

**Province of Québec**  
**Five-Year Review of Québec's Water Management Program and**  
**Water Conservation and Efficiency Program**

Updated December 3, 2015

The following information is submitted by the Province of Québec to the Great Lakes Regional Body Secretariat pursuant to the requirements in Article 300 of the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (Agreement).

**General Information**

**1. Lead agency and contact**

Marcel Gaucher  
Directeur général des politiques de l'eau  
Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC) and Representative designated by the Premier of Québec to the Great Lakes–St. Lawrence River Water Resources Regional Body (“Regional Body”)

**2. Provincial water management program implementing laws, regulations and policies**

The laws and regulations listed below are available at the following address:

English: <http://www.mddelcc.gouv.qc.ca/publications/lois-reglem-en.htm>

French: [http://www.mddelcc.gouv.qc.ca/publications/lois\\_reglem.htm](http://www.mddelcc.gouv.qc.ca/publications/lois_reglem.htm)

**a. Compact Section 3.4/Agreement Article 300**

**b. Compact Section 4.1/Agreement Article 301**

- *Regulation respecting the declaration of water withdrawals* (CQLR c Q-2, r 14)
- [*Règlement sur la déclaration des prélèvements d'eau* (RLRQ c Q-2, r 14)]

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q\\_2/Q2R14\\_A.HTM](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R14_A.HTM)

**c. Compact Sections 4.2(2), 4.2(4) and 4.2(5)/Agreement Article 304**

- See section h. below.

**d. Compact Section 4.3/Agreement Article 200**

Article 200 1.:

- Art. 31.90 *Environment Quality Act* (CQLR c Q-2)  
[Art. 31.90 *Loi sur la qualité de l'Environnement* (RLRQ c Q-2)]

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Article 200 2.:

- Sec. 31.92-31.94 *Environment Quality Act* (CQLR c Q-2)  
[Art. 31.92-31.94 *Loi sur la qualité de l'Environnement* (RLRQ c Q-2)]

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q\\_2/Q2\\_A.htm](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q_2/Q2_A.htm)

- *Regulation respecting the framework for authorization of certain projects to transfer water out of the St. Lawrence River Basin* (CQLR c Q-2, r 5.1)  
[*Règlement concernant le cadre d'autorisation de certains projets de transfert d'eau hors du bassin du fleuve Saint-Laurent* (RLRQ c Q-2, r 5.1)]

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q\\_2/Q2R5\\_1\\_A.HTM](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R5_1_A.HTM)

Article 200 3.:

- Sec. 31.95 *Environment Quality Act* (CQLR c Q-2)  
[Art. 31.95 *Loi sur la qualité de l'Environnement* (RLRQ c Q-2)]

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q\\_2/Q2\\_A.htm](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q_2/Q2_A.htm)

**e. Compact Section 4.8, 4.9 and 4.13/Agreement Articles 200, 201 and 208**

Article 201:

- Sec. 31.92-31.94 *Environment Quality Act* (CQLR c Q-2)  
[Art. 31.92-31.94 *Loi sur la qualité de l'Environnement* (RLRQ c Q-2)]

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q\\_2/Q2\\_A.htm](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q_2/Q2_A.htm)

- *Regulation respecting the framework for authorization of certain projects to transfer water out of the St. Lawrence River Basin* (CQLR c Q-2, r 5.1)  
[*Règlement concernant le cadre d'autorisation de certains projets de transfert d'eau hors du bassin du fleuve Saint-Laurent* (RLRQ c Q-2, r 5.1)]

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Article 208:

- Sec. 31.75 *Environment Quality Act* (CQLR c Q-2)  
[Art. 31.75 *Loi sur la qualité de l'Environnement* (RLRQ c Q-2)]

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[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q\\_2/Q2\\_A.htm](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q_2/Q2_A.htm)

**f. Compact Section 4.10/Agreement Article 206**

Sec. 31.95 *Environment Quality Act* (CQLR c Q-2)  
[Art. 31.95 *Loi sur la qualité de l'Environnement* (RLRQ c Q-2)]

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?ty pe=2&file=/Q\\_2/Q2\\_A.htm](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?ty pe=2&file=/Q_2/Q2_A.htm)

The *Water Withdrawal and Protection Regulation* (WWPR) (CQLR c Q-2, r 35.2) enables the application of section 31.95 and specifies application thresholds.

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?ty pe=3&file=/Q\\_2/Q2R35\\_2\\_A.HTM](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?ty pe=3&file=/Q_2/Q2R35_2_A.HTM)

**g. Compact Section 4.11/Agreement Article 207**

207.1:

- *Regulation respecting the declaration of water withdrawals* (CQLR c Q-2, r 14)  
[*Règlement sur la déclaration des prélèvements d'eau* (RLRQ c Q-2, r 14)]

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q\\_2/Q2R14\\_A.HTM](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R14_A.HTM)

Withdrawals authorized between September 1, 2011 and the coming into force of section 31.95 of the EQA will be considered as existing withdrawals. They will be added to the list of withdrawals existing on September 1, 2011.

