

COURTESY TRANSLATION

December 8, 2009

Mr. David Naftzger
Secretary, Great Lakes–St. Lawrence River Basin Water Resources Council
c/o Council of Great Lakes Governors
35 East Wacker Drive, Suite 1850
Chicago, Illinois 60601

Subject : Progress report on the implementation of Québec's Water Management and Water Conservation and Efficiency Programs

Mr. Naftzger,

As representative of the Government of Québec, signatory of the Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement, please find attached the progress reports on the Water Management and Water Conservation and Efficiency Programs, in accordance with Article 300 of the Agreement. Though this article is not yet in force in Québec, we would like to keep the partners of the Agreement informed about the progress and advancement of our programs. We also wish to adhere to, as much as is possible, the timeline for the implementation of the Compact that began on December 8, 2008.

However, as the measures necessary for the prohibition of diversions are not yet in force, it is not possible for us to send you the inventory of existing water withdrawals (Baseline).

I remain available to discuss your questions and comments, and to provide you with further information.

With my very best regards,

ORIGINAL SIGNED BY

Yvon Maranda, Ph. D.
Representative of the Government of Québec
Great Lakes–St. Lawrence River Water Resources Regional Body

Encl. Report

c. c. Mr. Charles Laroche, Assistant Deputy Minister, Water, Air and Climate Change Branch, ministère du Développement durable, de l'Environnement et des Parcs

Mrs. Madeleine Paulin, Deputy Minister, ministère du Développement durable, de l'Environnement et des Parcs

Mr. Peter Johnson, Program Director, Council of Great Lakes Governors

**Great Lakes - St. Lawrence River Basin Sustainable Water Resources
Agreement**

Québec Water Management Program Review

The following information shall be included in the reports submitted by the States and Provinces to the Regional Body and Compact Council pursuant to the requirements in the Agreement Article 300 and the Compact Section 3.4.1.

1. Lead agency/agencies and contact person(s).

The ministère du Développement durable, l'Environnement et des Parcs (MDDEP) is responsible for the implementation of the Agreement in Québec.

Mr. Yvon Maranda, Head of the Integrated Water Management Section, is the Designee of Premier Jean Charest on the Regional Body.

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2. Citations to State/Provincial Water management program implementing laws, regulations and policies.

- Environment Quality Act, R.S.Q., chapter Q-2
http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q_2/Q2_A.htm
- Groundwater Catchment Regulation, c. Q-2, r.1.3
(http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R1_3_A.htm)
- Regulation respecting environmental impact assessment and review, RRQ, 1981, c. Q-2, r. 9.
(http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R9_A.htm)

- An Act respecting the conservation and development of wildlife L.R.Q., c. C-61.1
http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/C_61_1/C61_1_A.html
 - Regulation respecting wildlife habitats, c. C-61.1, r.18, L.R.Q.,
http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/C_61_1/C61_1R18_A.HTM)
- Water Resources Preservation Act, R.S.Q., chapter P-18.1
http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/P_18_1/P18_1_A.htm)
- Watercourses Act, R.S.Q., chapter R-13
http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/R_13/R13_A.htm)
- An Act to affirm the collective nature of water resources and provide for increased water resource protection, (S.Q. 2009, c. 21)
<http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=5&file=2009C21A.PDF>)

Division VI amending provisions Environment Quality Act, §2. — Special provisions applicable to water withdrawals from the St. Lawrence River Basin

- Regulation respecting the declaration of water withdrawals, c. Q-2, r.3.2.1
http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R3_2_1_A.HTM)
- Québec Water Policy (<http://www.mddep.gouv.qc.ca/eau/politique/index-en.htm>)

3. Summary description of the State’s or Province’s Water management program scope & thresholds, including the current status of program implementation and a description of which New or Increased Withdrawals, Consumptive Uses and Diversions will be subject to the program. The summary should include information on registration (if applicable), management and regulation, and reporting elements of the program.

The provisions of Article 709, paragraph 2 of the Agreement are not in force in Québec, as the measures necessary for their implementation have not been completed. For this reason, the water management and water withdrawals regulations allowing the implementation of the Agreement, as well as Article 300 of the Agreement, are not yet in force in Québec. Québec nonetheless considers it important to provide the Regional Body with a progress report on its water management and water withdrawals program.

