

Commission of Inquiry  
into the Decline of  
Sockeye Salmon in the Fraser River



Commission d'enquête  
sur le déclin des populations  
de saumon rouge du fleuve Fraser

# The Uncertain Future of Fraser River Sockeye

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Volume 1 • The Sockeye Fishery



Final Report – October 2012  
The Honourable Bruce I. Cohen, Commissioner

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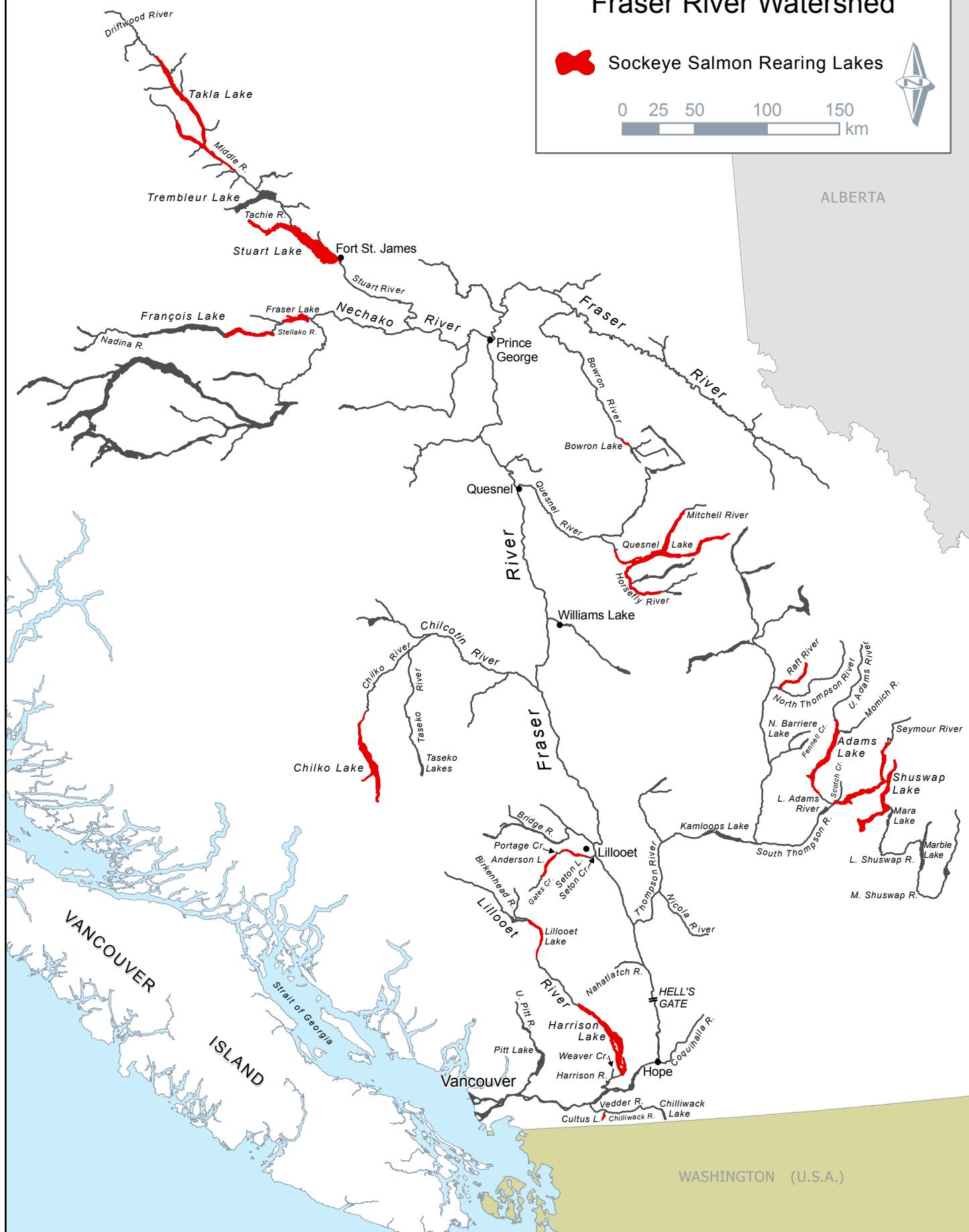
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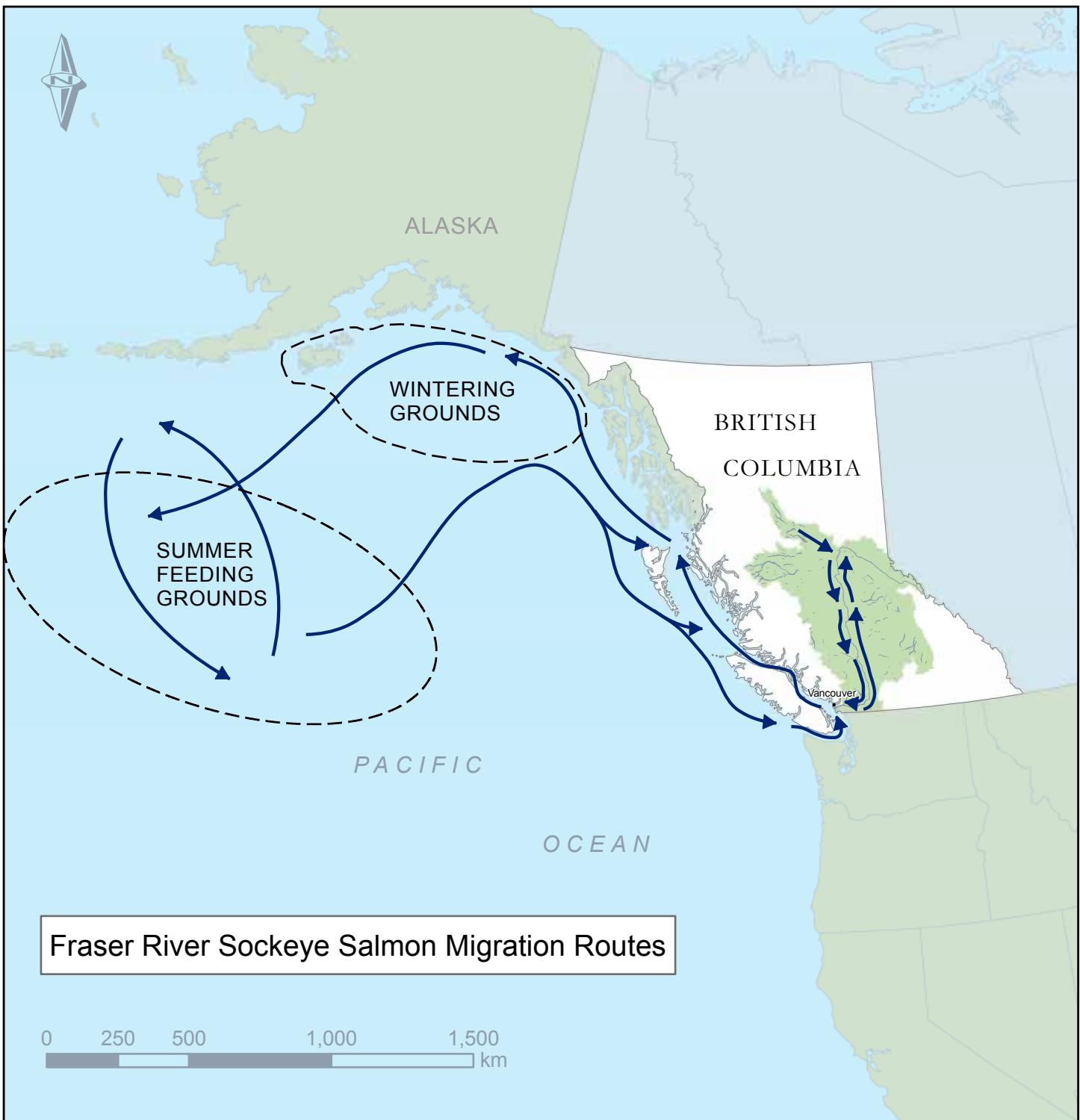
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## Fraser River Watershed

