

**APPLICATION FOR REVIEW**  
**Filed pursuant to Section 61 of the *Environmental Bill of Rights***  
**RE: Subsection 1(1) and sections 35 to 50 of *Ontario Water Resources Act* and**  
**Ontario Regulation 903 (Wells)**

**APPLICANT NUMBER ONE**

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I hereby declare I am a full-time resident of Ontario and have been since 1960.

December 18, 2013



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DATE

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December 18, 2013



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THERESA A. McCLENAGHAN

## **SUBJECT-MATTER OF REQUESTED REVIEW**

The Applicants hereby request a review of an **existing** Act and regulation, namely:

- Subsection 1(1) (definition of “well”) and sections 35 to 50 of the *Ontario Water Resources Act*, R.S.O. 1990, c.O.40 (“OWRA”); and
- Regulation 903 (Wells), R.R.O. 1990, as amended by O.Reg.128/03; O.Reg.372/07; O.Reg.468/10; and O.Reg.331/13 made under the OWRA.

Subsection 61(1) of the *Environmental Bill of Rights* (“EBR”) provides that an Application for Review may be filed where the Applicants believe that an existing Act or regulation “should be amended, repealed or revoked in order to protect the environment.” Both the OWRA and Regulation 903 are prescribed for the purposes of Applications for Review under Part IV of the EBR: see O.Reg.73/94, subsections 3(1), 6(1), 7(1), and 7(2.1).

For the reasons set out below, the Applicants submit that it is in the public interest to review and revise the OWRA and Regulation 903 because the current legislative and regulatory framework regarding Ontario wells is incomplete, outdated and inadequate to protect the environment and public health and safety.

## **REASONS FOR REQUESTED REVIEW**

### **1. Background: Description of the Applicants**

The Applicants are lawyers with the Canadian Environmental Law Association (“CELA”), and have been actively involved in casework and law reform activities relating to drinking water safety, provincial well standards and groundwater protection. For example, both Applicants served as co-counsel for Walkerton residents at the Walkerton Inquiry, which was held after seven people died, and thousands were sickened, after drinking contaminated water drawn from a municipal well in May 2000.

Subsequent to the Walkerton Inquiry, the Applicants and other CELA lawyers have been proactively involved in various initiatives in relation to the *Safe Drinking Water, 2002*, *Nutrient Management Act, 2002*, *Clean Water Act, 2006*, OWRA and Regulation 903.

In 2003, for example, CELA lawyers filed a detailed EBR Application for Review of Regulation 903. As discussed below, this EBR Application was not granted by the Ministry of the Environment (“MOE”) for unpersuasive reasons, and the MOE has not taken any steps over the past decade to address the numerous gaps, flaws and deficiencies that continue to exist within Regulation 903 and sections 35 to 50 of the OWRA.

In addition, CELA participated in the Ontario Drinking Water Advisory Council’s review of well disinfection requirements in 2005. In 2007, CELA commented on the MOE’s limited proposals to amend Regulation 903. Similarly, when the MOE developed the

much-anticipated manual for water supply wells in 2008, CELA was part of an external stakeholder review group that commented on the content of the manual.

More recently, CELA has corresponded with the Minister of the Environment, MOE staff and the Environmental Commissioner of Ontario (“ECO”) in 2011, 2012 and 2013 about the pressing need for a similar (and long overdue) manual in relation to test holes and dewatering wells in Ontario. To date, the finalized version of the test holes/dewatering wells manual has not been publicly released.

## **2. The Rationale for Reforming the OWRA and Regulation 903**

The Applicants’ overall position is that the MOE should undertake the requested review and revision of the above-noted sections of the OWRA and Regulation 903 in order to better protect the environment and safeguard public health and safety.

In summary, the Applicants submit that the current legislative and regulatory regime continues to be plagued by serious interpretive problems, unacceptable loopholes, substantive shortcomings, and enforcement difficulties. For example, the existing wells regime in Ontario:

- establishes provincial requirements without adequately defining key words and phrases that are necessary to ensure compliance with such requirements;
- contains confusing, open-ended or unjustified exemptions of certain types of wells from provincial requirements;
- allows unlicensed and/or untrained persons to perform key well-related tasks and activities;
- sets inadequate separation distances between water supply wells and nearby sources of contaminants;
- fails to establish a provincial well permitting system for certain types of wells;
- omits important safeguards that are necessary in relation to well casing specifications and placing sealant in annular space;
- fails to impose a legal duty to conduct post-treatment bacteriological testing of drinking water wells to verify that the water is safe to drink, and fails to require re-treatment if the initial chlorination of wellwater was ineffective in eliminating harmful bacteria;
- lacks sufficient standards in relation to managing or controlling flowing wells;

- contains inadequate provisions regarding testing, reporting, corrective measures and well abandonment in situations where natural gas, mineralized water or non-potable water is encountered;
- splits up well construction requirements between different regulations made under different statutes;
- does not incorporate or fully reflect best management practices (“BMPs”), many of which are expressed in non-enforceable language in the two guidance manuals prepared by the MOE for use by the wells industry; and
- does not meet or exceed well requirements established in other leading North American jurisdictions.

Unless and until these fundamental problems are properly remedied by the Ontario government, the Applicants conclude that groundwater resources and well users remain at risk across the province.

### **2.1 The Need for Clear, Effective and Enforceable Well Standards**

Approximately 3 million Ontarians rely upon drinking water from private domestic wells or municipal drinking water systems which utilize groundwater as the raw water supply. The Applicants submit that this fact alone underscores the public interest need for clear, effective and enforceable well standards in Ontario.

Due to various reporting changes which have occurred over the years, it is unclear how many wells exist (or have been abandoned) across Ontario. At the present time, there are approximately 750,000 well records in the province’s well record database administered by the MOE. These well records provide information on the construction, repair and abandonment of many types of wells, including: private domestic wells; municipal wells; farm wells for irrigation/livestock watering; commercial wells; industrial wells, monitoring wells; dewatering wells; and testing boreholes. Each year, some 15,000 new well records are added to the province’s database.

It is well-established that poorly sited or improperly constructed, maintained or abandoned wells can create direct pathways for surface water contaminants to enter wellwater supplies, or for naturally occurring pressurized gases and mineralized water to move to shallow groundwater supplies or to the ground surface. Such contamination not only degrades the quality of the individual well, but it can also threaten the groundwater that supplies other nearby private or public wells. Thus, inappropriate well-related activities can cause significant environmental harm and result in serious risks to public health and safety.

The pervasive problem of abandoned wells was described in the Walkerton Inquiry Part 2 Report as follows:

Abandoned wells deserve special mention. There are thousands of abandoned or improperly decommissioned wells in Ontario. They create direct threats to drinking water sources because they provide a direct connection between surface water and groundwater. The vast majority of these wells are located on agricultural properties.<sup>1</sup>

Unfortunately, the current legislative and regulatory regime does not adequately address the above-noted environmental and health concerns arising from well siting, construction and abandonment. Accordingly, the Applicants submit that sections 35 to 50 of the OWRA and Regulation 903 remain fundamentally deficient and largely incapable of achieving the societal objective of protecting the environment and the millions of Ontarians who rely upon wells.

