

PLEASE NOTE

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This document is *not* the official version of the Act. The Act and the amendments as printed under the authority of the Queen's Printer for the province should be consulted to determine the authoritative statement of the law.

For more information concerning the history of this Act, please see the *Table of Public Acts*.

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CHAPTER E-9

ENVIRONMENTAL PROTECTION ACT

WATER WELL REGULATIONS

Pursuant to section 25 of the *Environmental Protection Act* R.S.P.E.I. 1988, Cap. E-9 Council made the following regulations:

1. In these regulations

Definitions

- (a) "Act" means the *Environmental Protection Act* R.S.P.E.I. 1988, Act Cap. E-9;
- (b) "annular space" means the space between the outside of a well annular space casing and the earthen side walls of a well bore;
- (c) "applicant" means an applicant for a license or a permit issued applicant under these regulations;
- (d) "casing" means a continuous, watertight length of pipe that is casing used to seal and support the upper portion of a well;
- (e) "central supply well" means a well connected to a water supply central supply well system serving five or more households;
- (f) "commercial chemical storage facility" means a facility used for commercial the storage and sale, resale, or wholesale storage or distribution of chemical storage facility
 - (i) fertilizers and chemical products, or
 - (ii) pesticides that are restricted under the *Pesticides Control Act* R.S.P.E.I. 1988, Cap. P-4;
- (g) "construct" in relation to a well, means

construct

- (i) to create, repair, or reconstruct a well by drilling, boring, washing, or by any other method, or
- (ii) to complete a well in accordance with section 11;
- (h) "disposal field" means a disposal field as defined in the disposal field Environmental Protection Act Sewage Disposal Regulations (EC298/97);
- (i) "engineer" means an engineer licensed to practise engineering engineer under the *Engineering Profession Act* R.S.P.E.I. 1988, Cap. E-8.1;
- (j) "flowing well" means a well from which groundwater overflows flowing well periodically or year-round without the use of pumping equipment;

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groundwater

(k) "groundwater" means water within the earth that supplies wells and springs;

groundwater exploration permit (l) "groundwater exploration permit" means a permit issued under subsection 6(2);

groundwater extraction permit (m) "groundwater extraction permit" means a permit issued under subsection 7(2);

grout

(n) "grout" when used as a noun, means a stable, impervious bonding material that is capable of preventing the vertical movement of water along the outside of a well casing or, when used as a verb, means the act of applying such material;

hydrogeologist

(o) "hydrogeologist" means an individual recognized by the Department as an expert in groundwater issues;

manure storage facility (p) "manure storage facility" means a structure, reservoir, catch basin, lagoon, cistern, gutter, tank or bermed area that contains agricultural waste and agricultural liquid waste prior to its use or disposal, but does not include a vehicle or mobile equipment used for the transportation and land application of livestock wastes;

owner

(q) "owner" means an owner of real property and includes a person who has a right to possession of the real property;

petroleum storage tank system (r) "petroleum storage tank system" means a petroleum storage tank system as defined in the *Environmental Protection Act* Petroleum Storage Tanks Regulations (EC322/01);

pitless adapter

- (s) "pitless adapter" means an aboveground or underground discharge device designed for attachment to a well casing
 - (i) to prevent the entrance of contaminants into the well,
 - (ii) to conduct water from the well, and
 - (iii) to provide access to the pumping equipment located partly within the well;

plumber

(s.1) "plumber" means a person who holds a Certificate of Proficiency or a Certificate of Qualification, issued under the *Apprenticeship and Trades Qualification Act* Regulations (EC 712/95), in the certified trade of plumber;

pump or pumping equipment

(t) "pump" or "pumping equipment" means a pump or equipment or material used or intended for use in withdrawing groundwater for any purpose, and includes seals and tanks, together with fittings and controls;

pump test

(u) "pump test" means a test that is conducted to determine the characteristics of a well or an aquifer by pumping the well at a

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known discharge rate and measuring the amount of drawdown of the water level in the well:

(v) "pumping water level" means the depth to the water level in a well, measured under pumping conditions from the top of the casing;

pumping water

(w) "restricted area" means a restricted area designated in Schedule A;

restricted area

- (x) "rock pit" means an artificial opening constructed underground rock pit and used for the disposal of clear water wastes into the ground;
- (y) "septic tank" means a septic tank as defined in the septic tank Environmental Protection Act Sewage Disposal Regulations;
- (z) "sewer line" means a sewer line as defined in the Environmental sewer line Protection Act Sewage Disposal Regulations;
- (aa) "solid waste disposal site" means a solid waste disposal site as solid waste disposal defined in the Environmental Protection Act Waste Resource site Management Regulations (EC691/00);
- (ab) "static water level" means the depth to the water level in a well, static water level measured under non-pumping conditions from the top of the casing;
- (ac) "unused well" means a well that is not in use:

unused well

(ad) "vermin-proof well cap" means a well cap manufactured and vermin-proof well used to prevent the entry of vermin or nuisance organisms into a cap well;

- (ae) "well contractor" means a person who holds a well contractor's well contractor
- (af) "well contractor's license" means a license issued under well contractor's subsection 3(1);
- (ag) "well driller" means a person who holds a well driller's license; well driller
- (ah) "well driller's license" means a license issued under subsection well driller's license 2(1);
- (ai) "well permit" means a well permit issued under subsection 5(2). well permit (EC188/90; EC107/03; EC19/06)