207.2:

- Sec. 31.96 *Environment Quality Act* (CQLR c Q-2)  
[Art. 31.96 *Loi sur la qualité de l'Environnement* (RLRQ c Q-2)]

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q\\_2/Q2\\_A.htm](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q_2/Q2_A.htm)

207.5:

- The *Water Withdrawal and Protection Regulation* (WWPR) (CQLR c Q-2, r 35.2) elaborates on this concept in section 3.

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q\\_2/Q2R35\\_2\\_A.HTM](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R35_2_A.HTM)

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207.9:

- Sec. 31.90 *Environment Quality Act* (CQLR c Q-2)  
[Art. 31.90 *Loi sur la qualité de l'Environnement* (RLRQ c Q-2)]

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q\\_2/Q2\\_A.htm](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q_2/Q2_A.htm)

**h. Agreement Article 304**

- Sec. 31.101 *Environment Quality Act* (CQLR c Q-2)  
[Art. 31.101 *Loi sur la qualité de l'Environnement* (RLRQ c Q-2)]

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q\\_2/Q2\\_A.htm](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q_2/Q2_A.htm)

## **Water Management Program**

### **1. Summary description of Québec's Water management program scope and thresholds**

The *Act to Affirm the Collective Nature of Water Resources and Provide for Increased Water Resource Protection* ("Water Act") amended the *Environment Quality Act* (EQA) to include the provisions of the Agreement.

#### **Diversions**

For the application of Article 201 of the Agreement (exceptions to the prohibition of diversions), EQA sections 31.90 to 31.94 concerning transfers of water outside the Basin are in force. The *Regulation respecting the framework for authorization of certain projects to transfer water out of the St. Lawrence River Basin* was adopted in 2011, enabling the application of EQA sections with which withdrawers must comply to obtain authorization to transfer water out of the Basin, in accordance with standards for exceptions to the Agreement.

#### **New or increased withdrawals**

Additionally, the Water Act added to the EQA a new authorization regime applying to all withdrawals of 75 m<sup>3</sup> or more per day throughout the territory of Québec. The new regime came into force with the enactment of the *Water Withdrawal and Protection Regulation* (WWPR) in July 2014. For the application of Article 203 of the Agreement (Decision-Making Standard for management of withdrawals and consumptive uses), particular provisions apply to withdrawals on the territory of the Agreement. These are in EQA section 31.95, which specifically concerns withdrawals on the territory of the Agreement and applies the Decision-Making Standard for management of withdrawals and consumptive uses. The application threshold for the standard is 379,000 litres or more per day, averaged over a period of 90 days.

#### **Reporting**

In 2011 Québec adopted the *Regulation amending the Regulation respecting the declaration of water withdrawals*. The amended regulation allows Québec to collect information on withdrawals and consumption in the St. Lawrence River Basin, and on volumes of water transferred out of the Basin. It enables Québec to meet its commitments under Article 301 of the Agreement, while supporting the application of EQA provisions on water transfers and the authorization framework for water withdrawals, notably by setting the threshold for determining new or increased withdrawals in the St. Lawrence River Basin.

### **2. Description of how Québec manages Water Withdrawals by sector, water source, quantity and location**

- 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**

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**production (recirculated cooling), off-stream hydroelectric power production, in-stream hydroelectric power production (voluntary), and other self-supply;**

Authorization of water withdrawals

Section 31.75 of the *Environment Quality Act (EQA)* specifies that in general, withdrawals of 75,000 litres or more per day are subject to authorization, renewable every 10 years.

Declaration of water withdrawals (Reporting)

Since 2011, under the *Regulation respecting the declaration of water withdrawals*, all existing withdrawers (379 m<sup>3</sup> or more) must declare the volumes of water withdrawn, consumed on the territory of the Agreement, or transferred outside the territory.

Section 18.7 of the Regulation states that agricultural and fish-farming businesses must produce their first annual declaration in 2016 (for withdrawals performed in 2015).

**b. Water source (groundwater, surface water (Great Lakes-St. Lawrence River), surface water other than Great Lakes-St. Lawrence River);**

The authorization regime specific to water withdrawals applies to both surface water and groundwater throughout Québec.

When declaring the volumes of water withdrawn, withdrawers must provide information on, among other things, the source of withdrawals (underground, surface).

**c. Quantity (regulatory thresholds, volumes, rates, and reporting requirements);**

Authorization of water withdrawals

Section 31.75 of the EQA provides the application thresholds for the authorization regime for water withdrawals across Québec. In general, withdrawals of 75,000 litres or more per day are subject to authorization. The same section also states that certain withdrawals are subject to authorization even if their volume is less than 75,000 litres per day.