More generally, the continuing inadequacy of sections 35 to 50 of the OWRA and Regulation 903 undermines the stated purpose of the OWRA:

The purpose of this Act is to provide for the conservation, protection and management of Ontario's waters<sup>2</sup> and for their efficient and sustainable use, in order to promote Ontario's long-term environmental, social and economic well-being.<sup>3</sup>

## **2.2 The Continuing Inadequacy of the OWRA and Regulation 903**

The Applicants have filed this EBR Application for Review because:

- (a) many of the well-related issues and concerns raised in the 2003 Application for Review have not been acted upon to date by the MOE, and therefore remain outstanding at the present time, and will likely require both legislative and regulatory amendments;
- (b) the Applicants' recent review of the MOE's draft test holes/dewatering wells manual<sup>4</sup> (and our 2009 review of the now published MOE manual for water supply wells<sup>5</sup>) reveals a serious disconnect between the BMP's being recommended by the MOE, and the actual requirements of Regulation 903 in relation to well location, construction, maintenance and decommissioning; and
- (c) the MOE has inappropriately placed brownfields-related well construction standards into a separate regulation rather than Regulation 903.

These three concerns are described below in more detail.

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<sup>1</sup> Walkerton Inquiry Part 2 Report, page 145.

<sup>2</sup> The term "waters" is broadly defined as including groundwater: OWRA, section 1.

<sup>3</sup> OWRA, section 0.1.

<sup>4</sup> MOE, *Test Holes and Dewatering Wells: Requirements and Best Management Practices* (draft).

<sup>5</sup> MOE, *Water Supply Wells: Requirements and Best Management Practices* (December 2009).

(a) Chronology of MOE Inaction and ECO Commentary regarding Regulation 903

In 2003, CELA lawyers filed an EBR Application for Review of Regulation 903, which had been recently amended by O.Reg.128/03. This Application raised concerns about virtually every aspect of Regulation 903, particularly in relation to standards governing well construction, cleaning, disinfection, operation, repair, abandonment and other key matters.

In March 2004, CELA was advised that the MOE had decided that the requested review of Regulation 903 would not be undertaken. Among other things, this MOE refusal letter<sup>6</sup> claimed that Regulation 903 already reflected “best practices” and “best available science”, and that the 2003 amendments to Regulation 903 would greatly enhance the safety of groundwater drinking supplies across the province. According to the MOE, no further revisions to Regulation 903 were warranted.

In May 2004, CELA filed a detailed rebuttal<sup>7</sup> of the MOE’s refusal to review Regulation 903. In addition, CELA staff met and corresponded with various MOE officials to discuss CELA’s outstanding concerns about Regulation 903, and to advocate long overdue reforms to the Regulation 903 regime. CELA also provided its views to the ECO, who has been highly critical of the MOE’s delay and intransigence on this issue (see below).

The continuing public controversy over the inadequacy of Regulation 903 prompted the Minister of the Environment, in part, to refer the specific issue of well disinfection to the expert members of the Ontario Drinking Water Advisory Council (“ODWAC”) in 2004. In the following months, the ODWAC received submissions from MOE and CELA regarding disinfection, and conducted its own research into this matter.

In June 2005, the ODWAC provided the Minister with an advice letter which confirmed CELA’s view that Regulation 903’s disinfection standard was “deficient” for various reasons.<sup>8</sup> The ODWAC also recommended the adoption of a prescriptive five-step procedure for ensuring the proper disinfection of new and existing wells, as discussed below. However, the ODWAC advice letter was not made public by the MOE for approximately 1 ½ years, nor was ODWAC’s expert advice fully adopted or acted upon by MOE during (or after) this timeframe. In the meantime, literally thousands of new wells were drilled and presumably treated across Ontario in accordance with the disinfection standard which the ODWAC had found to be “deficient.”

While these developments were underway, the ECO was closely monitoring and critically reporting upon the MOE’s continuing refusal to rectify the serious problems within the Regulation 903 regime.

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<sup>6</sup> Letter dated January 15, 2004 from MOE to CELA re EBR Application for Review.

<sup>7</sup> CELA Reply to MOE Refusal to Review Regulation 903 (May 2004).

<sup>8</sup> Letter dated June 16, 2005 from ODWAC to Environment Minister Leona Dombrowsky.

For example, in the 2003/04 Annual Report, the ECO concluded that:

The well regulation should require best construction practices, as recommended by Mr. Justice O'Connor. However, concerns have been raised (for example, through an EBR application...) that the new well regulation, as currently drafted, does not meet those intentions, especially with respect to private domestic wells. For instance, there are concerns that the regulation does not require well constructors to verify, through water testing, that new wells have indeed been disinfected. Nor is there a requirement that well contractors disinfect private wells after carrying out repairs...

It appears that to make the new regulation a truly effective tool for drinking water protection, the ministry should correct a number of technical deficiencies, clarify language to reflect on-the-ground practices, and think through the various enforcement challenges that need resolution in order to meet the intentions of Mr. Justice O'Connor...

**RECOMMENDATION 11:** The ECO recommends that MOE ensure that key provisions of the Wells Regulation are clear and enforceable, and that the ministry provide a plain language guide to the regulation for well installers and other practitioners (emphasis added).<sup>9</sup>

In the 2004/05 Annual Report, the ECO lamented the MOE's general lack of progress and cooperation regarding the need to reform Regulation 903:

The ECO recommended that MOE ensure that key provisions of the Wells Regulation are clear and enforceable and that the ministry produce a plain language guide to the regulation. MOE indicated that it is undertaking education efforts of both well owners and well technicians, and that it has updated some brochures. However, MOE did not report that it had resolved some of the fundamental enforcement difficulties posed by the language of the regulation, nor has it released either a plain-language guide for well owners and the public or a comprehensive technical guide for the wells industry...

On another project, the ministry's cooperation was less forthcoming. While the ECO was analyzing an application for review concerning amendments proposed to Regulation 903 R.R.O. (water wells), and reviewing an MOE decision on amending this regulation, we became aware of a ministry internal report that provided a critical appraisal of the proposed changes in practice. When the ECO made a request to the ministry for a copy of this report, the ministry chose not to provide the requested report, but suggested a meeting instead. Although the ECO appreciated the meeting, had the ministry instead provided the report, it would have assisted the applicants, the ECO, and the general public to gain a better

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<sup>9</sup> ECO 2003/04 Annual Report, page 113.

understanding of the technical issues surrounding water well installation and maintenance.<sup>10</sup>

In the 2005/06 Annual Report, the ECO noted that:

The ECO has repeatedly raised concerns to MOE and received assurances, both in person and in writing, that processes are underway to address the issues...