WELL DRILLER'S AND WELL CONTRACTOR'S LICENSES

2. (1) The Minister may, on application, issue a well driller's license to a Well driller's person who is not less than 18 years of age and who, subject to subsection (3),

- (a) has at least 4,000 hours of work experience in operating a well-drilling machine, of which not less than 1,500 hours of work experience was obtained in the province;
- (b) has successfully completed a written or oral test of competence in well drilling, approved by the Minister, and demonstrates a working knowledge of the Act and these regulations to the satisfaction of the Minister;
- (c) has successfully completed a field test to demonstrate a practical knowledge of well construction, as the Minister considers necessary; and
- (d) pays an application fee of \$20.

Application form

(2) An application for a well driller's license shall be made on a form approved by the Minister.

Previous license holder (3) The Minister may, under subsection (1), issue a well driller's license to a person who does not meet the requirements of clauses (1)(a), (b) and (c) if the person held a well driller's license on the day this section came into force.

Retesting

- (4) An applicant who fails to meet the qualifications described in subsection (1) may re-apply, but the applicant shall meet the following requirements on re-application, in addition to the requirements of subsection (1):
 - (a) demonstration of additional practical experience in well construction, as the Minister may require;
 - (b) proof that the applicant has obtained at least 1,000 additional hours of work experience in operating a well-drilling machine from the date of the last testing.

Term of license

- (5) A well driller's license
 - (a) is effective for a period of 24 months from the date it is issued, unless it is sooner revoked under section 28 of the Act; and
 - (b) may be renewed on application and payment of a renewal fee of \$20. (EC188/90; EC107/03)

Well contractor's license

- **3.** (1) The Minister may, on application, issue a well contractor's license to an applicant who
 - (a) either
 - (i) is a well driller, if the applicant is an individual, or
 - (ii) employs a well driller, if the applicant is not an individual;
 - (b) is in possession of well construction equipment that is capable of constructing wells to the standards prescribed by these regulations; and
 - (c) pays an application fee of \$200.

(2) An application for a well contractor's license shall be made on a form approved by the Minister.

Application form

(3) A well contractor's license

Term of license

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- (a) is effective for a period of 24 months from the date it is issued, unless it is sooner revoked under section 28 of the Act; and
- (b) may be renewed on application and payment of a renewal fee of \$200.
- (4) No person shall construct, or attempt to construct, a well unless the supervision construction of the well is supervised by a well driller. (EC188/90; required EC107/03)

WELL CONSTRUCTION REPORT

4. A well contractor shall, after constructing a well,

Well construction

- (a) complete a well construction report on a form approved by the report Minister;
- (b) as soon as is reasonably practicable, provide a copy of the well construction report to the owner; and
- (c) forward a copy of the report to the Department within 60 days of the well's completion. (EC188/90; EC107/03)

WELL PERMITS

- **5.** (1) No person shall cause or permit a well to be constructed in a well permit restricted area or in a manner which departs from the provisions of these regulations without first obtaining a well permit.
- (2) The Minister may issue a well permit which shall be in such form and subject to such conditions as he sees fit.
- (3) No person shall fail to comply with any conditions imposed on a Compliance well permit.
- (4) No person shall construct a well as described in subsection (1) Offence without first ensuring that the owner of the property on which the well is being constructed has obtained a well permit.
- (5) A well permit is not required for the construction of a well for Exception which a groundwater exploration permit is required. (EC188/90; EC107/03)

GROUNDWATER EXPLORATION PERMITS

6. (1) No person shall construct a well

Groundwater exploration permit

- (a) intended or required to be pumped at a rate of 4 litres per second or greater; or
- (b) intended to be used to provide water to a central water supply system,

unless the person holds a groundwater exploration permit issued under subsection (2).

Form and conditions

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(2) The Minister may issue a groundwater exploration permit to a well contractor, engineer or hydrogeologist which shall be in such form, and subject to such conditions as he sees fit.

Term

(3) A groundwater exploration permit shall be valid for a period of one year from the date of issuance, unless it is sooner revoked under section 28 of the Act.

Compliance

(4) No person shall fail to comply with any conditions imposed on a groundwater exploration permit by the Minister.

Data

(5) The holder of a groundwater exploration permit shall ensure that a copy of all pump test and hydrogeological data, including the well construction report and any interpretive reports or information specified in the conditions under which the permit is issued, is submitted to the Department within thirty days of completion of the testing or as directed by the Minister. (EC188/90; EC107/03)

GROUNDWATER EXTRACTION PERMITS

Prohibition on drawing water

- 7. (1) No person shall withdraw groundwater, or cause it to be withdrawn, from a well
 - (a) at a rate of 4 litres per second or greater; or
 - (b) for use by a water supply system,

unless the person holds a groundwater extraction permit.

Groundwater extraction permit

- (2) The Minister may issue a groundwater extraction permit to an owner
 - (a) if the Minister is satisfied, based on testing and assessments conducted as conditions of a groundwater exploration permit, that the operation of a well at the location identified in the permit will not have an unacceptable impact on the environment; and
 - (b) subject to such conditions as the Minister considers necessary.

