

**3.** Section 25 is amended by replacing “The notice must, if applicable,” by “Except in regard to a hypothec brokerage contract, the notice must”.

**4.** Section 26 is amended by replacing “The notice must, if applicable,” by “Except in regard to a hypothec brokerage contract, the notice must”.

**5.** Section 29 is amended by adding the following second paragraph:

“The licence holder must note in the record the information concerning the identity of the represented party and, where the licence holder has not been able to meet the party in person, keep in the record the documents used to verify the identity of the party.”.

**6.** Section 30 is amended by inserting “or the party’s representative” after “the party represented”.

**7.** Section 34.1 is amended by replacing “as it appears” in paragraph 7 by “or, if applicable, the name by which the broker is commonly known as they appear”.

**8.** Section 114 is amended by replacing “full name” in subparagraph 1 of the first paragraph by “name”.

**9.** Section 115.1 is amended in the second paragraph by adding “or an abbreviation provided for in the Act governing the corporation” at the end.

**10.** This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*.

## **Regulation to amend the Regulation respecting disciplinary proceedings of the Organisme d’autoréglementation du courtage immobilier du Québec**

Real Estate Brokerage Act  
(chapter C-73.2, ss. 90 and 95)

**1.** The Regulation respecting disciplinary proceedings of the Organisme d’autoréglementation du courtage immobilier du Québec (chapter C-73.2, r. 6) is amended by replacing section 10 by the following:

“**10.** The review committee may make a ruling even if the syndic or the person who requested a review does not attend the scheduled meeting or has not presented written observations or produced the necessary documents to complete the file. The committee’s ruling, made by a majority of members, must be recorded in writing, and signed by the concurring committee members.”.

**2.** Section 17 is amended by replacing the second paragraph by the following:

“If, after the discipline committee has determined guilt, the chair or vice-chair is absent or unable to act, or is the subject of an appointment and does not avail himself or herself of the possibility to continue to perform duties under the first paragraph, another division must be formed promptly to hear the parties in relation to the penalty and impose it within 90 days after the hearing. Interlocutory decisions rendered before the formation of that division remain valid.”.

**3.** Section 21 is amended by adding the following second paragraph:

“Every function of the secretary may be performed by an assistant secretary.”.

**4.** This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*.

2697

## **Draft Regulation**

Environment Quality Act  
(chapter Q-2)

An Act to affirm the collective nature of water resources and provide for increased water resource protection  
(chapter C-6.2)

Mining Act  
(chapter M-13.1)

Pesticides Act  
(chapter P-9.3)

**Water Withdrawal and Protection Regulation and**

**Pesticides Management Code, Regulation respecting the application of the Environment Quality Act, Regulation respecting waste water disposal systems for isolated dwellings, Regulation respecting the quality of drinking water, Regulation respecting contaminated soil storage and contaminated soil transfer stations and Regulation respecting petroleum, natural gas and underground reservoirs**  
— **Amendment**

Notice is hereby given, in accordance with sections 10 and 12 of the Regulations Act (chapter R-18.1), that the Regulation to amend the Pesticides Management Code, the Regulation to amend the Regulation respecting the application of the Environment Quality Act, the Regulation to amend the Regulation respecting waste water disposal systems for isolated dwellings, the Regulation to amend

the Regulation respecting the quality of drinking water, the Regulation to amend the Regulation respecting contaminated soil storage and contaminated soil transfer stations, appearing below, may be made by the Government on the expiry of 30 days following this publication.

The purpose of the draft Water Withdrawal and Protection Regulation is to complete the coming into force of the Act to affirm the collective nature of water resources and provide for increased water resource protection and to implement the new authorization regime for water withdrawals. It sets out the requirements for authorizations issued for water withdrawals under section 31.75 of the Environment Quality Act, in particular by specifying that certain water withdrawals require authorization even with a maximum flow rate below 75,000 litres per day, and that certain other withdrawals do not require authorization. In addition, it stipulates the contents of an application for authorization and an application for the renewal of authorization, and specifies a term for the authorization that differs from the term set out in section 31.81 of the Environment Quality Act for certain types of water withdrawals.

The draft Regulation also prescribes water quality protection standards, in particular by setting rules for the installation of certain water withdrawal facilities and underground facilities that may be in contact with groundwater. The draft Regulation specifies that the standards will be applied by municipalities.

The draft Regulation also introduces standards applicable to facilities designed to prospect for or exploit petroleum, natural gas, brine or an underground tank, particularly by providing a framework for the carrying out of stratigraphic tests, drilling work and fracturing operations and by ensuring a follow-up on the quality of groundwater during such work.

The draft Regulation sets out special rules for water withdrawn for human consumption or food processing purposes. The rules require the persons responsible for the facilities used to withdraw the water to delimit zones around the withdrawal sites to protect the water used for the withdrawal. The size of the area delimited will depend on the categories of water withdrawal set out in the draft Regulation, and on the level of protection needed. Various activities liable to affect water quality, including agricultural activities and activities involving drilling for petroleum and gas, will be prohibited within the protection zones. The draft Regulation specifies that the persons responsible for larger water withdrawal sites will have to prepare and submit information on their protection zones and water vulnerability within those zones.

Lastly, the draft Regulation provides the applicable monetary administrative penalties and penal sanctions. The amount of the monetary administrative penalties and penal sanctions have been determined in relation to the nature of the offences concerned, for harmonization purposes with the Act to amend the Environment Quality Act in order to reinforce compliance (2011, chapter 20). It also contains transitional provisions to smoothen the transition from the previous framework to the new authorization regime for water withdrawals provided for in the Environment Quality Act.

The Regulation to amend the Pesticides Management Code, the Regulation to amend the Regulation respecting the application of the Environment Quality Act, the Regulation to amend the Regulation respecting waste water disposal systems for isolated dwellings, the Regulation to amend the Regulation respecting the quality of drinking water, the Regulation to amend the Regulation respecting contaminated soil storage and contaminated soil transfer stations contain concordance provisions that take into account the replacement of the Groundwater Catchment Regulation.

The proposed measures are specifically aimed at municipalities, enterprises that make major withdrawals, namely 75,000 litres per day or more, enterprises prospecting for petroleum, natural gas, brine or an underground tank and agricultural enterprises. Important benefits in terms of protecting the water withdrawn for human consumption or food processing purposes will be derived from the proposed framework.

Under section 13 of the Regulations Act, those draft Regulations may be made within a period shorter than the period set out in section 124 of the Environment Quality Act, by reason of the urgency due to the following circumstances:

—the current situation requires a framework for the exploration and exploitation of petroleum, natural gas, brine or an underground tank in the Québec territory.

Further information may be obtained by contacting

Normand Boulianne, Division Head  
Service de l'aménagement et des eaux souterraines  
Direction des politiques de l'eau  
Ministère du Développement durable,  
de l'Environnement, de la Faune et des Parcs  
Édifice Marie-Guyart  
675, boulevard René-Lévesque Est, 8<sup>e</sup> étage  
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Any person wishing to comment on the draft Regulation is requested to submit written comments within the 30-day period to the above address.

YVES-FRANÇOIS BLANCHET,  
*Minister of Sustainable Development, Environment,  
Wildlife and Parks*

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## Water withdrawal and protection Regulation

Environment Quality Act  
(chapter Q-2, s. 31, 1st par., subpars. *e* and *m*,  
s. 31.75, 2nd par., subpars 1 and 3, s. 31.81, 2nd par.,  
s. 31.95, s. 46, pars. *r* and *s*, subpars. 1 to 2.1, 2.3 to 2.6,  
3 and 4, s. 115.27 and s. 115.34)

An Act to affirm the collective nature of water resources  
and provide for increased water resource protection  
(chapter C-6.2, ss. 33, 34 and 35)

### CHAPTER I APPLICATION

**1.** The object of this Regulation is to set the terms and conditions for authorizations for the withdrawal of water, as provided for in section 31.75 of the Environment Quality Act (chapter Q-2), and to prescribe certain standards for water withdrawals, water withdrawal facilities and facilities or activities that may affect the quality of water withdrawn in the vicinity. It ensures, in particular, the protection of water withdrawn for human consumption or food processing purposes.

The Regulation applies to all water withdrawals referred to in section 31.74 of the Environment Quality Act, including water withdrawals in a reserved area and an agricultural zone established under the Act respecting the preservation of agricultural land and agricultural activities (chapter P-41.1).

**2.** For the purposes of this Regulation, unless otherwise indicated by the context,

“animal waste” means animal waste within the meaning of the Agricultural Operations Regulation;

“ditch” means a common ditch, a ditch along a public or private road, or a drainage ditch referred to in subparagraph 4 of the first paragraph of section 103 of the Municipal Powers Act (chapter C-47.1);

“food processing” means an activity governed by the Food Products Act (chapter P-29).

“person responsible” means the operator or owner;

“professional” means a professional within the meaning of section 1 of the Professional Code (chapter C-26) who belongs to an order responsible for the exercise of a professional activity referred to in this Regulation; any other person authorized by order to exercise an activity referred to in this Regulation is also deemed to be a professional;

“watercourse” means, with the exception of a ditch, a mass of water running along a bed in a regular or intermittent flow, including a bed established or modified by human intervention, the St. Lawrence River, the Gulf of St. Lawrence, and all seas surrounding Québec;

“withdrawal site” means the place where water enters a facility installed to make water withdrawals;

“yard” means a yard within the meaning of the Agricultural Operations Regulation (chapter Q-2, r. 26);

The terms “high-water mark”, “littoral zone”, “floodplain” and “lakeshore or riverbank” are to be interpreted with the meaning given in the Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains (chapter Q-2, r. 35).

**3.** The average volume of water withdrawn per day is calculated by dividing the monthly quantity of water withdrawn by the number of days of withdrawal in the month concerned, except with respect to the average daily volume referred to in sections 31.95 and 31.97 of the Environment Quality Act (chapter Q-2), which is calculated over the period of 90 consecutive days that constitutes the period of maximum water withdrawal.

The number of users supplied by a water withdrawal is calculated in accordance with Schedule 0.1 of the Regulation respecting the quality of drinking water (chapter Q-2, r. 40) on the basis of the system, establishment or place to which it is principally or exclusively connected.

In making the calculations, all the water withdrawals made at withdrawal sites connected to the same facility, establishment or waterworks system are deemed to constitute a single water withdrawal. The same applies to establish the maximum daily flow rate subject to authorization pursuant to section 31.75 of the Environment Quality Act.

**4.** All volumes of water calculated for the purposes of this Regulation must be expressed in litres.

## CHAPTER II AUTHORIZATION FOR WATER WITHDRAWALS

### DIVISION I WATER WITHDRAWALS REQUIRING AUTHORIZATION

**5.** A water withdrawal for purposes of human consumption requires authorization under section 31.75 of the Environment Quality Act (chapter Q-2), even if the maximum flow rate is less than 75,000 litres per day, if it is used to supply

(1) a temporary industrial camp within the meaning of section 3 of the Regulation respecting the application of section 32 of the Environment Quality Act (chapter Q-2, r. 2);

(2) any other establishment or waterworks system supplying over 20 persons.

### DIVISION II WATER WITHDRAWALS NOT REQUIRING AUTHORIZATION

**6.** The following water withdrawals do not require authorization under section 31.75 of the Environment Quality Act (chapter Q-2):

(1) water withdrawals that use a ditch, drain or sewer to catch runoff or divert groundwater if

(a) the ditch, drain or sewer is more than 30 metres from a bog, pond, marsh or swamp;

(b) the withdrawal is intended for the cultivation of organic soil, the extraction of peat, the drainage of a public road or the drainage of a building;

(2) water withdrawals carried out by a permanent facility installed for civil security purposes;

(3) water withdrawals from an irrigation basin fed by the infiltration of groundwater or runoff if

(a) the irrigation basin is of human origin;

(b) the irrigation basin is no more than 4.5 metres deep;

(c) the irrigation basin is more than 30 metres from a bog, pond, marsh, swamp, lake or watercourse;

(d) the irrigation basin is more than 100 metres from a site where groundwater is withdrawn on a neighbouring property for human consumption or food processing;

(e) the water is not withdrawn to flood land for harvesting purposes; and

(f) the total volume of water withdrawn during a growing season does not exceed 35,000,000 litres;

(4) temporary and non-recurring water withdrawals that are made

(a) as part of exploration activities for mineral substances other than gas or petroleum, unless it is made for the purpose of dewatering or keeping dry mine shafts, access ramps to a mine or mine workings;

(b) as part of civil engineering work, if they do not exceed 180 days;

(c) to analyze the performance of a water withdrawal facility, if they do not exceed 60 days;

(d) to establish the properties of an aquiferous geological formation, if they do not exceed 60 days;

(e) to analyze water quality for human consumption, if they do not exceed 200 days.