However, as of spring 2006, the ECO has seen no action to fix a severely flawed regulation that endangers public health and impedes environmental protection...

Since the revised Wells Regulation came into effect in 2003, tens of thousands of wells have been constructed, repaired or abandoned under a regulation that is widely seen as inadequate, with little enforcement or oversight from MOE. The ministry is neglecting its obligations to those whose drinking water comes from the most vulnerable of sources: small private wells. The regulation is also impeding groundwater monitoring at a time when Ontario most needs environmental monitoring to support source water protection.

Despite recent promises to amend the regulation and provide guidance to the industry, MOE continues to delay. The ECO is concerned that the ministry, having shed much of its water well staff, now lacks the technical capacity and field experience to design a regulation that works for Ontario's many types of water wells.

The ECO is very disappointed that MOE has shown itself unable or unwilling to resolve widespread and well-founded concerns about a regulation that is so vital to Ontario's environmental protection and drinking water safety (emphasis added).<sup>11</sup>

In light of such mounting criticism, the MOE belatedly proposed a number of amendments to Regulation 903 in 2007. Significantly, the MOE had provided CELA and the public at large with assurances in 2004 that Regulation 903 did not require any revisions whatsoever, and the 2003 EBR Application for Review was refused by the MOE on this basis. However, approximately three years later, MOE apparently changed its mind and proposed a series of amendments to Regulation 903.

In the Applicants' view, the MOE's introduction of the 2007 amendments corroborates CELA's position in the 2003 EBR Application for Review that Regulation 903 was deficient and ineffective. Moreover, from an accountability perspective, the Applicants question whether the MOE refusal letter<sup>12</sup> misunderstood the issues raised in the EBR Application, or whether it misrepresented the alleged adequacy of Regulation 903 when the 2003 EBR Application for Review was rejected.

<sup>10</sup> ECO 2004/05 Annual Report, pages 167, 175.

<sup>11</sup> ECO 2005/06 Annual Report, pages 53-54.

<sup>12</sup> Letter dated January 15, 2004 from MOE to CELA re EBR Application for Review.

In any event, in response to the MOE's regulatory proposals in 2007, CELA advised the MOE that while some of the amendments represented incremental progress, there was still considerable room for improvement in Regulation 903.<sup>13</sup>

This opinion was shared by the ECO in the 2007/08 Annual Report:

Regulation 903 is one of the most important tools available to MOE to protect public health and the environment. For too long, Regulation 903 has been difficult to interpret, implement and enforce, exposing groundwater resources in the province to unacceptable and unnecessary risk. The ECO welcomes MOE's long overdue efforts to clarify and revise this poorly-written regulation and strengthen its environmental and public health protection functions through stricter well construction, disinfection and abandonment requirements.

On the whole, the ECO believes that these amendments will strengthen the regulation of wells in Ontario and, consequently, improve the protection of aquifers and drinking water. MOE addressed many of the deficiencies in the regulation that the ECO had identified in our previous Annual Reports. If MOE follows through with a clearly written and detailed guidance manual, well owners, installers and other practitioners will be better equipped to navigate and apply this complex regulation.

However, many of the public's concerns with the regulation remain unaddressed, and Regulation 903 will continue to present challenges for stakeholders across the board. The ECO is concerned that Regulation 903 is being used to address too many different issues, and the regulatory system created by Regulation 903 risks becoming unwieldy and unworkable. Further, without adequate resources devoted to wells and groundwater programs, including regular inspections and oversight, MOE will be unable to put the strengthened enforceability of the regulation into action (emphasis added).<sup>14</sup>

However, aside from modest licencing amendments made to Regulation 903 in 2010, it appears to the Applicants that most of the MOE's attention in recent years has been focused upon the development of guidance manuals (containing unenforceable BMPs), rather than fixing the fundamental problems within sections 35 to 50 of the OWRA and Regulation 903. In addition, it is unclear to the Applicants why it took the MOE an inordinate amount of time to finally promulgate the long-promised manual on water supply wells in 2009 (which now requires updates). Similarly, it is unclear why the test holes/dewatering wells manual has not been finalized nor released to date by the MOE.

More importantly, the Applicants submit that the MOE's inertia on well-related reforms means that sections 35 to 50 of the OWRA and Regulation 903 remain highly deficient and potentially unenforceable in many key respects. The Applicants' primary concerns

<sup>13</sup> Letter dated April 23, 2007 from CELA to MOE re EBR Registry No.010-0098.

<sup>14</sup> ECO 2007/08 Annual Report, pages 105-06.

about the continuing inadequacy of sections 35 to 50 of the OWRA and Regulation 903 are summarized below.

**DEFINITIONS:** Regulation 903 imposes a number of provincial standards without adequately defining the key words or phrases used in such standards. The following examples amply demonstrate this significant shortcoming:

- while subsection 1(3) of Regulation 903 attempts to describe when a well's structural stage is "complete," there remains confusion or inconsistency on how this definition applies to a repair or installation of a pump in the well;
- section 1.1 of Regulation 903 exempts certain shallow works from regulatory requirements unless they are constructed in a "contaminated area"; however, no definition of "contaminated area" is provided in Regulation 903 or the OWRA;
- section 12 of Regulation 903 sets siting requirements to ensure minimum separation distances between a well and a "source of contaminants", but does not define this phrase (or the word "contaminants");
- section 14.6 of Regulation 903 discusses making "necessary modifications" to regulatory standards in relation to placing sealant in an annular space of a double-walled casing, but does not define or specify what such modifications could (or should) entail;
- although section 15 of Regulation 903 imposes an obligation to test free chlorine residual concentrations in wells, no definition of "free chlorine residual" is provided in the regulation;
- sections 16 and 21 of Regulation 903 impose certain obligations if a well contains "natural gas or other gas", but the regulation fails to define what is meant by this phrase;
- sections 21 and 21.1 of Regulation 903 discusses "abandonment", but this term is not defined in the regulation. Similarly, these sections use the phrase "person abandoning the well", but does not define who is responsible for doing the well decommissioning work;<sup>15</sup>
- section 21.1 of Regulation 903 uses the phrase "reasonable efforts" to describe the obligation to remove casing from an abandoned well, but does not define what these efforts could (or should) entail.

In the Applicants' view, these and other omissions create operational uncertainty, policy ambiguity and enforcement difficulty under Regulation 903 and the OWRA.

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<sup>15</sup> These omissions suggest that there may be no legal obligation on the person doing well decommissioning work to actually hold a licence under the OWRA or Regulation 903.

In addition, the Applicants further submit that the current definition of “well” in subsection 1(1) of the OWRA also warrants review and revision in light of the growing use of geothermal systems across Ontario. In particular, the Applicants are concerned that the OWRA definition creates an apparent loophole that allows geothermal drillers to construct closed-loop geothermal holes (without requisite licensing or adherence to prescribed construction standards under the OWRA) into fresh aquifers or deeper mineralized water and/or pressurized gas environments. From a public interest perspective, this regulatory situation creates a high potential for substandard work by untrained individuals, and, more importantly, could permit geothermal holes to serve as direct pathways for mineralized groundwater to adversely affect groundwater supplies being used for drinking water purposes. Furthermore, improper construction could allow contaminants from the surface to migrate downward and adversely affect groundwater supplies. In the Applicants’ view, this loophole needs to be closed forthwith, and persons drilling geothermal holes must be licensed under the OWRA just like other well drillers, diggers and pump installers.