Permit holder liable

(3) The holder of a groundwater extraction permit is liable for all adverse effects to any person resulting from the withdrawal of water from the well for which the permit was issued.

(4) A groundwater extraction permit expires on the date specified in the permit by the Minister, unless it is sooner revoked under section 28 Term of permit of the Act.

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(5) A groundwater allocation issued by the Minister before this section allocation comes into force is deemed to be a groundwater extraction permit. (EC188/90; EC107/03)

GENERAL PROVISIONS RE WELL CONSTRUCTION

- 8. (1) No person shall construct a well other than in a manner which construction maintains existing natural protection against contaminants.
- (2) No person shall use, or permit the use of, in the construction of a Standards well,
 - (a) pitless adapters;
 - (b) well seals;
 - (c) pipings and fittings;
 - (d) pumping equipment; or
 - (e) other equipment, materials or devices,

unless the person uses, or requires the use of, equipment, materials or devices that conform to the standards prescribed by the organizations listed in Schedule B. (EC188/90; EC107/03)

LOCATION OF WELLS

- 9. (1) Subject to section 5, no well contractor or well driller shall Location construct a well at a location
 - (a) where the centre line of the well, extended vertically, does not clear a projection from any building by at least 3 metres;
 - (b) inside a foundation or structure; or
 - (c) in a location where surface water other than rainwater will pass over the top of the well.
- (2) No well contractor or well driller shall construct a well at a location Distance from that is within

contaminant sources

- (a) 3 metres of a sewer line;
- (b) 6 metres of a sewer collection main;
- (c) 100 metres of a wastewater treatment system;
- (d) 15 metres of a septic tank;
- (e) 15 metres of a sewage disposal field;
- (f) 15 metres of a rock pit;
- (g) 90 metres of a manure storage facility;
- (h) 150 metres of a solid waste disposal site;
- (i) 5 metres of a petroleum storage tank system 1,200 litres or less in size;

- (j) 15 metres of a petroleum storage tank system greater than 1,200 litres in size;
- (k) 45 metres of a commercial chemical storage facility; or
- (1) 6 metres of an existing or abandoned well.

Idem

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(3) No person shall construct, or permit to be constructed, any contaminant source listed in subsection (2) at a location within a distance from a well that would, under subsection (2), preclude the construction of the well, unless the well is abandoned in accordance with section 12.

Distance from other features

- (4) No well contractor or well driller shall construct a well at a location that is within
 - (a) 1.5 metres of any property boundary;
 - (b) 1.5 metres of underground electrical cables, except for underground electrical cables that supply power to pumping equipment.

Place well according to plan

- (5) Where
 - (a) a building permit for a property has been issued under the *Planning Act* R.S.P.E.I. 1988, Cap P-8 or the relevant legislation of an incorporated municipality; and
- (b) the building permit includes a plan indicating the location of a water well that is to be constructed in the property,

a well contractor, or a well driller, shall not construct a well in a location other than that shown on the plan. (EC188/90; EC107/03)

WELL DESIGN

Manner of construction

- 10. (1) No person shall construct a well other than in a manner which
 - (a) adapts to the geologic and groundwater conditions existing at the site of the well;
 - (b) seals off water bearing formations that contain contaminants; and
 - (c) leaves no artificial openings to the well.

Casing installation

(2) Revoked by EC107/03.

Idem

(3) Revoked by EC107/03.

Length of casing

(4) Subject to subsection 5, no person shall construct a well with less than 12 metres of casing and the casing must extend 30 centimetres above ground after final landscaping.

Specifications in building permit

(5) Where a building permit has been issued which specifies well design requirements, no person shall construct a well other than in the manner specified.

Installation of casing

(6) No person shall install casing in a well unless

- (a) the width of the annular space is not less than 3.8 cm; and
- (b) the annular space is filled with grout from the bottom of the casing to the pitless adapter.

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- (7) Notwithstanding subsection (6) and subject to subsection (8), where the casing to be installed in a well is more than 12 metres long and the well is not a central supply well, the person installing the casing may fill the lower 12 metres of the annular space with grout and fill the remaining annular space with clean fill.
- (8) No person shall use fewer than six 22 kilogram bags of bentonite in Grout the grouting of a well.
- (9) No person shall install casing in a central supply well unless the Grout for central entire length of annular space is filled with grout that is placed using a grout pump. (EC188/90; EC107/03)

WELL COMPLETION

11. (1) A person who constructs a well shall, immediately after Completion construction,

- (a) remove all earthen material and drill cuttings from the well;
- (b) determine whether sufficient yield is available for the intended use of the well by first recording the static water level, conducting a pump test for a minimum of 30 minutes, and recording on the water well report at the conclusion of the test, the static water level, the pumping rate and the pumping water level;
- (c) record on the well construction report a recommended pump capacity and pump depth, based on the drawdown characteristics of the well;
- (d) disinfect the well by a method described in Schedule D; and
- (e) secure an approved, vermin-proof, vented, pitless well cap, with a proper expansion joint, to the top of the well casing.
- (2) The owner of a property on which a flowing well is located shall Capping cap and seal the well in a manner which prevents the overflow of water from the well casing. (EC188/90; EC107/03)

(3) Revoked by EC107/03.

