

**CANADA–QUEBEC AGREEMENT ON THE
ST. LAWRENCE**

2011–2026

(St. Lawrence Action Plan 2011-2026)

The official document is the one that has been written in French and signed.

**CANADA–QUEBEC AGREEMENT ON THE ST. LAWRENCE
2011–2026**

BETWEEN

THE GOVERNMENT OF CANADA, hereinafter referred to as “Canada,” represented by:

The Minister of the Environment

AND

THE GOVERNMENT OF QUEBEC, hereinafter referred to as “Quebec,” represented by:

The Minister of Sustainable Development, Environment and Parks, and the Minister responsible for Canadian Intergovernmental Affairs and the Canadian Francophonie

Hereinafter referred to as “the Parties.”

PREAMBLE

WHEREAS the St. Lawrence is composed of a series of unique, vulnerable ecosystems;

WHEREAS the Parties exercise powers that define their actions with regard to the management of the St. Lawrence and the activities carried out on the St. Lawrence;

WHEREAS the Parties have been working together for over 20 years to conserve and enhance the St. Lawrence by means of agreements on the St. Lawrence;

WHEREAS the previous agreements have brought about many concrete, measurable results;

WHEREAS pressures continue to threaten the St. Lawrence ecosystem and require concerted action;

WHEREAS the Parties would like other decision makers and users to join them in working to conserve the biodiversity and resources of the St. Lawrence while contributing to the economic, social and cultural vitality of Quebec for the benefit of current and future generations;

WHEREAS the Governor in Council, pursuant to order 2011-1363, dated November 24, 2011, approves that the Minister of the Environment, on behalf of the Government of Canada, enters into this Agreement with the Government of Quebec; and

WHEREAS the Government of Quebec, pursuant to order 1167-2011, dated November 23, 2011, has approved this Agreement and authorized the Minister of Sustainable Development, Environment and Parks to sign it jointly with the Minister responsible for Canadian Intergovernmental Affairs and the Canadian Francophonie on behalf of Quebec;

NOW THEREFORE, the Parties agree to

- work together and concert their long-term efforts to conserve and enhance the St. Lawrence in a sustainable development perspective;
- materialize their efforts by implementing joint actions; and
- provide informed governance based on relevant, reliable knowledge,

as described hereafter in this Agreement, also called St. Lawrence Action Plan 2011-2026.

1. DEFINITIONS

The following definitions apply to this Agreement unless the context indicates otherwise:

Biodiversity

The variability among living organisms of all origins—including terrestrial, marine and other aquatic ecosystems—and the ecological complexes of which they are a part. This includes diversity within species, between species and of ecosystems.

Collaborators

Any entities, other than the participants, with which the participants collaborate to achieve common objectives.

Concertation

Mechanism by means of which the Parties reach an agreement in order to act in concert.

Confidential information

All confidential or proprietary information of a scientific, commercial, financial, legal, technical, strategic or marketing nature, shared by one of the Parties (the divulging party) with the other Party (the receiving party) under this Agreement. This information may be in an electronic, written, graphic or another visible form and must be clearly marked as “Confidential” or the equivalent. It may also be verbal when one Party expressly states to the other Party that the information is confidential and confirms that classification in writing no later than 20 days after divulging the information.

Conservation

Positive concept embracing protection, preservation, maintenance, sustainable use, restoration and enhancement of the natural environment.

Decision makers

The Parties to this Agreement, as well as any other individuals or corporations wielding decision-making powers with respect to conservation.

Ecosystem

System formed by an association or community of living beings (or biocenosis) and its geological, edaphic, hydrologic and climatic environment (biotope) interacting as a functional unit.

Governance

Set of organizational structures and operating rules agreed upon in order to implement integrated management of the St. Lawrence.

Joint actions

Projects developed under this Agreement that involve at least one Quebec department and at least one federal department or agency, and that bring added value to the participants' regular activities.

Participants

Government departments and agencies that may be involved in the joint actions carried out under this Agreement, as listed in section 8 of Appendix A – Management of the Agreement.

Resources

Components of the St. Lawrence that may be used by humans, such as water and biological communities (populations, habitats).

St. Lawrence

Set of ecosystems that includes the water, riverbed, shores, coastline, wetlands, barachois, the 600 or so islands and archipelagos, and the fluvial lakes from the Quebec-Ontario border to the Gulf of St. Lawrence inclusive.

Users

Individuals or corporations that use a resource or benefit from an ecological service of the St. Lawrence for commercial, subsistence, recreational, spiritual or other purposes.

2. PURPOSE

The purpose of this Agreement is to promote the continuation of the necessary efforts agreed upon to date by the Parties to implement integrated management of the St. Lawrence and to carry out joint actions to conserve and enhance the St. Lawrence. More specifically, the Parties commit to work together using an integrated, concerted approach for the conservation and enhancement of the St. Lawrence.

3. PRINCIPLES**3.1 Guiding principles**

The Parties agree that the following principles will guide all decisions made in implementing this Agreement:

a) Ecosystem approach – Interdependence of land, air, water and living organisms, including humans, and the need to make decisions that will maximize the benefits for the entire St. Lawrence ecosystem.

b) Sustainable development – Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development is based on a long-term approach that takes into account the inextricable

nature of the environmental, social and economic dimensions of development activities.

c) Prevention and precaution – In the presence of a known risk, preventive, mitigating and corrective actions must be taken, with priority given to actions at the source. When there are threats of serious or irreversible damage, lack of full scientific certainty must not be used as a reason for postponing the adoption of effective measures to prevent environmental degradation.

3.2 Application principles

The Parties agree to apply the following principles in implementing this Agreement:

a) Integrated management approach – Integrated management of the St. Lawrence is a permanent process based on the concertation of all decision makers and users in planning and ensuring better coordination of conservation measures and the use of this ecosystem's resources from a sustainable development perspective.

b) Intergovernmental cooperation – The Parties collaborate in accordance with their respective jurisdictions.

c) Public policy coordination and complementarity – To ensure effective, integrated management of the St. Lawrence ecosystem, it is important to make an effort to coordinate public policies and make them complementary.

d) Knowledge development, transfer and dissemination – Measures promoting knowledge development, research, and information access and transfer must be encouraged and maintained to stimulate the development and dissemination of knowledge about the St. Lawrence.

e) Sound management of public funds – The Parties advocate ensuring that available programs, activities and resources are complementary, and take advantage of common opportunities in order to achieve concrete results for the St. Lawrence.

4. PRIORITY ISSUES

4.1 The Parties have been working together since 1988 to conserve and enhance the St. Lawrence and to maintain and recover uses of the St. Lawrence. This collaboration has made it possible to achieve major concrete results in agricultural, industrial and urban clean-up; biodiversity conservation; sustainable navigation; improvement of human health; and community participation. However, more work is needed, not only to preserve these achievements, but also to address emerging issues. The St. Lawrence remains vulnerable owing to increased human activity, water level fluctuations, shoreline erosion, pollution, and invasive alien species. These pressures are exacerbated by climate change.

4.2 The Parties have identified the following three priority issues that will be the focus of participants' joint actions identified in Appendix E of this Agreement: biodiversity conservation, sustainable use and improved water quality. In addition, since climate change affects the evolution and dynamics of these issues, the Parties agree that it is important to take climate change into account in their approach to addressing the issues.

The Parties agree to describe the priority issues as follows:

4.2.1 Biodiversity conservation

Habitat loss and alteration are the greatest threats to biodiversity. When a habitat is lost or altered for whatever reason, the species that depend on it eventually experience population reduction. Wetlands are a particularly sensitive habitat and are very important to both animals and plants, because they host many species through all or part of their life cycles and help purify water and regulate water levels. The marine biodiversity of the St. Lawrence also requires special attention, because the marine ecosystems are under constantly increasing pressure. Invasive alien animal and plant species are another major threat to biodiversity. They can cause a decline in native species and irreversibly upset the natural balance that existed before they were introduced. Climate change also disturbs the

natural balance and may exacerbate threats to biodiversity, affecting both species and habitats.

Biodiversity conservation involves the preservation, restoration and sustainable use of the natural environment, and promotes variability in ecological complexes, ecosystems, habitats and species of all origins, including inter- and intraspecific diversity.

4.2.2 Sustainable use

Urban development, shoreline artificialization, and aquatic and riparian habitat degradation have resulted in the loss of many uses of the St. Lawrence. Some recreational, commercial, industrial and public uses of the St. Lawrence, as well as the quality of life of riverside residents, have been compromised by water quality and natural environment degradation, user conflicts, shoreline erosion, major water level fluctuations, and climate change.

Sustainable use involves sustainable management of fishery resources, maintenance and development of public access to the St. Lawrence, sustainable commercial and recreational navigation practices, and sufficient water flows to keep ecosystems healthy. Sustainable use also depends on efforts made to resolve conflicts among users.

4.2.3 Improved water quality

Point sources contaminating the water of the St. Lawrence have been fairly well identified and characterized. However, non-point source pollution, which is caused by nutrient inputs from agricultural sources and atmospheric inputs, is less well documented. The growing presence of emerging contaminants related to wastewater discharges and resuspension of contaminated sediments has been noted, but the effects of these contaminants on the environment and human health are not yet well understood. Furthermore, a number of problems persist, such as chemical and bacteriological contamination. Global and regional climate change will have a major impact on the St. Lawrence ecosystem, particularly on

- flow rates;
- water quality;
- the hydrologic cycle of the St. Lawrence (reduced summer flows, and faster or earlier spring floods after winter mild spells);
- the extent of dried-out areas (transformation of wetlands);
- shoreline erosion, including associated coastal floods and storms;
- drinking water supply; and
- commercial and recreational navigation.

Water quality can be improved by addressing the known or emerging problems affecting water quality, such as bacteriological and chemical contamination, the presence of factors that alter the physical integrity of environments, the presence of contaminated sites, the emergence of new contaminants, and point or non-point source pollution situations.

5. GOVERNANCE

5.1 The current and future issues of the St. Lawrence involve substantial, complex challenges. The Parties acknowledge that

- a) the sustainable development of the St. Lawrence must be implemented through integrated management of its ecosystems and a participatory governance;
- b) the governance of the St. Lawrence must involve the coordination and complementarity of programs, actions and mechanisms for concertation, while respecting the jurisdictions of the Government of Canada and the Government of Quebec;
- c) all decision makers must have access to the tools required to make informed decisions and take effective actions, where both the decisions and the actions are based on the best available scientific knowledge; and
- d) decision support tools are indispensable for implementing integrated management of the St. Lawrence and conducting public outreach.

5.2 To address these issues, the Parties agree that a two-level governance model will be put in place, one level corresponding to the region and the other corresponding to the entire St.

Lawrence, as presented in detail in Appendix B of this Agreement.

- 5.3** In order to support decision makers in the governance of the St. Lawrence, the Parties agree to maintain and improve decision support tools such as environmental monitoring and environmental prediction as presented in detail in Appendices C and D of this Agreement.

6. APPENDICES

6.1 The appendices are an integral part of this Agreement. The appendices focus on

- management of the Agreement (Appendix A)
- integrated management of the St. Lawrence (Appendix B)
- the State of the St. Lawrence Monitoring Program (Appendix C)
- the Numerical Environmental Prediction Program for the St. Lawrence (Appendix D)
- the 2011–2016 Joint Action Program on the St. Lawrence (Appendix E)
- information sharing and intellectual property rights (Appendix F)
- the financial contribution from Environment Canada to Quebec’s Ministère du Développement durable, de l’Environnement et des Parcs (Appendix G)

6.2 All appendices, except for Appendices E and G, will be reviewed in the year ending on March 31, 2016, and in the year ending on March 31, 2021.

7. REPRESENTATIVES OF THE PARTIES

For the purposes of this Agreement, the Parties agree to communicate through their respective representative, who can be reached at

a) For Canada

Regional Director General – Quebec Region
Environment Canada
1550 D’Estimauville Avenue, 7th floor
Québec, Quebec G1J 5A9
Telephone: 418-648-4077
Fax: 418-649-6213

b) For Quebec

Assistant Deputy Minister for Climate Change, Air and Water
Ministère du Développement durable, de l’Environnement et des Parcs
Marie Guyart Building, 30th floor
675 René Lévesque Boulevard East
Québec, Quebec G1R 5V7
Telephone: 418-521-3861
Fax: 418-643-9990

8. DURATION AND AMENDMENTS

8.1 The Agreement will come into effect on the date on which it is signed by the second of the two Parties. However, the accounting period for investments begins on April 1, 2011. The Agreement ends on March 31, 2026, except for Appendices E and G, which end on March 31, 2016.