### DIVISION III APPLICATION FOR AUTHORIZATION

**7.** An application for a water withdrawal authorization under section 31.75 of the Environment Quality Act (chapter Q-2) must be sent in writing to the Minister and include the following information and documents:

(1) the contact information for the applicant and the applicant's representative, if any;

(2) if the applicant is a municipality, legal person, partnership or association, a certified copy of the deed authorizing the application;

(3) the Québec business number assigned to the applicant after registration under the Act Respecting the Legal Publicity of Enterprises (chapter P-44.1);

(4) a deed of ownership for the land required for the water withdrawal facility and, if groundwater is to be withdrawn, its inner protection zone, or an authorization from the owner of the land agreeing to its use for such purpose;

(5) a description of the water withdrawal, including its intended use, the maximum volume withdrawn and used per day, the minimum volume discarded per day and, if applicable, the number of persons supplied by the withdrawal for human consumption purposes;

(6) a description of each withdrawal site covered by the application, including the following elements in particular:

(a) its location, including its geographical coordinates and the cadastral designation of the lots concerned, a map and an aerial or satellite photograph of the site;

(b) in the case of a surface water withdrawal, the name of the lake or watercourse concerned;

(c) the plans and specifications for the water withdrawal facility and its expected layout;

(d) the construction and maintenance work planned, including a schedule for the completion of the work, a description of the materials and equipment used, and the measures in place to supervise the work;

(e) the methods used to monitor operations and the measuring equipment used and its location, if applicable;

(7) a description of each site where the water withdrawn will be discharged, including its location and the reference for the authorization issued for the discharge under the Environment Quality Act, if applicable;

(8) a description of the surrounding environment, in particular concerning the land uses applicable and the existing uses in the vicinity; the description must be supported by a study signed by a professional or the holder of a university diploma in biology focusing on

(a) the natural environments and wildlife affected by the construction and operation of the withdrawal site and, if applicable, the discharge of the water withdrawn;

(b) the location and the characteristics of the natural environments and wildlife, determined pursuant to subparagraph *a* of this subparagraph;

(c) the impact mitigation measures planned;

(9) a study signed by a professional that

(a) describes the scenario for the planned withdrawal of water;

(b) attests that the maximum volume of water withdrawn and consumed per day is reasonable compared to the needs to be met;

(c) attests that the water withdrawal facility is suitable for the declared use;

(d) describes the changes expected in the quality of the water when used and discharged into the environment, in particular with respect to any substances added to the water;

(10) a certificate from the clerk or secretary-treasurer of the local municipality or regional county municipality concerned stating that the withdrawal complies with the applicable municipal by-laws;

(11) if the application concerns the withdrawal of water for human consumption, an initial characterization of the quality of the water to be withdrawn, signed by a professional;

(12) if the application concerns the withdrawal of 379,000 litres or more of groundwater per day, or if another groundwater withdrawal site, lake, bog, pond, marsh or swamp is located less than 100 metres from any of the sites covered by the application, a hydro-geological study signed by a professional describing the impact of the water withdrawal on water resources in the surrounding area, on associated ecosystems, and on other users in the area concerned.

Subparagraph 10 of the first paragraph does not apply to a person who, under the Mining Act (chapter M-13.1), is authorized to do exploration, development, mining or production work on mineral substances or underground reservoirs, except work to extract sand, gravel or building stone on private land for which, under section 5 of the Mining Act, rights in or over such mineral substances have been surrendered to the owner of the soil.

The information provided pursuant to this section, except the information listed in subparagraph 9 of the first paragraph where it does not concern an application for a water withdrawal referred to in section 31.97 of the Environment Quality Act, is public information.

#### **DIVISION IV** **TERM OF AUTHORIZATIONS ISSUED FOR** **CERTAIN WITHDRAWALS**

**3.** Despite the first paragraph of section 31.81 of the Environment Quality Act (chapter Q-2), the term of a water withdrawal authorization issued for the operation of a fish farm on land is 15 years when, for each ton of annual production, the fish farm expects an annual discharge of phosphorous effluence of 4.2 kilograms or less and withdraws a volume of water of 10,000 litres or less per hour.

Similarly, the term of the first authorization issued for water withdrawals carried out for the purpose of selling or distributing spring water or mineral water or for the purpose of making, preserving or processing products within the meaning of the Food Products Act (chapter P-29) is 11 years.

## DIVISION V RENEWAL AND AMENDMENT OF AUTHORIZATION

**9.** An application for the renewal of a water withdrawal authorization must be sent to the Minister in writing at least 6 months before the expiry of the term of the authorization, and must include the following information and documents:

(1) an update of the information contained in the initial application;

(2) the measurements taken during water withdrawal operations, if any.

An application for the amendment of a water withdrawal authorization must also be submitted in writing and include the information listed in the first paragraph, a description of the amendment requested and an assessment of the impact of the amendment on water withdrawal operations.

Information provided pursuant to this section is public information, subject to the third paragraph of section 7.

## CHAPTER III CONSTRUCTION AND OPERATION STANDARDS

**10.** The standards set out in this Chapter do not apply to water withdrawals authorized by the Minister pursuant to section 31.75 of the Environment Quality Act (chapter Q-2) if the authorization provides for construction standards for the related facility, nor do they apply to water withdrawals that do not require authorization pursuant to section 6.

**11.** For the purposes of this Chapter, except Division V, the construction of a facility includes its initial construction, its substantial modification and its replacement.

A substantial modification includes work to deepen, fracture or seal a well.

## DIVISION I GENERAL PROVISIONS

**12.** The construction of any water withdrawal facility must meet the following conditions:

(1) the facility must be constructed with new materials;

(2) work relating to the construction of the facility must be performed in a way that minimizes lakeshore and riverbank erosion and the clearing of vegetation, limits work in littoral zones and the flow of sediment to lakes and watercourses, and prevents any water contamination or deterioration of the environment.

**13.** Every water withdrawal facility must remain accessible for inspection, maintenance, disinfection or equipment repair purposes, and for plugging or dismantling if required.

## DIVISION II GROUNDWATER WITHDRAWAL FACILITIES

### §1. General provisions

**14.** A groundwater withdrawal facility may not be installed in a floodplain having a flood recurrence interval of 20 years, or in the identified floodplain of a lake or watercourse unless the 20-year and 100-year flood recurrence intervals have been distinguished, except to replace an existing facility used for the same purpose, in which case it must be constructed in accordance with the conditions set out in section 15.

**15.** A groundwater withdrawal facility constructed in a floodplain having a flood recurrence interval of 100 years must meet the following conditions:

(1) the well must be sealed in accordance with section 20;

(2) the well casing must rise sufficiently above the ground to avoid immersion;

(3) the well must be constructed under the supervision of a professional.

**16.** The construction of a groundwater withdrawal facility must, in addition, meet the following conditions:

(1) the facility must be located at a distance of 15 metres or more from a watertight waste water treatment system;

(2) the facility must be located 30 metres or more from a non-watertight waste water treatment system or, if the well is sealed in accordance with section 20, 15 metres or more from such a system;

(3) the facility must be located 30 metres or more from cultivated land, a building for raising livestock, a construction used to store animal waste, or land used as a cemetery;

(4) the casing used for a drilled well must have a minimum thickness of 4.78 millimetres and comply with ASTM A-53 Grade B or ASTM A-589 Grade B if the casing is steel, or with ASTM A-409 if the casing is stainless steel;

(5) the casing used for a drilled, excavated or driven well must rise at least 30 cm above the ground level existing before the work begins;

- (6) the casing joints must be watertight.

In the cases provided for in subparagraphs 1, 2 and 3 of the first paragraph, the facility must, in addition, be sealed in accordance with section 20, with no obligation for supervision by a professional, when the rock drilled into is located at a depth of less than 5 metres.

Notwithstanding subparagraph 2 of the first paragraph, the facility may be located 15 or more metres from a non-watertight water treatment system if the well is sealed in accordance with section 20.

**17.** The distances mentioned in paragraphs 1, 2 and 3 of the first paragraph of section 16 do not apply to the replacement or substantial modification of a groundwater withdrawal facility existing on the date of coming into force of this section if a professional certifies, in a hydrogeological survey, that

- (1) the presence of a superficial geological formation with low permeability provides natural protection for the groundwater;
- (2) the configuration of the land or a nearby infrastructure eliminates the risks that may affect groundwater quality;
- (3) the design of the groundwater withdrawal facility provides equivalent protection; or
- (4) the dimensions of the land do not make it possible to respect the distances because of the presence of a main construction authorized by a municipality.

These distances do not apply to the construction of a groundwater water withdrawal facility made necessary by the termination of a water supply from a neighbouring facility.

The distances applicable to a facility referred to in the first or second paragraph must be calculated by a professional who must ensure that any risks that may affect the quality of the groundwater withdrawn are minimized, in particular by preparing the plans and specifications for the facility and supervising the construction work on the facility.

**18.** Before finalizing the construction of a drilled facility, a flow test lasting at least 30 minutes must be conducted to verify whether the flow is able to meet needs at peak times during the day.

**19.** A groundwater withdrawal facility must meet the following operating conditions:

- (1) the facility must be equipped at all times with a secure, weather-proof cover that prevents the infiltration of water, contaminants and pests;

- (2) the soil around the facility must be graded so as to prevent water pooling and water run-off towards the facility for a distance of 1 metre around the facility when an inner protection zone is not delimited for the facility;

- (3) the facility must be visibly locatable at all times;

- (4) all hydrofracturing activities at the facility must use water that meets the quality standards for drinking water prescribed by the Regulation respecting the quality of drinking water (chapter Q-2, r. 40).

The conditions no longer apply if the facility is plugged in accordance with the following conditions:

- (1) a material not likely to degrade the quality of the groundwater must be used;
- (2) the well casing must be exposed to a depth of at least 1 metre below the surface of the ground;
- (3) the well casing must be cut off at the bottom of the excavation;
- (4) the portion of the casing open to the geological formation must be filled with clean sand;
- (5) the remaining portion of the casing must be filled with pure bentonite or a cement bentonite mix;
- (6) a concrete slab must be placed over the end of the casing;
- (7) the excavation must be filled using the soil initially excavated.

For the purposes of this section, an observation well is deemed to be a groundwater withdrawal facility.

**20.** When the sealing of a groundwater withdrawal facility is required by this Regulation, the following conditions must be met:

- (1) the well must be drilled in such a way that, over a minimum depth of 5 metres, it has a diameter at least 10 centimetres greater than the nominal diameter of the pipe casing;

- (2) the permanent pipe casing, excluding the perforated casing, must descend to a minimum depth of 5 metres;

(3) the annular space around the pipe casing must be filled, in accordance with good practice, to a minimum depth of 5 metres using a material that ensures a watertight, durable seal, such as a cement bentonite mix or pure bentonite;

(4) the excess pipe casing must be removed without damaging the seal;

(5) the sealing must be performed under the supervision of a professional.

All work carried out after the sealing must be performed in a way that minimizes the effect on the seal.

**21.** The person responsible for a groundwater withdrawal facility must obtain a drilling report containing the information listed in Schedule I and a certificate stating that the work complies with the standards set out in this Regulation.

The report must be sent to the Minister within 30 days after the work is completed. A copy of the report must also be sent to the municipality concerned.

The information in the report is public information.

#### *§2. Specific provisions for certain categories of facility*

**22.** A groundwater withdrawal facility used to supply water for human consumption must be designed with materials suitable for drinking water supply systems.

It must be cleaned and disinfected before being operated to eliminate any possibility of water contamination. The same applies to any accessory equipment installed more than 2 days after the cleaning and disinfection of the water withdrawal facility.

**23.** A groundwater withdrawal facility consisting of a well drilled into rock must be constructed in accordance with the following conditions:

(1) the casing used must be anchored in bedrock for at least 0.6 metres or until penetration ceases;

(2) a drive shoe or other device to prevent deformation of the lower end of the casing must be used.

**24.** A groundwater withdrawal facility designed to capture a natural resurgence of groundwater using a horizontal drain must meet the following conditions:

(1) the drain must be buried at least 1 metre deep upstream from the natural point of groundwater resurgence so as to collect the water before it surfaces;

(2) the drain must be connected to a watertight reservoir;

(3) the reservoir must stand at least 30 centimetres above the surface of the ground and must be equipped with an overflow, directing water that is not withdrawn towards the natural outlet of the resurgence;

(4) the ground above and for at least 3 metres upstream from the drain must be graded so as to prevent runoff towards the drain or the infiltration of surface water;

(5) the location of the drain, and in particular of its extremities, must be indicated by visual markers.