Completion where groundwater allocation

ABANDONMENT OF WELLS

12. (1) An owner that has an unused well on his or her property shall Unused well have the well filled by a well contractor or plumber in accordance with subsection (2) within 30 days of surrendering the use of the well or of discovering the unused well.

Environmental Protection Act Water Well Regulations

(2) No person shall fill an unused well unless the person

Well filled by well contractor

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(a) is a well contractor or plumber; and

(b) fills the well using a method described in Schedule E.

Declaring well to be unused

(3) The Minister may declare a well to be an unused well and give notice to the owner to have it filled.

Owner's responsibility

(4) An owner who receives a notice pursuant to subsection (3) shall have the well filled in accordance with subsection (2). (EC188/90; EC107/03; EC19/06)

PUMP INSTALLATION

Installation of pumping equipment 13. (1) A person who installs pumping equipment in a well shall install it in a manner consistent with the recommendations set out in the well construction report respecting the characteristics of the well and the pumping rate for the well.

Idem

(2) No person shall install pumping equipment so that there exists a clearance of less than 1.25 centimetres between the pumping equipment and the sidewall of the well.

Connection

- (3) No person shall connect a well and pumping or water distribution equipment other than with
 - (a) a properly installed pitless adapter; or
 - (b) a well seal.

Pitless adapter

(4) For the purposes of subsection (3), a pitless adapter shall be installed so that different metals do not come into contact with each other.

Hand pump

(5) A person who installs a hand pump shall mount it to the well casing or pump mounting sleeve in a manner that seals the top of the casing or sleeve.

No opening in well casing

(5.1) No person shall create an opening through the wall of the casing below the ground surface, except to install a pitless adapter on the pumping equipment.

Sampling port

(6) No person shall install or cause or permit to be installed pumping equipment without a water sampling port or a tap at a point between the well and any water treatment device.

Installation

(7) All pumps shall be installed in accordance with the Electrical Inspection Act R.S.P.E.I. 1988, Cap. E-3.

(8) No person shall install or repair pumping equipment in a well intended for the production of water for human consumption without Cleaning and disinfecting immediately thereafter

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- (a) removing all debris from, in and around the well; and
- (b) disinfecting the well using a method outlined in Schedule D. (EC188/90; EC107/03)

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SCHEDULE A

RESTRICTED AREAS

Pursuant to section 5 of these regulations, the following areas are restricted for well construction purposes. In each description of a restricted area in this Schedule,

- (a) all reference points are taken from Prince Edward Island Department of Fishieries, Aquaculture and Environment Restricted Well Construction Layer, in P.E.I. Double Stereographic Projection System, referenced to NAD83 (CSRS); and
- (b) all azimuths and coordinates are derived from the P.E.I. Double Stereographic Projection System, referenced to NAD83 (CSRS), the coordinates being expressed in metres.

PRINCE COUNTY

1. NEW ANNAN

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 346955 metres East and 708001 metres North;

THENCE Easterly along a line approximately 1,550 metres to a point defined as 348509 metres East and 708006 metres North, or until it intersects the southwest shore of the Barbara Weit River;

THENCE Northwesterly and Southwesterly following the various courses of the said shore of the Barbara Weit River, to the point of intersection of the said shore of the Barbara Weit River or tributary of the Barbara Weit River with the power transmission line, just north of the Rails-to-Trails trail (former CNR Railway Corridor), or to a point defined as 346671 metres East and 708587 metres North;

THENCE Southeasterly by a straight line for approximately 650 metres to the point at the place of commencement.

2. KENSINGTON

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The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 350536 metres East and 709414 metres North;

THENCE Easterly along a line approximately 892 metres to a point defined as 351431 metres East and 709396 metres North;

THENCE Northerly along a line approximately 1,100 metres to a point defined as 351450 metres East and 710496 metres North;

THENCE Westerly along a line approximately 456 metres to a point defined as 350992 metres East and 710506 metres North;

THENCE due South along a line approximately 296 metres to a point defined as 350992 metres East and 710209 metres North;

THENCE Southwesterly along a line approximately 470 metres to a point defined as 350537 metres East and 710087 metres North;

THENCE Southerly by a straight line for 674 metres or to the point at the place of commencement.

3. O'LEARY

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 306319 metres East and 740204 metres North;

THENCE Southeasterly along a line approximately 533 metres to a point defined as 306838 metres East and 740076 metres North;

THENCE Northerly along a line approximately 809 metres to a point defined as 306658 metres East and 740864 metres North;

THENCE Southwesterly along a line approximately 477 metres to a point defined as 306192 metres East and 740756 metres North;

THENCE Southerly by a straight line for 566 metres or to the point at the place of commencement.

4. MIMINEGASH

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) at the high water mark of the Western shore of the Northumberland Strait with coordinates at 305900 metres East and 759277 metres North:

THENCE Easterly along a line approximately 1,122 metres to a point defined as 307025 metres East and 759261 metres North;

THENCE Northerly along a line approximately 1,023 metres to a point defined as 307032 metres East and 760284 metres North;

THENCE Westerly along a line approximately 505 metres to a point defined as 306526 metres East and 760288 metres North, or until it intersects the shore of the Northumberland Strait;

THENCE Southwesterly following the various courses of the shore of the Northumberland Strait, including the Miminegash Run, to the point at the place of commencement.