8.2 Any amendment to the Agreement must be consistent with the applicable legislation of each Party and approved by their mutual written consent.

8.3 Either Party may terminate the Agreement after notifying the other Party in writing at least 12 months in advance.

8.4 The Agreement constitutes the complete and entire agreement between the Parties. It supersedes all communications, negotiations, representations, promises, guarantees and agreements, written or oral, on this subject made between the Parties prior to the signature of this Agreement.

9. FINANCIAL CONSIDERATIONS

9.1 The expenditures that each Party must incur to carry out the joint actions provided for under this Agreement are subject to the condition that the Parliament of Canada and the National Assembly of Quebec must vote on the appropriation of money to fund the Agreement for the fiscal years during which the expenditures will be required. Expenditures will also be subject to the spending authorities approved by the Parties' respective treasury board secretariats.

9.2 The financial resources identified in this Agreement may be adjusted during the course of the Agreement by the participants involved, who must notify the representatives of the Parties in writing.

10. NO PARTNERSHIP

The Parties acknowledge that no principal-agent or employer-employee relationship, partnership or joint venture is being formed under this Agreement.

11. CONFIDENTIALITY

11.1 The Parties may share confidential information for the purposes of this Agreement. In such cases, the disclosing party agrees to identify the information by writing the word «Confidential» on it or by any equivalent means, and the receiving party agrees to keep it confidential.

11.2 The receiving party of confidential information may not disclose this information to anyone else, other than persons who need to know the information for the purposes of this Agreement, without the prior written consent of the disclosing party. If these persons are third parties, they must agree to keep such information confidential under the same terms as are spelled out in this section.

11.3 The receiving party of confidential information agrees to protect the confidential information of the disclosing party using measures as stringent as those used to protect its own confidential information.

11.4 Information identified as being confidential will not be considered confidential if

- a) the information has been legitimately made public without breach of confidentiality obligations by anyone;
- b) the information was already in the possession of the receiving party before it was disclosed by the disclosing party, and the receiving party is already free to disclose the information without breaching any obligations;
- c) the information becomes accessible and originates from sources not covered by the Agreement that have a legitimate right to disclose the information to others; or
- d) the information was developed by the receiving party before its receipt and independently from work carried out for projects under this Agreement.

11.5 It is agreed that the Parties' confidentiality obligations are subject to applicable legislation or court orders. Before communicating any information that is considered confidential under an act or court order, the receiving party of confidential information will attempt to notify the disclosing party of such confidential information as soon as possible in order to allow the disclosing party to take appropriate legal or other measures to prevent disclosure or obtain a court order protecting the content of the information at issue.

12. SURVIVAL OF OBLIGATIONS

All of the representations and obligations of each Party that are set out in this Agreement and that, by their nature, must survive the expiry or termination of this Agreement will survive the expiry or termination of this Agreement until they have been fulfilled or have, by their nature, expired.

13. WAIVER OF RIGHTS

The waiving of any rights in the event of a breach of any representation, guarantee, commitment or obligation will not be considered a waiver in the event of any other breach. Only written waivers will be considered valid.

14. APPLICABLE LAW

This Agreement is governed by the applicable law in Quebec.

15. DISPUTE RESOLUTION

The Parties agree to collaborate in order to prevent and, if necessary, resolve any disputes concerning the implementation or interpretation of the Agreement.

If a dispute arises, the Parties will try to resolve it in good faith. If the Parties are unable to resolve the dispute within sixty (60) days, they can jointly agree, in writing, to ask a third party to mediate by reviewing the facts to resolve the dispute. Each Party agrees to share, no less than ten (10) days before the date set for the mediation, all information on which it plans to base any oral or written presentation for the mediation. The fees and expenses of the neutral third party will be borne equally by the Parties. The Parties agree to negotiate any other rules governing the mediation in good faith.

SIGNED, SEALED AND DELIVERED IN DUPLICATE

FOR THE GOVERNMENT OF CANADA

Peter Kent
Minister of the Environment

Date: _____

FOR THE GOVERNMENT OF QUEBEC

Pierre Arcand
Minister of Sustainable Development,
Environment and Parks

Yvon Vallières
Minister responsible for Canadian
Intergovernmental Affairs and the Canadian
Francophonie

Date: _____

APPENDIX A
MANAGEMENT OF THE AGREEMENT

1. PURPOSE

This appendix sets out terms and conditions for the management of the Agreement. These terms and conditions will contribute to the achievement of the expected objectives and results and to the effectiveness and coherence of the actions.

2. OBJECTIVES

The main objectives of this appendix are to

- a) state the management structure for the implementation and monitoring of the Agreement;
- b) state the Parties' commitments regarding joint communications; and
- c) state the Parties' financial commitments for the purposes of this appendix.

3. CO-CHAIRS OF THE AGREEMENT

3.1 The management of the Agreement contributes to the achievement of objectives and expected results, to the effectiveness and coherence of the actions, to decision making, to communications, and to the monitoring of the Parties' commitments. In order to ensure the implementation of the Agreement, the Parties agree to appoint co-chairs.

3.2 Co-chairs of the Agreement

- a) The co-chairs of the Agreement are
 - i. for Canada, the Regional Director General, Quebec Region, of Environment Canada; and
 - ii. for Quebec, the Assistant Deputy Minister for Climate Change, Air and Water of the Ministère du Développement durable, de l'Environnement et des Parcs.
- b) The roles and responsibilities of the co-chairs are to
 - i. oversee the implementation of the Agreement; and
 - ii. obtain the Parties' approval for amendments to the Agreement.

4. MANAGEMENT STRUCTURE OF THE AGREEMENT

The management structure of the Agreement, as illustrated in Figure 1, consists of

- the Agreement Steering Committee (section 4.1);
- the Agreement Executive Committee (section 4.2);
- the Agreement Secretariat (section 4.3);
- three Issue Committees for the Joint Action Program (section 4.4); and
- two Working Groups (section 4.5).

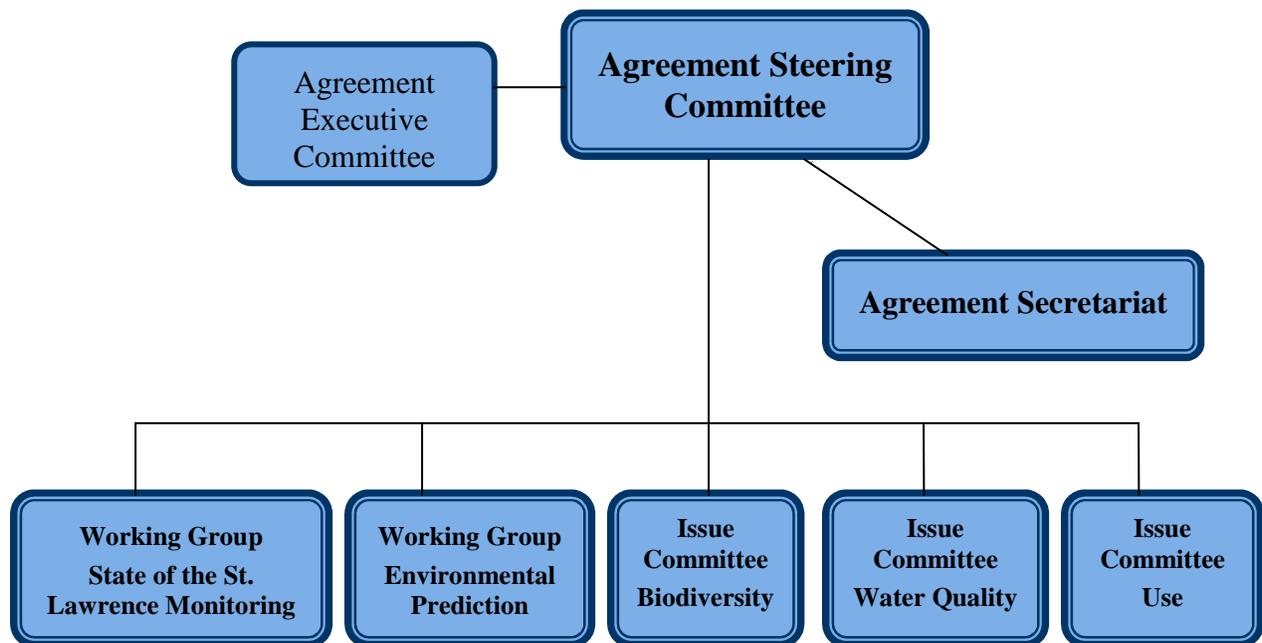


Figure 1: Management structure of the Agreement

4.1 Agreement Steering Committee

4.1.1 Composition

The Agreement Steering Committee will be composed of

- a) the Agreement co-chairs;
- b) the co-secretaries responsible for the Agreement Secretariat, appointed by the Agreement co-chairs;
- c) one representative of each participant, as listed in section 8 below;
- d) four representatives of the Agreement Secretariat—two from Environment Canada and two from the Ministère du Développement durable, de l'Environnement et des Parcs—responsible for coordinating the Agreement and communications;
- e) the Issue Committee and Working Group co-chairs; and
- f) the co-chairs of the Concertation Committees that are taking part in carrying out the Joint Action Program.

4.1.2 Roles and responsibilities

The Agreement Steering Committee will

- a) oversee the management of the Agreement;
- b) delegate to the Executive Committee the responsibility for implementing the decisions made by the Agreement Steering Committee and overseeing day-to-day business;
- c) ensure that a forum on the St. Lawrence is held annually, as described in Appendix B;
- d) report regularly on the progress accomplished with regard to the orientations and objectives agreed upon in this Agreement;
- e) recommend amendments to the Agreement to the co-chairs, if necessary; and
- f) recommend any other measures required for the implementation of the Agreement to the co-chairs.

4.1.3 Implementation and operation

- a) As soon as possible following the signature of the Agreement, and as necessary during the course of the Agreement, the co-chairs shall confirm in writing the names of the members of the Agreement Steering Committee.
- b) The annual schedule for meetings of the Agreement Steering Committee will be determined ahead of time. The Agreement Steering Committee will hold three thematic meetings a year focusing respectively on the three priority issues identified in the Agreement, namely biodiversity conservation, sustainable use, and improved water quality.
- c) If a member is unable to attend a meeting, he or she will be replaced by his or her designated substitute. The designated substitute member must be able to make decisions on behalf of the organization that he or she represents.
- d) Decisions by the members of the Agreement Steering Committee will be consensus-based whenever possible. If a consensus cannot be reached on a given topic, the decision will be made by consensus by six members of the Agreement Steering Committee, namely three members chosen from each Party in accordance with the subject matter under discussion.

4.2 Agreement Executive Committee

4.2.1 Composition

The Agreement Executive Committee will be composed of

- a) the Agreement co-chairs;
- b) the co-secretaries; and
- c) two representatives of the Agreement Secretariat, namely one from Environment Canada and one from the Ministère du Développement durable, de l'Environnement et des Parcs.

4.2.2 Roles and responsibilities

The Agreement Executive Committee will

- a) implement the decisions made by the Agreement Steering Committee and oversee day-to-day administrative business connected with the Agreement; and
- b) organize the meetings of the Agreement Steering Committee and ensure follow-up on action items.

4.2.3 Implementation

As soon as possible following the signature of the Agreement, and as necessary during the course of the Agreement, the co-chairs shall confirm in writing the names of the members of the Agreement Executive Committee.

4.3 Agreement Secretariat

4.3.1 Composition

The Agreement Secretariat will be composed of

- a) the co-secretaries;
- b) the representatives of Environment Canada and the Ministère du Développement durable, de l'Environnement et des Parcs who are responsible for coordinating the Agreement; and

- c) two communications advisors, namely one from Environment Canada and one from the Ministère du Développement durable, de l'Environnement et des Parcs.

4.3.2 Roles and responsibilities

The Agreement Secretariat will

- a) continuously monitor the progress of the joint actions provided for in Appendices C, D and E with the co-chairs of the Issue Committees and Working Groups;
- b) provide coordination and logistical support to the three Issue Committees and two Working Groups;
- c) liaise with the Issue Committees, Working Groups, Concertation Committees and other concertation groups;
- d) support the Agreement Steering Committee and Agreement Executive Committee in their responsibilities; and
- e) coordinate the dissemination of information about the Agreement to the public.