An Act to affirm the collective nature of water resources and provide for increased water resource protection, C.21, 2009 (Water Act), adopted by l’Assemblée nationale du Québec (National Assembly of Québec) in June, 2009, and more specifically, Sub-division 2 of Division VI, will allow Québec to meet its commitments with regards to the legislative amendments necessary for the implementation of the Agreement. The implementation of some provisions of the Act, and specifically this sub-division, requires the adoption of implementation regulations. There will be several steps in the adoption of these regulations. The development of a regulatory project that will allow the implementation of the general

provisions of *An Act to affirm the collective nature of water resources and provide for increased water resource protection*, particularly the practice of new power of authorization for water withdrawals introduced in the Environment Quality Act (Article 31.74 and the following) will be carried out in 2011. In the meantime, a first regulation on the declaration of water withdrawals was adopted in 2009. This regulation is for all water withdrawers in Québec and requires mandatory declaration of water withdrawal data. However, this regulation only partially meets the commitments of articles 301 and 207, paragraph 1 of the Agreement with regards to the information and inventory of existing withdrawals. A second regulation is being drawn up. It will cover the provisions of the Act that must be entered into force prior to the implementation of the articles of the Agreement in Article 709, paragraph 2. This regulation will also include the additional information necessary to be in accordance with articles 301 and 207, paragraph 1.

With regards to the commitments under paragraph 3 of Article 709 (related to withdrawals management and consumptive use in the Basin), these will be included in the future water withdrawals and water protection regulation, which will allow the implementation of the new general power of authorization of the *An Act to affirm the collective nature of water resources and provide for increased water resource protection* (Article 31.74 and the following), in 2011. As such, this future regulation will allow us to work with an amalgamation of various regulations related to water withdrawals: the *Groundwater Catchment Regulation*, c. Q-2, r.1.3 (RCES), the recently adopted *Regulation respecting the declaration of water withdrawals*, the first regulation for the implementation of the Agreement that allows the implementation of the provisions of paragraph 2 of Article 709 of the Agreement.

Once the regulations of the *An Act to affirm the collective nature of water resources and provide for increased water resource protection* are in force, all new or increased diversions outside the Great Lakes and the St. Lawrence River Basin will be prohibited. Exceptions may be possible solely in cases involving drinking water supply in straddling communities, or in a straddling county. The stipulations of Article 201 of the Agreement are reaffirmed in articles 31.90-31.94 of the Act. The management requirements related to withdrawals and consumptive use in the Basin are described in articles 31.95 and 31.97. These articles state that for all types of withdrawals, new or increased in the Great Lakes and St. Lawrence River Basin, the Standard of decision for the management of withdrawals and consumptive use applies at the average 379,000 litres per day threshold, or by a quantity or consumptive use specified by a government regulation.

In order to implement Article 705, *Measures Subject To Transitional Provisions*, entered into force at the signature of the Agreement, MDDEP established a transitory measure. Thus, when an application for certificate of authorization project, by virtue of Article 22 of the Environment Quality Act, or authorization by virtue of Article 32 of the Environment Quality Act pertains to the Agreement or the Great Lakes Charter, the analysts must follow the procedure determined by the Ministry, and take the provisions of the Agreement into account before authorizing a project.

Currently, even if the provisions allowing the implementation of the provisions of Article 709, paragraph 2 of the Agreement are not in force, Québec legislation has provisions for the authorization of water intakes and surface water projects, as well as a regulation for groundwater catchments.

4. Describe specifically how Water Withdrawals in the State or Province are managed by:
 - a. Sector (public water supply, self-supply commercial and institutional, self-supply irrigation, self-supply livestock, self-supply industrial, self supply thermoelectric power production (once-through cooling), self-supply thermoelectric power production (recirculated cooling), off-stream hydroelectric power production, in-stream hydroelectric power production (voluntary), and other self-supply);
 - b. Water source (groundwater, surface water (Great Lakes-St. Lawrence River), surface water other than Great Lakes-St. Lawrence River);
 - c. Quantity (regulatory thresholds, volumes, rates, and reporting requirements);
 - d. Location (Statewide/Province-wide or Great Lakes-St. Lawrence River Basin); and,
 - e. Any specific exemptions as allowed in the Agreement and the Compact.