5. TIGNISH

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 320893 metres East and 766928 metres North;

THENCE Easterly along a line approximately 548 metres to a point defined as 321443 metres East and 766926 metres North;

THENCE Northerly along a line approximately 869 metres to a point defined as 321445 metres East and 767795 metres North;

THENCE Westerly along a line approximately 548 metres to a point defined as 320895 metres East and 767796 metres North;

THENCE Southerly along a line approximately 868 metres to the point at the place of commencement.

6. SUMMERSIDE ISTHMUS

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) at the intersection of the high water mark of the North shore of the Wilmot River and the western boundary of Highway 1A, with coordinates at 343055 metres East and 704825 metres North;

THENCE Northerly along a line approximately 1,667 metres to a point defined as 343055 metres East and 706491 metres North;

THENCE Easterly along a line approximately 1,193 metres to a point defined as 344251 metres East and 706498 metres North;

THENCE due North along a line approximately 1,400 metres to the intersection with the southern boundary of Highway 2 to a point defined as 344231 metres East and 707898 metres North;

THENCE Westerly along the Southern boundary of Highway 2 to the intersection of the Southern boundary of Highway 2 and 336050 metres East, or to a point defined as 336050 metres East and 708752 metres North;

THENCE due South along a line approximately 3,923 metres to a point defined as 336050 metres East and 704830 North or until it intersects the Northern shore of Summerside Harbour;

THENCE Easterly along the various courses of the said shore of the Summerside Harbour and the North shore of the Wilmot River to the point at the place of commencement.

7. BEDEQUE

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 344148 metres East and 698647 metres North;

THENCE Easterly along a line approximately 199 metres to a point defined as 344341 metres East and 698698 metres North;

THENCE Northerly along a line approximately 510 metres to a point defined as 344203 metres East and 699189 metres North;

THENCE due West to the intersection of the southeastern shore of an unnamed tributary that feeds into the Bradshaw River above Woodside Shore, or to a point defined as 344120 metres East and 699189 metres North;

THENCE Southeast along the various courses of the southeastern boundary of the said unnamed tributary to a point defined as 344032 metres East and 699077 metres North;

THENCE Southerly along a line approximately 450 metres to the point at the place of commencement.

8. CAPE WOLFE

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 293811 metres East and 742445 metres North;

THENCE Easterly along a line approximately 400 metres to a point defined as 294211 metres East and 742445 metres North;

THENCE Northerly along a line approximately 290 metres to a point defined as 294209 metres East and 742738 metres North;

THENCE Westerly along a line approximately 400 metres to a point defined as 293810 metres East and 742738 metres North;

THENCE Southerly along a line approximately 290 metres to the point at the place of commencement.

9. MISCOUCHE

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 333057 metres East and 709476 metres North;

THENCE Easterly along a line approximately 477 metres to a point defined as 333535 metres East and 709448 metres North;

THENCE Northerly along a line approximately 200 metres to a point defined as 333548 metres East and 709648 metres North;

THENCE Westerly along a line approximately 478 metres to a point defined as 333069 metres East and 709673 metres North;

THENCE Southerly along a line approximately 197 metres to the point at the place of commencement.

10. MOUNT PLEASANT

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 322635 metres East and 725496 metres North;

THENCE Easterly along a line approximately 377 metres to a point defined as 323002 metres East and 725586 metres North;

THENCE Northerly along a line approximately 300 metres to a point defined as 322930 metres East and 725875 metres North;

THENCE Westerly along a line approximately 377 metres to a point defined as 322562 metres East and 725790 metres North;

THENCE Southerly along a line approximately 303 metres to the point at the place of commencement.

11. MONT CARMEL

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The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 320250 metres East and 705979 metres North;

THENCE Northeasterly along a line approximately 324 metres to a point defined as 320496 metres East and 706191 metres North;

THENCE Northwesterly along a line approximately 400 metres to a point defined as 320236 metres East and 706495 metres North;

THENCE Southwesterly along a line approximately 320 metres to a point defined as 319989 metres East and 706285 metres North;

THENCE Southeasterly along a line approximately 400 metres to the point at the place of commencement.

12. BORDEN-CARLETON

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 347854 metres East and 689941 metres North;

THENCE Northeasterly along a line approximately 750 metres to a point defined as 348460 metres East and 690383 metres North;

THENCE Northwesterly along a line approximately 460 metres to a point defined as 348239 metres East and 690786 metres North;

THENCE Westerly along a line approximately 820 metres to a point defined as 347478 metres East and 690465 metres North;

THENCE Southeasterly along a line approximately 640 metres to the point at the place of commencement.

OUEENS COUNTY

13. CORNWALL (FORMERLY NORTH RIVER)

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 384156 metres East and 688948 metres North;

THENCE Easterly along a line approximately 1,630 metres to a point defined as 385713 metres East and 689448 metres North, or until it intersects the western shore of the North River;

THENCE North and Northwesterly following the various courses of the said western shore of the North River to a point defined as 385017 metres East and 690074 metres North or to the point of intersection of the western shore of the North River and the southeastern shore of an unnamed tributary that empties into the North River;

THENCE Southwesterly following the various courses of the Southeastern shore of the unnamed tributary to a point defined as 384785 East and 689717 North;

THENCE Southerly along a straight line approximately 140 metres to the Southern boundary of the Kingston Road to a point defined as 384825 metres East and 689581 metres North;

THENCE Westerly along the Southern boundary of the Kingston Road, approximately 820 metres to a point defined as 384037 metres East and 689335 metres North;

THENCE Southerly along a line approximately 400 metres to the point at the place of commencement.