4.3.3 Implementation

As soon as possible following the signature of the Agreement, and as necessary during the course of the Agreement, the co-chairs shall confirm in writing the names of the members of the Agreement Secretariat.

4.4 Joint Action Program Issue Committees

An Issue Committee will be established for each of the three priority issues of the Agreement, namely biodiversity conservation, sustainable use, and improved water quality. These committees will be responsible for monitoring the progress of the joint actions in Appendix E, reporting on the achievement of set objectives, identifying obstacles to carrying out projects and opportunities for developing other projects, in order to report on their work to the Agreement Steering Committee.

4.4.1 Composition

The Issue Committees will be composed of

- a) the Issue Committee co-chairs, namely one representing the federal government and one representing the Quebec government, appointed by the Agreement co-chairs;
- b) representatives of the project leaders;
- c) two representatives of the Agreement Secretariat, namely one from Environment Canada and one from the Ministère du Développement durable, de l'Environnement et des Parcs;
- d) one communications advisor, from either Environment Canada or the Ministère du Développement durable, de l'Environnement et des Parcs; and
- e) other participants or collaborators as necessary.

4.4.2 Roles and responsibilities

Each Issue Committee will

- a) continuously monitor the progress of projects carried out under Appendix E with the project leaders;
- b) report annually to the Agreement Steering Committee on the progress of the projects and the achievement of the objectives;

- c) communicate concerns stemming from its work to the Agreement Steering Committee; and
- d) delegate representatives to attend the Forum on the St. Lawrence.

4.4.3 Implementation

As soon as possible following the signature of the Agreement, and as necessary during the course of the Agreement, the co-chairs of each Issue Committee shall confirm in writing the names of the committee members.

4.5 Working Groups

The Working Groups will bring together experts from the federal government and the Quebec government with the goal of combining their efforts in state of the St. Lawrence monitoring and in environmental prediction. The results of their work will help support decision making regarding the St. Lawrence.

4.5.1 Composition

Each Working Group will be composed of

- a) the Working Group co-chairs, namely one representing the federal government and one representing the Quebec government, appointed by the Agreement co-chairs;
- b) one representative of each participant involved in Appendices C or D of the Agreement;
- c) two representatives of the Agreement Secretariat—one from Environment Canada and one from the Ministère du Développement durable, de l'Environnement et des Parcs—responsible for coordinating the Agreement;
- d) one communications advisor, from either Environment Canada or the Ministère du Développement durable, de l'Environnement et des Parcs; and
- e) other participants or collaborators as necessary.

4.5.2 Roles and responsibilities

Each Working Group will

- a) implement the programs provided for under Appendices C or D;
- b) report annually to the Agreement Steering Committee on the progress of its work;
- c) communicate concerns stemming from its work to the Agreement Steering Committee; and
- d) delegate representatives to attend the Forum on the St. Lawrence.

4.5.3 Implementation

As soon as possible following the signature of the Agreement, and as necessary during the course of the Agreement, the co-chairs of each Working Group shall confirm in writing the names of the group members.

5. CONCERTATION COMMITTEES

5.1 Thematic Concertation Committees will be acknowledged or established by the Agreement Steering Committee to address crosscutting or specific problematics. These committees will be composed of representatives of the federal government and the Quebec government, as well as collaborators involved in the problematics in question.

5.2 The Concertation Committees will play an advisory role within the Agreement Steering Committee, as shown in Figure 2 below.

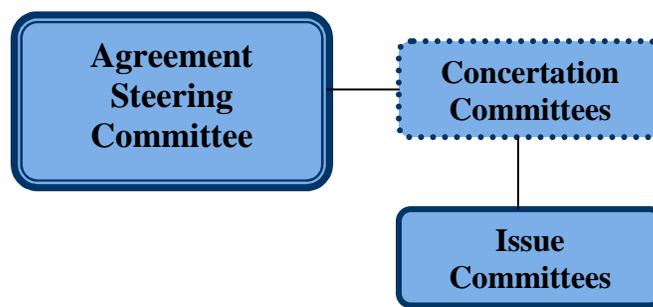


Figure 2: Relationship of the Concertation Committees to the Agreement management structure

5.3 In addition to promoting concertation with a view to developing action plans and intervention strategies, the Concertation Committees must also report to the Issue Committees on their projects under the Joint Action Program. Furthermore, the co-chairs of the Concertation Committees will be members of the Agreement Steering Committee, will communicate concerns stemming from their concertation, and will be invited to participate in the Forum on the St. Lawrence.

6. JOINT COMMUNICATIONS

6.1 Since the St. Lawrence is a part of daily life for most Quebec residents and is the focus of growing interest among the public at large, it is vital to communicate the results of the Agreement to all clienteles, including participants, collaborators and users. The Parties therefore agree that

- a) two advisors, namely one from Environment Canada and one from the Ministère du Développement durable, de l'Environnement et des Parcs, will support all communications files, with the cooperation of the members of the Agreement Secretariat, Issue Committees and Working Groups; and
- b) the main communication tool for promoting the Agreement and disseminating information on the work carried out under the Agreement will be a joint Canada–Quebec website with a style and structure specific to the St. Lawrence Action Plan. The Parties must agree on the site's content and terms of use, which are included in a communications protocol as set out in section 6.4..

6.2 Communications must comply with applicable legislation, including, without being limited to, access to information legislation, privacy legislation, and the terms of this Agreement.

6.3 Joint communications under the Agreement are of two types, namely general communications and sectoral communications. General communications are communications under the Agreement issued on behalf of the Parties to the Agreement. Sectoral communications are carried out under the Agreement on behalf of Issue Committees, Working Groups or Concertation Committees and convey information about specific projects or activities.

6.5 In order to establish the broad parameters for communications activities related to commitments, the Parties agree to jointly develop a communications protocol that shall be approved by the Agreement Steering Committee. More specifically, the communications protocol shall allow for:

- setting out the guiding principles of communications with respect to advertising, promotion, media relations, corporate identity, event planning (such as press conferences, public announcements and other joint ceremonies) and publishing, including on the Internet;
- helping all target audiences to have access to comprehensive information that is of high quality, objective and comprehensive related to the mandates, activities and achievements of the Agreement;

- equitable representation and visibility for Parties in the implementation of the Agreement and for the completion of joint activities;
- linkage of communications with the programs and initiatives of Quebec and Canada.

6.4 Communications advisors shall propose directions for communications annually, develop and update an annual communications plan, provide the necessary support for the implementation of communications activities as per the communications protocol and report to the Agreement Steering Committee.

7. 2011–2016 FINANCIAL COMMITMENTS

The financial commitments for this appendix pertain to the implementation and operation of the Agreement Secretariat and to general communications under section 6. Budgets planned for sectoral communications as well as for participation of representatives in the Issue Committees, Working Groups, Agreement Executive Committee and Agreement Steering Committee are the financial responsibility of each participant concerned.

Table 1 below shows the forecasted budgets for each participant involved in this appendix.

Table 1: Summary of Financial Commitments – 2011 to 2016 (\$ K)

Objective	Quebec	Canada
	MDDEP	EC
Coordination and logistical support	899.0	3,195.0
General communications	456.0	611.0
Total Quebec / Canada	1,355.0	3,806.0
TOTAL	5,161.0	

8. LIST OF PARTICIPANTS

AAFC	Agriculture and Agri-Food Canada
CEAA	Canadian Environmental Assessment Agency
CSA	Canadian Space Agency
DFO	Fisheries and Oceans Canada
EC	Environment Canada
HC	Health Canada
MAMROT	Ministère des Affaires municipales, des Régions et de l'Occupation du territoire du Québec
MAPAQ	Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec
MDDEP	Ministère du Développement durable, de l'Environnement et des Parcs du Québec
MRNF	Ministère des Ressources naturelles et de la Faune du Québec
MSP	Ministère de la Sécurité publique du Québec
MSSS	Ministère de la Santé et des Services sociaux du Québec
MTO	Ministère du Tourisme du Québec
MTQ	Ministère des Transports du Québec

PCA	Parks Canada Agency
PHAC	Public Health Agency of Canada
PWGSC	Public Works and Government Services Canada
TC	Transport Canada

APPENDIX B
INTEGRATED MANAGEMENT OF THE ST. LAWRENCE

1. PURPOSE

- 1.1** The management of the St. Lawrence is a challenge. The governments of Canada and Quebec each have fields of jurisdiction allowing them to take action on the St. Lawrence. Each carries out activities under programs implemented by various government departments and agencies. Users of the St. Lawrence also carry out activities of their own. This situation calls for the implementation of a management approach that will reconcile all of these activities and thus ensure consistency among them.
- 1.2** The governments of Canada and Quebec base this approach on mechanisms for concertation among all decision makers and users of the St. Lawrence. The purpose of this appendix is to set out the terms and conditions of the approach.

2. OBJECTIVES

The main objectives of this appendix are to

- a) define the terms and conditions for the implementation of integrated management of the St. Lawrence (IMSL); and
- b) identify the Parties' financial commitments in connection with this appendix.

3. INTEGRATED MANAGEMENT OF THE ST. LAWRENCE MECHANISMS

- a) To ensure integrated management of the St. Lawrence, the Parties commit to implement a process for concertation among the stakeholders involved in issues related to the St. Lawrence, in accordance with their respective jurisdictions. This process involves the organization of an annual forum on the St. Lawrence and the implementation of regional round tables (RRTs).
- b) For issues specifically concerning the Quebec portion of the Gulf of St. Lawrence, stakeholders will collaborate by means of the mechanisms developed and implemented under the Agreement, namely the Forum on the St. Lawrence (the Forum), the RRTs, and the Concertation Committees operating under the Joint Action Program, as described in Appendix E.

3.1 Forum on the St. Lawrence

- 3.1.1** The Forum is an annual event attended by St. Lawrence stakeholders, namely governmental and non-governmental representatives who have responsibilities or interests connected with the management of the resources and uses of the St. Lawrence.
- 3.1.2** The objectives of the Forum are to
- a) provide all stakeholders with an opportunity for concertation;
 - b) discuss crosscutting issues;
 - c) share information, ideas and solutions pertaining to the issues; and
 - d) submit any opinions to the Agreement Steering Committee.
- 3.1.3** The Agreement Steering Committee is responsible for deciding on the content of the Forum, and the Secretariat is responsible for organizing the Forum. Participation in the Forum is by invitation only.

3.2 Regional round tables (RRTs)

- 3.2.1** The RRTs are permanent and autonomous. Their mission is to get the various regional stakeholders involved in the management of the resources and uses of the St. Lawrence for optimal harmonization of their actions in order to contribute to the integrated management of the St. Lawrence.
- 3.2.2** The identification of common orientations by the members of the RRT must be based on

the best available knowledge (whether scientific, socio-economic, technical or traditional), must respect the mandates and responsibilities of each participant, and must be consensus based.

3.2.3 The objectives are to

- a) promote concertation between the regional stakeholders involved in St. Lawrence issues in a targeted area, using the integrated management approach; and
- b) contribute to the development, adoption and monitoring of the implementation of a Regional Integrated Management Plan (RIMP).

3.2.4 The Quebec government will designate a regional organization of its choice for each zone of the St. Lawrence to be in charge of facilitating and coordinating the RRT. This organization will be responsible for ensuring that the interests of all stakeholders involved in St. Lawrence issues in a targeted area receive fair representation.

3.2.5 Under the RRT, the priority intervention zone (ZIP) committees will be assigned to coordinate the development and preparation of the RIMP, which they will help implement. However, in the Montréal and Quebec City areas, the ZIP committees will be invited to participate in the RRT and will be given mandates to be determined with the RRT. In areas where RRTs have not yet been established, the ZIP committees will continue their concertation activities in order to pave the way for the potential establishment of an RRT.

3.2.6 A total of 12 RRTs will gradually be established. During the first five years following the signature of the Agreement, six RRTs will be established in the areas corresponding to the Montréal region, Lake Saint-Pierre, the Quebec City region, the northern lower estuary, the southern lower estuary, and the Magdalen Islands. Six other RRTs will subsequently be established in the areas corresponding to the fluvial estuary, the northern upper estuary, the southern upper estuary, the northern Gulf, the southern Gulf, and Chaleur Bay, thus covering the entire St. Lawrence.

