repeated the fallowing plan.

The PFRCC also issued a series of recommendations for research, monitoring, management practices and comprehensive policy in 2003. Many meetings of experts occurred 2003-2004, such as the SFU Sea Lice Summit, SFU Sea Lice Action Plan Meeting and UBC Sea Lice Summit. All made recommendations concerning the management of sea lice. In 2004, the Georgia Strait Alliance published a government report card assessing the regulation of salmon aquaculture in British Columbia and its successes, failures and shortcomings (GSA 2004). In 2007, the team updated the report card and found British Columbia still lacking in the development of sustainable salmon aquaculture (GSA 2007). The government has never responded to the recommendations.

Another 2007 report from the provincially-funded Pacific Salmon Forum compared British Columbia's regulations with salmon aquaculture regions around the world and found Canada's aquaculture regulations and management practices to be sub-par. British Columbia scored 5.1 out of 10, compared to Iceland and Norway with 9.6 and 9.0 respectively (BCPSF 2007). Essential sea lice recommendations from the 2009 Pacific Salmon Forum were never enacted. Canada was especially weak on zoning, monitoring and enforcement of regulations. In 2007 the provincial government's Special Committee on Sustainable Aquaculture delivered a report with a long list of recommendations, including a strong recommendation to remove salmon feedlots from the ocean in a "rapid, phased transition to ocean-based closed containment" that should be in place within 5 years (LABC 2007). The government failed to respond to this recommendation.

Also in 2007, the Special Legislative Committee on Sustainable Aquaculture recommended removing salmon feedlots from the ocean environment into tanks (LABC 2007).

In 2009, the Office of the Auditor General of Canada issued a report stating: "Fisheries and Oceans Canada and Environment Canada cannot demonstrate that fish habitat is being adequately protected as the Fisheries Act requires...there has been little progress since 2001, when we last reported on this matter" (AGC 2009).

In 2008, one salmon aquaculture company, Marine Harvest Canada, began to develop a six year Coordinated Area Management Plan (CAMP) for their salmon feedlots in the Broughton Archipelago. The CAMP established an area management approach (using timing and location of wild smolt entry, coordinated harvesting and fallowing, sea lice monitoring, and therapeutic treatment) aimed at reducing the potential for sea lice from feedlot salmon to infect wild juvenile pink and chum salmon during the out migration season (March 1st to June 30th) in the Tribune-Fife and lower Knight Inlet corridors. However, the CAMP has not been fully implemented nor have out-migration corridors been adequately protected. In 2010 the federal government and salmon aquaculture companies announced a new Broughton Archipelago Monitoring Plan, a multiyear sea lice monitoring and research program. This management plan does nothing to address the potential impacts of viruses and bacteria amplification and introduction.

Two legal cases were brought in 2009 addressing the wild salmon decline and the government's inaction. The first case, *Morton v. B.C.* (Agriculture and Lands, 2009 BCSC 136) was brought by Canadian scientist and biologist Dr. Alexandra Morton. Morton and co-plaintiffs from the eco-tourism and commercial fishing industries successfully challenged the British Columbia government's legal and constitutional authority to license and regulate salmon feedlots. The Supreme Court of B.C. ruled that the federal government, not the province, has exclusive jurisdiction over the regulation of aquaculture. A second case addressing salmon feedlots, *Kwicksutaineuk/Ah-Kwa-Mish First Nation v. British Columbia (Agriculture and Lands)* was certified by the court as a class action suit on December 21, 2010 and is pending litigation. The case was brought by eight First Nations in the Broughton Archipelago against the British Columbia government over the negative impact of commercial salmon feedlots on wild salmon. The class-action certification explains that wild salmon are fundamental to the cultural and spiritual integrity of the First Nations.

In addition to these cases, public political pressure caused the Canadian government to take a closer look at the disappearance of wild sockeye salmon from the Fraser River. Three years of disturbingly low sockeye returns to the Fraser River from 2007 to 2009 led the Prime Minister to appoint a "Commission of Inquiry into the Decline of Sockeye Salmon in the Fraser River," the Cohen Commission, to investigate the declines. The Cohen Commission inquiry began in 2010 and concluded in early 2012; the Commission has not yet released findings or conclusions, but will produce recommendations in June 2012. The Commission heard testimony that DFO suppressed critical information on presence of a reportable virus, ISAv, in wild salmon. It also heard evidence that a newly emerging Norwegian virus, heart and skeletal muscle inflammation (HSMI) has been found in a salmon feedlot and in wild sockeye salmon. Testimony was also recorded that the Fraser sockeye migration route was never considered when the salmon feedlots were sited, nor when jurisdiction for these operations was transferred from provincial to federal control.