14. CORNWALL

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The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 382836 metres East and 685250 metres North;

THENCE due East along a line approximately 440 metres to a point defined as 383278 metres East and 685250 metres North, or until it intersects the Western shore of the Mill Creek;

THENCE Northeasterly following the various courses of the said shore of the Mill Creek to a point defined as 383388 metres East and 685476 metres North;

THENCE Northerly along a line approximately 190 metres to a point defined as 383356 metres East and 685666 metres North;

THENCE Northerly along a line approximately 70 metres to a point defined as 383354 metres East and 685741 metres North;

THENCE Northerly along a line approximately 190 metres to a point defined as 383392 metres East and 685937 metres North, or until it intersects the shore of Hydes Pond on the Mill Creek;

THENCE Northerly following the various courses of the shore of Hydes Pond and Mill Creek to the intersection of the said shore with the centre line of Highway 1 (Trans-Canada Highway) to a point defined as 383619 metres East and 687066 metres North;

THENCE Northeasterly along the centre line of Highway 1 (Trans-Canada Highway) approximately 350 metres to a point defined as 383886 metres East and 687293 metres North;

THENCE Northerly along a line approximately 190 metres to a point defined as 383830 metres East and 687477 metres North;

THENCE Westerly along a line approximately 580 metres to a point defined as 383282 metres East and 687291 metres North, or until it intersects the centre line of Cornwall Drive;

THENCE Southerly along the centre line of Cornwall Drive to a point defined as 383245 metres East and 686448 metres North, or until it intersects the centre line of Highway 1 (Trans-Canada Highway);

THENCE Westerly along the centre line of Highway 1 (Trans-Canada Highway) to a point defined as 383027 metres East and 686357 metres North;

THENCE Southerly along a line approximately 1,120 metres to the point at the place of commencement.

15. CHARLOTTETOWN (FORMERLY WINSLOE)

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 386832 metres East and 693032 metres North;

THENCE Northeasterly along a line approximately 323 metres to a point defined as 387052 metres East and 693268 metres North;

THENCE Northwesterly along a line approximately 608 metres to a point defined as 386605 metres East and 693682 metres North;

THENCE Southwesterly along a line approximately 165 metres to a point defined as 386489 metres East and 693564 metres North:

THENCE Southerly along a line approximately 218 metres to a point defined as 386487 metres East and 693346 metres North;

THENCE Southeasterly along a line approximately 465 metres to the point at the place of commencement.

16. WINTER RIVER BASIN (BRACKLEY WELLFIELD)

The restricted area is enclosed by the following description of boundaries:

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COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 388501 metres East and 695484 metres North;

THENCE Easterly along a line approximately 731 metres to a point defined as 389206 metres East and 695683 metres North;

THENCE Northerly along a line approximately 1052 metres to a point defined as 388877 metres East and 696682 metres North;

THENCE Westerly along a line approximately 631 metres to a point defined as 388266 metres East and 696517 metres North;

THENCE Northerly along a line approximately 13 metres to a point defined as 388259 metres East and 696537 metres North;

THENCE Westerly along a line approximately 97 metres to a point defined as 388166 metres East and 696511 metres North;

THENCE Southerly along a line approximately 1,080 metres to the point at the place of commencement.

17. WINTER RIVER BASIN (UNION WELLFIELD)

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 390270 metres East and 695620 metres North;

THENCE Easterly along a line approximately 899 metres to a point defined as 391140 metres East and 695855 metres North;

THENCE Northerly along a line approximately 543 metres to a point defined as 390998 metres East and 696379 metres North;

THENCE Westerly along a line approximately 904 metres to a point defined as 390126 metres East and 696133 metres North;

THENCE Southerly along a line approximately 532 metres to the point at the place of commencement.

18. WINTER RIVER BASIN (SUFFOLK WELLFIELD)

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 394675 metres East and 696554 metres North;

THENCE Easterly along a line approximately 1,000 metres to a point defined as 395636 metres East and 696831 metres North;

THENCE Northerly along the western boundary of Highway 222 (Suffolk Road) to a point defined as 395010 metres East and 698019 metres North;

THENCE Westerly along a line approximately 1,460 metres to a point defined as 393602 metres East and 697618 metres North;

THENCE Southerly along a line approximately 782 metres to a point defined as 393814 metres East and 696865 metres North;

THENCE Easterly along a line approximately 741 metres to a point defined as 394529 metres East and 697067 metres North;

THENCE Southeasterly along a line approximately 533 metres to the point at the place of commencement.

19. WEST COVEHEAD

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 390208 metres East and 703743 metres North;

THENCE Easterly along a line approximately 423 metres to a point defined as 390633 metres East and 703741 metres North;

THENCE Northerly along a line approximately 397 metres to a point defined as 390635 metres East and 704138 metres North;

THENCE Westerly along a line approximately 420 metres to a point defined as 390214 metres East and 704138 metres North;

THENCE Southeasterly along a line approximately 395 metres to the point at the place of commencement.