4. 2011–2016 FINANCIAL COMMITMENTS

4.1 Table 1 below shows the forecasted budgets for each participant in connection with supporting the implementation of IMSL:

Table 1: Support for the Implementation of IMSL – 2011 to 2016

Objective	Budget (\$ K)		
	Quebec	Canada	
	MDDEP	EC	DFO
Support the coordination of six RRTs	2,400.0		
Develop and implement the RIMPs (ZIP)	550.0	1,100.0	
Organize and hold five forums on the St. Lawrence	250.0	125.0	125.0
Support the implementation of IMSL	570.0		
Total Participant	3,770.0	1,225.0	125.0
Total Quebec/Canada	3,770.0	1,350.0	
TOTAL	5,120.0		

4.2 Table 2 below shows the forecasted budgets for each participant in connection with the ZIP program:

Table 2: ZIP Program – 2011 to 2016

Objective	Budget (\$ K)	
	MDDEP	EC
Support concertation activities (ZIP Program*)	15.0	4,800.0
TOTAL	4,815.0	

* The ZIP program supports the ZIP committees and Stratégies Saint-Laurent in their concertation activities for local stakeholders operating along the St. Lawrence.

APPENDIX C
STATE OF THE ST. LAWRENCE MONITORING PROGRAM

1. DEFINITIONS

In addition to the definitions stated in the Agreement, the following definitions apply to this appendix:

Environmental information

All information resulting from the State of the St. Lawrence Monitoring Program that can be used to describe, understand, monitor or explain the state of the St. Lawrence and document the need for intervention.

Environmental indicator

A datum or statistic that makes it possible to qualify a characteristic of the environment.

2. PURPOSE

This appendix states the terms and conditions for the implementation and operation of the State of the St. Lawrence Monitoring Program (SSLMP). The purpose of this program is to coordinate the environmental monitoring activities carried out by the participants and their collaborators on the entire St. Lawrence and its riparian strip.

3. PRINCIPLES

The Parties acknowledge that the following principles will guide all decisions made in implementing this appendix:

- a) **Flexible, efficient coordination** – Given the diversity of the participants in the implementation of this appendix and their autonomy in the collection, interpretation and dissemination of data or information, a coordination mechanism is put in place to ensure consistency within the SSLMP. This coordination mechanism will apply on three levels: the implementation of monitoring activities; the integration and dissemination of information; and the evolution of the monitoring program.
- b) **Evolution** – The participants in the implementation of this appendix agree that the SSLMP must evolve with changing scientific knowledge to allow for better definition of the monitoring elements, issues and client expectations.
- c) **Synergy and integration** – The participants in the implementation of this appendix commit to implementing the monitoring elements for which they have agreed to be responsible. More specifically, they will provide regular status reports on changes in the St. Lawrence as a whole, leveraging the synergy created by all of the participants. This type of status report on the St. Lawrence will not materialize unless an effective integration mechanism is set up to link the various monitoring activities undertaken individually by the participants. These links will be established through consultations among the participants.
- d) **Promptness** – The Working Group on State of the St. Lawrence Monitoring, which will be responsible for coordinating and implementing the SSLMP, will act quickly to promote collaboration among the participants.
- e) **Complementarity** – The SSLMP participants agree that effective, efficient environmental monitoring of the St. Lawrence must be complementary to the efforts of all SSLMP participants, to avoid duplicating their respective monitoring activities.

4. OBJECTIVES

The purpose of this appendix is to confirm the participants' commitment to ensuring the sustainability of the SSLMP by maintaining environmental monitoring and information dissemination activities.

The resulting environmental data and information will be used to facilitate decision making and

determine appropriate measures for promoting St. Lawrence conservation. The data required pertain to a set of environmental variables representing the main environmental components and are based on sufficient temporal and spatial coverage.

The objectives of the monitoring program are as follows:

4.1 To report on the state and evolution of the St. Lawrence using scientific information generated by the SSLMP by:

- a) grouping together the environmental monitoring activities carried out on the St. Lawrence by the participants, selected on the basis of their relevance for the entire St. Lawrence and its riparian strip;
- b) optimizing the participants' acquisition of environmental data on the St. Lawrence to avoid duplication of efforts;
- c) maximizing the environmental information that is obtained by interpreting it in light of the data collected through other SSLMP monitoring activities.

The monitoring activities agreed upon by the participants in the implementation of this appendix at the date of entry into force of this Agreement are listed in Table 1 below. For each monitoring element, the table lists the corresponding component, the data collection frequency, and the next deadline for collecting new data.

4.2 To regularly disseminate information to decision makers and riverside communities about the health of and changes in the St. Lawrence River using means that are tailored to their needs and that facilitate access to information by

- a) providing decision makers with integrated environmental information that allows changes in the state of the St. Lawrence to be presented in order to support decision making with regard to the St. Lawrence;
- b) providing the public with integrated environmental information and an overview of the health of and changes in the St. Lawrence; and
- c) regularly producing and disseminating information stemming from the various environmental indicators that make up the SSLMP.

Table 2 below shows the schedule for dissemination activities during the course of the SSLMP.

4.3 The tables referred to in this appendix are as follows:

Table 1, showing the monitoring activities planned by SSLMP participants from 2011 to 2026; and

Table 2, showing the schedule for disseminating the results of the SSLMP from 2011 to 2026.

Table 1: State of the St. Lawrence Monitoring Activities – 2011 to 2026

No.	COMPONENT		ELEMENT	COLLECTION FREQUENCY	COLLECTION DEADLINE	PARTICIPANT RESPONSIBLE
1	Water		Water flows and levels through the hydrometric network	15 min. to hourly		EC/MDDEP/DFO ¹
2	Water		Water contamination by toxic substances in the river	Twice a month		EC/MDDEP
3	Water		Water contamination by organic toxic substances at the mouths of the Richelieu and Yamaska rivers	Twice a month		MDDEP
4	Water	*	Physico-chemical and bacteriological parameters of the water in the river	Monthly		MDDEP
5	Water	☒	Physico-chemical parameters of the water in the estuary and gulf	Annually		DFO
6	Water	*	Shellfish water quality in the estuary and gulf	Every two months to annually		EC
7	Sediments (riverbed)		Toxic contamination in sediments in the fluvial lakes	10 years per lake		EC
8	Bio. resources		Surface area of freshwater wetlands	10 years	2012	EC
9	Bio. resources		Benthic macro-invertebrate communities	Annually		EC
10	Bio. resources		Monitoring of freshwater fish communities	5 years	2011	MRNF
11	Bio. resources	*	Toxic contamination of freshwater fish	5 years	2014	MDDEP
12	Bio. resources	☒	Phytoplankton communities in the estuary and gulf	Annually		DFO
13	Bio. resources	☒	Zooplankton communities in the estuary and gulf	Annually		DFO
14	Bio. resources	☒	Monitoring of toxic algae in the estuary and gulf	Annually		DFO
15	Bio. resources		Status of seabird populations	5 years	2010	EC
16	Bio. resources		Status of the Northern Gannet population	5 years	2014	EC
17	Bio. resources		Status of the Great Blue Heron population	4 years	2011	EC
18	Bio. resources		Status of the Beluga Whale population	3 years	2012	DFO
19	Bio. resources		Status of the Striped Bass population	Annually		MRNF
20	Bio. resources		Monitoring of invasive species in the St. Lawrence	Annually	2016	MDDEP/DFO/MRNF
21	Shoreline		Land cover monitoring	10 years	2013	EC

¹ Hydrologic monitoring of the St. Lawrence is conducted with other collaborators: Hydro-Québec, U.S. Geological Survey, New York Power Authority/Ontario Power, St. Lawrence Seaway.

* Monitoring of these elements is based on criteria for public use.

☒ These components are part of DFO's Atlantic Zone Monitoring Program.

Table 2: Schedule of Activities for Disseminating the Results of the SSLMP – 2011 to 2026

Component	Monitoring Activity	Participant Responsible	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	Factsheet																	
Water	Water flows and levels through the hydrometric network	EC/MDDEP/DFO ¹	X				X				X				X			
Water	Water contamination by toxic substances in the river	EC/MDDEP		X			X			X			X			X		
Water	Water contamination by organic toxic substances at the mouths of the Richelieu and Yamaska rivers	MDDEP				X					X					X		
Water	Physico-chemical and bacteriological parameters of the water in the river	MDDEP	X					X					X					X
Water	Physico-chemical parameters of the water in the estuary and gulf	DFO			X					X					X			
Water	Shellfish water quality in the estuary and gulf	EC		X			X			X			X			X		
Sediments	Toxic contamination in sediments in the fluvial lakes	EC		X			X			X			X			X		
Bio. res.	Surface area of freshwater wetlands	EC		X					X					X				
Bio. res.	Benthic macro-invertebrate communities	EC		X			X			X			X			X		
Bio. res.	Monitoring of freshwater fish communities	MRNF				X					X					X		
Bio. res.	Toxic contamination of freshwater fish	MDDEP					X					X					X	
Bio. res.	Phytoplankton communities in the estuary and gulf	DFO			X					X					X			
Bio. res.	Zooplankton communities in the estuary and gulf	DFO			X					X					X			
Bio. res.	Monitoring of toxic algae in the estuary and gulf	DFO			X					X					X			
Bio. res.	Status of seabird populations	EC	X					X					X					X
Bio. res.	Status of the Northern Gannet population	EC	X					X					X					X
Bio. res.	Status of the Great Blue Heron population	EC				X					X					X		
Bio. res.	Status of the Beluga Whale population	DFO				X					X					X		
Bio. res.	Status of the Striped Bass population	MRNF				X					X					X		
Bio. res.	Monitoring of invasive species in the St. Lawrence	MDDEP/DFO/ MRNF			X			X			X			X			X	
Shoreline	Land cover monitoring	EC					X										X	
	Publications – Overview (5 years)					X					X					X		
	Event – Organization of a forum (3 years)			X			X			X			X			X		

¹ Hydrologic monitoring of the St. Lawrence is conducted with other collaborators: Hydro-Québec, U.S. Geological Survey, New York Power Authority/Ontario Power, St. Lawrence Seaway.

5. ADMINISTRATIVE CONDITIONS

The implementation of the SSLMP will be overseen by the Working Group on State of the St. Lawrence Monitoring. The composition, roles and responsibilities of the Working Group are set out in Appendix A – Management of the Agreement.

6. RESPONSIBILITIES

The responsibilities of the participants in the implementation of this appendix include processing, storing and providing access to the data they have on state of the St. Lawrence monitoring, as well as data interpretation and dissemination. These responsibilities are defined as follows:

6.1 Acquisition and processing

Each participant commits to overseeing the acquisition of data pertaining to its St. Lawrence monitoring activities and to documenting the environmental indicators for which it is responsible, using appropriate, recognized scientific data processing methods.

6.2 Storage

Each participant agrees to store the data collected and environmental information generated for which it is responsible, using appropriate long-term storage methods.

6.3 Data access and intellectual property

The terms governing data access and intellectual property are set out in Appendix F – Information Sharing and Intellectual Property Rights.

6.4 Production and dissemination

- a) Each participant in the implementation of this appendix agree to produce and disseminate the environmental information that they obtain according to the frequency stated in Table 2 and specific to the characteristics of the monitoring activities for which they are responsible. The participants agree to carry out the data dissemination activities set out in this appendix so as to provide clients with objective, integrated information on the state and evolution of the St. Lawrence and to enable an accurate assessment of the St. Lawrence based on its current state.
- b) The participants in the implementation of this appendix will encourage community organizations to take part in the dissemination of environmental information stemming from the SSLMP, particularly information relevant to riverside communities.

7. FINANCIAL COMMITMENTS

7.1 The participants in the implementation of this appendix are responsible for achieving planned objectives and managing their budgets, and each remains accountable for the budgetary resources that it plans to invest.

7.2 Each participant in the implementation of this appendix commits to prioritizing the allocation of the necessary funds to the maintenance of the various SSLMP activities for which it is responsible, as far as its mandates, powers and resources allow. In addition, a participant may, at any time, dedicate additional funds to its own SSLMP activities.

7.3 The Working Group on State of the St. Lawrence Monitoring is seeking additional funding to carry out SSLMP projects. If additional funding is obtained, the Working Group will allocate it to the various participants according to the terms and conditions agreed upon by the group.

Table 3 below shows a financial planning summary for the SSLMP from 2011 to 2016.