**25.** A groundwater withdrawal facility using artesian pressure must include a flow control system to

(1) confine the flow within the casing;

(2) control gushing in such a way that the water does not damage neighbouring properties.

### **DIVISION III SURFACE WATER WITHDRAWAL FACILITIES**

**26.** A surface water withdrawal facility in a floodplain must be constructed in such a way that the components of the facility are located beneath the ground surface for the part outside the littoral zone.

### **DIVISION IV GEOTHERMAL SYSTEMS**

**27.** A geothermal system that withdraws water must be constructed in accordance with the following conditions:

(1) the system must be supplied by groundwater;

(2) the system must return the water to the source aquifer without allowing it to come into contact with any substance liable to affect its quality;

(3) the system and the discharge facility for the system must comply with the standards applicable to a groundwater withdrawal facility set out in sections 14 to 25, adapted as required.

The report referred to in section 21 must contain, in addition to the elements specified in that section,

(1) a plan showing the location of the system and the location of all underground components;

(2) the dimensions of the geothermal loops and the composition of the fluids used in the system;

(3) the results of the pressure tests conducted.

**28.** A ground-source geothermal system that does not withdraw water must be constructed in accordance with the following conditions:

(1) the system must not be located in a littoral zone or in a floodplain having a flood recurrence interval of 20 years, or in the identified floodplain of a lake or watercourse unless the 20-year and 100-year flood recurrence intervals have been distinguished;

(2) the components situated below the soil's surface must be made of materials that are new at the time the facility is installed;

(3) the system cannot use ethylene glycol, potassium acetate and methanol for its operation;

(4) the work to construct the system must be carried out in such a way that no water is contaminated and no environmental degradation occurs;

(5) when the system is installed at a depth of over 5 metres in the ground, the soil must be graded above the underground components and over a distance of 1 metre around the system in a way that prevents water pooling and water run-off towards the components;

(6) if the system is installed in a floodplain with a flood recurrence interval of 100 years must be designed to resist a 100-year flood and the work must be carried out below the soil's surface;

(7) the watertightness of the components must be assessed before the system is operated.

The person responsible for the system must obtain a report containing the information listed in Schedule I and a certificate showing that the work complies with the standards set out in this section.

The report must be sent to the Minister within 30 days after the work is completed. A copy of the report must also be sent to the municipality concerned.

The information in the report is public information.

## DIVISION V

### FACILITY USED TO EXPLORE FOR OR PRODUCE PETROLUUM, NATURAL GAS, BRINE OR TO EXPLORE FOR OR OPERATE AN UNDERGROUND RESERVOIR

#### §1. General provisions

**29.** For the purposes of this Division, unless otherwise indicated by the context,

(1) "aquifer" means a geological formation containing water to a depth of 200 metres or, if the total dissolved solids in the water contained in the geological formation exceed 4,000 mg/l, to the depth at which that concentration is detected;

(2) "facility" means the zone containing all the infrastructures needed to explore for or produce petroleum, natural gas or brine or to explore for or operate an underground reservoir.

**30.** It is prohibited to construct a facility or conduct a stratigraphic survey less than 300 metres from a site where surface water or groundwater is withdrawn for human consumption or food processing.

#### §2. Stratigraphic survey

**31.** The person responsible for a stratigraphic survey conducted as part of work to explore for or produce petroleum, natural gas or brine or to explore for or operate an underground reservoir must send a notice to the Minister 30 days before starting work. The notice must contain the following information:

- (1) the location of the survey;
- (2) the start date for the survey;
- (3) the nature of the survey;
- (4) the estimated duration of the survey.

A copy of the notice must also be sent, within the prescribed time, to the Minister of Natural Resources.

**32.** The person responsible for the survey must ensure that the survey does not cause fluids to migrate from one geological formation to another.

**33.** At the end of the work, the survey hole must be plugged, under the supervision of a professional, to prevent fluids migrating from one geological formation to another.

**34.** The person responsible for the survey must send to the Minister a report signed by the professional who supervised the plugging work within 30 days after the work is completed. The report must contain the following information:

- (1) the characteristics of the survey hole;
- (2) the stratigraphic profile, indicating in particular the geological formations plugged;

- (3) the plugging technique used;
- (4) the plugging materials used.

A copy of the notice must also be sent, within the prescribed time, to the Minister of Natural Resources.

### §3. *Prior conditions for the construction of a facility*

**35.** The person responsible for a facility must carry out an initial characterization study at least 30 days before construction work begins on a facility.

The characterization study must cover, as a minimum, the area 2 kilometres wide around the boundaries of the facility to be constructed. If the construction of a horizontal well over 2 kilometres long is planned, the minimum area covered must correspond to the area around the boundaries as wide as the well is long.

**36.** The initial characterization study must be based on a hydro-geological study defining the hydro-geological context for the sector involved in the exploration for or production of petroleum, natural gas or brine or the exploration for or operation of an underground reservoir. The study must, in particular, provide the following information:

- (1) the topography of the area;
- (2) the stratigraphic profile;
- (3) the location and depth of water withdrawals for purposes of human consumption or food processing;
- (4) the vulnerability of the aquifers to the planned surface activities;
- (5) the recharging of groundwater;
- (6) the links between groundwater and surface water;
- (7) the groundwater flow direction in the aquifers;
- (8) an assessment of the potential impact on water withdrawals for human consumption or food processing purposes, in the event that the planned facility causes groundwater contamination;
- (9) the location of the observation wells constructed or to be constructed to monitor extractable groundwater over the long term.

The information in the study is public information.

**37.** The person responsible for the facility must sample all water withdrawals used to supply water for human consumption or food processing purposes in the area covered by the study in accordance with Schedule II, except if the owner of a water withdrawal site refuses to allow the site to be sampled.

The analysis results must be sent to the owner of each water withdrawal site concerned within 30 days of receipt.

A list of owners who refused to allow their water withdrawal site to be sampled, and the analysis results, must be sent within the prescribed time to the Minister and to the Minister of Natural Resources.

**38.** The person responsible for the facility must construct at least three observation wells for groundwater before beginning construction work on the facility. The observation wells must be located at least 100 metres from the boundaries of the facility to be constructed; one observation well must be upstream and two observation wells must be downstream from the facility.

**39.** The observation wells must allow the sampling of groundwater circulating at a depth equal to the average depth of the water withdrawn for human consumption or food processing purposes in the area covered by the initial characterization study or, if no water is withdrawn in that area, in the first 20 metres of rock.

**40.** The observation wells must be sampled in accordance with Schedule II at least 30 days before the facility is constructed.

The analysis results are public information.

### §4. *Fracturing*

**41.** For the purposes of this Subdivision, “fracturing” means an operation to create fissures in a geological formation or to broaden existing fissures using fluids injected into a well at sufficient pressure. This Subdivision does not apply to operations using volumes of fluids below 50,000 litres.

**42.** The fracturing of a well intended for exploration for or the production of petroleum or natural gas is prohibited less than 400 metres below the base of an aquifer.

**43.** The person responsible for a well must obtain a study signed by a professional. The study must include

- (1) a plan of the well showing the segment or segments to be fractured;
- (2) the type and volume of fluid injected;

(3) a list of the substances that will be added to the fluid injected, with their characteristics and the quantities used;

(4) the pressures generated by the fluids injected;

(5) the composition, structure and geo-mechanical behaviour of the encasing geological formations;

(6) the expected propagation of the fractures.

The study must be sent to the Minister and to the Minister of Natural Resources 30 days before the start of the fracturing operation.

The information in the study is public information.

**44.** The person responsible for a well must, during a fracturing operation, measure

(1) the volume of fluids injected;

(2) the pressure variations generated by the fluids injected.

A fracturing operation must be carried out under the supervision of a professional who ensures that the propagation of fractures will not reach an exploitable aquiferous water geological formation and that no fluid will migrate from one geological formation to another.

**45.** The person responsible for a well must send to the Minister a report signed by a professional within 30 days of the end of a fracturing operation. The report must contain and interpret the data measured in accordance with section 44.

The report must also contain and interpret any other data collected as part of the fracturing operation, such as a mapping of micro-seismic events.

A copy of the report must also be sent, within the prescribed time, to the Minister of Natural Resources.

#### *§5. Monitoring of groundwater*

**46.** The person responsible for a facility must monitor groundwater in accordance with Schedule III during the construction, exploration and facility operation periods, including the fracturing period, any temporary closure period, and the 10-year period following permanent closure.

**47.** The person responsible for a facility must notify the Minister within 24 hours of the receipt of the results of monitoring conducted pursuant to section 46 if an analysis of the samples reveals the presence of

(1) BTEX (Benzene, Toluene, Ethylbenzene, Xylene);

(2) petroleum hydrocarbons (C<sub>10</sub>-C<sub>50</sub>);

(3) methane dissolved in water at a concentration at or above 7 mg/l;

(4) chlorides and dissolved solids at a concentration above 33% or above the concentration assessed during the initial characterization study for the site.

The person responsible must also send a notice to the Minister within 30 days of the notification referred to in the first paragraph to inform the Minister of the measures that have been or will be taken to identify the cause of the problem and correct the situation.

A copy of the notices must be sent, within the prescribed time, to the Minister of Natural Resources.

#### *§6. Register*

**48.** The person responsible for a facility must keep and update a register to record the following information:

(1) the hydro-geological study referred to in section 36;

(2) the study referred to in section 43;

(3) the results of the analysis of the samples collected in accordance with Schedules II and III;

(4) the report referred to in section 45.

The person must also keep in the register a copy of the notices sent to the Minister pursuant to this Division.

The information must be given to the Minister and to the Minister of Natural Resources on request.

**49.** The register must be retained for 10 years following the permanent closure of the facility.

## **CHAPTER IV** **PROTECTION STANDARDS**

### **DIVISION I** **GENERAL PROVISIONS**

**50.** This Chapter applies only to water withdrawals made for human consumption or food processing purposes. It provides for the delimitation, where required, of inner, intermediate and outer protection zones for groundwater or surface water withdrawals in order, in particular, to assess the vulnerability of the water withdrawn and to supervise the performance of certain activities that may affect water quality.

**51.** For the purposes of this Chapter, the following categories of water withdrawals are established:

(1) category 1: water withdrawals carried out for a municipal waterworks system supplying over 500 persons and at least one residence;

(2) category 2: water withdrawals carried out to supply

(a) a municipal waterworks system supplying between 21 and 500 persons and at least one residence;

(b) any other waterworks system supplying 21 or more persons and at least one residence;

(c) a system, independent from a waterworks system, supplying at least 21 or more persons at one or more educational institutions, one or more detention facilities, or one or more health and social services institutions within the meaning of the Regulation respecting the quality of drinking water (chapter Q-2, r. 40);

(3) category 3: water withdrawals carried out to supply

(a) a system, independent from a waterworks system, supplying only one or more food processing establishments;

(b) a system, independent from a waterworks system supplying only one or more enterprises, one or more tourist establishments or one or more seasonal tourist establishments within the meaning of the Regulation respecting the quality of drinking water;

(c) any other system supplying 20 persons or fewer.

**52.** The person responsible for water withdrawals must disclose at the request of any interested person, the location of the withdrawal site and the delimitation of the protection area calculated by a professional in accordance with this Chapter.

## DIVISION II GROUNDWATER

### §1. Vulnerability of groundwater

**53.** The intrinsic vulnerability of groundwater must be assessed by a professional for each category 1 water withdrawal protection zone delimited pursuant to this Division in accordance with the DRASTIC method of the National Water Well Association, as established in Aller, L., Bennet, T., Lehr, J.H. et al. (1987), DRASTIC: A Standardized System for Evaluating Ground Water Pollution Potential Using Hydrogeologic Settings, report no. EPA-600/2-87-035, the results of which must be used to rate vulnerability using the following vulnerability ratings:

(1) “Low”: a rating equal to or less than 100 for the entire protection zone;

(2) “Medium”: a rating less than 180 for the entire protection zone, except if a “low” rating has been assigned;

(3) “High”: a rating equal to or greater than 180 in any part of the protection zone.

The intrinsic vulnerability of groundwater within a category 2 or 3 water withdrawal protection zone is deemed to be high, unless a professional assesses it otherwise in accordance with the method referred to in the first paragraph.