**EXEMPTIONS:** In addition to the confusing array of exemptions for test holes and dewatering wells (see below), Regulation 903 contains an upfront list of nine items that are wholly exempt from the regulation,<sup>16</sup> even if they meet the definition of “well” under the OWRA.

For example, undefined “ponds” are exempted from Regulation 903 despite the fact that excavated ponds (i.e. those fed by groundwater and meeting the statutory definition of “well”) may potentially affect the quantity and quality of local groundwater. Indeed, the creation of ponds in hydrogeologically sensitive areas (i.e. the protective zones within the Niagara Escarpment Plan Area) has led to considerable controversy and public concern. Accordingly, the Applicants submit that the overly broad “pond” exemption – and all other Regulation 903 exemptions – should be reviewed and revised by MOE. If an exemption for certain “wells” can be justified on public interest grounds, then the exemption should be properly qualified by definitions, conditions or constraints in Regulation 903 to ensure that such exempted wells do not pose environmental problems or health risks.

The Applicants further note that certain well-related activities - such as inspections or water sampling – can be performed by any person without a licence or professional registration, and without meeting the requirements of Regulation 903 (i.e. ensuring that the equipment is kept clean). Among other things, this leaves the door open to having inexperienced persons inadvertently impair groundwater quality by using contaminated sampling or testing equipment. In the Applicants’ view, these significant activities should be subject to appropriate definitions, conditions or constraints in Regulation 903 (or accompanying amendments to sections 35 to 50 of the OWRA) to ensure that only licenced persons or experienced professional work on wells in Ontario.

**SITING REQUIREMENTS:** Subsections 12(2) and (3) of Regulation 903 impose 15 and 30 metre separation distances between new water supply wells and undefined

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<sup>16</sup> Regulation 903, section 1.0.1.

“sources of contaminants,” depending on whether watertight casing is used to a depth of more (or less) than 6 metres. Other wells (i.e. test holes) do not have to meet these siting requirements. These paltry separation distances, combined with minimum construction standards, strike the Applicants as insufficient for the purposes of protecting the environment and public health, particularly since these standards could allow placement of new wells with questionable construction in relatively close proximity to on-site or off-site sources of groundwater contaminants.

In light of current scientific knowledge about contaminant pathways and travel times (including those for pathogens which can remain viable for prolonged periods of time in groundwater<sup>17</sup>), the Applicants submit that the MOE should formally review the adequacy of these fixed separation distances. Among other things, this review should include a comparative analysis of regulations, standards and “best practices” in other jurisdictions in relation to separation distances between wells and sources of contamination.

Furthermore, the Applicants note that while Chapter 4 of the MOE’s water supply wells manual provides some suggestions on what might be a “contaminant” or “source of contaminants,” the current wording of Regulation 903 places a clear legal onus on the person constructing the well to make accurate site-specific determinations regarding potential contamination sources. In this regard, the Applicants submit that it would be highly useful for the MOE to prescribe a detailed list of “sources of contaminants,” as has been done in other North American jurisdictions (i.e. Wisconsin’s Well Construction and Pump Installation Regulation NR 812<sup>18</sup>). By clarifying what “source of contaminants” means under Regulation 903, such a list would greatly assist well drillers and diggers across Ontario, and would facilitate the work of MOE inspectors to ensure compliance with regulatory requirements.

A further alternative for the MOE to consider is the establishment of a permitting system for certain classes of wells (i.e. those intended for drinking water purposes) so that proposed well locations would have to be reviewed and approved by MOE inspectors before the well is constructed. Permits for well construction are required in other North American jurisdictions, such as Wisconsin’s Notification System for Wells and Well Construction and Pumps Installation Regulation NR 812.<sup>19</sup> The Applicants submit that the development of an appropriate permitting system in Ontario would be consistent with the MOE’s claimed objective of “meeting or exceeding” best practices in leading North American jurisdictions. The need for a new provincial permitting system for wells has also been identified by the Source Protection Committee established under the *Clean Water Act, 2006* for the Walkerton area.<sup>20</sup> In addition, the existence of provincial well

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<sup>17</sup> Levinson, J. and Novakowski, K., 2009, “The Impact of Cattle Grazing on Groundwater Aquifers having Minimal Overburden”, *Hydrogeo. J.*, 17(2):559-569, DOI 10.1007/s10040-008-0385-z.

<sup>18</sup> NR 812 - [http://docs.legis.wisconsin.gov/code/admin\\_code/nr/800chap\\_nr812/812.pdf](http://docs.legis.wisconsin.gov/code/admin_code/nr/800chap_nr812/812.pdf).

<sup>19</sup> Notification of New Well Construction – <http://dnr.wi.gov/topic/wells/constructionNotification.html> and NR 812 - [http://docs.legis.wisconsin.gov/code/admin\\_code/nr/800chap\\_nr812/812.pdf](http://docs.legis.wisconsin.gov/code/admin_code/nr/800chap_nr812/812.pdf).

<sup>20</sup> Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee, *Proposed Source Protection Plan* (May 2012) page 200, Policy TP-06.

permits would assist in enforcement activities as the MOE would be able to locate and inspect the performance of construction activities for certain wells.

**CASING:** Casing is important because it holds the sides of the well to prevent collapse, and to prevent contaminants from entering the well. While subsection 13(16) of Regulation 903 sets out “minimum specifications” for casing to guard against structural collapse, it does not appear to establish similar requirements to ensure water potability where the diameter of plastic casing is less than 10 cm. In addition, there are no thickness standards for: fiberglass casing; concrete casing that is less than 60 cm in diameter; or plastic casing that is less than 10 cm in diameter. Without a minimum thickness, casing can collapse or degrade, thereby allowing contaminants to enter the well or cause the well to be unusable.

**SEALANT AND ANNULAR SPACE:** Sections 14 to 14.6 of Regulation 903 impose certain requirements in relation to sealing the annular space for various types of wells. Sealing of the annular space is a vital step towards preventing the disturbed soils beside the casing from becoming pathways for contaminants to enter the wellwater and/or groundwater. However, the Applicants submit that these sections do not satisfactorily resolve the interpretive difficulties which were originally identified in the 2003 EBR Application for Review and CELA’s response to the MOE’s decision not to review Regulation 903.<sup>21</sup>

For example, these sealing requirements are premised upon the Regulation’s definition of “sealant”, which is defined as either slurry consisting of at least 20% bentonite solids, or other “equivalent” materials which can form a permanent watertight barrier. This ambiguous (and virtually unenforceable) definition has caused considerable uncertainty and confusion within the wells industry, particularly in situations where bentonite slurry may not necessarily provide a fully impermeable barrier to prevent the movement of water, gases or other substances in the subsurface environment.