Table 3: Financial Planning Summary for the SSLMP – 2011 to 2016

Objectives	Budget (\$ K)				
	Quebec		Canada		
	MDDEP	MRNF	EC	DFO	PCA
1-Report on the state and evolution of the St. Lawrence using the scientific information generated by the SSLMP	2,512.4 *533.5	2,406.0 *275.0	12,440.0	11,185.0	0.0
2-Regularly disseminate information to decision makers and riverside communities about the state and evolution of the St. Lawrence using means that are tailored to their needs and that facilitate access to information	130.2 *41.5	18.0	608.0	52.0	6.0
3-Provide leadership in integrated environmental monitoring program management	50.0	25.0	116.5	17.3	10.0
Total Participant	3 267,6 (*575.0)	2 724 (*275.0)	13,164.5	11,254.3	16.0
Total Quebec/Canada	5 991,6 (*850.0)		24,434.8		
Total	30,426.4				

* Contribution from Environment Canada pursuant to Appendix G – Financial Contribution from Environment Canada to Quebec’s Ministère du Développement durable, de l’Environnement et des Parcs

7.4 Canada will invest \$24,434.8 K over five years to achieve the objectives set out in this appendix. Quebec will invest \$5,991.6 K; this figure includes a federal transfer of \$850.0 K from Environment Canada. The two governments plan to jointly invest a total of \$30,426.4 K over five years.

APPENDIX D
NUMERICAL ENVIRONMENTAL PREDICTION PROGRAM FOR THE
ST. LAWRENCE

1. DEFINITIONS

In addition to the definitions stated in the Agreement, the following definitions apply to this appendix:

Atmospheric modelling

Numerical modelling of atmospheric processes, encompassing temperature, pressure, winds, humidity, clouds and precipitation. Atmospheric modelling integrates many observations in computer programs that apply the laws governing the evolution of the atmosphere.

Ecohydraulic modelling

Numerical modelling of spatialized relationships between fluvial hydrodynamics and living organisms in order to quantify the effects of different water level scenarios on various physical, chemical and biological components.

Hydrodynamic modelling

Numerical modelling of flow processes in the St. Lawrence and the resulting variables (speeds, levels, waves, tracer concentrations, water temperature, erosion/sedimentation processes).

Hydrologic modelling and routing

Numerical modelling of water transport processes in the St. Lawrence watershed (overland flow) and in tributaries to the St. Lawrence (watercourse flows and effects of collection and retention structures) and the resulting variables (flows, tracer concentrations, water temperature in watercourses, etc.).

Numerical environmental prediction

Numerical modelling activities based on observed data, aimed at forecasting changes in the physical, chemical and biological parameters of which the terrestrial and aquatic environment of the St. Lawrence and its watershed are composed.

Numerical modelling

Computer program that simulates physical, biological or chemical processes in mathematical form.

Ocean-ice modelling

Numerical modelling of ocean processes occurring in the estuary and Gulf of St. Lawrence (currents, water levels, temperature and salinity, ice and waves).

Surface modelling

Numerical modelling of the vertical processes (vertical transfer of mass and energy) in the St. Lawrence watershed and the resulting variables (snow density, thickness and temperature; water content and temperature in soil; soil and vegetation temperature; tracer concentrations).

2. PURPOSE

The purpose of the Numerical Environmental Prediction Program for the St. Lawrence is to coordinate and integrate the activities developed by each participant in the implementation of this appendix in order to gain a better understanding of the St. Lawrence ecosystem as a whole and to provide a decision support tool for integrated management of the St. Lawrence. The pooling of the activities is primarily based on short-term, operational, real-time prediction systems.

3. OBJECTIVES

3.1 The main objectives of this appendix are as follows:

3.1.1 To develop integrated, compatible tools to support decision making and water management

planning for the St. Lawrence and its watershed by

- a) providing a database of quantitative information for objective, rational decision making and planning;
- b) adding complementary data to the data obtained through St. Lawrence measurement, surveillance and monitoring programs; and
- c) simulating possible changes in physical, chemical and biological parameters.

3.1.2 To develop and implement scientific and technical mechanisms for pooling numerical atmospheric, terrestrial, aquatic and ecosystem models in a shared, integrated numerical environmental prediction system.

Table 1 below lists the activities and expected results for objectives 3.1.1 and 3.1.2.

3.1.3 To support the orientations of the 2011–2016 Joint Action Program as listed in Appendix E and subsequent programs (Table 2).

3.2 The establishment of a complete environmental prediction system is a long-term task. Over a 15-year planning horizon, the work will begin, from a territorial perspective, with pilot studies on the watersheds of tributaries to the St. Lawrence and on targeted segments of the St. Lawrence. The long-term objective is to cover the entire St. Lawrence watershed. The tasks to be undertaken towards that objective will be defined annually in a work plan. Regarding the targeted derived products, quantity-related products will be analyzed more exhaustively, while quality-, thermodynamics- and ecosystem-related products may be addressed on more of an ad hoc basis. Short time frames (up to 30 days) will be preferred initially, although the tools will be intended for use over as much as a seasonal time frame and could also eventually be used on a complementary basis for climatic analysis purposes over longer time frames.

3.3 The tables referred to in sections 3.1.2 and 3.1.3 are as follows:

Table 1 lists the activities and expected results from 2011 to 2026 under the Numerical Environmental Prediction Program for the St. Lawrence.

Table 1: Activities and Expected Results – 2011 to 2026

Activity	Expected Results
Modelling and assimilation of surface data (high resolution) covering the entire area of the watersheds of tributaries to the St. Lawrence	<u>Derived products:</u> High-resolution surface condition analyses and forecasts. <ul style="list-style-type: none"> - Soil and vegetation moisture and temperature, snow thickness and density, vegetation conditions (evapotranspiration, foliage density), water evaporation from lake surfaces, carbon flux - Detailed forecasts for urban areas - Specialized products for forestry and agriculture (flammability indices, soil moisture indices)
Hydrologic monitoring and routing covering the entire area of the watersheds of tributaries to the St. Lawrence	<u>Derived products:</u> Hydrologic deterministic and ensemble forecasts. <ul style="list-style-type: none"> - Surface and lateral hydrology - Flows - Water availability and quality indicators - Flood response support products - Integrated water resource management support products - Water control structure management support products
Development of a very high-resolution hydrodynamic system (2D) covering the St. Lawrence River, Lake of Two Mountains, Mille-Îles River, Des Prairies River, Des Chenaux	<u>Derived products:</u> Hydrodynamic deterministic and ensemble forecasts. <ul style="list-style-type: none"> - Water levels - Flows - Water availability and quality indicators - Currents and temperatures - Waves - Ice - Search and rescue program support products

River, Sainte-Anne River and Vaudreuil River	<ul style="list-style-type: none"> - Accidental chemical or petroleum spill support products - Water control activity support products
Modelling characterizing the dynamics of the main St. Lawrence ecosystems	<u>Derived products:</u> Ecosystem status prediction. <ul style="list-style-type: none"> - Habitat modelling (animal and plant) - Ecosystem health indicators - Water quality - Analyses of socio-economic impacts (navigation, various uses, etc.)
Ocean-ice modelling (3D) covering the estuary and Gulf of St. Lawrence	<u>Derived products:</u> Coupled atmosphere-ocean-ice forecasts. <ul style="list-style-type: none"> - Improved atmospheric forecasts (days to seasons) - Ice forecasts (concentration, thickness, pressures) - Ocean forecasts (temperature, currents, salinity) - Accidental chemical or petroleum spill support products - Search and rescue program support products

Table 2 lists the numerical environmental prediction activities associated with the orientations of the 2011–2016 Joint Action Program.

Table 2: Orientations of the 2011–2016 Joint Action Program Supported by Numerical Environmental Prediction Activities

No.	ORIENTATION
Biodiversity Conservation	
1	Identify, protect, restore and enhance areas of ecological significance
3	Assess the impact of climate change on ecosystems
Sustainable Use	
7	Promote sustainable management of water levels and flows
Improved Water Quality	
10	Assess the presence and effects of toxic substances on the ecosystem

4. ADMINISTRATIVE CONDITIONS

- 4.1** The implementation of the Numerical Environmental Prediction Program is overseen by the Working Group on Numerical Environmental Prediction. Its composition, roles and responsibilities are set out in Appendix A – Management of the Agreement.
- 4.2** The terms governing information sharing and intellectual property rights are set out in Appendix F – Information Sharing and Intellectual Property Rights.

5. ROLES AND RESPONSIBILITIES

The roles and responsibilities of the participants under this appendix are as follows:

5.1 Environment Canada

- a) Develop and integrate an operational data and forecast assimilation system that can be used to estimate the hydrologic and thermodynamic cycle of the St. Lawrence watershed (atmosphere, soil, snow, vegetation, hydrology, lakes, ice, oceans, hydrodynamics);
- b) Develop and consolidate an integrated St. Lawrence River modelling system, using two-dimensional hydrodynamic simulations that cover the entire river, combined with simulations of natural waves, water quality and sedimentation;
- c) Develop a high-definition numerical terrain model that provides a precise representation of the river;
- d) Identify and integrate the relationships between fluvial physics and living organisms;

- e) Develop and implement decision support tools, such as the posting of dynamic indicators of the state of the fluvial ecosystem online, the addition of water quality assessment capabilities, and the assessment of the impact of climate change on various uses of the St. Lawrence River.

5.2 Ministère du Développement durable, de l'Environnement et des Parcs du Québec

- a) Develop hydrologic modelling and routing mechanisms (using a vector hydrologic network) for the watersheds of tributaries to the St. Lawrence;
- b) Develop hydraulic modelling mechanisms that can be used to simulate watercourse flows in tributaries to the St. Lawrence.

5.3 Fisheries and Oceans Canada

- a) Develop and integrate an operational ocean-ice modelling system covering the estuary and Gulf of St. Lawrence;
- b) Develop and integrate an operational one-dimensional modelling system for the St. Lawrence River.

6. FINANCIAL COMMITMENTS

Table 3 below shows a financial planning summary for the Numerical Environmental Prediction Program from 2011 to 2016.

Table 3: Financial Planning Summary – 2011 to 2016

Objectives	Budget (\$ K)		
	Quebec	Canada	
	MDDEP	EC	DFO
1-Develop integrated, compatible tools to support decision making and water management planning with regard to the St. Lawrence and its watershed	820.0	2,275.0	600.0
2-Develop and implement scientific and technical mechanisms for pooling numerical models	*150.0		
3-Support the orientations in Appendix E	**	**	**
Total Quebec / Canada	970.0 (*150.0)	2,875.0	
Total	3,845.0		

* Contribution from Environment Canada pursuant to Appendix G – Financial Contribution from Environment Canada to Quebec's Ministère du Développement durable, de l'Environnement et des Parcs

** The departments' financial commitments in connection with this project are summarized in Appendix E.

Canada will invest \$2,875.0 K over five years to contribute to achieve the objectives set out in this appendix. Quebec will invest \$970.0 K; this figure includes a federal transfer of \$150.0 K from Environment Canada. The two governments plan to invest a total of \$3,845.0 K over five years.

APPENDIX E
2011–2016 JOINT ACTION PROGRAM ON THE ST. LAWRENCE

1. PURPOSE

This appendix sets out the orientations for the three priority issues on which the Parties wish to focus their efforts, as well as the Parties' financial commitments in connection with this appendix.

2. PRINCIPLES

The Parties acknowledge that the following principles will guide all decisions made in implementing this appendix:

Joint actions – The projects developed under the program involve at least one Quebec department and one federal department or agency and are integrative, value-added projects in relation to the participants' regular activities.

User concerns – The projects developed under the program take into account concerns expressed during the targeted consultation held from September to October 2010.

3. OBJECTIVES

The Parties have identified 10 orientations relating to the three priority issues to guide the participants' joint actions up to 2016. Since climate change affects the evolution and dynamics of these issues, it is taken into account throughout the treatment of the issues. Furthermore, the Parties will support the riverside communities of the St. Lawrence in the implementation of projects.

A- Biodiversity Conservation

Since the main threats to the biodiversity of the St. Lawrence are habitat loss and fragmentation, the introduction of invasive alien species, and the impact of climate change, the joint actions will focus on the following three orientations:

Orientation 1: Identify, protect, restore and enhance areas of ecological significance

The participants agree to develop common tools for identifying areas that are conservation priorities, to consolidate the protected areas network as well as to manage and restore sensitive habitats.

Orientation 2: Prevent the introduction and control the spread of invasive alien species

The participants agree to implement prevention tools and control measures to limit the abundance and spread of such species and to improve information management.