### §2. Inner protection zone

**54.** An inner protection zone is delimited for all groundwater withdrawals. The limits of the zone are set at the following distances:

(1) 30 metres from a category 1 or 2 water withdrawal site, unless a professional calculates them otherwise after certifying, in a hydro-geological study, that

(a) the presence of a superficial geological formation with low permeability provides natural protection for the groundwater;

(b) the configuration of the land or a nearby infrastructure eliminates the risks that may affect groundwater quality; or

(c) human activities within a radius of 30 metres from the withdrawal present no significant risk that may affect groundwater quality;

(2) 3 metres from a category 3 withdrawal site.

**55.** The location of the inner protection zone for a category 1 and 2 groundwater withdrawal facility must be indicated on the site in a way that is visible at all times from all access points, in particular by way of signs.

**56.** All activities presenting a risk of water contamination are prohibited, except activities relating to the operation, maintenance, rebuilding or replacement of the water withdrawal facility and its accessory equipment.

### §3. Intermediate protection zone

**57.** An intermediate protection zone is delimited for all groundwater withdrawals. The limits of the zone are set as follows:

(1) for category 1 water withdrawals, the limits must be calculated by a professional who verifies, using data collected from a minimum of three wells that are constructed within the aquiferous geological formation used for water withdrawals and that may be used to observe groundwater,

(a) the 200-day groundwater migration time, to ensure bacteriological protection;

(b) the 550-day groundwater migration time, to ensure virological protection;

(2) for category 2 water withdrawals, the limits are set at the following distances, except if they have been calculated in accordance with subparagraph 1:

(a) 100 metres from the withdrawal site to ensure bacteriological protection;

(b) 200 metres from the withdrawal site, to ensure virological protection;

(3) for category 3 water withdrawals, the limits are set at the following distances, except if they have been calculated in accordance with subparagraph 1:

(a) 15 metres from the withdrawal site when the well is sealed in accordance with section 20 or 30 metres from the withdrawal site in other cases, to ensure bacteriological protection;

(b) 100 metres from the withdrawal site, to ensure virological protection;

**58.** The spreading and storage, directly on the ground, of sludge from municipal wastewater treatment works or from any other works for the collection or treatment of sanitary waste water is prohibited within the intermediate virological protection zone of groundwater withdrawals with a water vulnerability rating of medium or high, except if the spreading is carried out for domestic landscaping purposes or if the spreading uses sludge certified to comply with CAN/BNQ 0413-200 or CAN/BNQ 0413-400.

The first paragraph also applies to any substance containing more than 0.1%, dry weight basis, of sludge from sanitary waste water.

**59.** The storage, directly on the ground, of animal waste, farm compost or any fertilizing waste substance not certified to comply with CAN/BNQ 0413-200, CAN/BNQ 0413-400 or BNQ 419-090 is prohibited

(1) in the intermediate bacteriological protection zone for groundwater withdrawals with a water vulnerability rating of medium or high;

(2) in the virological protection zone for groundwater withdrawals if the nitrate/nitrite-N concentration of the water withdrawn, sampled in accordance with the Regulation respecting the quality of drinking water (chapter Q-2, r. 40), is above 5 mg/l on two or more occasions over a two-year period;

(3) less than 100 metres from category 3 groundwater withdrawals on a neighbouring property when the vulnerability rating for the intermediate virological protection zone is medium or high.

**60.** The construction of an animal exercise yard or composting area is prohibited

(1) less than 100 metres from the bacteriological protection zone for a category 1 or 2 groundwater withdrawal with a vulnerability rating of medium or high;

(2) in the bacteriological protection zone of a category 3 groundwater withdrawal with a vulnerability rating of medium or high;

(3) less than 100 metres from a category 3 groundwater withdrawal on a neighbouring property when the vulnerability rating for the intermediate virological protection zone is medium or high.

**61.** The construction of a facility to store animal waste or a building for raising livestock is prohibited

(1) less than 100 from the bacteriological protection zone for a category 1 or 2 groundwater withdrawal with a vulnerability rating of medium or high;

(2) in the intermediate bacteriological protection zone of a category 3 groundwater withdrawal with a vulnerability rating of medium or high.

This section does not apply to fish farms.

**62.** In all cases in which the construction of an animal exercise yard, composting area, animal waste storage facility or building for raising livestock is not prohibited in the intermediate bacteriological protection zone for groundwater withdrawals, the facility must be designed to ensure watertightness and must be constructed under the supervision of a professional.

In addition, the watertightness of any animal exercise yard, composting area or animal waste storage facility constructed in such a zone must be assessed by a professional every 10 years.

A professional having carried out an assessment referred to in the second paragraph must send to the person responsible for groundwater withdrawals and to the Minister a watertightness certificate or a recommendation concerning the corrective measures required to make the facility watertight after a watertightness deficiency is noted.

The corrective measures required to make a facility watertight must be completed no later than one year following receipt of the professional's recommendation. They must be carried out under the supervision of a professional who must forward a watertightness certificate to the person responsible for withdrawals and to the Minister as soon as possible.

A copy of the watertightness certificate must be sent as soon as possible to the regional county municipalities and to the watershed management organizations whose territory intersects with the intermediate protection zones concerned.

**63.** Animal grazing and the spreading of animal waste, farm compost and fertilizing waste substances are prohibited

(1) in the intermediate bacteriological protection zone for groundwater withdrawals with a water vulnerability rating of high;

(2) in the virological protection zone for groundwater withdrawals when the nitrate/nitrite-N concentration of the water sampled in accordance with the Regulation respecting the quality of drinking water (chapter Q-2, r. 40) is above 10 mg/l on two or more occasions over a two-year period;

(3) less than 100 metres from a category 1 groundwater withdrawal site with a water vulnerability rating of medium.

The spreading of animal waste, farm compost or fertilizing waste substances is not, however, prohibited if carried out for domestic landscaping purposes or if it uses fertilizers certified to comply with CAN/BNQ 0413-200, CAN/BNQ 0413-400 or BNQ 419-090.

**64.** The grazing of farm animals and the spreading of animal waste, farm compost or fertilizing waste substances must be carried out in accordance with the recommendations of a professional

(1) in the intermediate bacteriological protection zone for groundwater withdrawals with a vulnerability rating of medium;

(2) in the intermediate virological protection zone for groundwater withdrawals when the nitrate/nitrite-N concentration of the water sampled in accordance with the Regulation respecting the quality of drinking water (chapter Q-2, r. 40) is above 5 mg/l on two or more occasions over a two-year period.

The recommendation must set out the measures to be taken to minimize the impact on the water withdrawn, especially concerning the addition of nitrogen and pathogenic agents. It must be based on

(1) a historical review of the last 5 years of cultivation, spreading activities and animal grazing activities in the intermediate protection zone;

(2) the hydro-geological context and the texture, depth and state of compaction of the soil.

The recommendation must be submitted with the agro-environmental fertilization plan prepared in accordance with the Agricultural Operations Regulation (R.R.Q., c. Q-2, r. 26) when the place where the livestock raising or spreading occurs is subject to that regulation. It must be retained for 5 years and provided to the Minister on request.

**65.** A person responsible for groundwater withdrawals who is notified that at least two water samples have contained over 5 mg/l of nitrates/nitrites over a two-year period in accordance with section 36.0.1 of the Regulation respecting the quality of drinking water (chapter Q-2, r. 40) must send to the Minister, within 30 days of receiving such notification, a list of the properties lying wholly or partly in the intermediate protection zone for water withdrawals or, if the raw water came from several withdrawals, a list of the measures that have been or will be taken to identify the withdrawal or withdrawals causing the measured concentration.

#### *§4. Outer protection zone*

**66.** An outer protection zone is delimited for category 1 and 2 groundwater withdrawals. The limits of the zone are set as follows:

(1) for category 1 water withdrawals, the limits must be calculated by a professional who verifies, using data collected from a minimum of three wells that are constructed within the aquiferous geological formation used for water withdrawals and that may be used to observe groundwater, the area of land where circulating groundwater may eventually be captured for water withdrawal;

(2) for category 2 groundwater withdrawals, using a radius of 2 kilometres upstream from the withdrawal site, except if the limits have been calculated under paragraph 1.

**67.** The person responsible for category 1 groundwater withdrawals must obtain, from a professional,

(1) an inventory, in the outer protection zone, of human activities that have been or are being carried out and of the land uses applicable in the zone;

(2) an inventory, in the outer protection zone, of potential threats that may affect the quality or quantity of water withdrawn;

(3) an assessment, in the outer protection zone, of human activities or actual threats affecting the quality or quantity of the groundwater withdrawn. The assessment of actual threats must take into account the results of the monitoring of the quality of raw and supplied water required under the Regulation respecting the quality of drinking water (chapter Q-2, r.40).

**68.** Drilling work to explore for or produce petroleum, natural gas or brine or to explore for or operate an underground reservoir, and the performance of a stratigraphic survey, is prohibited in the outer protection zone for category 1 and 2 groundwater withdrawals.

### DIVISION III SURFACE WATER

#### §1. *Vulnerability of surface water*

**69.** The vulnerability of surface water used for category 1 water withdrawals must be rated as high, medium or low by a professional, based on the following indicators, described in Schedule IV:

- (1) physical integrity of the withdrawal site;
- (2) vulnerability to microorganisms;
- (3) vulnerability to fertilizers;
- (4) vulnerability to turbidity;
- (5) vulnerability to inorganic substances;
- (6) vulnerability to organic substances.

#### §2. *Inner protection zone*

**70.** An inner protection zone is delimited for category 1 and 2 surface water withdrawals. The limits of the zone are set at the following distances:

(1) 300 metres around a category 1 or 2 withdrawal site, if it is located in a lake;

(2) 1 kilometre upstream from a category 1 or 2 withdrawal site and 100 metres downstream from the site if it is situated in the St. Lawrence River or, in the parts of the St. Lawrence River where the current may reverse due to the tide, 1 kilometre upstream and downstream from the withdrawal site;

(3) 500 metres upstream from a category 1 or 2 withdrawal site and 50 metres downstream from the site if it is situated in any other watercourse.

Notwithstanding subparagraphs 2 and 3 of the first paragraph, the limits of the inner protection zone for water withdrawals on the opposite bank of a watercourse may be closer if the watercourse is more than 300 metres wide at low water and if a professional calculates the limits after certifying that activities or waste on that bank are not likely to affect the withdrawals.

The distances include any surface water, portions of tributaries, ditches and riverbanks.

**71.** The following activities are prohibited in the inner protection zone for category 1 and 2 surface water withdrawals:

- (1) the grazing of farm animals;
- (2) the spreading and storage, directly on the ground, of animal waste, farm compost or fertilizing waste substances;
- (3) the spreading and storage, directly on the ground, of sludge from municipal wastewater treatment works or from any other works for the collection of treatment of sanitary waste water and of any substance containing more than 0.1%, dry weight basis, of sludge from sanitary waste water;
- (4) the construction of a new discharge in a watercourse, except a watercourse over 30 metres wide at low water if a professional certifies that the discharge will not affect the water withdrawal site.

All other activities within the inner protection zone for category 1 and 2 surface water withdrawals, except activities relating to the operation of a hydroelectric power station, must meet the following conditions:

- (1) the activity must be organized to minimize the risk of soil erosion, in particular by re-establishing and maintaining natural plant cover and the natural state of the lakeshore or riverbank;

(2) if the activity involves a ditch or underground drain, they must not connect directly to the receiving lake or watercourse, unless they include infrastructures to limit the flow of sediments to the lake or watercourse concerned and, in the case of a ditch, the top of the bank must have plant cover over a minimum width of one metre.

### §3. *Intermediate protection zone*

**72.** An intermediate protection zone is delimited for category 1 and 2 surface water withdrawals. The limits of the zone are set at the following distances:

(1) 3 kilometres around a category 1 or 2 withdrawal site, if it is located in a lake;

(2) 15 kilometres upstream from a category 1 or 2 withdrawal site if it is situated in the St. Lawrence River and, in addition, if it is located in the parts of the St. Lawrence River where the current may reverse due to the tide, 15 kilometres downstream from the withdrawal site;

(3) 10 kilometres upstream from a category 1 or 2 withdrawal site located in any other watercourse.

Notwithstanding subparagraphs 2 and 3 of the first paragraph, the limits of the intermediate protection zone for water withdrawals on the opposite bank of a watercourse may be closer if the watercourse is more than 300 metres wide at low water and if a professional calculates the limits after certifying that activities or waste on that bank are not likely to affect the withdrawals.

The distances include surface water, portions of tributaries and ditches, and a 120-metre strip of land measured from the high-water mark.

**73.** Drilling work to explore for or produce petroleum, natural gas or brine or to explore for or operate an underground reservoir, and work to conduct a stratigraphic survey, is prohibited in the intermediate protection zone for category 1 and 2 surface water withdrawals.