Note: Address all sectors and sources in your descriptions even if one or more sector or source is not currently managed by your State or Province.

*As some regulations in the *An Act to affirm the collective nature of water resources and provide for increased water resource protection* are not yet in force, this section provides a general description of the main provisions governing water use in Québec.*

- Environment Quality Act (LQE)

Currently, under the Environment Quality Act, and with regards to surface water, it is not water withdrawals that are subject to authorization, but rather the work and activities on a watercourse and water intakes.

Article 22

According to Article 22 of the Environment Quality Act, whoever erects or modifies a structure, carries out work or projects, undertakes to operate an industry, carries on an activity or uses an industrial process or increases the production of goods or services in a constant or intermittent watercourse, a lake, a pond, marsh, swamp or bog must first obtain a certificate of authorization from the Minister of MDDEP.

The application for authorization must include plans and specifications of the structure or project to use the industrial process, operate the industry or increase production, and must contain a description of the apparatus or activity contemplated, indicate its precise location and include a detailed evaluation in accordance with the regulations of the Government of the quantity or concentration of contaminants expected to be emitted, deposited, issued or discharged into the environment through the proposed activity.

The Minister may also require from the applicant any supplementary information, research or assessment statement he may consider necessary to understand the impact the project will have on the environment and to decide on its acceptability.

Article 32

No one may construct an aqueduct, a surface water intake, water purification appliances or carry out work respecting sewers or the installation of devices for the treatment of waste water before submitting the plans and specifications to the Minister and obtaining his authorization.

Such authorization shall also be required for work on reconstruction, extension of old installations and connections between the conduits of a public system and those of a private system.

Groundwater Catchment Regulation

The Groundwater Catchment Regulation, adopted by the Government by virtue of the powers conferred by the Environment Quality Act, makes provisions for the process of authorization by the Minister included in Chapter IV, *Groundwater Catchment subject to the authorization of the Minister*. Applications related to groundwater catchment projects intended to supply drinking water, of a capacity less than 75,000 litres per day intended to supply more than 20 persons, or 75,000 litres or more per day must include a hydrogeological study establishing the impact of the project on the environment, other users, and public health.

Regulation respecting environmental impact assessment and review

The *Regulation respecting environmental impact assessment and review*, adopted by the Government by virtue of the powers conferred by the Environment Quality Act, establishes a procedure with which projects with the potential to have a significantly negative impact on the environment and with the potential to raise public concerns are subject to an environmental assessment. Through this process, the public holds the right to be informed and provide its opinions in consultations carried out by an independent organisation, the *Bureau d'audiences publiques sur l'environnement* (BAPE)¹.

Projects subject to this Regulation include work in water environments, ports and wharves, mines, industrial facilities, dangerous material treatment and disposal sites, energy production and transportation facilities, roads and highways, train stations and railways, airports, aerial pesticide spraying, and waste product disposal sites. In most cases, a threshold applies.

- An Act respecting the conservation and development of wildlife

The *Regulation respecting wildlife habitats in An Act respecting the conservation and development of wildlife* also mentions conditions related to water withdrawals. The Act states that in a fish habitat, no one shall pump water except in compliance with one of the following requirements:

1. In the case of a watercourse, the withdrawal does not exceed 15% of the flow of the watercourse at the location from which the water is removed;
2. In the case of a floodplain, the withdrawal does not exceed 45,000 litres per day;
3. In the case of a lake, the withdrawal does not lower the water level by more than 15 cm.

A written notice shall be sent by registered mail to the Minister of *Ressources naturelles et de la faune* at least 15 days before the date on which the pumping is to begin. The notice shall indicate the name and location of the lake from which water is to be pumped, the length

¹ <http://www.bape.gouv.qc.ca/sections/english/>

of time during which the pumping is expected to take place and the date on which the pumping is to start.

- Water Resources Preservation Act

The *Water Resources Preservation Act* prohibits transfers of water outside of Quebec, with exceptions. This Act will be repealed and the provisions taken up in the *An Act to affirm the collective nature of water resources and provide for increased water resource protection*.

- Watercourses Act

The *Watercourses Act* governs, among other things, in Divisions VII and IX, the construction or maintenance of work on shores and riverbeds, rivers and lakes that are part of the domain of the State.