Section 31.95 of the EQA sets the application threshold as an average of 379,000 litres or more per day for new or increased withdrawals on the territory of the Agreement.

Section 31.92 specifies the application threshold for standards applying to transfers that supply a municipality located partly within the St. Lawrence River Basin and partly outside of the Basin.

Section 3 of the *Water Withdrawal and Protection Regulation (WWPR)* specifies the method for applying these calculations.

Section 7 (10) of the WWPR stipulates that an application for a water withdrawal authorization must describe the scenario for the planned withdrawal, including the withdrawal periods and the volumes to be withdrawn, consumed and discharged.

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Declaration of water withdrawals (Reporting)

Withdrawers (75,000 litres or more) must submit a declaration of the volume withdrawn.

Withdrawers (379,000 litres or more) on the territory of the Agreement must also submit a declaration of the volumes of water withdrawn, consumed on the territory of the Agreement, and transferred outside of the territory as the case may be.

**d. Location (Statewide/Province-wide or Great Lakes-St. Lawrence River Basin); and**

Authorization and declaration of water withdrawals

Withdrawers must provide information on, among other things, the geolocation of withdrawals.

**e. Any specific exemptions as allowed in the Agreement and the Compact.**

Section 31.75 specifies that a temporary, non-recurring withdrawal for emergency-response, humanitarian or civil protection purposes is exempted from authorization.

Also, section 6 of the *Water Withdrawal and Protection Regulation* (WWPR) lists other types of water withdrawals that are exempted from authorization.

**3. Description of how the provisions of the Standard of Review and Decision are applied**

**a. Decision Making Standard for Withdrawals, Consumptive Uses**

Section 31.95 of the EQA sets out conditions for authorization corresponding to the Decision-Making Standard for management of withdrawals and consumptive uses. Thus:

EQA section 31.95 :

*1° all water withdrawn is to be returned to the Basin, with preference to the direct St. Lawrence River tributary stream watershed from which it was derived, if applicable, less an allowance for consumptive use;*

*2° the quantity of water withdrawn or consumed would result in no significant individual or cumulative adverse impacts on the quantity or quality of the waters of the Basin or on water-dependent natural resources in the Basin;*

*3° the withdrawal or consumptive use is subject to water conservation measures determined by regulation of the Government, or by the Minister under other provisions of this Act; and*

*4° the quantity of water withdrawn or consumed is reasonable having regard, among other things, to*

*a) the water's intended use;*

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- b) *the measures implemented for the conservation and efficient use of water, including water from existing water supplies;*
- c) *the balance between economic, social and environmental development;*
- d) *the foreseeable impacts on the environment and on other uses, and the measures for avoidance or mitigation of such impacts; and*
- e) *the supply potential of the water source and other interconnected water sources.*

**b. Exception Standard for Diversions**

The *Act to Affirm the Collective Nature of Water Resources and Provide for Increased Water Resource Protection* ("Water Act") was adopted in 2009. It introduced into Québec legislation (through the *Environment Quality Act*) the provisions of the Agreement on the regulation of transfers of water outside the St. Lawrence River Basin. The exception criteria are consistent with those set forth in the Agreement. More precisely:

EQA section 31.90 :

*No water withdrawn from the St. Lawrence River Basin may be transferred out of the Basin, except as set out below and in section 31.91.*

*This prohibition does not apply to water withdrawals, from the outset made for purposes of transfer out of the Basin, that were authorized before 1 September 2011 or, if not authorized, were lawfully commenced before that date. Unless it is increased under the conditions defined by sections 31.91 to 31.93, the quantity of water derived from such a withdrawal must not, however, exceed the quantity authorized at that date or, if there is no authorization or the authorization does not determine a maximum quantity, the capacity of the withdrawal system at that date.*

*Nor does this prohibition apply to water withdrawn*

*1° to be marketed for human consumption, if packaged within the Basin in containers of 20 litres or less;*

*2° to be used within the Basin in the manufacture, preservation or processing of products;*

*3° to supply vehicles, including vessels and aircraft, whether for the needs of persons or animals being transported or for ballast or other needs related to the operation of the vehicles; or*

*4° for humanitarian, civil protection or emergency-response purposes provided the withdrawal is temporary and non-recurrent.*

EQA section 31.91 :

*In addition to the conditions prescribed by sections 31.92 and 31.93 and those the Government or the Minister may prescribe under other provisions of this Act, a transfer out of the St. Lawrence River Basin resulting from a new withdrawal from the Basin, or an increased transfer out of the Basin resulting from such a withdrawal or a withdrawal existing on 1 September 2011, may be authorized under the following conditions:*

*1° all water transferred out of the Basin is intended to supply a waterworks system serving all or part of the population of a local municipality whose territory is either*

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*a) partly within the Basin; or*

*b) both wholly outside the Basin and wholly within a regional county municipality whose territory is partly within the Basin; and*