**74.** The person responsible for a category 1 surface water withdrawal must obtain from a professional:

(1) an inventory of human activities in the intermediate protection zone that have been or are being completed and of the land uses applicable in the zone;

(2) an inventory of potential threats in the intermediate protection zone that may affect the quality or quantity of water withdrawn.

### §4. *Outer protection zone*

**75.** An outer protection zone is delimited for category 1 water withdrawals. The limits of the zone correspond to its catchment area.

The distances include surface water, portions of tributaries and ditches, and a 120-metre strip of land measured from the high-water mark.

**76.** The person responsible for a category 1 surface water withdrawal must obtain from a professional

(1) an inventory of continuous or recurrent effluent discharges from water treatment plants or discharges from industrial processes in the outer protection zone;

(2) an inventory of land uses in the outer protection zone;

(3) an inventory and assessment of potential accidents in the outer protection zone that may affect the quality and quantity of the water withdrawn;

(4) an assessment of human activities or actual threats in the outer protection zone that affect the quality or quantity of the water withdrawn. The assessment of actual threats must take into account the vulnerability ratings obtained for the indicators listed in section 69.

## DIVISION IV REPORT

**77.** The person responsible for a category 1 water withdrawal must send to the Minister, as soon as possible, a report containing the following information:

(1) the location of the withdrawal site and a description of its layout;

(2) a plan showing the location of the inner, intermediate and outer protection zones, and the limits of the zones if calculated by a professional;

(3) the water vulnerability ratings assessed by a professional in accordance with sections 53 and 69.

The person responsible must also send to the Minister the document referred to in sections 67, 74 and 76.

The information in the report is public information, except the information contained in the documents referred to in the second paragraph. It must be made available to the public, in particular by publication on the website of the person responsible for the withdrawal, if possible. The information must be updated every five years.

The report and the documents referred to in the second paragraph must be sent, as soon as possible, to the regional county municipalities and the watershed organizations whose territories intersect with the zones. They must also be sent to the municipalities whose territories intersect with an intermediate protection zone for surface water withdrawals or an outer protection zone for groundwater withdrawals.

#### CHAPTER V SPECIAL PROVISIONS APPLICABLE TO GROUNDWATER WITHDRAWALS IN THE AREA OF VILLE DE MERCIER AND IN OTHER CLOSE TERRITORIES

**78.** The provisions of this Chapter apply to the territories of the following municipalities

- (1) Ville de Mercier;
- (2) Paroisse de Saint-Isidore;
- (3) Sainte-Martine;
- (4) Saint-Urbain-Premier.

**79.** The drilling, excavating or operating of a groundwater withdrawal facility, except if such work is authorized for environmental rehabilitation purposes in accordance with the Environment Quality Act (chapter Q-2), is prohibited within the perimeter described in Schedule V.

**80.** In the territory of a municipality to which this Chapter applies, a tube well located outside the perimeter described in Schedule V that withdraws groundwater from the bedrock must be drilled so as to cut through at least 10 metres of bedrock.

**81.** Every category 1 groundwater withdrawal facility used to supply water for human consumption or for food production or processing must, if the outer protection zone delimited pursuant to section 66 partly intersects with the area defined in Schedule V, be monitored for vinyl chloride twice per year.

The groundwater samples must be analyzed by a laboratory accredited pursuant to section 118.6 of the Environment Quality Act (chapter Q-2).

If the analysis reveals the presence of vinyl chloride, the person responsible for the facility must inform the Minister not later than 30 days after the date of the analysis report provided by the accredited laboratory. The remedial measures planned to correct the situation must also be sent to the Minister within the same period.

The results of the monitoring program must be recorded in a report. In addition to the analysis results provided by the accredited laboratory, the report must include the following information:

- (1) the place where the samples were taken;
- (2) the sampling method;
- (3) the analysis results.

The report must be retained for five years and provided to the Minister on request.

**82.** The provisions of section 81 apply to every category 2 groundwater withdrawal facility used to supply water for human consumption or for food production or processing if the intermediate bacteriological protection zone delimited pursuant to section 57 partly intersects with the area defined in Schedule V.

#### CHAPTER VI ADMINISTRATIVE AND PENAL PROVISIONS

##### DIVISION I MONETARY ADMINISTRATIVE PENALTIES

**83.** A monetary administrative penalty of \$250 for a natural person and \$1,000 in other cases may be imposed on any person who, in violation of this Regulation:

- (1) refuses or neglects to send a notice or report or fails to comply with the applicable deadline, if no other monetary administrative penalty is prescribed;
- (2) fails to retain, for the required time, any documents that the person is required to prepare or obtain;
- (3) fails to keep the register provided for in section 48 or fails to retain it for the prescribed time;
- (4) fails to disclose the location of a water withdrawal site and the delimitation of a protection zone in accordance with section 52;
- (5) fails to indicate the location of a protection zone in accordance with section 55 or removes or damages a sign installed at the site, or allows such a sign to deteriorate;
- (6) fails to submit the recommendation of a professional with an agro-environmental fertilization plan in accordance with the third paragraph of section 64.

**84.** A monetary administrative penalty of \$350 for a natural person and \$1,500 in other cases may be imposed on any person who:

(1) fails to assess water vulnerability ratings in accordance with section 53 or 69;

(2) refuses or neglects to obtain the documents referred to in section 67, 74 or 76.

**85.** A monetary administrative penalty of \$550 for a natural person and \$2,500 in other cases may be imposed on any person who

(1) fails to take a sample or measurement in accordance with this Regulation;

(2) fails to conduct an analysis, test, monitoring or check in accordance with this Regulation;

(3) fails to make a water withdrawal facility accessible in accordance with section 13.

**86.** A monetary administrative penalty of \$750 for a natural person and \$3,500 in other cases may be imposed on any person who:

(1) fails to comply with a construction standard provided for in section 12, sections 14 to 17, the first paragraph of section 22, sections 23 to 28 or subparagraphs 2 or 3 or 5 to 7 of the first paragraph of section 28;

(2) fails to seal a water withdrawal facility in accordance with section 20 or fails to minimize damage to the seal during subsequent work;

(3) fails to construct groundwater observation wells in accordance with section 38 or 39.

**87.** A monetary administrative penalty of \$1,000 for a natural person and \$5,000 in other cases may be imposed on any person who

(1) fails to comply with the conditions for performing an activity in accordance with section 19, the second paragraph of section 22, section 32 or 62, the first or second paragraphs of section 64 or the second paragraph of section 71;

(2) fails to plug a survey hole in accordance with section 33;

(3) fails to carry out an initial characterization in accordance with section 35 re 36;

(4) fails to notify the Minister in the cases provided for in section 47.

**88.** A monetary administrative penalty of \$1,500 for a natural person and \$7,500 in other cases may be imposed on any person who

(1) performs an activity prohibited by section 14, 30 or 56, sections 58 to 61, section 63 or 68, the first paragraph of section 71 or section 73;

(2) constructs a water withdrawal facility or a ground-source geothermal system in contravention of paragraph 2 of section 12 or subparagraph 1 or 4 of the first paragraph of section 28;

(3) fractures a well used to explore for or produce petroleum or natural gas, in contravention of section 42.

**89.** A monetary administrative penalty of \$2,000 for a natural person and \$10,000 in other cases may be imposed on any person who

(1) drills, digs or operates a water withdrawal facility in violation of section 79 or 80;

(2) fails to carry out preventive monitoring, to have monitoring samples analyzed by a laboratory accredited pursuant to section 118.6 of the Environment Quality Act (chapter Q-2) or to notify the Minister of the analysis results for the samples and the measures planned to correct the situation in accordance with section 81.

## DIVISION II PENAL SANCTIONS

**90.** A person is guilty of an offence and liable to a fine of \$1,000 to \$100,000, in the case of a natural person and \$3,000 to \$600,000 in other cases, if that person

(1) refuses or neglects to send a notice or report or to provide any information or document required under this Regulation, or fails to comply with the applicable deadline;

(2) fails to retain, for the prescribed time, the documents the person is required to prepare or obtain;

(3) fails to keep the register provided for in section 48 or fails to retain the register for the prescribed time;

(4) fails to disclose the presence and delimitation of a protection zone in accordance with section 52;

(5) fails to indicate the location of a protection zone in accordance with section 55 or removes or damages a sign installed at the site, or allows such a sign to deteriorate;

(6) fails to submit the recommendation of a professional with a agro-environmental fertilization plan in accordance with the third paragraph of section 64;

(7) fails to comply with an obligation imposed by this Regulation that is not otherwise sanctioned under this Division or under Division XIII.1 of Chapter I of the Environment Quality Act (chapter Q-2).

**91.** A person is guilty of an offence and liable to a fine of \$2,000 to \$10,000 in the case of a natural person and \$6,000 to \$600,000 in other cases, if that person

(1) fails to assess water vulnerability ratings in accordance with section 53 or 69;

(2) refuses or neglects to obtain the documents referred to in section 67, 74 or 76.

**92.** A person is guilty of an offence and liable to a fine of \$2,500 to \$250,000 in the case of a natural person and \$7,500 to \$1,500,00 in other cases, any person who

(1) fails to take a sample or measurement in accordance with this Regulation;

(2) fails to conduct an analysis, test, monitoring or check in accordance with this Regulation;

(3) fails to make a water withdrawal facility accessible in accordance with section 13.

**93.** A person is guilty of an offence and liable to a fine of \$4,000 to \$250,000 in the case of a natural person and \$12,000 to \$1,500,000 in other cases, any person who

(1) fails to construct a facility in accordance with a standard provided for in section 12, sections 14 to 17, the first paragraph of section 22, sections 23 to 27 or subparagraph 2 or 3 or 5 to 7 of the first paragraph of section 28;

(2) fails to seal a water withdrawal facility in accordance with section 20 or fails to make the necessary corrections if the seal is damaged;

(3) fails to construct groundwater observation wells in accordance with section 38 or 39.

**94.** A person is guilty of an offence and liable, in the case of a natural person, to a fine of \$5,000 to \$500,000 or, notwithstanding article 231 of the Code of Penal Procedure (chapter C-25.1), to a maximum term of imprisonment of 18 months or to both the fine and imprisonment, and, in other cases, to a fine of \$15,000 to \$3,000,000, if that person

(1) provides false or misleading information;

(2) fails to comply with the conditions for the performance of an activity in accordance with section 19, the second paragraph of section 22, section 32 or 62, the first or second paragraph of section 65 or the second paragraph of section 71;

(3) fails to plug a survey hole in accordance with section 33;

(4) fails to carry out an initial characterization in accordance with section 35 or 36;

(5) fails to notify the Minister in accordance with section 47.

**95.** A person is guilty of an offence and liable, in the case of a natural person, to a fine of \$8,000 to \$500,000 or, notwithstanding article 231 of the Code of Penal Procedure (chapter C-25.1), to a maximum term of imprisonment of 18 months or to both the fine and imprisonment, and, in other cases, to a fine of \$24,000 to \$3,000,000, if that person

(1) performs an activity prohibited by section 14, 30, 56, 58 to 61, sections 63 to 68, the first paragraph of section 71 or section 73;

(2) constructs a water withdrawal facility or a ground-source geothermal system in contravention of paragraph 2 of section 12 or subparagraph 1 or 4 of the first paragraph of section 28;

(3) fractures a well used to explore for or produce petroleum or natural gas in contravention of section 42.

**96.** A person is guilty of an offence and liable, in the case of a natural person, to a fine of \$10,000 to \$1,000,000 or, notwithstanding article 231 of the Code of Penal Procedure (chapter C-25.1), to a maximum term of imprisonment of 18 months or to both the fine and imprisonment, and, in other cases, to a fine of \$24,000 to \$3,000,000, if that person

(1) drills, digs or operates a water withdrawal facility in contravention of sections 79 and 80;

(2) fails to carry out preventive monitoring, to have monitoring samples analyzed by a laboratory accredited pursuant to section 118.6 of the Environment Quality Act (chapter Q-2) or to notify the Minister of the analysis results for the samples and the measures planned to correct the situation in accordance with section 81.

## CHAPTER VII TRANSITIONAL AND FINAL PROVISIONS

**97.** The person responsible for an animal waste storage facility, an animal exercise yard or a composting area located in the bacteriological protection zone for groundwater withdrawals made for human consumption or food processing purposes on the date of coming into force of this section, namely (*insert the date of coming into force of this Regulation*), must have the facility, yard or area assessed by a professional not later than (*insert the date that occurs 2 years after the date of coming into force of this Regulation*).