In addition, sections 14 and 14.4 of Regulation 903 suggest that a person must create and seal an annular space at least 6 metres below the ground for a drilled well. However, section 14.6 (double-walled casing) seems to trump sections 14 and 14.4 by allowing drillers to install a cheap permanent outer casing any distance into the ground (i.e. 0.1 metre?) and place sealant around the small length of the outer casing, and then not comply with any other sealing requirements for the inner casing under Regulation 903. The Applicants submit that this apparent loophole must be closed forthwith in order to protect groundwater resources used by millions of Ontarians for drinking water purposes.

**DISINFECTION:** To remove any potential pathogens from a well and as a final step during the construction or repair of a well (including pump installation), section 15 of Regulation 903 requires the well to be chlorinated.

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<sup>21</sup> 2003 EBR Application for Review, page 13; CELA Response to the MOE Refusal to Review Regulation 903, pages 29 to 32.

In particular, section 15 requires well drillers and diggers to chlorinate new wells after completion, but not to test for free chlorine residual within 12 to 24 hours after treatment, and not to remove the heavily chlorinated water from the well, if the well will not be used for human consumption. There is a risk that this heavily chlorinated water may not dissipate in very permeable formations (i.e. fractured limestone bedrock), and may move with groundwater flow to nearby drinking water wells.

If the well is to be used for drinking water, or if a person conducts a repair on a pump in an existing well, then section 15 further requires the chlorinated water to be tested for free chlorine residual concentration, and to be pumped out of the well until the prescribed free chlorine residual (i.e.  $\leq 1$  mg/l) is attained.

In the Applicants' view, it makes no sense for Regulation 903 to allow heavily chlorinated water to remain within a newly completed and disinfected non-drinking water well (i.e. agricultural well), but to require the water to be pumped-out if repairs are carried out on the same well in the future. The Applicants are also concerned that when triggered, the section 15 duty to pump-out water is not qualified or accompanied by a requirement to handle the chlorinated water in a manner that does not impair surface water or groundwater.

More alarmingly, the Applicants submit that section 15 remains woefully incomplete and not fully responsive to ODWAC's recommended 5-step process for disinfecting new wells. For example, the ODWAC clearly recommended that post-treatment bacteriological testing (i.e. *E. coli* and Total Coliform) be conducted as an integral part of the well disinfection process, and that re-treatment should be undertaken if these bacteria are still present in the wellwater.<sup>22</sup> In contrast, section 15 of Regulation still imposes no legal duty to conduct bacteriological sampling to verify that the treatment worked to eliminate harmful bacteria, or to re-treat the wellwater if the initial treatment was ineffective.

In the wake of the Walkerton Tragedy, the Applicants find it unconscionable that the MOE has persistently refused to fully implement the expert advice of ODWAC regarding disinfection. In the Applicants' view, it is also unacceptable for Regulation 903 to contain a disinfection standard that does not meet the MOE's own recommended BMP outlined in Chapter 8 of the water supply wells manual. In short, under Regulation 903, there is no mandatory requirement on anyone (i.e. the well contractor or well owner) to test the well to verify that the disinfection process worked and that the wellwater is safe to drink from a bacteriological perspective.

Unless and until this serious omission is rectified by the MOE, the Applicants conclude that public health and safety remains at risk under Regulation 903.

**FLOWING WELLS:** Flowing wells can pose many hazards, including flooding, erosion and destruction of property. Section 14.7 of Regulation 903 identifies mandatory measures that contractors must undertake if a flowing well occurs during well

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<sup>22</sup> Letter dated June 16, 2005 from ODWAC to Environment Minister Leona Dombrowsky, page 3.

construction. One such measure is the placement of an “appropriate device” within the well to stop or manage any uncontrolled flows of water from the well. However, if the device is removed by a person during subsequent repairs or inspections of the well, Regulation 903 does not require the person to ensure that the device is re-installed and working properly. Similarly, there is no ongoing obligation upon the well owner to ensure that the device is maintained. In the Applicants’ view, these missing flow-control requirements should be incorporated into Regulation 903 in order to prevent property damage or overland flooding.

**REPORTING:** In 2003, the MOE introduced a well tagging system that linked Ontario wells with well records in the provincial database. This system was designed to catch any new well construction or repairs to most wells.

However, the effectiveness of this reporting system is undermined by the fact that while pump installers must place well tags for any pump work done on a well, they do not have to complete a well record as required by subsection 14.11(2) of Regulation 903. The Applicants note that the MOE’s water supply wells manual contains an unenforceable BMP in relation to this situation. Nevertheless, the Applicants submit that this reporting problem in Regulation 903 itself should be fixed. In short, the well record database is an important system used to manage Ontario’s groundwater resources, and it is imperative that well tags be properly linked to well records held by the MOE.

Subsection 16(1) of Regulation 903 requires well constructors to notify the owner of the land and the well purchaser if mineralized water is encountered. Similarly, subsection 16(3) requires the well constructor to notify the owner of the land, the well purchaser and the MOE Director if natural gas is encountered. However, Regulation 903 does not require any tests or observations to be performed on a well to determine if mineralized water or natural gas is present.

On this point, the Applicants submit that simple, readily available field testing techniques should be required under Regulation 903 at least in relation to natural gas and total dissolved solids, and the results of such testing should be reported to the well owner, well purchaser and MOE Director. This testing and reporting, in turn, would allow the well owner to meet the well abandonment procedures outlined in section 21 of Regulation 903, and would assist in alerting all parties as to whether there is a serious environmental problem or health and safety risks. Conversely, without such testing and reporting, well owners may not know if they are facing a serious hazardous gas or undrinkable water.

The Applicants further submit that if testing for gas is a BMP that provides critically important information to well owners, then it should not be buried within the manuals for water supply wells or test holes/dewatering wells. Instead, this obligation should be entrenched as an enforceable standard in Regulation 903.

**REPAIRS:** The various standards in Regulation 903 in relation to well construction materials (i.e. steel or plastic casings, cement or bentonite annular seals, etc.), and in relation to methods for placing the casing or sealant in the well, do not apply to existing

wells. In addition, unlike materials prescribed in the *Building Code Act* and regulation for potable drinking water, Regulation 903 allows the use of materials that have been previously used in other applications, and such materials do not have to meet potability requirements found in the ASTM or NSF International standards.

In the Applicants' view, this is problematic because the use of inferior casing material, or the lack of a sealing material around the outside of the casing (or between casings) can cause the well structure to degrade rapidly and increase the potential for the well to serve as a pathway for contaminants to impair groundwater resources.