The most significant finding of the Cohen Commission into the decline of salmon in the largest salmon-producing river in the world may be the absence of any government willingness to protect wild salmon, due to a higher prioritization of international trade, at any cost. The Aquaculture Coalition submitted evidence before the Cohen Commission that the federal Canadian government does not take a precautionary or responsible approach to the risk and presence of disease in salmon in British Columbia (see Appendix B).

Infectious Salmon Anemia virus is perhaps the most lethal salmon disease known and has become a problem in every major Atlantic salmon farming region in the world, yet ISA virus testing has never been requested on Canada's "Fish Health Certificate" which must be signed for each importation of salmon eggs. Dr. Are Nylund with the University of Bergen testified that 80-90% of North Atlantic salmon broodstock test positive for ISA virus at egg-take (Cohen Commission testimony, December 15, 2011). British Columbia has imported 30 million Atlantic farm salmon eggs since 1986 (DFO 2011c). Dr. Nylund's testimony raises the question whether there any truly any Atlantic salmon eggs that are free of ISA virus.

The Canadian Fish Health Protection Regulations (CFHPR) were waived in 2003, on request by the Norwegian salmon farming companies operating in British Columbia, to allow Atlantic salmon eggs to be imported from an Icelandic hatchery that does not meet the

CFHPR standards. The reason given for the waiver was that “failure to provide permission for egg importation may trigger a trade challenge under the WTO...” (Cohen Exhibit #1683).

When independent scientists in British Columbia reported positive test results for ISA virus in wild Pacific Salmon in the fall of 2011, the Canadian Food Inspection Agency (CFIA) took over responsibility for the virus, removing it from the jurisdiction of DFO (Cohen Exhibit # 2137). CFIA representative Dr. Klotins testified that the CFIA has never heard of the federal Wild Salmon Policy, which was written to protect wild salmon populations (Cohen Commission testimony, December 19, 2011). This suggests there is no mechanism currently in place to protect critical wild salmon populations as per the Wild Salmon Policy from the impact of the most lethal salmon virus known.

Several United States Senators reacted strongly to the 2011 ISAv positive test results and expressed concern about the potential impacts on salmon in the United States. In response, the Office of the Canadian Minister of Fisheries gave instructions for letter to be sent to U.S. Senators and/or members of Congress to “confirm that all samples which have previously been reported as infected with ISA have tested negative in our lab” (Cohen Exhibit # 2137). However, testimony by the scientist that performed these tests, Ms. Nelle, with the DFO Moncton Laboratory, states there was a weak positive result and that generally the samples were too degraded to confirm either negative or positive results. She did not “confirm” all samples were negative for the virus.

Chile recently closed its border to imports of Washington State Atlantic salmon eggs, and it is important to determine whether this was in response to the positive test results for ISA virus in British Columbia in October and November 2011. The timing is suggestive that Chile took these test results more seriously more seriously than the Canadian government. Chile recently experienced a massive outbreak of ISA virus causing \$2 billion in losses, and thus is acutely aware of the destructive potential of the virus.

Dr. Klotins of the CFIA testified before the Cohen Commission that if ISA virus is confirmed in British Columbia, markets for farmed salmon could suddenly close. The CFIA’s stated top priority is “bolstering economic prosperity” (CFIA 2012). The Cohen Commission learned that the CFIA contemplated prohibiting all independent testing for ISA virus, a step that would have given an agency with little interest in protecting wild salmon complete control over the scientific evaluation of the presence and impact of ISA virus in British Columbia (Cohen Exhibit #2104). Given that the CFIA attributes enormous negative trade implications to a confirmed presence of this virus and views economic trade as its top priority, there appears to be no Canadian government mechanism to protect wild salmon from the requirements of international trade. The information revealed at the Cohen Commission also raises the question whether Canada’s trade partners have an accurate understanding of the risk of ISA virus contamination from British Columbia to virus-free areas.