*2° all water transferred out of the Basin is to be returned to the Basin, with preference to the direct St. Lawrence River tributary stream watershed from which it was withdrawn, if applicable, less an allowance for consumptive use. No water from outside the Basin may be added to complete the quantity of water returned to the Basin unless*

*a) it is part of a water supply or waste water treatment system that combines water from inside and outside the Basin;*

*b) it is treated to meet applicable water quality or discharge standards and to prevent the introduction of invasive species into the Basin; and*

*c) it maximizes the portion of water from within the Basin and minimizes the portion from outside the Basin.*

*For the purposes of this section, "new withdrawal" means any water withdrawal authorized after 1 September 2011.*

*The Minister shall publish in the Gazette officielle du Québec a list of the local municipalities and regional county municipalities whose territory is partly within the Basin for the purposes of subparagraphs a and b of subparagraph 1 of the first paragraph.*

**EQA section 31.92 :**

*If it involves an average of 379,000 litres or more per day, or a lesser quantity determined by regulation of the Government, that is intended to supply a waterworks system serving a municipality described in subparagraph a of subparagraph 1 of the first paragraph of section 31.91, a transfer out of the St. Lawrence River Basin resulting from a new or increased water withdrawal described in that section may be authorized only if it meets the following conditions:*

*1° the transfer cannot be reasonably avoided or diminished through the conservation and efficient use of existing water supplies;*

*2° the quantity of water to be transferred is reasonable having regard to the water's intended use;*

*3° the transfer would result in no significant individual or cumulative adverse impacts on the quantity or quality of the waters and water-dependent natural resources of the Basin; and*

*4° the transfer is subject to water conservation measures determined by regulation of the Government, or by the Minister under other provisions of this Act.*

*If a transfer out of the Basin under the first paragraph would result in a consumptive use of an average of 19 million litres or more per day, it is also subject to review by the Great Lakes-St. Lawrence River Water Resources Regional Body established by the Agreement.*

**EQA section 31.93 :**

*A transfer out of the St. Lawrence River Basin resulting from a new or increased water withdrawal described in section 31.91 that is intended to supply a waterworks system serving a municipality described in subparagraph b of subparagraph 1 of the first*

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*paragraph of that section may be authorized only if it meets the conditions set out below and the conditions prescribed in subparagraphs 1 to 4 of the first paragraph of section 31.92:*

*1° there is no water supply alternative within the watershed in which the local municipality concerned is situated that is reasonably accessible and able to satisfy its drinking water needs;*

*2° the quantity of water transferred will not endanger the integrity of the Basin ecosystem; and*

*3° the transfer was reviewed by the Great Lakes-St. Lawrence River Water Resources Regional Body.*

EQA section 31.94 :

*If, under section 31.92 or 31.93, an application for authorization is subject to review by the Great Lakes-St. Lawrence River Water Resources Regional Body, the Minister must, after so informing the applicant,*

*1° notify the Regional Body and each of the parties to the Agreement;*

*2° send the Regional Body the application record containing all the documents or information provided by the applicant as well as the Minister's opinion on the compliance of the application with the conditions prescribed by sections 31.91 to 31.93 and those set out in the Agreement; and*

*3° at the request of the Regional Body or one of the parties to the Agreement, provide any additional document or information the Regional Board or the party may consider necessary for review of the application for authorization.*

*The Minister must also inform the public that the application for authorization is subject to review by the Regional Body.*

*After reviewing the application for authorization as set out in the Agreement and its own rules of procedure, the Regional Body shall issue a declaration on the compliance of the application with the conditions set out in the Agreement. The declaration is sent to the Minister and made available to the public in the manner the Regional Body determines.*

*In making a decision with respect to the application for authorization, the Minister or the Government, as the case may be, shall take into account the Regional Body's declaration.*

The *Regulation respecting the framework for authorization of certain projects to transfer water out of the St. Lawrence River Basin* was adopted in 2011, specifying the provisions with which withdrawers must comply to obtain authorization to transfer water outside of the St. Lawrence River Basin. Sections 3, 4 and 5 of this regulation specify the information and studies that must accompany an application for such authorization.

Section 7 of the *Water Withdrawal and Protection Regulation* (WWPR) (CQLR c Q-2, r 35.2) specifies the information and studies that must accompany an application for a water withdrawal authorization. Furthermore, section 31.82 of the EQA states that the Minister may require the applicant to provide any additional study or expert evaluation the Minister considers necessary to make a decision.

#### **4. Overview of Provincial reporting and database of Withdrawals, Consumptive Uses and Diversions**

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The *Regulation respecting the declaration of water withdrawals* ("RDWW") was adopted in 2009 and amended in 2011 to incorporate provisions reflecting the Agreement. The purpose of the Regulation is to allow Québec to collect information on the volumes of water withdrawn and consumed in the St. Lawrence River Basin and on the volumes of water transferred out of the Basin.