**ABANDONMENT AND CORRECTIVE MEASURES:** Sections 21 and 21.1 of Regulation 903 impose various requirements for wells containing natural gases or mineralized water, and for wells producing non-potable water. However, the Applicants submit that these requirements do not satisfactorily address the concerns raised years ago in the 2003 EBR Application for Review and CELA's 2004 rebuttal of the MOE decision not to review Regulation 903.<sup>23</sup>

For example, with respect to natural gases, subsection 21(6) of Regulation 903 imposes a duty upon well owners to "immediately abandon" the well unless unspecified "measures" are undertaken to "manage" the gas in a manner that prevents any potential hazard. Similarly, subsection 21(7) of Regulation 903 imposes a duty upon the well owner to "immediately abandon" the well if it permits the movement of natural gases between subsurface formations (and thereby impair water resources), unless unspecified "measures" are undertaken to prevent such movement at "at all times."<sup>24</sup> As noted above, however, the Regulation does not define what is meant by the term "natural gas or other gas," and it remains unclear what threshold is required before abandonment or corrective measures are triggered for natural gas. Under subsection 21(6) of Regulation 903, for example, will such steps have to be undertaken upon the mere detection of any prescribed gases in any amount or concentration, or is abandonment/corrective action limited to situations where gases are detected in concentrations that create risk of fire, explosion or other adverse health impacts?

In addition, as noted above, Regulation 903 does not actually require the well contractor (or anyone else) to test for the presence of explosive, noxious or dangerous gases, even in areas of the province where such gases are known to occur naturally (i.e. methane, radon, hydrogen sulphide, etc.) or as a result of human activities (i.e. methane emanating from open or closed waste disposal sites). The Applicants submit that if testing for gas is a "best practice" that provides key information to the well owner, then it should not be

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<sup>23</sup> 2003 EBR Application for Review, page 8; CELA Response to MOE Refusal to Review Regulation 903, pages 20 to 23.

<sup>24</sup> These (and other) provisions do not apply if the well owner obtains the written consent of the Director: see section 21(10). However, as noted in the CELA response to the MOE refusal to review Regulation 903 (page 23), there appears to be no standardized protocol or criteria for obtaining the Director's consent to continue using non-compliant wells, and there does not appear to be an appeal mechanism if the Director refuses to grant consent, or if the Director imposes the consent on conditions that are unacceptable to the well owner.

simply suggested in the guidance manuals as a good idea; instead, it should be entrenched in Regulation 903 as a mandatory duty.

Under subsection 21(5) of Regulation 903, a similar obligation to abandon the well, or to follow corrective measures advised by the local medical officer of health, is imposed by Regulation 903 if the well does not produce “potable” water for whatever reason (i.e. presence of pathogens, naturally occurring substances, or man-made chemicals transported in groundwater from off-site sources). As a result of our involvement in drinking water and source water protection initiatives, the Applicants are aware of various surveys and studies which indicate numerous rural wells in Ontario do not meet current water quality standards<sup>25</sup>, as prescribed by section 10 of the *Safe Drinking Water Act, 2002* and O.Reg.169/03 as amended.

It should be further pointed out that Ontario’s drinking water quality standards are not limited to microbiological contaminants, but also include various chemical and radiological parameters: see O.Reg.169/03, as amended. Thus, while local medical officers of health may be able to provide some useful advice where non-potability is caused by the presence of bacteria (i.e. install appropriate point-of-entry treatment equipment), it is less clear that these officials have sufficient expertise in well drilling, water treatment, engineering, hydrogeology, or environmental toxicology to provide appropriate advice to well owners where non-potability is caused by elevated concentrations of pesticides, leachate contaminants, polyaromatic hydrocarbons, PCBs, dioxins, furans, heavy metals or other “exotic” substances emanating from off-site sources. Accordingly, it is unclear to the Applicants why the local medical officer of health – not the MOE director designated under the OWRA to protect groundwater – is the person to decide that a well can continue to be used in circumstances where contaminants from one aquifer could be impacting another clean groundwater resource.

The Applicants further question why the onus and expense of undertaking such corrective measures should be foisted upon private well owners under Regulation 903 in situations where another person owns or operates the “source of contaminants” that is causing, or contributing to, the non-potability issue. This policy approach is inconsistent with the “polluter pays” principle often espoused by the MOE and entrenched within the Ministry’s *Statement of Environmental Values* under the EBR.

In reviewing the MOE manuals for water supply wells and test holes/dewatering wells, it further appears to the Applicants that it is the well owner – not the well constructor – who bears the brunt of decommissioning the well in accordance with Regulation 903 requirements. In effect, this potentially allows well drillers to “walk away” from an incorrect well plugging job or to fail to submit a well record for decommissioning. At the same time, the well owner may be unduly penalized under Regulation 903 by remaining responsible for paying for further work to rectify the improper plugging job.

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<sup>25</sup> The nature and extent of rural well contamination has been known by the MOE and stakeholders across Ontario and elsewhere in Canada for a lengthy period of time: see, for example, Environment Canada, *State of the Environment, 1996* (isbn 0-660-16368-3).

Moreover, the Applicants are perplexed by the inconsistent treatment under Regulation 903 between persons who construct or repair wells and persons who decommission wells. In the Applicants' view, the MOE should revise Regulation 903 and the OWRA to ensure that persons who decommission wells are regulated (and potentially liable) to the same extent as persons who undertake new well construction or well repairs.

The Applicants hasten to add that the foregoing comments are not intended to serve as an exhaustive list of all necessary OWRA or Regulation 903 amendments that are required at the present time. Instead, these are merely illustrative examples of the wide-ranging topics which should be carefully and systematically considered in a formal public review of the OWRA and Regulation 903. If such a review is undertaken by the MOE, the Applicants reserve the right to identify further and other matters requiring amendments to the OWRA or Regulation 903.

*(b) The Need to Incorporate BMPs into Regulation 903*

The Applicants note the MOE's statement in EBR Registry Notice 011-5722 that the test holes/dewatering wells manual is an important part of the MOE's "multiple barrier source protection strategy," and is intended to "assist stakeholders in understanding legislative requirements and best management practices that help protect Ontario's water resources now and in the future." The EBR Registry Notice further states the manual will provide "a plain language summary of the Wells Regulation (O.Reg.903/90) and other relevant legislation on test holes and dewatering wells."

This strikes the Applicants as a laudable objective, particularly in light of the convoluted nature of how Regulation 903 applies to test holes and dewatering wells which are caught by – or exempted from – regulatory requirements in Ontario. On this point, the Applicants note that Regulation 903 currently includes a complex array of exemptions for test holes and dewatering wells, many of which involve a fair degree of professional judgment or subjective interpretation of local conditions.

For this reason alone, the Applicants submit that it would be prudent for the MOE to revisit, review and revise the wide-ranging exemptions currently codified within Regulation 903. Moreover, from a compliance and enforcement perspective, it remains extremely difficult to properly comprehend the provincial standards (and exemptions) in Regulation 903 that apply to test holes and dewatering wells.