Orientation 3: Assess the impact of climate change on ecosystems

The participants agree to develop and use indicators to characterize the impact of climate change on the ecosystems of the St. Lawrence and to more precisely assess the impact of climate change on wetlands.

Table 1 below shows the forecasted budgets for the Biodiversity Conservation issue.

Table 1: 2011–2016 Budget – Biodiversity Conservation (\$ K)

	Quebec			Canada			
	MDDEP	MRNF	MAPAQ	EC	DFO	PCA	AAFC
Orientation 1	754.0 *125.0	529.5 *155.0	200.0 *20.0	1,254.0	322.5	118.0	40.0
Orientation 2	197.5 *50.0	123.0 *50.0	38.5 *5.0	200.0	225.0		
Orientation 3	44.2	100.0 *20.0		234.0			
Total Participant	1170.7 (*175.0)	977.5 (*225.0)	263.5 (*25.0)	1,688.0	547.5	118.0	40.0
Total Quebec/Canada	2,411.7 (*425.0)			2,393.5			
TOTAL	4,805.2						

* Contribution from Environment Canada pursuant to Appendix G – Financial Contribution from Environment Canada to Quebec’s Ministère du Développement durable, de l’Environnement et des Parcs

B- Sustainable Use

Urban development, shoreline artificialization, and aquatic and riparian habitat degradation have resulted in the loss of many recreational sites and are threatening the harvest of certain resources, particularly fishery resources. Certain recreational, commercial, industrial and public uses of the St. Lawrence, as well as the quality of life of riverside residents, are compromised by water quality and natural environment degradation, user conflicts, shoreline erosion, major water level fluctuations, and climate change. In light of these observations, the participants have agreed to focus on the following orientations:

Orientation 4: *Support sustainable use of fishery resources*

The participants agree to conduct an inventory of existing information on the state of St. Lawrence fishery resources and to share and disseminate this information.

Orientation 5: *Identify and enhance public access sites*

The participants agree to consolidate the inventory of public access sites and to develop information and outreach tools on the sustainable use of these sites.

Orientation 6: *Maintain and promote sustainable navigation*

The participants agree to maintain the collaboration of stakeholders in the St. Lawrence and Great Lakes with respect to navigation by means of the Concertation Committee on Navigation. The participants agree to develop information and outreach tools promoting sustainable navigation intended for St. Lawrence users and the general public. For dredging and sediment management activities, the participants agree to aim for a more integrated approach.

Orientation 7: *Promote sustainable management of water levels and flows*

The participants agree to implement management tools to consolidate data-sharing mechanisms and to develop decision-making tools for sustainable water management.

Table 2 below shows the forecasted budgets for the Sustainable Use issue.

Table 2: 2011–2016 Budget – Sustainable Use (\$ K)

	Quebec							Canada						
	MDDEP	MRNF	MAPAQ	MTQ	MTO	MAMROT	MSP	EC	DFO	TC	CSA	PWGSC	CEAA	PCA
Orien. 4		46.9 *21.0	73.5						173.0					
Orien. 5		*30.0			15.9	7.0		78.0	72.0		105.0	105.0		
Orien. 6	348.0 *150.0	262.0 *86.0		179.6 *113.0	8.0			343.8	130.0	318.5		51.5	30.0	4.0
Orien. 7	37.0						100.0	766.0	16.0		95.0			
Total Participant	535.0 (*150.0)	445.9 (*137.0)	73.5	292.6 (*113.0)	23.9	7.0	100.0	1,187.8	391.0	318.5	200.0	156.5	30.0	4.0
Total Quebec / Canada	1,477.9 (*400.0)							2,287.8						
TOTAL	3,765.7													

* Contribution from Environment Canada pursuant to Appendix G – Financial Contribution from Environment Canada to Quebec’s Ministère du Développement durable, de l’Environnement et des Parcs

C- Improved Water Quality

The main threats to St. Lawrence water quality that require priority action are agricultural non-point source pollution, the risks associated with contaminated sediments and with the presence of toxic substances. The joint actions for improving water quality will therefore focus on the following three orientations:

Orientation 8: *Reduce agricultural nonpoint source pollution*

The participants agree to support and coordinate actions aimed at reducing agricultural nonpoint source pollution and to improve their knowledge of the effects of such pollution on freshwater and marine ecosystems.

Orientation 9: *Improve contaminated sediment management tools*

The participants agree to improve the risk assessment and management tools associated with the St. Lawrence sectors containing contaminated sediments.

Orientation 10: *Assess the presence and effects of toxic substances on the ecosystem*

The participants agree to assess the presence and impact of contaminants associated with municipal wastewater, characterize the contamination of Lake Saint-Pierre, and study the effects of toxic substances on the food chain. The participants also agree to improve their knowledge of emerging toxicants.

Table 3 shows the forecasted budgets for the Improved Water Quality issue.

Table 3: 2011–2016 Budget – Improved Water Quality (\$ K)

	Quebec					Canada					
	MDDEP	MRNF	MAPAQ	MSP	MSSS	EC	DFO	HC	PHAC	PCA	AAFC
Orien. 8	1,038.7 *127.5	585.5 *200.0	29.0			1,090.5	706.0		38.0		60.0
Orien. 9	237.3	9.5				514.3		43.0		5.0	
Orien. 10	354.6 *71.2	216.7 *26.3		14.5	29.6	1,156.0	158.5	21.5		25.0	
Total Participant	1,829.3 (*198.7)	1,038 (*226.3)	29.0	14.5	29.6	2,760.8	864.5	64.5	38.0	30.0	60.0
Total Quebec / Canada	2,940.4 (*425.0)					3,817.8					
TOTAL	6,758.2										

* Contribution from Environment Canada pursuant to Appendix G – Financial Contribution from Environment Canada to Quebec’s Ministère du Développement durable, de l’Environnement et des Parcs

D – Adaptation to Climate Change

A Concertation Committee coordinated by the Ouranos Consortium and made up of government experts and external collaborators will be established as per the terms and conditions set out in section 5 of Appendix A. Its mandate will be to develop an overview of the issues related to the impact of climate change on the St. Lawrence and the knowledge development requirements pertaining to impacts and adaptation options. This committee will address the issues of biodiversity conservation, sustainable use and improved water quality.

Table 4 below shows the forecasted budgets for the Concertation Committee on Climate Change.

Table 4: 2011–2014 Budget – Concertation Committee on Climate Change (\$ K)

Objective	Quebec				Canada		
	MDDEP	MRNF	MAPAQ	MTQ	EC	TC	DFO
Identify the main issues and research and development requirements pertaining to the impact of climate change, the vulnerability of uses and ecosystems, and adaptation tools and options	41.9	1.9	5.3	6.0	2.4	1.2	1.2
Total Quebec / Canada	55.1				4.8		
TOTAL	59.9						

E- Community Mobilization

More and more communities are mobilizing to protect and develop the resources and uses of the St. Lawrence. The Parties support community actions related to the priority issues by means of the Community Interaction Program (CIP).

Table 5 below shows the forecasted budgets for the CIP.

Table 5: 2011–2016 Budget – Community Interaction Program (CIP) (\$ K)

Objective	Quebec	Canada
	MDDEP	EC
Support the implementation of community and environmental projects	1,600.0	3,272.0
TOTAL	4,872.0	

4. ADMINISTRATIVE CONDITIONS

- 4.1 An Issue Committee will be put in place for each issue. The composition, roles and responsibilities of the Issue Committees are set out in Appendix A – Management of the Agreement.
- 4.2 The terms governing information sharing and intellectual property rights are set out in Appendix F – Information Sharing and Intellectual Property Rights.
- 4.3 Activities carried out under the program will be monitored.

5. FINANCIAL COMMITMENTS

Table 6 below shows all of the investments of each department in connection with the Joint Action Program.

Table 6: Total Investment of Each Participant – 2011 to 2016

DEPARTMENT		FINANCIAL COMMITMENTS (\$ K)					
		Biodiversity Conservation	Sustainable Use	Improved Water Quality	Adaptation to Climate Change	Community Mobilization	Total
Q U E B E C	MDDEP	995.7 *175.0	385.0 *150.0	1,630.6 *198.7	41.9	1,600.0	5,176.9 (*523.7)
	MAPAQ	238.5 *25.0	73.5	29.0	5.3		371.3 (*25.0)
	MRNF	752.5 *225.0	308.9 *137.0	811.7 *226.3	1.9		2,463.3 *588.3
	MTO		23.9				23.9
	MAMROT		7.0				7.0
	MTQ		179.6 *113.0		6.0		298.6 *113.0
	MSP		100.0	14.5			114.5
	MSSS			29.6			29.6
Sub-total		2,411.7 (*425.0)	1,477.9 (*400.0)	2,940.4 (*425.0)	55.1	1,600.0	8,485.1 (*1,250.0)
C A N A D A	EC	1,688.0	1,187.8	2,760.8	2.4	3,272.0	8,911.0
	DFO	547.5	391.0	864.5	1.2		1,804.2
	PCA	118.0	4.0	30.0			152.0
	CSA		200.0				200.0
	PWGSC		156.5				156.5
	TC		318.5		1.2		319.7
	HC			64.5			64.5
	PHAC			38.0			38.0
	CEAA		30.0				30.0
AAFC	40.0		60.0			100.0	
Sub-total		2,393.5	2,287.8	3,859.8	4.8	3,272.0	11,775.9
TOTAL		4,805.2	3,765.7	6,758.2	59.9	4,872.0	20,261.0

* Contribution from Environment Canada pursuant to Appendix G – Financial Contribution from Environment Canada to Quebec’s Ministère du Développement durable, de l’Environnement et des Parcs

Canada will invest \$11,775.9 K over five years to contribute to the achievement of the objectives set out in this appendix. Quebec will invest \$8,485.1 K; this figure includes a federal transfer of \$1,250.0 K from Environment Canada. The two governments plan to invest a total of \$20,261.0 K over five years.

APPENDIX F

INFORMATION SHARING AND INTELLECTUAL PROPERTY RIGHTS

1. PURPOSE

Whereas the participants in the Agreement have, or will have, access to information that can be used for projects, and whereas the participants wish to share this information amongst themselves for such purposes, this appendix sets out the terms and conditions whereby the participants will share such information amongst themselves. This appendix also sets out the terms and conditions governing intellectual property created under this Agreement.

2. DEFINITIONS

In addition to the definitions stated in the Agreement, the following definitions apply to this appendix:

Data

Value resulting from a laboratory analysis or a measurement taken in the field to characterize a parameter. Such data include, but are not limited to, any compilation of numeric data.

Derived product

Product developed under the Agreement, by one or more participants using, made functional by or incorporating, in whole or in part, information from Canada or Quebec.

Information

All information, such as data, metadata, software, models or documents that could give rise to intellectual property rights held by Canada or Quebec, including confidential information.

Intellectual property

Any creation of the mind, including literary and artistic works, collections, inventions, symbols, trademarks, industrial designs, trade secrets, technical information, confidential information and any other registered or unregistered intellectual property, protected by legislation or by law.

Intellectual property rights

All rights, present and future, over intellectual property recognized by legislation or by law.

Metadata

All information used to document and describe data, especially with respect to the location of data sampling, the sampling method, the conservation methods and the analytical methods.

Model

Representation of a process aimed at producing a simulation, using data, with the goal of making an environmental impact prediction.

Project

Any project carried out collaboratively by Canada and Quebec under the Agreement.

Software

All computer programs, in source code or object code, all computer program documentation recorded in any form or on any medium, and all computerized databases, including all modifications.

3. INFORMATION SHARING

3.1 Subject to the following restrictions, each participant involved in a project undertakes to share with the other participants involved in the project the information to which it has access, provided that

- a) it believes that the information is relevant to the project;
- b) it believes that sharing the information will not be detrimental to its business or operational needs or contravene its policies or directives;

- c) it believes that the following elements do not prevent it from sharing the information:
 - i) the legislation applicable to this participant
 - ii) the policies or directives of this participant including, but not limited to, security and information management policies
 - iii) agreements or contracts binding the participant to third parties;
- d) it believes that sharing this information will not compromise the security of its operations or of any person.