Section 9 of the RDWW indicates the basic information to be provided by all withdrawers of 75 m<sup>3</sup> or more of water per day, throughout the territory of Québec, in their annual declaration of water withdrawals.

Section 18.7 of the RDWW indicates the supplementary information regarding water consumption and transfers out of the St. Lawrence River Basin that must be provided by withdrawers on the territory of the Agreement with a withdrawal capacity of 379 m<sup>3</sup> or more of water per day (100,000 gallons). This information allows Québec to meet its commitment under Article 301 of the Agreement.

Québec employs the definition of "consumptive use" specified in the Agreement. The same definition is set forth in EQA section 31.89: "that portion of water withdrawn or impounded from the St. Lawrence River Basin that is lost or otherwise not returned to the Basin due to evaporation, incorporation into a product, or other processes."

Subparagraphs (1) and (2) of section 18.7 of the RDWW specify the information that must be provided by all withdrawers regarding water transfers. It includes: the volumes of water transferred out of the Basin, expressed in litres, indicating for each withdrawal site the georeferenced data of sites where the transferred water is used; and the volumes of water discharged or returned to the St. Lawrence River Basin, expressed in litres, with the georeferenced data of sites where the water was discharged or returned as the case may be.

In accordance with Article 207 of the Agreement, section 18.4 of the RDWW specifies the information that withdrawers on the territory of the Agreement had to provide by March 31, 2012 to establish a baseline for Québec. This baseline will serve in setting the application threshold for the authorization regime for water withdrawals.

All sectors concerned by the Agreement and Resolution No.13 of the Regional Body are covered by Title II of the RDWW regarding withdrawals on the territory of the Agreement, with the exception of run-of-river hydroelectric production. The latter is optional in Resolution No.13 of the Regional Body regarding the collection and transmission of data on water use.

All withdrawers concerned by the RDWW must submit an annual declaration of water withdrawals by March 31 of the current year, for withdrawals performed at any time during the previous year (January 1 to December 31).

Québec has allowed additional time to the agricultural and fish-farming sectors before they must begin declaring water withdrawals. Paragraph 5 of section 18.7 of the RDWW states that agricultural and fish-farming businesses on the territory of the Agreement must produce their first annual declaration by March 31, 2016 (for withdrawals performed in 2015).

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Paragraph 2 of section 9 of the RDWW states that annual declarations must be transmitted electronically. However, withdrawers without access to Internet service may use a paper form.

Section 5 of the RDWW states that withdrawals must be calculated on the basis of direct measurement, using measuring equipment, in accordance with the provisions of section 6 of the RDWW (section 6 refers to Chapter IV of the same regulation). However, a withdrawer who does not have measuring equipment may estimate the volumes of water withdrawn based on indirect or spot measurements. Such estimates of the volumes of water withdrawn must be performed in accordance with section 7, and must be certified by a professional (RDWW section 7, par. 3). Section 8 of the RDWW stipulates that a withdrawer who establishes or alters a withdrawal site must fit the site with measuring equipment.

As for determining volumes of water consumed, in all sectors this may be done by either direct measurement or estimation. Direct measurement with measuring equipment must comply with the provisions applying to the calculation of volumes of water withdrawn (RDWW section 6). Withdrawers in all sectors may estimate the volumes of water consumed. However, the estimate must be performed by a professional (RDWW section 18.7 par. 4 and section 18.4 par. 3). This contrasts with estimated withdrawals, which need only be certified by a professional. If the water is withdrawn to supply a waterworks system, the person making the declaration may indicate a consumptive use equal to 15% of the withdrawals, as stated in section 18.4 par. 3.

In section 2 par. 8 of the RDWW, a “professional” is defined as a professional within the meaning of section 1 of the Professional Code of Québec whose professional order governs the exercise of a professional activity referred to in the Regulation.

Information on the methods of calculation and estimation approved by Québec is provided in the *Guide de soutien technique pour la clientèle* (technical support guide for those concerned by the RDWW).

The regulatory provisions on determining the volumes of water withdrawn and consumed also apply to water transferred out of the St. Lawrence River Basin and water returned to the Basin.

The information collected is stored in the province's water withdrawal management database, *Gestion des prélèvements d'eau* (GPE).

## **5. Québec's Provincial withdrawal application documents**

### **Authorization of water withdrawals**

The water withdrawal application form is provided (in French) at the following address:

<http://www.mddelcc.gouv.qc.ca/eau/prelevements/reglement-prelevement-protection/index.htm>

### **Declaration of water withdrawals**

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*Regulation respecting the declaration of water withdrawals:*

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q\\_2/Q2R14\\_A.HTM](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R14_A.HTM)

The electronic form is available through the portal for the water withdrawal management database, GPE:

<http://www.mddelcc.gouv.qc.ca/eau/prelevements/enligne.htm>

The electronic form corresponds to the paper form.