5. Description of how the provisions of the Standard of Review and Decision are applied. The description should include information on how each criterion of the Decision Making Standard and Exception Standard is addressed.

f. Decision Making Standard for Withdrawals, Consumptive Uses.

g. Exception Standard for Diversions.

The Decision Making Standard for Withdrawals and Consumptive Uses is not currently implemented. As stated in Article 709, paragraph 3 of the Agreement, the management of new or increased water withdrawals and consumptive use in the Basin will be in force no later than five years after the entry into force of paragraph 2 of Article 709. In order to do this, a regulation for implementation must be drawn up and entered into force as previously explained.

The Exception Standard for Diversions is not currently implemented. A regulation for implementation is being drawn up. It will be related to the provisions of the *An Act to affirm the collective nature of water resources and provide for increased water resource protection* that must first be entered into force prior to the entry into force of the articles of the Agreement in Article 709, paragraph 2.

6. Overview of State/Provincial reporting and database of Withdrawals, Consumptive Uses and Diversions including implementation status and database elements and capabilities, and reporting mechanisms (e.g. electronic submission, etc.). The overview should include methods of measurement (e.g. flow volume or rate meters, flow gauging, timing devices, etc.) approved by the State/Province for measuring Water volumes.

As previously mentioned, the *Regulation respecting the declaration of water withdrawals* and the first Regulation of the implementation of Division VI, sub-division 2 of the *An Act to affirm the collective nature of water resources and provide for increased water resource protection* includes provisions that meet the requirements of Article 207, paragraph 1 and Article 301 of the Agreement. The *Regulation respecting the declaration of water withdrawals* has been in force since August, 2009, and targets all withdrawers not part of a

network, who withdraw 75,000 litres or more per day. The hydroelectric sector is not subject to this Regulation, and the Regulation does not include provisions for the declaration of consumptive use and all diversions outside the Great Lakes–St. Lawrence River Basin. These provisions are in the first regulation which is being drawn up to implement Division VI, subdivision 2 of the *An Act to affirm the collective nature of water resources and provide for increased water resource protection*, and applies only to withdrawers within the territory of the Agreement in Québec. As stated in the *Regulation respecting the declaration of water withdrawals*, and in the first regulation to implement the *An Act to affirm the collective nature of water resources and provide for increased water resource protection*, the withdrawers within the territory of the Agreement must declare all withdrawals of 75,000 litres per day, or greater the consumptive use associated with the withdrawal, as well as diversions outside of the Great Lakes–St. Lawrence River Basin. They must also declare all information necessary to complete the report on the inventory of existing withdrawals (the Baseline).

An information system to implement the two regulations to obtain the necessary information with respect to Article 207, paragraph 1 and Article 301 of the Agreement is being developed. This system will enable withdrawers to declare information related to withdrawals, consumptive use, and diversions of water online.

MDDEP has written and published a technical manual for withdrawers that guides them in installing a water withdrawal volume assessment system adapted to their needs. The manual introduces the most commonly used measuring equipment, its installation, use and maintenance approved by MDDEP, as well as measurement assessment methods in a precise and practical way. As added information, an up-to-date list of measurement methods written by *l'Organisation internationale de normalisation* (ISO) is annexed. And finally, this guide also includes a guide to the online declaration. Unfortunately, this manual is only available in French at the present time.

7. Attach a copy of the State or Province's Withdrawal application form(s). Copies of related regulations, policies, and manuals with the application for may be included to provide a more complete program description.

The water withdrawal proposal form, in accordance with the provisions of the *An Act to affirm the collective nature of water resources and provide for increased water resource protection*, is being drawn up. The *An Act to affirm the collective nature of water resources and provide for increased water resource protection*, the *Regulation respecting the declaration of water withdrawals*, and the technical support Guide for clients are attached. For other acts and regulations cited in point 2 of the current report, the Internet link under each title provides the legislative text.

8. Summary description of the State's or Province's initiatives to support an improved scientific understanding of the Waters of the Basin and an improved understanding of the groundwater of the Basin and the role of groundwater in Basin water resource management. A description of State or Provincial initiatives or mechanisms to support an improved understanding of individual or cumulative impacts of Withdrawals, Consumptive Uses and Diversions on the Basin ecosystem should also be provided.