3.2 Before sharing the information, the participants concerned confirm, in writing, the following points:

- a) the information that will be shared
- b) the project(s) for which the information is being shared
- c) the sharing method (may include, without being limited to, a copy on CD or access via a designated server)
- d) if applicable, all rights granted for the information, in addition to the rights set out in this appendix or any limitations that would restrict the rights granted

4. LICENCES

4.1 Except as provided in section 8.3 of the Agreement, and subject to the terms and conditions set out in section 4.2 of this appendix, the participant that shares information under section 3.1 grants the receiving participants a world-wide, non-exclusive, royalty-free, fully paid, irrevocable and non-assignable licence

- a) to use, reproduce and translate the information, in particular to develop derived products; and
- b) to grant sub-licences for this information, provided that these sub-licences include the same terms and conditions as those set out in this appendix.

4.2 Subject to section 4.4 of this appendix, the licence granted under section 4.1 can only be used for projects for which the information is shared, and thus ends when the projects are completed. However, when the information is incorporated into derived products, the duration of the licence granted under section 4.1 will be perpetual.

4.3 Any uses other than those set out in sections 4.1 and 4.2 will have to be expressly authorized by the participant concerned.

4.4 In the event that one Party terminates the Agreement in accordance with section 8.3 of the Agreement

- a) the licence granted under section 4.1, as well as any sub-licences granted under section 4.1(b), are automatically revoked;
- b) however, the participant may continue to use any derived products completed before the termination date, for internal and non-commercial purposes.

5. DERIVED PRODUCTS

5.1 The intellectual property rights arising from the development of derived products by Canada will belong to Canada. The intellectual property rights arising from the development of derived products by Quebec will belong to Quebec. If the derived product made by Canada incorporates information from Quebec, Canada undertakes to only use, reproduce and translate the derived product, in whole or in part, solely for internal and non-commercial purposes. If the derived product made by Quebec incorporates information from Canada, Quebec undertakes to only use, reproduce and

translate the derived product, in whole or in part, solely for internal and non-commercial purposes.

- 5.2 If the derived product developed by Quebec incorporates information from Canada, Quebec grants the participants from Canada involved in the project a world-wide, perpetual, non-exclusive, royalty-free, fully paid and irrevocable licence authorizing these participants to use, reproduce and translate the derived product, in whole or in part, for internal and non-commercial purposes.
- 5.3 If the derived product developed by Canada incorporates information from Quebec, Canada grants the participants from Quebec involved in the project a world-wide, perpetual, non-exclusive, royalty-free, fully paid and irrevocable licence authorizing these participants to use, reproduce and translate the derived product, in whole or in part, for internal and non-commercial purposes.
- 5.4 For derived products developed in collaboration or jointly by the Parties, Canada and Quebec are co-owners of the intellectual property rights for these derived products; the proportion of ownership is to be determined by the Parties. The Parties mutually authorize each other to use, reproduce and translate these derived products, in whole or in part, for internal and non-commercial purposes. Such authorization is valid only for the participants involved in the project for which the derived product was developed.
- 5.5 Any uses other than those set out in sections 5.1 to 5.4 will have to be expressly authorized by Quebec or Canada, as applicable. However, it is understood that no authorization will be granted for the publication or communication of confidential information.
- 5.6 For derived products developed in collaboration or jointly between the Parties, neither Canada nor Quebec may assign its rights and obligations without the consent of the other Party, and neither Party may institute proceedings against a third party to have its intellectual property rights respected without the consent of the other.
- 5.7 The derived products that are published or communicated must include the following statement: “Produced under the St. Lawrence Action Plan — 2011-2026.” They must also include the following statement if they incorporate information: “This product incorporates [...] provided by [relevant participant].”
- 5.8 It is understood that the terms and conditions under sections 5.1 to 5.7 are subject to all applicable legislation including, without being limited to, access to information laws and judicial orders.

6. COSTS AND RETURN OF INFORMATION

- 6.1 Each participant will be responsible for its own expenses arising from the sharing of information or derived products.
- 6.2 When licences granted under this appendix expire, the participants who have received information from other participants will return or destroy this information, subject to all applicable legislation.

7. REPRESENTATIONS, WARRANTIES AND INDEMNITIES

- 7.1 If a participant agrees to share information under section 3.1, it states and declares that it has no knowledge of any contractual or other commitment or any actual or possible judicial proceeding or order relating to the information that might restrict or hamper the exercise of the rights granted under section 4.1.
- 7.2 The participants make no representation and give no warranty with respect to the accuracy, usefulness, novelty, validity, scope, completeness or currency of the information and disclaim any liability in this regard.
- 7.3 Each Party shall indemnify and hold harmless the other Party, its employees and agents from all actions, suits, claims, demands, losses, damages or costs, in proportion to its own fault, or that of its employees and agents, arising from a breach of the terms and conditions of this appendix or from the creation or use of derived products that it has developed.

APPENDIX G

FINANCIAL CONTRIBUTION FROM ENVIRONMENT CANADA TO QUEBEC'S MINISTÈRE DU DÉVELOPPEMENT DURABLE, DE L'ENVIRONNEMENT ET DES PARCS

1. PURPOSE

Environment Canada is responsible for the federal Sustainable Ecosystems program. This contribution program authorizes Environment Canada to provide financial assistance to Quebec for the projects and activities carried out under this Agreement and described in section 4 below.

This appendix sets out the terms and conditions under which Canada's contribution will be paid to Quebec, through the Ministère du Développement durable, de l'Environnement et des Parcs.

2. DEFINITIONS

The following definitions apply to this appendix unless the context indicated otherwise:

Appendix

Means this appendix, Appendix G, which includes

- Sub-appendix A – *Terms and Conditions*;
- Sub-appendix B – *Cash Flow of Projects and Activities and Environment Canada Funding*; and
- Sub-appendix C – *Request for Payment Form*.

Eligible expense

An expense incurred by Quebec between April 1, 2011, and March 31, 2016, pursuant to section 6.

Fiscal year

The period, or portion of a period, beginning on April 1 and ending on March 31 of each year.

3. EXPECTED RESULTS

Canada's financial contribution under this Appendix will support Quebec in its efforts to conserve and enhance the St. Lawrence. The expected results will be as follows:

- i) the implementation of St. Lawrence conservation and enhancement projects needed to achieve the objectives set out in the Agreement;
- ii) the acquisition of new knowledge and data generated by participants that support the management and sustainability of Canadian ecosystems.

4. FUNDED PROJECTS AND ACTIVITIES

To achieve the results expected under the Agreement, Canada's contribution will be used to help support in part the following activities and projects:

- a) Certain activities of monitoring and environmental indicator analysis, as identified in Tables 1 and 2 of Appendix C – State of the St. Lawrence Monitoring Program and aiming at achieving the objectives set in Table 3 of the same appendix;
- b) Certain activities as identified in Table 1 of Appendix D – Numerical Environmental Prediction Program for the St. Lawrence and aiming at achieving the objectives set in Table 3 of the same appendix; and

- c) Certain projects, as set by participants in project cards available to Parties at the date of entry into force of the Agreement, aiming at contributing to orientations identified in Tables 1, 2, and 3 of Appendix E – 2011–2016 Joint Action Program on the St. Lawrence.

5. COST SHARING AND MAXIMUM AMOUNT OF CONTRIBUTION

- a) Investments made by both Parties to achieve objectives listed in section 4 are detailed in Appendices C, D and E.
- b) Canada agrees, subject to the terms and conditions of this appendix, to reimburse, by means of a contribution, eligible expenses defined in this appendix that are incurred by Quebec for carrying out the activities and projects, to a maximum of \$2,250,000 in cash.
- c) Canada's cash contributions will be based on the cash flow requirements agreed upon in Sub-appendix B – *Cash Flow of Projects and Activities and Environment Canada Funding*, and the maximum amounts available for each fiscal year will be as follows:
- for the 2011–2012 fiscal year, the sum of \$450,000
 - for the 2012–2013 fiscal year, the sum of \$450,000
 - for the 2013–2014 fiscal year, the sum of \$450,000
 - for the 2014–2015 fiscal year, the sum of \$450,000
 - for the 2015–2016 fiscal year, the sum of \$450,000

6. ELIGIBLE EXPENSES

- a) The following expenses are eligible if they are incurred only for the purposes of the projects and activities and if Quebec has met the terms and conditions set out in this Agreement:
- salaries and wages, including mandatory employment-related expenses
 - expenses related to management and professional services
 - expenses related to subcontracting
 - travel expenses (will be reimbursed at current rates applicable to employees of the Quebec government)
 - expenses related to equipment and supplies
 - expenses related to equipment leasing
 - expenses related to communications, printing, production and distribution
 - expenses related to vehicle leasing and operation
 - any goods and services tax (GST) on eligible expenses that cannot be reimbursed by the Canada Revenue Agency
- b) Any expenses not listed in paragraph a) are ineligible, unless they are expressly approved in writing by Canada's representative before being incurred.

7. PAYMENT

Subject to Canada's policies, laws and regulations, Canada agrees to pay, within 60 days following the receipt of required documents, the maximum amounts set out in paragraph c) of section 5 for each fiscal year if the following conditions are met:

- a) Quebec must submit to Canada a request for reimbursement by March 31 of each fiscal year.
- b) The request for reimbursement must be submitted using the form included in Sub-appendix C – *Request for Payment Form*.
- c) The form must be duly completed.
- d) During the relevant fiscal year, Quebec must have contributed regularly to the computerized management system established by the Parties to track the progress of the projects and

activities and to enable, among other, the production of reports pursuant to paragraph b) of subsection 4.4.2 and paragraph b) of subsection 4.5.2 of Appendix A.

- e) Quebec must provide Canada, upon request, with any supporting documents that Canada considers appropriate to enable it to review and accept a request for payment. In such cases, Canada must notify Quebec of the specific details and supporting documents that it needs.

8. CASH FLOW

- a) Statement of cash flow

By the date on which this Agreement enters into effect, Quebec will have provided, and the two Parties will have accepted, a statement of cash flow for the entire period from April 1, 2011, to March 31, 2016, for which details are provided in Sub-appendix B – *Cash Flow of Projects and Activities and Environment Canada Funding*.

On March 31 of each year, the Parties will review the cash flows for the following fiscal year. On October 15 of each year, the Parties may make the necessary adjustments to cash flows. Any changes in cash flows will be agreed upon in writing by the representatives of the Parties.

- b) Ongoing communication

- i) Quebec commits to respond diligently to ad hoc information requests from Canada on the progress of the projects and activities, as defined in section 4.

- ii) Quebec will promptly notify Canada of any major events that may affect the timetables or cash flow requirements of the projects and activities.

9. COMMUNICATIONS AND REQUESTS FOR PAYMENT

- a) Section 7 of the Agreement notwithstanding, all requests for payment, notices and official correspondence between the Parties connected with this appendix will be

- i. delivered in person;
 - ii. scanned and sent by e-mail;
 - iii. sent by duly prepaid registered mail, with confirmation of delivery; or
 - iv. sent by fax, with proof of transmission;

and addressed as follows:

for Canada:
Regional Director
Strategic Integration and Partnerships Division
Environment Canada
1550 D'Estimauville Avenue, 7th floor
Québec, Quebec G1J 5A9

for Quebec:
Service Head
Integrated Water Management Service
Water Policy Branch
Ministère du Développement durable, de l'Environnement et des Parcs
675 René Lévesque Boulevard East
8th floor, Room 42
Québec, Quebec G1R 5V7

- b) If a Party sends such a notice or other official correspondence by e-mail, it will be considered to have been received on the date of transmission. If the notice is sent by fax, it will be considered to have been received on the date indicated on the automatic confirmation of transmission.

SUB-APPENDIX A
TERMS AND CONDITIONS

1. NON-BENEFICIARIES AND LOBBYISTS

No current or former public office holder or public servant who is subject to the *Conflict of Interest Act*, S.C. 2006, c. 9, the *Conflict of Interest and Post-Employment Code for Public Office Holders* or the *Values and Ethics Code for the Public Service* may benefit directly from the commitments provided for in this appendix, unless the provision or receipt of such benefits is in accordance with the above act and codes.

No member of the Senate or House of Commons may be a party to this appendix or receive any benefit from this appendix in a different manner from the general public. The *Lobbying Act*, R.S.C., 1985, c. 44 (4th Supp.), does not apply to members of the National Assembly of Quebec, the staff of such members, or employees of the government of Quebec when those persons are acting in their official capacity.

2. LIABILITY

Quebec will indemnify Canada, as well as its ministers, employees and agents, and will absolve them of all liability with regard to any damages, requests, claims, losses, costs (including legal fees), suits or other proceedings resulting from improper conduct, negligence or omission by Quebec or its employees or agents in carrying out the projects and activities, except in the case of breaches of obligations by Canada or by its ministers, employees or agents.