It is CELA's understanding that the numerous exemptions for test holes and dewatering wells under Regulation 903 are intended to allow professional discretion in designing and constructing holes for sampling or testing groundwater. If problems are experienced, then the well must be abandoned in accordance with provincial standards under Regulation 903.

Assuming that this accurately summarizes the MOE's rationale for creating so many test hole exemptions in Regulation 903, CELA submits that this *laissez-faire* approach is at odds with the overall public interest objective of preventing groundwater problems in the

first place by requiring upfront adherence to prescribed well construction, design and material standards during the initial well construction phase. In addition, the *ex post facto* remedy of abandoning a problematic test hole after it has already been constructed imposes additional burdens upon the well owner, who not only is deprived of using the well for its intended purpose, but who also will incur extra expense in abandonment procedures.

More importantly, it appears to the Applicants that in many instances, the water supply wells manual and the draft test holes/dewatering wells manual both describe hundreds of BMPs which are absent from, or are not legally required by, the current wording of Regulation 903. Our review of the two manuals suggests that these BMPs have been carefully researched and properly referenced, and we support many of the BMPs listed throughout the manual. Nevertheless, the Applicants conclude that the apparent disconnect between recommended BMPs and Regulation 903 amply demonstrates the need to review and revise the Regulation itself to ensure that it is effective, enforceable and truly reflective of well-related BMPs.

As a matter of law, the hundreds of BMPs set out in the two manuals are not enforceable in and of themselves – only the provincial requirements set out in Regulation 903 are enforceable. As outlined in CELA’s submissions on the draft test holes/dewatering wells manual, there are a number of passages where the manual specifies a BMP for which there is no corresponding requirement in Regulation 903, and for which there is no legal remedy if there is non-compliance.<sup>26</sup> In the Applicants’ view, this disconnect is best addressed by incorporating the essential elements of these BMPs directly into the standards set out in Regulation 903 in order to fill current regulatory gaps, and to ensure that there are legal consequences attached to non-compliance.

The Applicants have the same concerns, and make the same recommendations, in relation to the existing water supply wells manual promulgated by the MOE in 2009. In this regard, the Applicants submit there is a need to ensure consistency not only between the two manuals, but also between the BMPs specified in water supply wells manual and the actual (and inadequate) requirements of Regulation 903.

(c) Relationship between Regulation 903 and O.Reg.153/04

After the 2003 EBR Application for Review of Regulation 903 was unjustifiably refused by the MOE, test hole construction requirements were added by the MOE to O.Reg.153/04. This Regulation governs site assessments and Records of Site Condition at brownfield properties pursuant to Part XV.1 of the *Environmental Protection Act* (“EPA”).

Even with well-written manuals or interpretation bulletins, the Applicants submit that it is unduly confusing and ultimately counterproductive to bifurcate applicable legal requirements by splitting them between two different regulations under two different statutes. This problem is compounded by some apparent inconsistencies or contradictions

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<sup>26</sup> Letter dated April 8, 2013 from CELA to MOE re EBR Registry No. 011-5722.

between the standards prescribed by Regulation 903 and O.Reg.153/04.<sup>27</sup> In addition, the well construction standards for test holes under Regulation 903 appear to apply to well technicians, whereas the well construction standards under O.Reg.153/04 appear to apply to certain professionals (i.e. “qualified persons”).

In the Applicants’ view, it is far more preferable to house all provincial well standards under the OWRA, which was specifically enacted to protect and manage Ontario’s groundwater and surface water resources. If it is legally necessary or technically appropriate to promulgate different standards for different types of wells, then this can be accomplished by creating different parts (or schedules) within Regulation 903, or alternatively, by creating a new, stand-alone regulation for test holes and dewatering wells under the OWRA and amending the Act accordingly.

In summary, the Applicants submit that reducing the current regulatory maze by consolidating all well standards under the OWRA represents sound public policy and should promote greater understanding of (and compliance with) provincial standards by well drillers, well owners and other stakeholders. Therefore, if the requested review of Regulation 903 is undertaken, MOE reviewers should consider the desirability of integrating the well construction standards in O.Reg.153/04 into an updated Regulation 903.

At the same time, in light of the growing public concern in Ontario over the potential impacts of hydraulic fracturing (“fracking”) on groundwater resources and wellwater quality, the Applicants submit that the MOE review should consider whether specific fracking-related provisions should be entrenched within Regulation 903 or the OWRA. As part of this analysis, the adequacy of the existing regulatory regime under the *Oil, Gas and Salt Resources Act* (“OGSRA”) and O.Reg.245/07 (administered by Ministry of Natural Resources (“MNR”)) should be considered. In this regard, the Applicants note that the ECO has twice recommended that the adequacy of the OGSRA regime should be reviewed and publicly reported upon by the MNR and MOE, but this evaluation has not been completed or disclosed to date.<sup>28</sup>

### **3. MOE Statement of Environmental Values**

In determining whether the public interest warrants the requested review, subsection 67(2)(a) of the EBR directs the Minister to consider the relevant Statement of Environmental Values (“SEV”).

In this case, the MOE’s SEV indicates that the Ministry’s “vision” is “clean and safe air, land and water” in order to ensure healthy communities, ecological protection and environmentally sustainable development for present and future generations. To achieve this vision, the SEV commits the MOE to a number of important principles, such as:

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<sup>27</sup> Letter dated April 8, 2013 from CELA to MOE re EBR Registry No. 011-5722, pages 7 to 22.

<sup>28</sup> ECO Annual Report 2010/11. Chapter 6.1; ECO Annual Report 2012/13, Chapter 4.7.

- adopting an “ecosystem approach” to environmental protection and resource management;
- using a “precautionary, science-based approach” in MOE decision-making in order to protect human health and the environment;
- implementing the “polluter pays” principle; and
- developing legislation, regulations, standards and policies to protect the environment and human health;

These and other SEV commitments represent a provincial promise to Ontarians that the MOE will take all necessary steps to safeguard the environment and public health and safety. In the Applicants’ view, the requested review of the OWRA and Regulation 903 is consistent with – if not mandated by – the principles and provisions of the MOE’s SEV.

#### **4. Absence of Periodic Review**

In determining whether the public interest warrants the requested review, subsection 67(2)(c) of the EBR directs the Minister to consider whether “the matters sought to be reviewed are otherwise subject to periodic review”.

At the present time, aside from using Part IV of the EBR, there is no statutory mechanism for the formal public review of the OWRA or Regulation 903.

#### **5. Inapplicability of the Presumption against Reviewing Recent Decisions**

Subsection 68(1) of the EBR provides a general presumption against reviewing decisions made within the past five years. However, the Applicants submit that this presumption is not applicable in this case for two main reasons.

First, the 2003 EBR Application for Review of Regulation 903 was refused by the MOE over a decade ago. The MOE then made some minor changes to Regulation 903 via O.Reg.372/07 approximately six years ago. Additional (but limited) changes to Regulation 903 were made three years ago via O.Reg.468/10 (out-of-province well technician licences), but are not contentious for the purposes of the current EBR Application for Review.<sup>29</sup> Thus, the statutory presumption in subsection 68(1) is inapplicable and cannot be invoked by the MOE as a reason for refusing to conduct the requested review of Regulation 903, or sections 35 to 50 of the OWRA.