The professional who has carried out an assessment referred to in the first paragraph must send to the person responsible for the groundwater withdrawal facility and to the Minister a watertightness certificate or a recommendation concerning the corrective measures required to make the facility watertight after a watertightness deficiency is noted or, if no corrective measure is possible, the choice of a new location outside the protection zone where operations can continue. In the latter case, the plans and specifications for the new facility, yard or area must be submitted with the recommendation.

The professional's recommendations must be carried out not later than 1 year following their receipt. They must be carried out under the supervision of a professional who must send, to the person responsible for the withdrawals and to the Minister, a watertightness certificate for the facility, yard or area concerned as soon as possible.

**98.** A person who fails to have the watertightness of a facility assessed in accordance with the first paragraph of section 97 or who fails to comply with the requirements of that section, if a watertightness deficiency is noted,

(1) may have a monetary administrative penalty imposed in the amount of \$750 for a natural person and \$3,500 in other cases;

(2) is guilty of an offence and is liable to a fine of \$4,000 to \$250,000 in the case of a natural person and \$12,000 to \$1,500,000 in other cases.

**99.** The report and documents provided for in section 77 of this Regulation must be sent not later than 1 January 2020 for water withdrawals made for human consumption or food processing purposes that are in operation on the date of coming into force of this section, namely (*insert the date of coming into force of this Regulation*).

**100.** Applications for a water withdrawal authorization already being examined on the date of coming into force of this section, namely (*insert the date of coming into force of this Regulation*), pursuant to section 22, 31.5 or 32

of the Environment Quality Act (chapter Q-2) or pursuant to the provisions of Chapter IV of the Groundwater Catchment Regulation (R.R.Q., c. Q-2, r. 6) are governed by the provisions of this Regulation.

**101.** Notwithstanding sections 33 and 34 of the Act to affirm the collective nature of water resources and provide for increased water resource protection (chapter C-6.2), water withdrawals referred to in those sections remain valid until the following dates:

(1) if the withdrawer also holds a depollution attestation, until the date of renewal of the attestation that occurs after (*insert the date that occurs 10 years after the date of coming into force of section 33 of the Act to affirm the collective nature of water resources and provide for increased water resource protection*);

(2) if the withdrawer carries out water withdrawals with an average daily volume equal to or exceeding 5,000,000 litres, until (*insert the date that occurs 11 years after the date of coming into force of section 33 of the Act to affirm the collective nature of water resources and provide for increased water resource protection*);

(3) if the withdrawer carries out water withdrawals with an average daily volume equal to or exceeding 1,500,000 litres but below 5,000,000 litres, until (*insert the date that occurs 12 years after the date of coming into force of section 33 of the Act to affirm the collective nature of water resources and provide for increased water resource protection*);

(4) if the withdrawer carries out water withdrawals with an average daily volume equal to or exceeding 600,000 litres but below 1,500,000 litres, until (*insert the date that occurs 13 years after the date of coming into force of section 33 of the Act to affirm the collective nature of water resources and provide for increased water resource protection*);

(5) if the withdrawer carries out water withdrawals with an average daily volume equal to or exceeding 200,000 litres but below 600,000 litres, until (*insert the date that occurs 14 years after the date of coming into force of section 33 of the Act to affirm the collective nature of water resources and provide for increased water resource protection*);

(6) until (*insert the date that occurs 15 years after the date of coming into force of section 33 of the Act to affirm the collective nature of water resources and provide for increased water resource protection*) if

(a) the withdrawer carries out water withdrawals with an average daily volume below 200,000 litres;

(b) the withdrawer operates a terrestrial fish farming site which, for each ton of annual production, withdraws a volume of water equal to or less than 20,000 litres per hour and is authorized, by certificate, to produce an annual discharge of phosphorous effluence equal to or less than 4.2 kilograms per ton of production.

Water withdrawals may continue after the term for such time as a renewal or new authorization has not been issued.

**102.** An application for the renewal of a water withdrawal authorization referred to in section 33 of the Act to affirm the collective nature of water resources and provide for increased water resource protection (chapter C-6.2) must be sent to the Minister in writing and include

- (1) an update of the information and documents submitted for the initial application for authorization;
- (2) the information and documents referred to in subparagraphs 1 to 10 and subparagraph 13 of the first paragraph of section 7 of this Regulation unless they were provided at the time of the initial application;
- (3) the measures taken in respect of the water withdrawal operations, if any.

The application for a water withdrawal authorization referred to in section 34 of the Act to affirm the collective nature of water resources and provide for increased water resource protection must also be sent in writing to the Minister and must include the elements listed in subparagraphs 2 and 3 of the first paragraph.

The applications must be made 6 months before the expiry of the authorizations concerned.

The information provided under this section is public information, to the extent provided by the third paragraph of section 7.

**103.** The terms “groundwater catchment facility”, “groundwater catchment works” and “water supply intake”, as used in an Act, regulation or other document, must be read as referring to a groundwater withdrawal facility.

**104.** Municipalities are responsible for the application of the provisions of Chapter III, except the provisions of Division V of that Chapter, and of sections 81 and 82 of this Regulation to the extent that those sections concern water withdrawals or geothermal systems situated in a territory under the authority of the municipality concerned.

To accomplish their responsibilities under the first paragraph, Division I of Chapter VI of this Regulation does not apply.

**105.** Paragraphs 6 and 6.1 of section 22 of the Regulation respecting petroleum, natural gas and underground reservoirs (chapter M-13.1, r. 1) are repealed.

**106.** This Regulation replaces the Groundwater Catchment Regulation (chapter Q-2, r. 6). However, the provisions of Chapter II and Schedule I of that regulation remain applicable until (*insert the date that occurs 6 months after the date of coming into force of section 31.75 of the Environment Quality Act (chapter Q-2), introduced by section 19 of chapter 21 of the Statutes of 2009*).

**107.** This Regulation comes into force on (*insert the date of coming into force of section 31.75 of the Environment Quality Act (chapter Q-2), introduced by section 19 of chapter 21 of the Statutes of 2009*), except sections 10 to 28, which come into force on (*insert the date that occurs 6 months after the date of coming into force of section 31.75 of the Environment Quality Act (chapter Q-2), introduced by section 19 of chapter 21 of the Statutes of 2009*).

#### **SCHEDULE I**

##### **CONTENT OF REPORT**

(ss. 21 and 27)

a. For the purposes of this Schedule, “facility” means a water withdrawal facility, the discharge facility of a geothermal system that withdraws water, and a ground-source geothermal system.

b. The information required to draw up the documents provided for in sections 21 and 27 of this Regulation consists of

- (1) the name of the owner of the place where the facility is installed;
- (2) the location of the place where the facility is installed (number, street, municipality, postal code, cadastral designation, latitude and longitude expressed in decimal degrees using the NAD 83 coordinate system and measured using a GPS device or other instrument of equivalent precision);
- (3) the units of measurement used in the report (all information in the report must be expressed using the same units of measurement);
- (4) the intended use of the facility installed;

(5) the number of the permit issued by the municipality concerned;

(6) the number of the licence issued by the Régie du bâtiment du Québec;

(7) the construction method used (drilling, excavation, driving);

(8) whether the work concerned was intended to deepen an existing well;

(9) the date of construction;

(10) the diameter or diameters drilled, and the depth of each diameter drilled;

(11) the presence of gas or saltwater during construction;

(12) in the case of a sealed well, the height of the seal and the materials used for the seal;

(13) the length, diameter and type of casing installed, and the length of the casing above ground level;

(14) the length, diameter, opening and type of perforated casing installed, if any;

(15) the length, diameter and type of additional or support tubing installed, if any;

(16) the type and thickness of the layers drilled;

(17) the following information on the flow tests conducted, if any:

(a) the date of the flow test;

(b) the water level at the end of the work;

(c) the duration of the flow test;

(d) the flow rate of the facility;

(e) the pumping method.

## SCHEDULE II SAMPLING (ss. 37 and 40)

**1.** The following physico-chemical parameters must be measured on-site during sampling:

(1) Specific Electric Conductivity;

(2) pH;

(3) Oxydo-Reduction Potential;

(4) Temperature.

**2.** The samples collected must be analyzed for the following substances and parameters:

(1) organic compounds:

(a) Total BTEX (Benzene, Toluene, Ethylbenzene, Xylene);

(b) Total organic Carbon (C);

(c) Ethane (C<sub>2</sub>H<sub>6</sub>);

(d) Polycyclic aromatic hydrocarbons (PAHs);

(e) Petroleum Hydrocarbons (C<sub>10</sub>-C<sub>50</sub>);

(f) Dissolved and stable isotopic signature ( $\delta^{13}\text{C}$ ) Methane, if any;

(g) Propane (C<sub>3</sub>H<sub>8</sub>).

(2) inorganic compounds:

(a) Aluminum (Al);

(b) Antimony (Sb);

(c) Silver (Ag);

(d) Arsenic (As);

(e) Barium (Ba);

(f) Beryllium (Be);

(g) Bismuth (Bi);

(h) Boron (B);

(i) Bromine (Br);

(j) Cadmium (Cd);

(k) Calcium (Ca);

(l) Chlorides;

(m) Chrome (Cr);

(n) Cobalt (Co);

- (o) Copper (Cu);
- (p) Tin (Sn);
- (q) Iron (Fe);
- (r) Fluorides (F);
- (s) Lithium (Li);
- (t) Magnesium (Mg);
- (u) Manganese (Mn);
- (v) Molybdenum (Mo);
- (w) Nickel (Ni);
- (x) Nitrites + nitrates;
- (y) Lead (Pb);
- (z) Potassium (K);
- (aa) Total Radium (Ra);
- (bb) Selenium (Se);
- (cc) Silicon (Si);
- (dd) Sodium (Na);
- (ee) Strontium (Sr);
- (ff) Sulphates;
- (gg) Sulphides;
- (hh) Thallium (TI)
- (ii) Total Thorium (Th);
- (jj) Titanium (Ti);
- (kk) Uranium (U);
- (ll) Vanadium (V);
- (mm) Zinc (Zn);
- (3) the following parameters:
  - (a) Alkalinity;
  - (b) Total dissolved and suspended solids
  - (c) Turbidity.

3. All samples must be analyzed by laboratories accredited pursuant to section 118.6 of the Environment Quality Act (chapter Q-2) or, if no laboratory is accredited for the analysis of a given substance, by a laboratory that meets ISO/CEI 17025 “General requirements for the competence of testing and calibration laboratories” published jointly by the International Organization for Standardization and the International Electrotechnical Commission.

4. The laboratory must send the results to the person responsible for the facility to explore for or produce petroleum, natural gas or brine or to explore for or operate an underground reservoir.

### SCHEDULE III GROUNDWATER MONITORING (s. 46)

1. For groundwater monitoring purposes, observation wells must be sampled once per year and 90 days after every repair to the well.

2. The samples collected during groundwater monitoring must be analyzed for the following substances:

- (1) Total BTEX (Benzene, Toluene, Ethylbenzene, Xylene);
- (2) Chlorides;
- (3) Petroleum Hydrocarbons (C<sub>10</sub>-C<sub>50</sub>);
- (4) Dissolved Methane;
- (5) Dissolved Solids.

3. The following physico-chemical parameters must be measured on-site during the sampling:

- (1) Specific Electric Conductivity;
- (2) pH;
- (3) Oxydo-Reduction Potential;
- (4) Temperature.

4. All samples must be analyzed by laboratories accredited pursuant to section 118.6 of the Environment Quality Act (chapter Q-2) or, if no laboratory is accredited for the analysis of a given substance, by a laboratory that meets ISO/CEI 17025 “General requirements for the competence of testing and calibration laboratories” published jointly by the International Organization for Standardization and the International Electrotechnical Commission.

5. The laboratory must send the results to the person responsible for the facility to explore for or produce petroleum, natural gas or brine or to explore for or operate an underground reservoir.

**SCHEDULE IV**  
**VULNERABILITY OF SURFACE WATER**  
 (s. 69)

**Physical vulnerability of withdrawal site**

1. The physical vulnerability of the withdrawal site must be assessed using the most restrictive of the following methods:

(1) a historical review of all the natural or anthropic events recorded pursuant to section 22.0.4 of the Regulation respecting the quality of drinking water (chapter Q-2, r. 40) that may have affected the condition of the withdrawal site, allowing water vulnerability to be rated as follows:

(a) high if one or more distinct events are recorded over a 5-year period;

(b) medium if a single distinct event is recorded over a 10-year period;

(c) low if one or no events are recorded over a consecutive period exceeding 10 years;

(2) a high rating assessment by a professional who certifies in writing that the location of the withdrawal site is a cause for concern because of the hydro-dynamic characteristics of the body of water, of water extraction, development or harnessing projects upstream, of a forecast increase in water demand, or of the anticipated effects of climate change.