Quebec will indemnify Canada, as well as its ministers, employees and agents, and will absolve them of all liability with regard to any damages, requests, claims, losses, costs (including legal fees), suits or other proceedings resulting from any claims, requests or prosecution initiated by a third party against the above persons or entities because of the status of supplier of financial assistance conferred on Canada under this appendix. This includes, but is not limited to, any claims in relation to goods or services supplied by a third party to Quebec or to one of its subcontractors, except in the case of breaches of obligations by Canada or by its ministers, employees or agents.

3. AUDIT AND ASSESSMENT

Assessments, audits and other reviews connected with this appendix may be made public.

4. OVERPAYMENTS AND PAYMENTS RECEIVABLE

- a) If the contribution from Canada is reduced or cancelled in compliance with sections 9.1 and 9.2 of the Agreement, Canada will reimburse, in compliance with the appendix, all eligible expenses incurred by Quebec before the date at which Canada notifies Quebec of such a reduction or cancellation.
- b) If a payment made by Canada to Quebec under this appendix exceeds the expenses incurred by Quebec or is used to reimburse expenses not eligible, the amount of the overpayment will be considered a debt to the federal Crown. Quebec will have sixty (60) days following the date of a notice of amount due to reimburse an overpayment.

5. RECORDS

Quebec agrees to keep appropriate records and accounts of the income and expenses of the projects and activities covered by this appendix, including all bills, receipts and supporting documents, for a period of at least three years following the end of this appendix.

6. ACCESS TO RECORDS AND INFORMATION

Subject to applicable access to information and privacy legislation, Quebec will, for the purposes of audits and assessments under this appendix, give Canada's representatives access to all project- and activity-related documents that may be of some use in justifying expenses incurred

for them. This right of access will remain in effect for the duration of the appendix and for a maximum of three years following the end of the appendix.

7. CONSENT TO DISCLOSURE

Quebec consents to the public disclosure, by Canada, of any information provided under the Agreement that is not considered confidential under applicable legislation pertaining to the protection of personal information and protection of privacy, including, but not limited to, information related to the projects and activities. It is expressly agreed that Canada may disclose the following pieces of information:

- a) the name of the beneficiary;
- b) the maximum amount of the contribution;
- c) the goal of the appendix;
- d) the activities undertaken under the appendix;
- e) the duration of the appendix.

SUB-APPENDIX B
CASH FLOW OF PROJECTS AND ACTIVITIES AND
ENVIRONMENT CANADA FUNDING
(Sections 2, 5, 8)

2011-2012

Project and Activity Cash Flows		
Project and Activity Funding		TOTAL
Participant		Cash
Government of Canada - Environment Canada		\$450,000
Government of Quebec		\$1,889,000
Total funding of projects and activities		\$2,339,000

Cost of Projects and Activities		TOTAL
Cost details	Category of costs	Cash
Orientation 1: Identify, protect, restore and enhance areas of ecological significance		\$249,400
Orientation 2: Prevent the introduction and control the spread of invasive alien species		\$55,300
Orientation 3: Assess the impact of climate change on ecosystems		\$35,840
Orientation 4: Promote sustainable use of fisheries resources		\$12,320
Orientation 5: Identify and enhance public access sites		\$9,990
Orientation 6: Maintain and promote sustainable navigation		\$214,190
Orientation 8: Reduce agricultural nonpoint source pollution		\$303,560
Orientation 10: Assess the presence and effects of toxic substances on the ecosystem		\$66,000
State of the St. Lawrence Monitoring Program		\$1,198,400
Numerical Environmental Prediction Program for the St.Lawrence		\$194,000
Total funding of projects and activities		\$2,339,000

EC Funding		TOTAL
Expenditure details	Category of expenditures	Cash
Orientation 1: Identify, protect, restore and enhance areas of ecological significance		\$60,000
Orientation 2: Prevent the introduction and control the spread of invasive alien species		\$10,000
Orientation 3: Assess the impact of climate change on ecosystems		\$15,000
Orientation 4: Promote sustainable use of fisheries resources		\$7,000
Orientation 5: Identify and enhance public access sites		\$7,000
Orientation 6: Maintain and promote sustainable navigation		\$66,000
Orientation 8: Reduce agricultural nonpoint source pollution		\$67,500
Orientation 10: Assess the presence and effects of toxic substances on the ecosystem		\$17,500
State of the St. Lawrence Monitoring Program		\$170,000
Numerical Environmental Prediction Program for the St.Lawrence		\$30,000
Total expenditures		\$450,000

2012-2013

Project and Activity Cash Flows		
Project and Activity Funding		TOTAL
Participant		Cash
Government of Canada - Environment Canada		\$450,000
Government of Quebec		\$1,889,000
Total funding of projects and activities		\$2,339,000

Cost of Projects and Activities		TOTAL
Cost details	Category of costs	Cash
Orientation 1: Identify, protect, restore and enhance areas of ecological significance		\$249,400
Orientation 2: Prevent the introduction and control the spread of invasive alien species		\$65,300
Orientation 3: Assess the impact of climate change on ecosystems		\$25,840
Orientation 4: Promote sustainable use of fisheries resources		\$12,320
Orientation 5: Identify and enhance public access sites		\$12,990
Orientation 6: Maintain and promote sustainable navigation		\$211,190
Orientation 8: Reduce agricultural nonpoint source pollution		\$303,560
Orientation 10: Assess the presence and effects of toxic substances on the ecosystem		\$66,000
State of the St. Lawrence Monitoring Program		\$1,198,400
Numerical Environmental Prediction Program for the St.Lawrence		\$194,000
Total funding of projects and activities		\$2,339,000

EC Funding		TOTAL
Expenditure details	Category of expenditures	Cash
Orientation 1: Identify, protect, restore and enhance areas of ecological significance		\$60,000
Orientation 2: Prevent the introduction and control the spread of invasive alien species		\$20,000
Orientation 3: Assess the impact of climate change on ecosystems		\$5,000
Orientation 4: Promote sustainable use of fisheries resources		\$7,000
Orientation 5: Identify and enhance public access sites		\$10,000
Orientation 6: Maintain and promote sustainable navigation		\$63,000
Orientation 8: Reduce agricultural nonpoint source pollution		\$67,500
Orientation 10: Assess the presence and effects of toxic substances on the ecosystem		\$17,500
State of the St. Lawrence Monitoring Program		\$170,000
Numerical Environmental Prediction Program for the St.Lawrence		\$30,000
Total expenditures		\$450,000

2013-2014

Project and Activity Cash Flows		
Project and Activity Funding		TOTAL
Participant		Cash
Government of Canada - Environment Canada		\$450,000
Government of Quebec		\$1,889,000
Total funding of projects and activities		\$2,339,000

Cost of Projects and Activities		TOTAL
Cost details	Category of costs	Cash
Orientation 1: Identify, protect, restore and enhance areas of ecological significance		\$249,400
Orientation 2: Prevent the introduction and control the spread of invasive alien species		\$70,300
Orientation 3: Assess the impact of climate change on ecosystems		\$20,840
Orientation 4: Promote sustainable use of fisheries resources		\$12,320
Orientation 5: Identify and enhance public access sites		\$15,990
Orientation 6: Maintain and promote sustainable navigation		\$208,190
Orientation 8: Reduce agricultural nonpoint source pollution		\$303,560
Orientation 10: Assess the presence and effects of toxic substances on the ecosystem		\$66,000
State of the St. Lawrence Monitoring Program		\$1,198,400
Numerical Environmental Prediction Program for the St.Lawrence		\$194,000
Total funding of projects and activities		\$2,339,000

EC Funding		TOTAL
Expenditure details	Category of expenditures	Cash
Orientation 1: Identify, protect, restore and enhance areas of ecological significance		\$60,000
Orientation 2: Prevent the introduction and control the spread of invasive alien species		\$25,000
Orientation 3: Assess the impact of climate change on ecosystems		\$0
Orientation 4: Promote sustainable use of fisheries resources		\$7,000
Orientation 5: Identify and enhance public access sites		\$13,000
Orientation 6: Maintain and promote sustainable navigation		\$60,000
Orientation 8: Reduce agricultural nonpoint source pollution		\$67,500
Orientation 10: Assess the presence and effects of toxic substances on the ecosystem		\$17,500
State of the St. Lawrence Monitoring Program		\$170,000
Numerical Environmental Prediction Program for the St.Lawrence		\$30,000
Total expenditures		\$450,000

Future Years

Project and Activity Cash Flows		
Project and Activity Funding		TOTAL
Participant		Cash
Government of Canada - Environment Canada		\$900,000
Government of Quebec		\$3,778,000
Total funding of projects and activities		\$4,678,000

Cost of Projects and Activities		TOTAL
Cost details	Category of costs	Cash
Orientation 1: Identify, protect, restore and enhance areas of ecological significance		\$498,800
Orientation 2: Prevent the introduction and control the spread of invasive alien species		\$140,600
Orientation 3: Assess the impact of climate change on ecosystems		\$41,680
Orientation 4: Promote sustainable use of fisheries resources		\$10,640
Orientation 5: Identify and enhance public access sites		\$5,980
Orientation 6: Maintain and promote sustainable navigation		\$456,380
Orientation 8: Reduce agricultural nonpoint source pollution		\$597,120
Orientation 10: Assess the presence and effects of toxic substances on the ecosystem		\$142,000
State of the St. Lawrence Monitoring Program		\$2,396,800
Numerical Environmental Prediction Program for the St.Lawrence		\$388,000
Total funding of projects and activities		\$4,678,000

EC Funding		TOTAL
Expenditure details	Category of expenditures	Cash
Orientation 1: Identify, protect, restore and enhance areas of ecological significance		\$120,000
Orientation 2: Prevent the introduction and control the spread of invasive alien species		\$50,000
Orientation 3: Assess the impact of climate change on ecosystems		\$0
Orientation 4: Promote sustainable use of fisheries resources		\$0
Orientation 5: Identify and enhance public access sites		\$0
Orientation 6: Maintain and promote sustainable navigation		\$160,000
Orientation 8: Reduce agricultural nonpoint source pollution		\$125,000
Orientation 10: Assess the presence and effects of toxic substances on the ecosystem		\$45,000
State of the St. Lawrence Monitoring Program		\$340,000
Numerical Environmental Prediction Program for the St.Lawrence		\$60,000
Total expenditures		\$900,000

Total General

Project and Activity Cash Flows		
Project and Activity Funding		TOTAL
Participant		Cash
Government of Canada - Environment Canada		\$2,250,000
Government of Quebec		\$9,445,000
Total funding of projects and activities		\$11,695,000

Cost of Projects and Activities		TOTAL
Cost details	Category of costs	Cash
Orientation 1: Identify, protect, restore and enhance areas of ecological significance		\$1,247,000
Orientation 2: Prevent the introduction and control the spread of invasive alien species		\$331,500
Orientation 3: Assess the impact of climate change on ecosystems		\$124,200
Orientation 4: Promote sustainable use of fisheries resources		\$47,600
Orientation 5: Identify and enhance public access sites		\$44,950
Orientation 6: Maintain and promote sustainable navigation		\$1,089,950
Orientation 8: Reduce agricultural nonpoint source pollution		\$1,507,800
Orientation 10: Assess the presence and effects of toxic substances on the ecosystem		\$340,000
State of the St. Lawrence Monitoring Program		\$5,992,000
Numerical Environmental Prediction Program for the St.Lawrence		\$970,000
Total funding of projects and activities		\$11,695,000

EC Funding		TOTAL
Expenditure details	Category of expenditures	Cash
Orientation 1: Identify, protect, restore and enhance areas of ecological significance		\$300,000
Orientation 2: Prevent the introduction and control the spread of invasive alien species		\$105,000
Orientation 3: Assess the impact of climate change on ecosystems		\$20,000
Orientation 4: Promote sustainable use of fisheries resources		\$21,000
Orientation 5: Identify and enhance public access sites		\$30,000
Orientation 6: Maintain and promote sustainable navigation		\$349,000
Orientation 8: Reduce agricultural nonpoint source pollution		\$327,500
Orientation 10: Assess the presence and effects of toxic substances on the ecosystem		\$97,500
State of the St. Lawrence Monitoring Program		\$850,000
Numerical Environmental Prediction Program for the St.Lawrence		\$150,000
Total expenditures		\$2,250,000

