

Chapter 1 • Introduction

The Commission's Terms of Reference direct me to investigate and make independent findings of fact regarding

the causes for the decline of Fraser River sockeye salmon including, but not limited to, the impact of environmental changes along the Fraser River, marine environmental conditions, aquaculture, predators, diseases, water temperature and other factors that may have affected the ability of sockeye salmon to reach traditional spawning grounds or reach the ocean[.]¹

In early 2010, the Commission began development of a science program. With the assistance of scientists from outside the Commission and prospective researchers, Commission staff identified the scope and range of the scientific issues that it intended to investigate. It was understood that the Commission had neither the time nor the resources to undertake or commission primary research. Instead, it would engage scientists to

conduct secondary research, drawing on published literature and existing data.

In June 2010, the Commission published a discussion paper that identified a wide range of fisheries management, fish biology, and ecosystem issues that I intended to examine.² Later that month, Commission counsel convened two days of hearings to solicit the participants' submissions on the issues the Commission had identified. In particular, the Commission wanted to know, first, whether there were issues other than those listed in the discussion paper that ought to be investigated and, second, the relative priority of those issues.

The participants provided valuable input that led to some revisions to the list and description of the issues. In July 2010, Commission counsel wrote to the participants, describing the technical projects, with the names of the proposed researchers, along with biographical information. After further consultation with the participants, the topics of the Commission's technical projects were finalized.

The Commission asked the contractors to produce technical reports detailing their findings. In most cases, contractors delivered their reports to the Commission by December 15, 2010. The reports were then peer reviewed, typically by three experts in the field or related fields. Following this review, the contractors made revisions and delivered their final versions by the end of January 2011.

While the technical reports were being prepared, Commission counsel and the participants

discussed several other issues that warranted examination. The Commission ultimately approved additional technical reports relating to the impacts of environmental conditions in the Lower Fraser River and Strait of Georgia, as well as an analysis of infectious diseases originating from salmon enhancement facilities on Fraser River sockeye salmon.

Ultimately, 15 technical reports became exhibits.* A list of these reports appears as Table 2.1.1.

Table 2.1.1 Cohen Commission technical reports

Technical Report number	Full title	Abbreviated title	Exhibit number
1	Infectious Diseases and Potential Impacts on Survival of Fraser River Sockeye Salmon	Infectious Diseases	1449
1A	Assessment of the Potential Effects of Diseases Present in Salmonid Enhancement Facilities on Fraser River Sockeye Salmon	Enhancement Facility Diseases	1454
2	Potential Effects of Contaminants on Fraser River Sockeye Salmon	Contaminants	826
3	Evaluating the Status of Fraser River Sockeye Salmon and Role of Freshwater Ecology in Their Decline	Freshwater Ecology	562
4	The Decline of Fraser River Sockeye Salmon <i>Oncorhynchus nerka</i> (Steller, 1743) in Relation to Marine Ecology	Marine Ecology	1291
5A	Summary of Information for Evaluating Impacts of Salmon Farms on Survival of Fraser River Sockeye Salmon	Salmon Farms and Sockeye Information	1543
5B	Examination of Relationships between Salmon Aquaculture and Sockeye Salmon Population Dynamics	Salmon Farms and Sockeye Relationships	1545
5C	Impacts of Salmon Farms on Fraser River Sockeye Salmon: Results of the Noakes Investigation	Noakes Salmon Farms Investigation	1536
5D	Impacts of Salmon Farms on Fraser River Sockeye Salmon: Results of the Dill Investigation	Dill Salmon Farms Investigation	1540
6	Fraser River Sockeye Salmon: Data Synthesis and Cumulative Impacts; and	Data Synthesis	1896
6 – Addendum	Addendum, Implications of Technical Reports on Salmon Farms and Hatchery Diseases for Technical Report 6	Data Synthesis Addendum	1575
7	Fraser River Sockeye Fisheries and Fisheries Management and Comparison with Bristol Bay Sockeye Fisheries	Fisheries Management	718
8	Predation on Fraser River Sockeye Salmon	Predation	783
9	A Review of Potential Climate Change Effects on Survival of Fraser River Sockeye Salmon and an Analysis of Interannual Trends in En Route Loss and Pre-spawn Mortality	Climate Change	553
10	Fraser River Sockeye Production Dynamics	Production Dynamics	748
12	Fraser River Sockeye Habitat Use in the Lower Fraser and Strait of Georgia	Lower Fraser Habitat	735

* Technical Report 11, DFO Science and Management was not entered as an exhibit and is not listed in Table 2.1.1; however, it is available on the Commission's website at www.cohencommission.ca.

To give readers an appreciation of the breadth and complexity of scientific and technical issues examined, I have included, as Appendix B to this volume, the executive summaries and tables of contents of these technical reports. The summaries include the researchers' conclusions, based on the available information. The complete technical reports are available on the Commission's website and are also included in the DVD accompanying this volume.

The Commission held hearings on all these technical report topics, at which one or more of each report's authors testified, in some cases alongside other witnesses. The Commission also held hearings on marine research and management, on habitat enhancement and restoration, and on other related stressors that were not the primary subject of technical reports, including:

- urbanization;
- pulp and paper effluent, mining effluent;
- municipal wastewater;
- gravel removal;

- forestry; and
- hydroelectric power, water flow, and temperature.

Transcripts of these hearings are available on the Commission's website, and are also included in the DVD accompanying this volume.

In the following chapters of this volume, I summarize the evidence from all these sources and make reference to submissions received from interested members of the public. These chapters consolidate the evidentiary record that is before this Commission. The text is intended to reflect what the contractors wrote in their reports, what witnesses said in their testimony, and what members of the public told me in their submissions. It should not be assumed that I necessarily agree with or endorse everything set out in these chapters – rather, they provide a summary of what I read and heard. My findings of fact and conclusions respecting the causes of the decline of Fraser River sockeye salmon will come later, in the final chapter of this volume.

Notes

- 1 Terms of Reference, a.i.C.I.
- 2 Available at <http://www.cohencommission.ca> and on the DVD accompanying this volume.