**Vulnerability to micro-organisms**

2. Water vulnerability to microorganisms is assessed using one of the following methods:

(1) a compilation, over a consecutive 5-year period, of the results of an analysis of raw water samples withdrawn in accordance with section 22.0.1 of the Regulation respecting the quality of drinking water (chapter Q-2, r. 40) for *Escherichia coli* bacteria. The compilation is used to rate water vulnerability as follows:

(a) high if the analysis results show a median value above 150 UFC/100 ml or if the value of the 95<sup>th</sup> percentile is above 1 500 UFC/100 ml;

(b) medium if vulnerability is neither low nor high;

(c) low if the analysis results show a median value below 15 UFC/100 ml and if the value of the 95<sup>th</sup> percentile is below 150 UFC/100 ml;

(2) when the method in paragraph 1 cannot be used, water vulnerability is rated as follows:

(a) high, if the inner protection zone for the withdrawals is wholly situated in an urban area, or if at least one overflow from a combined or semi-separated sewer system likely to discharge raw or partially untreated sewage following a storm, continuous rain or a snow melt is located in the inner or intermediate protection zone;

(b) medium if vulnerability is neither low nor high;

(c) low, if

i. the withdrawal site is situated in a lake;

ii. the withdrawal site is situated in any other watercourse, not itself situated downstream from an agglomeration served by a combined or semi-separated sewer system, a livestock raising operation, a food processing industry or another establishment likely to discharge pathogenic micro-organisms or micro-organisms indicating a contamination of fecal origin into the watercourse.

**Vulnerability to fertilizers**

3. Water vulnerability to fertilizers is assessed using the most restrictive of the following methods:

(1) a compilation, over a consecutive 5-year period, of the results of an analysis of raw water samples withdrawn in accordance with section 22.0.1 of the Regulation respecting the quality of drinking water (chapter Q-2, r. 40) for total phosphorous. The compilation is used to rate water vulnerability as follows:

(a) in a lake:

i. high if the average result is equal to or greater than 20 µg/l P;

ii. medium if the average result is between 10 µg/l P and 20 µg/l P;

iii. low if the average result is equal to or less than 10 µg/l P;

(b) in any other watercourse:

i. high if the average result is equal to or greater than 50 µg/l P;

ii. medium if the average result is between 30 µg/l P and 50 µg/l P;

iii. low if the average result is equal to or less than 30 µg/l P;

(2) a historical review of all events recorded pursuant to section 22.0.4 of the Regulation respecting the quality of drinking water (chapter Q-2, r. 40) in a watercourse over a consecutive 5-year period involving cyanobacteria, algae or aquatic plant proliferations or increases in ammoniacal nitrogen, allowing water vulnerability to be rated as follows:

(a) high if 5 or more events are recorded;

(b) medium if 2 to 4 events are recorded;

(c) low if 1 or no events are recorded;

(3) when the methods in paragraphs 1 and 2 cannot be used, water vulnerability must be assessed by a professional based on the potential impact of anthropic activities recorded in the outer protection zone for the water withdrawals in terms of the introduction of fertilizers that may affect the water withdrawn.

#### **Vulnerability to turbidity**

**4.** Vulnerability to turbidity must be assessed using one of the following methods:

(1) a compilation, over a consecutive 5-year period, of the results of an analysis of raw water samples withdrawn in accordance with section 22.0.2 of the Regulation respecting the quality of drinking water (chapter Q-2, r. 40) for changes in turbidity. The compilation is used to rate water vulnerability as follows:

(a) high if the value of the 99th percentile is equal to or greater than 100 NTU (nephelometric turbidity unit);

(b) low in other cases;

(2) when the method in paragraph 1 cannot be used, water vulnerability must be assessed by a professional based on the potential impact of anthropic activities recorded in the outer protection zone for the water withdrawals in terms of water turbidity.

#### **Vulnerability to inorganic substances**

**5.** Vulnerability to inorganic substances must be assessed using one of the following methods:

(1) a compilation, over a consecutive 5-year period, of the results of an analysis of raw water samples withdrawn in accordance with section 14 of the Regulation respecting the quality of drinking water (chapter Q-2, r. 40) for inorganic substances associated with the source. The compilation is used to rate water vulnerability as follows:

(a) high if, for at least one substance, 2 of the values analyzed are equal to or greater than 50% of the applicable standard;

(b) medium if

i. for at least one substance, 2 of the values analyzed are between 20% and 50% of the applicable standard;

ii. for at least one substance, 1 of the values analyzed is between 20% and 50% of the applicable standard and 1 other value is equal to or greater than 50% of the applicable standard;

(c) low if all the values analyzed are equal to or less than 20% of the applicable standard;

(2) when the method in paragraph 1 cannot be used, the total of all the areas used for industrial, commercial or agricultural activities in the strip 120 metres wide in the intermediate protection zone delimited for water withdrawals is used to rate water vulnerability as follows:

(a) high, if the total is equal to or greater than 50% of the area of the intermediate protection zone;

(b) medium, if the total area is between 20% and 50% of the area of the intermediate protection zone;

(c) low, if the total area is equal to or less than 20% of the area of the intermediate protection zone.

#### **Vulnerability to organic substances**

**6.** Vulnerability to organic substances must be assessed using one of the following methods:

(1) a compilation, over a consecutive 5-year period, of the results of an analysis of raw water samples withdrawn in accordance with section 19 of the Regulation respecting the quality of drinking water (chapter Q-2, r. 40) for inorganic substances associated with the source. The compilation is used to rate water vulnerability as follows:

(a) high if, for at least one substance, 2 of the values analyzed are equal to or greater than 50% of the applicable standard;

(b) medium if

i. for at least one substance, 2 of the values analyzed are between 20% and 50% of the applicable standard;

ii. for at least one substance, 1 of the values analyzed is between 20% and 50% of the applicable standard and 1 other value is equal to or greater than 50% of the applicable standard;

(c) low if all the values analyzed are equal to or less than 20% of the applicable standard;

(2) when the method in paragraph 1 cannot be used, the total of all the areas used for industrial, commercial or agricultural activities in the strip 120 metres wide in the intermediate protection zone delimited for water withdrawals is used to rate water vulnerability as follows:

(a) high, if the total is equal to or greater than 50% of the area of the intermediate protection zone;

(b) medium, if the total area is between 20% and 50% of the area of the intermediate protection zone;

(c) low, if the total area is equal to or less than 20% of the area of the intermediate protection zone.

## SCHEDULE V

DELIMITATION OF A PERIMETER IN VILLE DE MERCIER AND IN OTHER CLOSE TERRITORIES (ss. 79, 80, 81 and 82)

### CONTAMINATED PERIMETER

CANADA

PROVINCE OF QUEBEC

DISTRICT OF BEAUHARNOIS

### Technical description

Namely, the whole territory forming part of Municipalité de Sainte-Martine, MRC de Beauharnois-Salaberry and Ville de Mercier, MRC de Rousillon and bounded by the limits of the following perimeter:

Starting from point "A" located at the meeting point of the southeast right-of-way of Boulevard Sainte-Marguerite and of the northeastern limit of Lot 249 of the cadastre of Paroisse de Sainte-Philomène, thence, in a southeasterly direction following the northeastern limit of Lot 249 to point "B" located at the limit of the cadastre of the parishes of Sainte-Philomène and Saint-Isidore, southeastern limit of Ville de Mercier; thence, in a southwesterly direction following the limit of the cadastre of the parishes of Sainte-Philomène and Saint-Isidore to point "C" located at the meeting point of that last limit and of the northeastern

limit of the first concession of the cadastre of Paroisse de Saint-Urbain-Premier; thence, in a northerly direction following the northeastern limit of that first concession to point "D" located at the northern apex of Lot 1 of the cadastre of Paroisse de Saint-Urbain-Premier; thence, in a southwesterly direction following the limit of the cadastre of the parishes of Sainte-Martine and Saint-Urbain-Premier to point "E" located at the meeting point of that last limit and of the southwestern limit of Lot 289 of the cadastre of Paroisse de Sainte-Martine; thence, in a northwesterly direction following and along the extension of the southwestern limit of Lot 289 to point "F" located along the northwest right-of-way of Rang Saint-Joseph; thence, in a northeasterly direction following the northwest right-of-way of Rang Saint-Joseph to point "G" located at the meeting point of that last right-of-way and of the southwestern limit of Lot 183 of the cadastre of Paroisse de Sainte-Martine; thence, in a westerly direction following the southwestern limit of Lot 183 to point "H" located along the southeast right-of-way of Boulevard Saint-Jean-Baptiste; thence, in a northeasterly direction following the southeast right-of-way of Boulevard Saint-Jean-Baptiste to point "I" located at the meeting point of that last right-of-way and of the northeastern limit of Lot 129 of the cadastre of Paroisse de Sainte-Philomène; thence, in a southeasterly direction following and along the extension of the northeastern limit of Lot 129 to point "J" located at the meeting point of that last limit and of the stream called "Branche 10 de la Rivière de l'Esturgeon", located for the one part at the southeastern limit of Lot 129; thence, in a northeasterly direction following the meanders of the southeast bank of that stream to point "K" located at the meeting point of that last bank or its extension and of the northeastern limit of Lot 144 of the cadastre of Paroisse de Sainte-Philomène; thence, in a southeasterly direction following and along the extension of the northeastern limit of Lot 144 to point "L" located along the southeast right-of-way of Boulevard Sainte-Marguerite; thence, in a southwesterly direction following that right-of-way to the starting point "A".

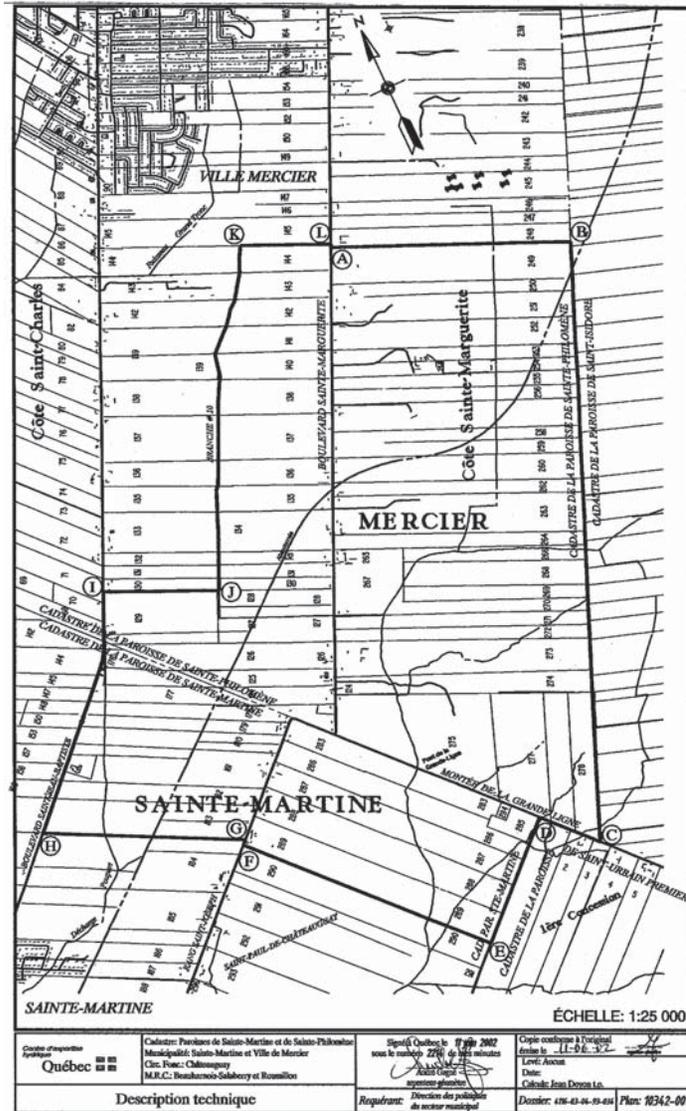
The whole as shown on the attached map that is an integral part of the technical description.