A step-by-step guide (in French) explains the electronic form and how to enter information into the water withdrawal management system:

<http://www.mddelcc.gouv.qc.ca/eau/prelevements/demarche-pasapas.pdf>

*Support guide – Regulation respecting the declaration of water withdrawals* (in French) [Guide de soutien technique pour la clientèle - Règlement sur la déclaration des prélèvements d'eau]:

<http://www.mddelcc.gouv.qc.ca/eau/prelevements/Guide-soutien-clientele.pdf>

**6. Summary description of the 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, and a description of Provincial initiatives or mechanisms to support an improved understanding of individual or cumulative impacts of Withdrawals, Consumptive Uses and Diversions on the Basin ecosystem**

EQA section 31.102 reflects Article 209 of the Agreement. It states in part: "*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, in accordance with the requirements of the Agreement.*" The assessment must be done at least every five years. The resulting information will provide a better understanding of the cumulative impacts of withdrawals, which in turn will enable informed decision-making.

To support this work, and in line with the science component of the Agreement, Québec is collaborating with the Ouranos consortium, the federal government and the university institute INRS-ETE (*Institut national de la recherche scientifique – Eau Terre Environnement*) on an *evaluation of the impacts of global warming on the hydrologic cycle at the watershed level*. The project is focused on characterizing changes in water supply in the Great Lakes–St. Lawrence system, based on climate change scenarios at different spatio-temporal scales. A progress report is available at the following address:

[http://www.ouranos.ca/media/publication/269\\_GreatLakes\\_ScientificNote\\_Music2012.pdf](http://www.ouranos.ca/media/publication/269_GreatLakes_ScientificNote_Music2012.pdf)

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Additionally, Québec is developing a method and management tools for assessing the individual and cumulative impacts of water withdrawals, for use in studying applications for authorization. To that end, Québec intends to enhance the criteria for assessing the impacts of water withdrawals relative to environmental flows. Québec is thus an active member of the working group on environmental flows of the Canadian Council of Ministers of the Environment (CCME). The group has engaged a third party to examine how best to approach the application of this concept, using four case studies on methods for measuring cumulative impacts and the use of environmental flows in different jurisdictions. The working group's members will use the recommendations in the final report as a guide in selecting the most appropriate method for their respective province.

Under the Government of Québec's 2006-2012 Climate Change Action Plan, a variety of projects received funding to improve scientific knowledge about the impact of climate change and to develop adaptation strategies. Projects related to water include:

- Programming to meet the need for precise governmental research on climate change adaptation. The funded projects will result in a series of deliverables (literature reviews, reports, maps, computer programs) to be made available to the relevant ministries and agencies of the Government of Québec.
- A hydrologic modeling platform was created for the watersheds of tributaries of the St. Lawrence, and pilot projects on water withdrawal management, dam management and crop irrigation were conducted or are underway in the Saint-François and Châteauguay rivers. Their results will inform the reflection process on adapting water management in populated Québec.

A more detailed description of these projects (in French) is provided in the sixth annual report on the implementation of the 2006-2012 Climate Change Action Plan, at:

[http://www.mddelcc.gouv.qc.ca/changements/plan\\_action/bilans/bilan6.pdf](http://www.mddelcc.gouv.qc.ca/changements/plan_action/bilans/bilan6.pdf)

Work is currently underway on science projects to be conducted under the 2013-2020 Climate Change Action Plan.

Lastly, in 2008 the Government decided to extend its knowledge of the groundwater resource by creating the *Programme d'acquisition de connaissances sur les eaux souterraines du Québec* [Québec groundwater knowledge acquisition program]. The purpose of the program is to develop a realistic and concrete portrait of the groundwater resources of municipalized territories in southern Québec, with the ultimate goal of protecting them and ensuring their sustainability. For more information on this program (in French), see:

<http://www.mddelcc.gouv.qc.ca/eau/souterraines/programmes/acquisition-connaissance.htm>

## 7. Additional information

N/A

## **Water Conservation and Efficiency Program**

### **1. Status of Québec's Water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives**

In 2011 the Government of Québec adopted the goals and objectives set out in the Québec Water Conservation and Efficiency Program. In formulating the Program's guiding principles, Québec drew upon the goals expressed in the first paragraph of Article 304 of the Agreement. It then adapted to Québec realities the five regional objectives adopted on December 4, 2007 by the Regional Body.

The goals and objectives of the Québec Water Conservation and Efficiency Program were developed in collaboration with all ministries of the Government of Québec that have water-related roles and responsibilities: the Ministère des Affaires municipales et de l'Occupation du territoire (MAMOT), Ministère de l'Énergie et des Ressources naturelles (MERN), Ministère de l'Agriculture, des Pêcheries et de l'Alimentation (MAPAQ), Ministère du Conseil exécutif (MCE), Ministère de l'Éducation, du Loisir et du Sport (MELS), Ministère de l'Économie, de l'Innovation et des Exportations (MEIE), Ministère des Transports du Québec (MTQ), Ministère des Relations internationales et de la Francophonie (MRIF), and the Ministère de l'Enseignement supérieur, de la Recherche et de la Science (MESRS) through the Interdepartmental Agreement Implementation Committee.