20. MARSHFIELD

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 393046 metres East and 692939 metres North;

THENCE Easterly along a line approximately 530 metres to a point defined as 393580 metres East and 692937 metres North;

THENCE Northerly along a line approximately 790 metres to a point defined as 393584 metres East and 693731 metres North;

THENCE Westerly along a line approximately 530 metres to a point defined as 393049 metres East and 693732 metres North;

THENCE Southerly along a line approximately 790 metres to the point at the place of commencement.

21. JOHNSTONS RIVER

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 398446 metres East and 690779 metres North;

THENCE Easterly along a line approximately 600 metres to a point defined as 399049 metres East and 690777 metres North;

THENCE Northerly along a line approximately 640 metres to a point defined as 399050 metres East and 691420 metres North;

THENCE Westerly along a line approximately 600 metres to a point defined as 398448 metres East and 691422 metres North;

THENCE Southerly along a line approximately 640 metres to the point at the place of commencement.

22. VICTORIA

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 361616 metres East and 685155 metres North;

THENCE Easterly along a line approximately 436 metres to a point defined as 362053 metres East and 685153 metres North;

THENCE Northerly along a line approximately 318 metres to a point defined as 362054 metres East and 685471 metres North;

THENCE Westerly along a line approximately 437 metres to a point defined as 361616 metres East and 685469 metres North;

THENCE Southerly along a line approximately 314 metres to the point at the place of commencement.

23. NORTH RUSTICO

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 374633 metres East and 711151 metres North;

THENCE Easterly along a line approximately 940 metres to a point defined as 375573 metres East and 711182 metres North;

THENCE Northeasterly along a line approximately 430 metres to a point defined as 375783 metres East and 711555 metres North;

THENCE Northwesterly along a line approximately 1,170 metres to a point defined as 374987 metres East and 712421 metres North;

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THENCE Westerly along a line approximately 670 metres to a point defined as 374347 metres East and 712227 metres North;

THENCE Southerly along a line approximately 1,110 metres to the point at the place of commencement.

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24. STRATFORD (CABLE HEIGHTS SUBDIVISION)

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 393352 metres East and 684394 metres North;

THENCE Easterly along a line approximately 210 metres to a point defined as 393553 metres East and 684448 metres North;

THENCE Northeasterly along a line approximately 300 metres to a point defined as 393750 metres East and 684674 metres North;

THENCE Northerly along a line approximately 500 metres to a point defined as 393775 metres East and 685174 metres North;

THENCE Westerly along a line approximately 460 metres to a point defined as 393314 metres East and 685223 metres North;

THENCE Southerly along a line approximately 500 metres to a point defined as 393260 metres East and 684727 metres North;

THENCE Southerly along a line approximately 350 metres to the point at the place of commencement.

25. MONTAGUE (NORTH SIDE)

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 426142 metres East and 680158 metres North;

THENCE Easterly along a line approximately 1,200 metres to a point defined as 427342 metres East and 680158 metres North;

THENCE Northerly along a line approximately 644 metres to a point defined as 427343 metres East and 680802 metres North;

THENCE Westerly along a line approximately 1,195 metres to a point defined as 426145 metres East and 680808 metres North;

THENCE Southerly along a line approximately 650 metres to the point at the place of commencement.

26. MONTAGUE (SOUTH SIDE)

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 427052 metres East and 678485 metres North;

THENCE Easterly along a line approximately 540 metres to a point defined as 427591 metres East and 678486 metres North;

THENCE Northerly along a line approximately 900 metres to a point defined as 427589 metres East and 679385 metres North, or until it intersects the Southern shore of the Montague River;

THENCE Westerly following the various courses of the said shore of the Montague River to a point defined as 427433 metres East and 679432 metres North;

THENCE Easterly along a line approximately 48 metres to a point defined as 427478 metres East and 679449 metres North;

THENCE Northerly along a line approximately 66 metres to a point defined as 427455 metres East and 679510 metres North;

THENCE Westerly along a line approximately 125 metres to a point defined as 427334 metres East and 679476 metres North;

THENCE Southwesterly along a line approximately 93 metres to a point defined as 427272 metres East and 679407 metres North;

THENCE Southeasterly along a line approximately 7.5 metres to a point defined as 427277 metres East and 679401 metres North, or until it intersects the southern shore of the Montague River;

THENCE Southwesterly along the said shore of the Montague River to a point defined as 427050 metres East and 679191 metres North;

THENCE Southerly along a line approximately 706 metres to the point at the place of commencement.

27. FORTUNE

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 446859 metres East and 699948 metres North;

THENCE Easterly along a line approximately 500 metres to a point defined as 447358 metres East and 699951 metres North;

THENCE Northerly along a line approximately 440 metres to a point defined as 447354 metres East and 700389 metres North;

THENCE Westerly along a line approximately 500 metres to a point defined as 446856 metres East and 700387 metres North;

THENCE Southerly along a line approximately 440 metres to the point at the place of commencement.