Québec, 11 June 2002

ANDRÉ GAGNÉ,  
*Land Surveyor*

Minute: 2214  
Map: 10342-001  
File: 4116-03-04-93-034

**SCHEDULE V**  
**WATER WITHDRAWAL AND PROTECTION REGULATION**



<p>Centre d'expertise                  Québec</p>	<p>Cadastre: Paroisses de Sainte-Martine et de Sainte-Philéas                  Municipalités: Sainte-Martine et Ville de Mercier                  Circ. Fonc.: Châtigny                  M.R.C.: Beauharnois-Salaberry et Rouville</p>	<p>Signé à Québec le 07 juin 2012                  sous le numéro 2761 de 102 minutes                  Jean-Louis                  Directeur général</p>	<p>Copie conforme à l'original                  dressé le 11-06-12                  Lévesque                  Date:                  Calculé: Jean Doron S.n.c.</p>
<p>Description technique</p>		<p>Requérant: Direction des politiques                  de secteur municipal</p>	<p>Docteur: 116-01-04-03-011 Plans: 10342-001</p>

## Regulation to amend the Pesticides Management Code

### Pesticides Act

(chapter P-9.3, ss. 105 and 109, pars. 1 and 2)

**1.** The Pesticides Management Code (chapter P-9.3, r. 1) is amended in section 15 by replacing subparagraphs 2 and 3 of the first paragraph by the following:

“(2) less than 100 m from a category 1 or category 2 water withdrawal site within the meaning of paragraphs 1 and 2 of section 51 of the Water Withdrawal and Protection Regulation or from a water intake used for the production of spring water or mineral water within the meaning of the Regulation respecting bottled water (chapter P-29, r. 2);

(3) less than 30 m from a category 3 water withdrawal site within the meaning of paragraph 3 of section 51 of the Water Withdrawal and Protection Regulation or from any other groundwater withdrawal site.”.

**2.** Section 35 is amended by replacing subparagraphs 2 and 3 of the first paragraph by the following:

“(2) less than 100 m from a category 1 or category 2 water withdrawal site within the meaning of paragraphs 1 and 2 of section 51 of the Water Withdrawal and Protection Regulation or from a water intake used for the production of spring water or mineral water within the meaning of the Regulation respecting bottled water (chapter P-29, r. 2);

(3) less than 30 m from a category 3 water withdrawal site within the meaning of paragraph 3 of section 51 of the Water Withdrawal and Protection Regulation or from any other groundwater withdrawal site.”.

**3.** Section 50 is replaced by the following:

“**50.** It is prohibited to apply pesticides

(1) less than 100 m from a category 1 or category 2 water withdrawal site within the meaning of paragraphs 1 and 2 of section 51 of the Water Withdrawal and Protection Regulation or from a water intake used for the production of spring water or mineral water within the meaning of the Regulation respecting bottled water (chapter P-29, r. 2);

(2) less than 30 m from a category 3 water withdrawal site within the meaning of paragraph 3 of section 51 of the Water Withdrawal and Protection Regulation;

(3) less than 3 m from any other groundwater withdrawal site.

The prohibitions set out in subparagraphs 2 and 3 of the first paragraph do not apply to

(1) pesticide application for extermination during work described in permit Subclasses C5 or D5, if it is carried out more than 3 m from the water withdrawal site;

(2) pesticide application for ornamental horticulture during work described in permit Subclasses C4 and D4, if it is carried out more than 3 m from the water withdrawal site, except in the case of a golf course;

(3) pesticide application on a railway ballast, if it is carried out with a windbreak.”.

**4.** Section 76 is replaced by the following:

“**76.** It is prohibited to apply pesticides

(1) less than 100 m from a category 1 or category 2 water withdrawal site within the meaning of paragraphs 1 and 2 of section 51 of the Water Withdrawal and Protection Regulation or from a water intake used for the production of spring water or mineral water within the meaning of the Regulation respecting bottled water (chapter P-29, r. 2);

(2) less than 30 m from a category 3 water withdrawal site within the meaning of paragraph 3 of section 51 of the Water Withdrawal and Protection Regulation;

(3) less than 3 m from any other groundwater withdrawal site.

The prohibitions set out in subparagraphs 2 and 3 of the first paragraph do not apply to pesticide application near a water withdrawal site supplying a building that is occasionally used as a dwelling in a forest area.”.

**5.** This Regulation comes into force on *(insert the date of coming into force of section 31.75 of the Environment Quality Act (chapter Q-2), introduced by section 19 of chapter 21 of the Statutes of 2009)*.

## Regulation to amend the Regulation respecting the application of the Environment Quality Act

### Environment Quality Act

(chapter Q-2, s. 31, 1st par., subpar. f)

**1.** The Regulation respecting the application of the Environment Quality Act (chapter Q-2, r. 3) is amended in section 2 by replacing “drainage pipes” in paragraph 9 by “drains”.

**2.** Section 2.1 is struck out.

**3.** Section 3 is amended by replacing “drainage” in subparagraph *e* of paragraph 2 by “the digging of a ditch, the installation of a drain or”.

**4.** This Regulation comes into force on (*insert the date of coming into force of section 31.75 of the Environment Quality Act (chapter Q-2), introduced by section 19 of chapter 21 of the Statutes of 2009*).

## Regulation to amend the Regulation respecting waste water disposal systems for isolated dwellings

Environment Quality Act  
(chapter Q-2, s. 46, pars. *g* and *l*, s. 87, par. *c*)

**1.** The Regulation respecting waste water disposal system for isolated dwellings (chapter Q-2, r. 22) is amended in section 7.1 by replacing the table in paragraph *d* by the following:

“

Reference point	Minimum distance (in metres)
Category 1 or category 2 groundwater withdrawal facility referred to in section 51 of the Water Withdrawal and Protection Regulation	30
Other groundwater withdrawal facility and surface water withdrawal facility	15
Lake or watercourse	Outside the bank or shore
Swamp or pond	10
Drinking water pipe, property or residence line	1.5

The minimum distances in relation to a groundwater withdrawal facility may be determined otherwise by a professional who is a member of a professional order within the meaning of the Professional Code (chapter C-26), in accordance with the conditions set out in sections 17 and 54 of the Water Withdrawal and Protection Regulation for the installation of a watertight treatment system serving an existing residence located on land that does not make it possible to comply with the distances prescribed in the table in subparagraph *d* of the first paragraph.”

**2.** Section 7.2 is amended by replacing the table in subparagraph *d* of the first paragraph by the following:

“

Reference point	Minimum distance (in metres)
Category 3 groundwater withdrawal facility referred to in section 51 of the Water Withdrawal and Protection Regulation and uncategorized groundwater withdrawal facility sealed in accordance with section 20 of that Regulation.	15
Other groundwater withdrawal facility and surface water withdrawal facility	30
Lake, watercourse, swamp or pond	15
Residence or underground drainage line	5
Top of a talus	3
Drinking water pipe, property or tree line	2

The minimum distances in relation to a groundwater withdrawal facility may be determined otherwise by a professional who is a member of a professional order within the meaning of the Professional Code (chapter C-26), in accordance with the conditions set out in sections 17 and 54 of the Water Withdrawal and Protection Regulation for the installation of a non-watertight treatment system serving an existing residence located on land that does not make it possible to comply with the distances prescribed in the table in subparagraph *d* of the first paragraph.”

**3.** The following paragraph is added to section 63:

“The minimum distances referred to in the first 2 lines of the table in subparagraph *d* of the first paragraph of section 7.2 also apply to an absorption field.”

**4.** The following is inserted after section 87.26:

**“87.26.1. General condition to effluent discharge.** No effluent discharge may take place in the inner protection zone delimited for a category 1 or category 2 surface water withdrawal provided for in section 70 of the Water Withdrawal and Protection Regulation, unless the discharge is done in a watercourse whose width is greater than 30 metres in low-water periods and an attestation by a professional indicates that the discharge will not affect the water withdrawal site.”

**5.** This Regulation comes into force on (*insert the date of coming into force of section 31.75 of the Environment Quality Act (chapter Q-2), introduced by section 19 of chapter 21 of the Statutes of 2009*).

## Regulation to amend the Regulation respecting the quality of drinking water

### Environment Quality Act

(chapter Q-2, s. 31, 1st par., subpars. *e*, *h.1* and *h.2*, s. 45.2, s. 46, pars. *b*, *c*, *d*, *o* and *o.1* and s. 115.34)

**1.** The Regulation respecting the quality of drinking water (chapter Q-2, r. 40) is amended in section 22.0.1 by striking out the second paragraph.

**2.** The following is inserted after section 22.0.1:

“**22.0.2.** The person in charge of a municipal water withdrawal facility that supplies more than 500 persons and at least one residence with water that originates in whole or in part from surface water must, for the purposes of controlling the total phosphorus, take or cause to be taken at least one sample of raw surface water during the period from May to October, with at least a 2-week interval between each sampling.

That person must also install a device to continuously measure the turbidity of raw water and, in accordance with the fourth paragraph of section 22, take turbidity measurements and keep a record for that purpose.

If the water of more than one surface water withdrawal site gets mixed in the treatment facility, the obligations in the first and second paragraphs of this section apply to each of the withdrawal sites.

**22.0.3.** Sections 22.0.1 and 22.0.2 do not apply to territories north of the 55th parallel.

**22.0.4.** The person in charge of a municipal treatment facility supplying more than 500 persons and at least one residence with water that originates in whole or in part from surface water must keep a record containing observations about situations likely to cause a water shortage, an obstruction or breakage of the withdrawal site or a failure in the screening system, the coagulation system, the sedimentation system, the filtration system, the disinfection system or the treatment system as a whole.

The observations about situations that must be entered into a record, in accordance with the first paragraph, include

- (1) natural or man-made events;
- (2) the proliferation of algae, cyanobacteria and aquatic plants;

(*e*) suspected or measured increases in ammonia nitrogen.

The observations thus recorded must make it possible to locate the problem, to situate it in time and to assess its effect on the operation of the withdrawal site or treatment facility.

If the water of more than one surface water withdrawal site gets mixed in the treatment facility, a separate record must be kept for each withdrawal site.

The person in charge must sign the record when entering observations, preserve it for a minimum period of 15 years from the date of the last entry and keep it available to the Minister.”.

**3.** Section 31 is amended by inserting “the first paragraph of section 22.0.2, sections” in the first paragraph after “22.0.1,”.

**4.** Section 34 is amended by replacing “and fourth” in the first paragraph by “, fourth, fifth and sixth”.

**5.** The fifth paragraph of section 35 is replaced by the following:

“Where an analysis result shows that a water sample contains more than 5 mg/l of nitrates + nitrites, the laboratory must send the result, as soon as possible and during business hours, to the Minister and to the person in charge of the distribution system or tank truck concerned.

The fifth paragraph also applies where an analysis result shows that a water sample fails to comply with a standard of quality set out in Schedule 1. The laboratory must also send that result to the public health director of the region concerned.”.

**6.** The following is inserted after section 36:

“**36.0.1.** The person in charge of the distribution system or, as the case may be, of the tank truck must notify, as soon as possible and during business hours, the person in charge of the water withdrawal facility of the receipt of a result from the laboratory when an analysis result shows that the water contains more than 5 mg/l of nitrates + nitrites at least twice over a 2-year period.

This section does not apply to a person in charge of a distribution system or tank truck serving a tourist establishment exclusively.”.

**7.** Section 46 is amended

(1) by inserting “36.0.1,” in the first paragraph after “36.”;

(2) by replacing “22.1, 23, 28” in subparagraph 1 of the second paragraph by “the second paragraph of section 22.0.2, sections 22.0.4, 22.1, 23 and 28”.

**8.** Section 47 is amended by striking out “22.0.1.”.

**9.** Section 47.1 is amended by inserting “the first paragraph of section 22.0.2,” after “22.0.1,” in the part preceding paragraph 1.

**10.** Schedule 4 is amended by inserting the following line, in Title II and after the line applicable to the “pH” parameter in the table entitled “Preservation standards of inorganic substances”:

Phosphorus	AS	P	28 days
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**11.** This Regulation comes into force on *(insert the date of coming into force of section 31.75 of the Environment Quality Act (chapter Q-2), introduced by section 19 of chapter 21 of the Statutes of 2009)*.

## **Regulation to amend the Regulation respecting contaminated soil storage and contaminated soil transfer stations**

Environment Quality Act  
(chapter Q-2, s. 31.69, par. 5)

**1.** The Regulation respecting contaminated soil storage and contaminated soil transfer stations (chapter Q-2, r. 46) is amended in section 39

(1) by replacing “collection facility” in the first paragraph by “withdrawal facility”;

(2) by replacing “supply area of a spring water, mineral water or groundwater catchment site” in the second paragraph by “remote protection area of a spring water, mineral water or groundwater withdrawal site” and “Groundwater Catchment Regulation (chapter Q-2, r. 6)” by “Water Withdrawal and Protection Regulation”.

**2.** This Regulation comes into force on *(insert the date of coming into force of section 31.75 of the Environment Quality Act (chapter Q-2), introduced by section 19 of chapter 21 of the Statutes of 2009)*.