Many provincial incentive measures have been carried out in the territory of Québec to promote knowledge about the water of the Basin, which includes groundwater in terms of quantity and quality.

Since 2001, the mandate of *Le Centre d'expertise hydrique du Québec* (CEHQ) has been to provide the Ministry with the hydrological and hydraulic knowledge necessary to ensure water management².

More recently, *le Bureau des connaissances sur l'eau* was established in MDDEP in September, 2008. Its structure and its mandate are confirmed in *An Act to affirm the collective nature of water resources and provide for increased water resource protection (An Act to affirm the collective nature of water resources and provide for increased water resource protection, Articles 16 and 17)*³. Its main mission is to set up and ensure the technical coordination of an up-to-date information system for the collection of data on water resources, aquatic ecosystems, and water uses in the many hydrologic units of the province, including the St. Lawrence River and its tributaries in order to sustain integrated water resource management. The *Bureau* must also prepare a report on the state of water resources and aquatic ecosystems every five years. These tasks promote a better understanding of the state of water resources in Québec, including waters of the Basin covered by the Agreement.

The setting up of *le Bureau des connaissances sur l'eau* was accompanied by the announcement of major investments by MDDEP in Fall, 2008 to increase knowledge of groundwater and to create the *Portail sur l'eau* (Portal). More specifically, a parcel of 13.5 million CDN dollars, over five years, was given to *le Bureau* for these objectives. This investment will in part allow for the establishing of the *Portail sur l'eau*. The objective of this branch is to transmit and share knowledge, to facilitate collaborative work, and to promote innovation ultimately in order to support and facilitate integrated water resource management in Québec. The remaining investment will be to launch various groundwater data-collecting projects:

- 1) A program to acquire knowledge of groundwater in order to create a portrait of the groundwater resource in municipal southern Québec;
- 2) Two research programs on groundwater and its sustainable development whose administration was given to the *Fonds québécois de la recherche sur la nature et les technologies (FQRNT)* and to the *Fonds québécois de la recherche sur la société et la culture (FQRSC)*, respectively.
- 3) Specific work to increase knowledge of groundwater under the responsibility of MDDEP.

The acquisition of knowledge program and the research program were launched in September, 2008, and April, 2009⁴.

² <http://www.cehq.gouv.qc.ca/mission/index-en.htm>

³ <http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=5&file=2009C21A.PDF>

⁴ Further information on this subject is available at:
http://www.mddep.gouv.qc.ca/eau/protection/index_en.htm

In February, 2009, MDDEP allocated a sum of ten million dollars to the consortium *Ouranos* - a consortium on regional climatology and climate change adaptation⁵. This subsidy will contribute to increasing scientific knowledge of the impacts of climate change, and to developing of adaptation strategies. One priority is water resources, and the following are particularly targeted:

- 1) quantity and quality of water,
- 2) study of the Great Lakes–St. Lawrence River system,
- 3) acquisition of further knowledge about surface water and groundwater.

Many studies conducted in this program will broaden knowledge of the waters of the Basin in the territory of Québec under the Agreement.

With regards to provincial incentive measures developed in order to increase understanding of individual and cumulative impacts of withdrawals, consumptive use, and diversions on Basin ecosystems, the government of Québec has made its commitments in the *An Act to affirm the collective nature of water resources and provide for increased water resource protection*. As such, Article 31.102 of the Act states that *The Minister must conduct an assessment of the cumulative impacts of water withdrawals and consumptive uses in the St. Lawrence River Basin on the Basin ecosystem, particularly on the waters and water-dependent natural resources of the Basin...*This assessment shall be carried out at least every five years. Furthermore, Article 31.103 states that the Minister shall make public each of the assessments conducted under section 31.102, and invite members of the public to present their observations in writing. After considering observations received from members of the public, the Minister shall make public the actions that the Minister or the Government intends to take in response to the assessment. These commitments will ensure a better understanding of the cumulative impacts of withdrawals and ultimately lead to an enlightened decision.

Finally, Québec is currently working to develop a method with management tools to assess individual and cumulative impacts of water withdrawals. This method will be used for applications for authorizations for water withdrawals.

⁵ <http://www.mddep.gouv.qc.ca/infuseur/communique.asp?no=1461>