 Sockeye Salmon Rearing Lakes

0 25 50 100 150 km





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Commission d'enquête  
sur le déclin des populations  
de saumon rouge du fleuve Fraser

October 29, 2012

To His Excellency  
The Governor General in Council

May it please Your Excellency:

As Commissioner appointed by Order in Council PC 2009-1860, which was promulgated on November 5, 2009, pursuant to Part I of the *Inquiries Act*, and in accordance with the Terms of Reference assigned therein, I respectfully submit my final report.

The report sets out my findings resulting from public forums and submissions, the extensive review of documents, the conduct of evidentiary hearings, and the careful consideration of participants' submissions.

I trust that my report will contribute to an improved understanding of Fraser River sockeye salmon, and that my recommendations will improve the future sustainability of the sockeye salmon fishery in the Fraser River.

I consider it a privilege and an honour to have served as Commissioner.

A handwritten signature in black ink that reads "B Cohen".

The Honourable Bruce I. Cohen  
Commissioner

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COHEN COMMISSION OF INQUIRY  
into the Decline of Sockeye Salmon in the Fraser River



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Sockeye Salmon in the Fraser River



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sur le déclin des populations  
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# The Uncertain Future of Fraser River Sockeye

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## Volume 1 • The Sockeye Fishery

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**Final Report – October 2012**  
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## Volume 2 Causes of the Decline

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# Preface

In November 2009, the Governor General in Council issued Order in Council 2009-1860, establishing this Commission of Inquiry into the Decline of Sockeye Salmon in the Fraser River and appointing me, Bruce Cohen, sole Commissioner under Part 1 of the *Inquiries Act*. The Report of this Inquiry consists of three volumes. I describe the Terms of Reference of this Commission in Volume 1, Chapter 1, and set them out in full in Appendix A to each volume of this Report.