The goals and objectives of the Québec Water Conservation and Efficiency Program are presented in section 3.2 of that document, whose Attachment B provides greater detail:

<http://www.mddelcc.gouv.qc.ca/programmes/conservation-utilisation-efficace-eau/programme-en.pdf>

### **2. Water Conservation and Efficiency Program Overview**

#### **a. Citations to Provincial Water Conservation and Efficiency Program implementing laws, regulations and policies**

Article 304 of the Agreement concerning the implementation of a water conservation and efficiency program came into force in Québec legislation with section 31.101 of the *Environment Quality Act* (EQA).

EQA section 31.75 indicates that "withdrawals are subject to the authorization of the Minister or (...) the Government." The *Water Withdrawal and Protection Regulation* (WWPR) specifies that the applicant for an authorization must demonstrate the reasonableness of the water withdrawal. That assessment will take into account any existing or planned conservation and efficiency measures to reduce the water withdrawal.

EQA section 31.78 indicates that when authorizing a water withdrawal, the Government may, "if it considers it necessary for greater protection of the environment, including aquatic ecosystems and wetlands, (...) prescribe

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requirements different from those prescribed by regulation of the Government.” For example, specific conservation and efficiency measures could be required.

Similarly, EQA section 31.79 states in part: “When issuing, renewing or amending a water withdrawal authorization, the Minister may (...) prescribe any condition, restriction or prohibition the Minister considers appropriate [, which] may be different from what is prescribed by regulation of the Government.”

EQA section 31.80 indicates that “a condition, restriction or prohibition imposed under section 31.79 may concern (...) (6) measures to ensure the conservation and efficient use of the water withdrawn and to reduce the quantity of water consumed, lost or not returned to the environment after use (...).”

EQA section 31.92 states in part: “if it involves an average of 379,000 litres or more per day, (...) a transfer out of the St. Lawrence River Basin resulting from a new or increased water withdrawal described in that section may be authorized only if it meets the following conditions: (1) the transfer cannot be reasonably avoided or diminished through the conservation and efficient use of existing water supplies; (2) the quantity of water to be transferred is reasonable having regard to the water's intended use; (...) (4) the transfer is subject to water conservation measures determined by regulation of the Government, or by the Minister under other provisions of this Act.”

The *Regulation respecting the framework for authorization of certain projects to transfer water out of the St. Lawrence River Basin* enables the application of EQA section 31.92. Section 4 of the Regulation states in part: “If the proposed water transfer involves an average quantity of water of 379,000 litres or more per day that is intended to supply a waterworks system serving a municipality (...), the application must (...) be accompanied by the following documents and information: (1) a description of the measures for the preservation and efficient use of the water that the applicant undertakes to carry out, including timetables; (2) a description of the follow-up indicators that will be used to monitor those measures for preservation and efficient use; (3) a narrative description explaining why the water transfer is necessary. The description must also include an analysis of the efficiency of the current uses of water, including the application of preservation measures that are judicious in terms of environment protection and economically feasible with regard to existing water supplies so as to reduce as much as possible the volume of water to be transferred; (4) a narrative description explaining why the volumes of water whose transfer is proposed are reasonable in relation to the proposed use. To that end, the application must also include a water use plan. The plan must include: (...) (c) an evaluation of the savings resulting from an efficient use of water (...).”

The Regulation may be consulted at the following address:

[http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q\\_2/Q2R5\\_1\\_A.HTM](http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R5_1_A.HTM)

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EQA section 31.95 states in part: “If it involves an average quantity or consumptive use of 379,000 litres or more per day, (...) a new withdrawal from the Basin, an increase in a new withdrawal or an increase in an existing withdrawal (...) may be authorized only if it meets the conditions set out below (...): (3) the withdrawal or consumptive use is subject to water conservation measures determined by regulation of the Government (...); (4) the quantity of water withdrawn or consumed is reasonable having regard, among other things, to: (...) (b) the measures implemented for the conservation and efficient use of water, including water from existing water supplies (...).” The *Water Withdrawal and Protection Regulation*, which enables the implementation of section 31.95, specifies that when studying an application for authorization, the ministry will consider the reasonableness of the water withdrawal. That assessment will take into account any existing or planned conservation and efficiency measures to reduce the water withdrawal.

The authorization process is a means of promoting the implementation of water conservation and efficiency measures. To that end, model measures specific to each sector of activity are currently being developed.