28. SOURIS

The restricted area is enclosed by the following description of boundaries:

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COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) at the Northern Boundary of Highway 2 with coordinates at 457612 metres East and 700720 metres North;

THENCE Easterly along the Northern boundary of Highway 2 to a point defined as 458901 metres East and 700482 metres North;

THENCE Northerly along a line approximately 1,576 metres to a point defined as 459083 metres East and 702047 metres North, or until it intersects the Southern boundary of Highway 335;

THENCE Southwesterly along the Southern boundary of Highway 335 to a point defined as 458006 metres East and 701736 metres North or to a point where it intersects the Southeastern boundary of Highway 305;

THENCE Southwesterly along the Southeastern boundary of Highway 305 to a point defined as 457611 metres East and 701387 metres North;

THENCE Southerly along a line approximately 667 metres to the point at the place of commencement.

29. GEORGETOWN

The restricted area is enclosed by the following description of boundaries:

COMMENCING at a point defined by the P.E.I. Double Stereographic Projection System, NAD83 (CSRS) with coordinates at 435022 metres East and 682726 metres North;

THENCE Southeasterly along a line approximately 2,340 metres to a point defined as 437086 metres East and 681611 metres North;

THENCE Northeasterly along a line approximately 516 metres to a point defined as 437334 metres East and 682064 metres North;

THENCE Northwesterly along a line approximately 2,340 metres to a point defined as 435267 metres East and 683173 metres North;

THENCE Southerly along a line approximately 510 metres to the point at the place of commencement. (EC188/90; EC107/03)

SCHEDULE B

STANDARDS FOR WELL CONSTRUCTION EQUIPMENT, MATERIALS AND DEVICES

The following organizations' standards are prescribed for the purposes of subsection 8(2):

American Society of Testing Materials - ASTM

American Water Works Association - AWWA

Canadian Standards Association - CSA

National Sanitation Foundation - NSF

(EC188/90; EC107/03)

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METHODS FOR GROUTING ANNULAR SPACE

Revoked by EC107/03

SCHEDULE D

METHODS FOR DISINFECTING WATER WELLS

A well driller shall clean and disinfect all drilling tools before drilling a well to prevent the spread of contamination from previous jobs or from the ground surface at the new well site.

Pursuant to clause 13(8)(b) of the regulations, a well must be thoroughly disinfected before it is placed into operation. The most commonly used methods involve chlorine, either in liquid or tablet form. The approved methods are indicated by the case descriptions below. Chlorine should always be used in a well-ventilated place, because breathing the fumes can be hazardous to a person's health.

CASE A - WELL HOOKED UP TO A PLUMBING SYSTEM

- 1. Mix 1 litre of liquid laundry bleach or chlorine with approximately 45.5 litres (10 gallons) of water. Pour the solution directly into the well by removing the well seal or the well cap.
- 2. Open all faucets in the system and let the water run until the chlorine odour or taste is detected. Turn water off and repeat step #1 with a second chlorine solution.
- 3. Let the system sit for a minimum of 8 hours, and preferably overnight.
- 4. Discharge water from all outlets until the chlorine odour and taste has disappeared. Faucets or fixtures discharging to septic tank systems should be temporarily diverted to an outside discharge point to avoid overloading the disposal system.

CASE B - AFTER WELL COMPLETION

- 1. Mix 1 litre of liquid laundry bleach or chlorine with approximately 45.5 litres (10 gallons) of water.
- 2. Pour the solution into the well, secure the well with an approved well cap and let the system sit for a minimum of 8 hours, and preferably overnight.
- 3. Depending on the length of time between pouring the solution in the well and the installation of the pumping equipment, the chlorine will

either move on with groundwater flow or be removed when the pump is hooked up to clean the well. (EC188/90; EC107/03)

SCHEDULE E

METHODS FOR FILLING ABANDONED WELLS

Abandoned water wells, if left open or if insufficiently covered or filled, can be a potential source of groundwater contamination. In addition, wells dug by hand pose a potential safety hazard to the public, livestock and wildlife. The methods described below are methods approved by the Department for the abandonment of water wells as required by section 12 of the regulations. Drilled wells must be abandoned by a well contractor or plumber.

Drilled wells

All obstructions in the well must be removed prior to filling the well. The well should then be filled with alternating layers of bentonite or cement and clean fill (clay till or sand). The bottom 3 m (10 feet) of the bore hole must be filled with the bentonite or cement. The thickness of the individual layers of bentonite shall be not less than 0.3 m (1 foot) thick. The thickness of clean fill layers shall not exceed 1.5 m (5 feet).

This plugging procedure is intended to prevent the vertical movement of contamination down the well bore hole. In addition, if the portion of the casing which is above ground becomes an eyesore or a safety concern, it can be cut off below the ground surface.

Dug wells

Any obstructions in the well (piping, pump, wooden material, etc.) must be removed prior to the plugging of the well.

The well shall be filled to within 1 m (3 feet) of the ground surface with a mixture of sandstone and clean fill material. A minimum 0.15 m (6 inches) thick layer of a low permeability material such as bentonite or compacted clay must be installed within 1 m (3 feet) of the ground surface to prevent the entry of surface water to the water table.

The surface area of the top of the well must be covered with topsoil and graded in a manner that will allow drainage away from the well. (EC188/90; EC107/03; EC19/06)