Second, and perhaps more importantly, the various deficiencies in Regulation 903 have been lingering for the past decade, and have not been remedied by the MOE despite repeated concerns expressed by the Environmental Commissioner, CELA and other

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<sup>29</sup> The minor regulatory amendment in O.Reg.331/13 is also not contentious for the purposes of this EBR Application for Review.

stakeholders across Ontario. Accordingly, it is not in the public interest for the MOE to ignore these concerns, or to leave sections 35 to 50 of the OWRA and Regulation 903 intact and unchanged, for another 5 or 10 years. In the Applicants' view, wellwater safety is an urgent and compelling matter, and the overdue revision of the OWRA and Regulation 903 should not be delayed any longer.

## **6. Resources Required for the Requested Review**

Subsection 67(2)(f) of the EBR lists "resources required to conduct the review" as another factor to be considered by the Minister when determining if the public interest warrants a review.

To the Applicants' knowledge, the requested review of the OWRA and Regulation 903 can be carried out by relevant MOE personnel without the allocation of any new resources or staff.

## **7. Other Relevant Considerations**

In determining whether the public interest warrants the requested review, subsection 67(2)(g) of the EBR permits the Minister to take into account "any other matter that the Minister considers relevant."

In the Applicants' view, an additional consideration which should be taken into account regarding the need to review and revise the OWRA and Regulation 903 is the limited coverage of the *Clean Water Act, 2006* ("CWA") and policies contained within Source Protection Plans prepared under the CWA.

On this point, the Applicants commend the Ontario government for accepting all of the recommendations arising from the Walkerton Inquiry, including those related to source water protection. However, the Applicants submit that if the Ontario government intends to fully implement Commissioner O'Connor's recommendations regarding drinking water safety, then, at the very least, sections 35 to 50 of the OWRA and Regulation 903 must be reviewed and revised forthwith in order to safeguard aquifers which serve as sources of drinking water.

The Applicants further note that the initial round of source protection planning under CWA has focused upon publicly owned wells (and surface water intakes) used by municipal drinking water systems. In short, the first generation of Source Protection Plans contain protective policies which are intended to safeguard municipal wells (not private wells) against significant drinking water threats.

While it was notionally possible under the CWA for municipalities to "elevate" certain non-municipal systems (i.e. private well clusters in hamlets or villages) for inclusion in the source protection planning process, this has generally not been done to date (largely at the behest of MOE staff during the early stages of source protection planning). In addition, since source protection planning has largely occurred only in locations where

Conservation Authorities exist, there are numerous areas across Ontario in which no Source Protection Plans will be prepared or implemented.

Accordingly, the vast majority of private wells across Ontario receive little or no direct protection in Source Protection Plans under the CWA. Thus, the primary legal protection currently accorded to well owners are the provincial standards established under Regulation 903.<sup>30</sup> In the Applicants' view, the limited coverage of the CWA, and the general inapplicability of Source Protection Plans to private wells, makes it even more imperative for Regulation 903 to be strengthened and improved as soon as possible.

Moreover, a number of Source Protection Committees have developed Source Protection Plan policies which call upon the MOE to review certain Regulation 903 content or implementation matters, such as inspection, compliance and enforcement. For example, the proposed Source Protection Plan prepared by the Cataraqui Source Protection Committee notes that:

Properly constructed wells are critical to protecting aquifers and water supplies from contamination. Although Regulation 903 (Wells) stipulates well construction standards in part to protect groundwater from becoming contaminated, active enforcement of these requirements is lacking...

The Ministry of the Environment should analyze the need to amend Regulation 903 (Wells) under the *Ontario Water Resources Act* to require well decommissioning when a replacement well is installed in a wellhead protection area, to prevent the creation of transport pathways from improperly abandoned or maintained wells.<sup>31</sup>

Similarly, the Catfish Creek Source Protection Committee recommends that:

The Ministry of Environment should consider providing sufficient staff and financial resources to ensure the effective implementation of ongoing programs to decommission abandoned water wells, in accordance with O. Reg. 903 of the *Ontario Water Resources Act*.<sup>32</sup>

The Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee has proposed a number of well-related policies, including a recommendation that the MOE should revise Regulation 903 to constrain new well development in Wellhead Protection Areas:

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<sup>30</sup> Some degree of protection against wellwater contamination may also be derived from the prohibitions and provisions of the OWRA, EPA and other provincial laws of general application.

<sup>31</sup> Cataraqui Source Protection Committee, *Proposed Source Protection Plan* (August 2012), pages 69-70.

<sup>32</sup> Catfish Creek Source Protection Committee, *Proposed Source Protection Plan* (November 2012), Chapter 3-6. Similar recommendations relating to well decommissioning and MOE inspections/compliance monitoring have been made by the Halton-Hamilton Region Source Protection Committee, Grand River Source Protection Committee, Lake Erie Region Source Protection Committee, Mississippi-Rideau Source Protection Committee, Quinte Region Source Protection Committee, and Thames-Sydenham Source Protection Committee.

The Ministry of the Environment shall give due consideration to making changes to O. Reg. 903 under the *Ontario Water Resources Act* (future activity).

The legislative changes would include provisions that would:

1. prohibit the drilling of wells within WHPA-A unless:
  - a) the well to be drilled would be a production well associated with a large residential municipal drinking water system; or
  - b) the well to be drilled would be a monitoring well associated with a large residential municipal drinking water system.<sup>33</sup>

Aside from Source Protection Committees, CELA understands that other stakeholders have also expressed support for the need to review Regulation 903 at the earliest possible opportunity.

### **EVIDENCE SUPPORTING THE REQUESTED REVIEW**

The documentary evidence supporting the requested review is attached hereto as follows:

1. Subsection 1(1) and sections 35 to 50 of the OWRA;
2. Regulation 903;
3. MOE's SEV;
4. Excerpts from ECO Annual Reports re Regulation 903;
5. Letter dated April 8, 2013 from CELA to MOE re EBR Registry No. 011-5722 (draft test holes/dewatering wells manual);
6. Letter dated March 6, 2009 from CELA to Catherine Staples (re draft water supply wells manual);
7. EBR Application for Review of Regulation 903 (November 2003);
8. CELA Reply to MOE Refusal to Review Regulation 903 (May 2004);
9. Letter dated April 23, 2007 from CELA to MOE re EBR Registry No.010-0098 (Regulation 903 amendments);
10. Excerpts from proposed Source Protection Plans re Regulation 903;

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<sup>33</sup> Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee, *Proposed Source Protection Plan* (May 2012), page 202, Policy TP-09. See also Policies TP-05 to TP-12.

11. Letter dated June 16, 2005 from ODWAC to Environment Minister Leona Dombrowsky.