**b. Summary description of the Province’s Water Conservation and Efficiency Program including what elements are voluntary and mandatory**

The Québec Water Conservation and Efficiency Program is described in the following document, whose Attachment C is a list of the Program’s measures:

<http://www.mddelcc.gouv.qc.ca/programmes/conservation-utilisation-efficace-eau/programme-en.pdf>

Most of the measures are implemented on a voluntary basis by the ministries listed in section 7.1 of the present report, for application throughout the territory of Québec. Laws and regulations are mandatory.

**3. Description of how the Province promotes Environmentally Sound and Economically Feasible Water Conservation Measures**

More details for each objective are available at [http://www.glsregionalbody.org/Docs/Resolutions/GLSLRWRRB\\_Resolution\\_6-Conservation-Efficiency.pdf](http://www.glsregionalbody.org/Docs/Resolutions/GLSLRWRRB_Resolution_6-Conservation-Efficiency.pdf) and can be provided in the table below.

OBJECTIVES	LEGISLATIVE OR PROGRAM CITATION
➤ Guide programs toward long-term sustainable water use.	The first goal, <i>Foster long-term sustainable water use that takes ecosystem health and water needs into account</i> , directly concerns those government actions that can help make water withdrawals in Québec sustainable. The actions are grouped under three objectives: legal issues, reduced water use in various activity sectors, and ecosystem protection.
➤ Adopt and implement	The second goal, <i>Adopt and implement a supply and</i>

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supply and demand management to promote efficient use and conservation of water resources.	<i>demand management approach that takes into account the expected impacts of climate change</i> , concerns the new clearance system for water withdrawals that now incorporates sound management principles. The goal has two objectives: determine how much water is withdrawn, consumed, and disposed of and learn more about how climate change affects supply and demand.
➤ Improve monitoring and standardize data reporting among State and Provincial water conservation and efficiency programs.	The third goal, <i>Implement monitoring measures for the Water Conservation and Efficiency Program</i> , specifically identifies MDDELCC as Program coordinator and monitor. This goal has two objectives: develop a Program assessment process and make Program assessment a source of ongoing knowledge acquisition.
➤ Develop science, technology and research.	The fourth goal, <i>Promote scientific research, technological development, and knowledge acquisition</i> , concerns the development of knowledge on water conservation and efficiency. The three objectives under this goal are to strengthen research efforts, encourage partnerships, and foster the development of new technology.
➤ Develop education programs and information sharing for all water users.	The fifth goal, <i>Educate, inform, equip, and motivate water stakeholders and users</i> , groups together concrete means to guide, support, and empower water stakeholders and users in their approach to water conservation and efficiency. This goal involves four objectives: raising awareness of the value of water, sharing information, developing concrete tools, and recognizing efforts.

**4. Description of the Provincial Water conservation and efficiency program implementation timeline and status**

To facilitate coordination of ministries’ activities under the Agreement, MDDELCC has set up an Interdepartmental Agreement Implementation Committee<sup>1</sup> (hereinafter referred to as the “Committee”). The Committee coordinates and integrates the work of the ministries under the Program and strengthens their water conservation and efficiency initiatives in their respective areas of responsibility. Since 2012, the Committee has been under the umbrella of the Interdepartmental Committee on Integrated Water Management of the MDDELCC.

The Program is intended to be introduced gradually, as water conservation and efficiency is a new field in which knowledge is still in the early development stage in Québec, given the relative abundance of water. Effective water demand management will require new

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<sup>1</sup> The Interdepartmental Agreement Implementation Committee was set up before the Agreement was signed in 2005 to define Québec’s position vis-à-vis commitments and requirements under the Agreement. Professionals from the various ministry departments involved sit on the committee.

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knowledge to ensure the right decisions are made. As knowledge improves and we gain a better understanding of water quantity issues, ministries will have the latitude they need to introduce new measures under the Program.

It should be noted that Program measures will depend to a great extent on the initiatives and work of each ministry. The ministries must therefore adopt and execute five-year plans for each Program measure under their responsibility and set annual, measurable targets using benchmarks. It will then be up to each ministry to develop new water conservation and efficiency measures in its area of expertise.

As Program coordinator, MDDELCC provides Program assessments and reports in compliance with Article 304 of the Agreement. Each measure is assessed annually, and the results are released in a public report. For measures under development, assessment consists of determining progress based on the ministry's action plan. For measures already being applied, the ministry's five-year targets are examined using the corresponding benchmarks to determine to what extent the targets have been attained.

A progress report on Program objectives and goals is prepared every five years, submitted to the Regional Body, and made public. Given that Program objectives are long term and complex, five-year targets are set that are more specific and measurable to aid in drawing up the report and provide structure. The five-year review is also an opportunity to reassess the five-year targets based on new knowledge and include new measures that have been implemented or are under development.

To encourage ministries to adopt new measures in their areas of responsibility, MDDELCC will work with the ministries to ensure that new five-year targets are set for Program objectives. Targets will be added as knowledge of water supply and demand improves and issues become clearer.