In Volume 1, The Sockeye Fishery, I set out the background information necessary for the reader to understand the complexity and breadth of the Fraser River sockeye salmon fishery. The chapters in Volume 1 cover several topics:

- an overview of the Commission's mandate;
- a description of the life cycle of the Fraser River sockeye salmon;
- an overview of the legal framework governing the Fraser River sockeye fishery;
- an overview of the organizational structure of the Department of Fisheries and Oceans (DFO);

- a description of the management of the Fraser River sockeye fishery;
- a description of the management of the Fraser River sockeye habitat;
- a description of DFO's enforcement activities related to the fishery and fish habitat;
- an overview of the management of salmon farms – an activity that may affect Fraser River sockeye;
- an overview of fish health management related to wild and cultured fish;
- a discussion of DFO's Wild Salmon Policy; and
- a case history of the Cultus Lake sockeye salmon.

Some subject matter is repeated among the chapters and volumes. Often, to describe aspects of how the fishery is managed (as set out in Volume 1), it is necessary to describe the technical and scientific information upon which management decisions are based. That scientific evidence may be repeated in Volume 2 in discussing the causes of the decline.

In Volume 2, Causes of the Decline, I focus on that section of the Terms of Reference (section C(I)) directing me to investigate and make independent findings of fact regarding the causes of the decline of Fraser River sockeye. I summarize the public submissions I received regarding the causes of the decline, other investigations into the decline, as well as the scientific reports prepared for the Commission exploring the different possible causes of the decline. I also discuss the testimony of numerous witnesses, many of whom were qualified as experts in their fields. Volume 2 includes a summary of the findings of fact I make regarding the possible causes of the decline of the Fraser River sockeye salmon.

Volume 3 contains my recommendations based on my review of the evidence and my findings set out in volumes 1 and 2. I also discuss Bill C-38, *An Act to implement certain provisions of the budget tabled in Parliament on March 29, 2012 and other measures*, which was introduced on April 26, 2012, after this Inquiry's evidentiary hearings had concluded, and which received royal assent on June 29, 2012. Bill C-38 amends the *Fisheries Act* and enacts a new *Canadian Environmental Assessment Act, 2012*. I summarize the provisions most relevant to the work of this Inquiry, record the views of the participants, and comment on the possible implications of Bill C-38 for Fraser River sockeye salmon and my recommendations respecting them. Volume 3 also provides an executive summary of this Report and a description of the Commission process.

Each volume includes appendices related to that volume. All three volumes contain the Terms of Reference, a glossary, and a list of abbreviations and acronyms.

#### **A note about references to submissions and views of witnesses and participants**

I refer to many views and opinions submitted by members of the public and participants in this Inquiry, to the testimony of witnesses, and to the documents and reports put before me. The issues dealt with in this Inquiry were the source of differing points of view. In many cases, the issues were matters of significant concern to the speakers or authors. In my effort to convey the intensity of these perspectives, I have quoted

submissions and evidence that may strike the reader as incorrect, and perhaps extreme. It is important for the reader to understand that I have been clear in the Report where I have made findings. The recitations of evidence and submissions are not findings. The reader should not interpret the reproduction or summary of evidence or submissions as my endorsement of any particular view.

#### **A note about sources of information for this Report**

Throughout this Report, I have tried to provide the reader with references to the sources of information I relied on by including a list of endnotes following each chapter. The sources are primarily documentary evidence (exhibits) and the testimony of witnesses (transcripts). I also refer to public submissions, which will be archived on our website ([www.cohencommission.ca](http://www.cohencommission.ca)). Occasionally, I refer to legislation and judicial decisions, as well as policy and practice reports prepared by Commission staff. In exceptional cases where the evidence was insufficient to explain something, such as an aspect of DFO's organizational structure, I refer to websites. Although they are up to date as of June 30, 2012, it must be kept in mind that websites change over time or become unavailable.

This Report is accompanied by a DVD that includes the transcripts from the hearings along with exhibits, technical reports, legislation, case law, and policy and practice reports relevant to this Report. The DVD also includes my rulings on issues that arose during the hearings, the participants' submissions, and the Interim Report and Final Report. Detailed maps included in the Report are also on the DVD and can be enlarged when viewed electronically.

Where it might be useful, I have tried to provide the page numbers of the transcripts and exhibits that I rely on. For most documents, the page number corresponds to the original pagination. If the original document was unpaginated but pagination was applied through the process of its disclosure to the Commission (see Volume 3, Chapter 5, Commission process) or by virtue of its being a PDF file, I have provided the corresponding page number.