

TAPWATER ON TRIAL: OVERVIEW OF ONTARIO'S DRINKING WATER REGIME

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EXECUTIVE SUMMARY

Given the concurrent jurisdiction of the federal, provincial and municipal levels of government over different aspects of drinking water safety, the current legislative framework can fairly be described as complex, fragmented and evolving. This paper reviews the main laws and regulations that address drinking water quality and quantity in Ontario, and discusses recent developments and key challenges that have emerged under the current regime. This paper concludes that while most Ontarians enjoy access to safe drinking water, there is room for improvement in the current regime, particularly in relation to small municipalities, First Nations, and rural residents.

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Prepared by

Richard D. Lindgren¹

[April 18, 2005]

The Walkerton experience warns us that we may have become victims of our own success, taking for granted our drinking water's safety. The keynote in the future should be vigilance. We should never be complacent about drinking water safety.

The Hon. Dennis R. O'Connor, *Report of the
Walkerton Inquiry: Part Two* (page 8)

PART I – INTRODUCTION

In the wake of the Walkerton Tragedy in May 2000, drinking water regulators, suppliers and consumers in Ontario have become increasingly aware of the adverse public health consequences that may arise where tapwater does not meet potability standards.²

Accordingly, over the past five years the provincial government has undertaken numerous steps to implement the “multi-barrier” approach for ensuring drinking water safety. The components of the “multi-barrier” approach have been defined as follows:

1. Protecting water at the source;
2. Water treatment, including filtration and disinfection;
3. A well-designed and well-operated distribution system;
4. Comprehensive testing of drinking water;
5. Public notification and reporting of water quality problems;
6. Adequate resources to operate water systems and enforce the law.³

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² Water that is required by Ontario law to be “potable” must meet the requirements of the prescribed drinking water quality standards: see section 10 of the *Safe Drinking Water Act*, SO 2002, c.32 (“SDWA”).

³ David R. Boyd, *Unnatural Law: Rethinking Canadian Environmental Law and Policy* (UBC Press, 2003), page 18.

To achieve these objectives, the Ontario government has, among other things, enacted new drinking water legislation, promulgated detailed regulatory standards, developed administrative and institutional reforms, hired additional drinking water inspectors, consulted upon watershed-based source protection planning, and pursued other measures intended to implement the numerous recommendations of the Walkerton Inquiry, as described below.

Similarly, many municipalities across Ontario have reviewed their drinking water treatment and distribution systems, and, in some cases, they have undertaken significant operational changes or equipment upgrades in order to meet new regulatory standards.

In addition, drinking water consumers in Ontario now enjoy enhanced access to records and information pertaining to the quality of drinking water being delivered to their taps. For example, copies of the annual reports prepared by owners of drinking water systems shall be provided free of charge upon request by any person, and for large municipal drinking water systems serving more than 10,000 persons, these reports are to be posted on the internet.⁴ Similarly, Ontario's Chief Drinking Water Inspector is required to file annual reports with the Minister on the inspection and overall performance of drinking water systems in the province, and the Minister is obliged to make these reports public "as soon as practicable."⁵

Despite such progress, however, there is still room for improvement under Ontario's drinking water regime. For example, boil water advisories continue to be issued across Ontario, contaminants continue to be spilled in or near sources of drinking water, and municipalities, corporations, laboratories and individuals continue to be convicted and fined for various drinking water offences. As outlined in Appendix 1 below, these offences include: failing to undertake prescribed testing; failing to report adverse water quality incidents; failing to maintain prescribed free chlorine residual; and other forms of regulatory non-compliance that caused or contributed to the Walkerton Tragedy. Therefore, even though most Ontarians enjoy access to safe drinking water, there is still a widespread need to avoid becoming complacent about drinking water safety across Ontario.

⁴ See section 11 and Schedule 22 of O.Reg. 170/03. Notices of adverse water quality incidents involving regulated drinking water systems are posted electronically: see www.ene.gov.on.ca/envision/adverse/adversewater.htm.

⁵ See subsections 7(2) and (5) of the SDWA.

The purpose of this paper is to:

- (a) provide a concise overview of the current legislative framework for protecting drinking water quality and quantity in Ontario; and
- (b) review recent developments and key challenges that have emerged under the current legal regime.

PART II – OVERVIEW OF LEGISLATIVE FRAMEWORK

In general, there is concurrent (or shared) jurisdiction over drinking water quality and quantity that is exercised by the federal, provincial and municipal levels of government in Ontario. In part, this concurrency results from the fact that Canada’s Constitution does not expressly assign responsibility for “drinking water”, “environment”, or “public health” to a specific level of government.⁶ In practice, however, the predominant role in drinking water protection is played by the provincial government, as described below.

(a) Federal Jurisdiction

At the present time, there is no federal legislation which specifically regulates drinking water systems in Ontario or elsewhere in Canada.

In the aftermath of the Walkerton Tragedy (and again after the *Cryptosporidium* outbreak in 2001 in North Battleford, Saskatchewan), some federal politicians raised the possibility of enacting nationally binding drinking water standards (i.e. via amendments to the *Food and Drug Act*), but such standards have not been developed to date. Similarly, federal officials undertook public consultation in the late 1990s on the proposed *Drinking Water Materials Safety Act*, which was intended to certify and regulate drinking water treatment devices, chemical additives, and water system components. However, such federal legislation has not been enacted to date.

Nevertheless, the federal government has in place other water-related laws, policies and programs that address some aspects of drinking water safety. For the most part, these initiatives

⁶ For a general discussion of the constitutional aspects of drinking water regulation, see *Report of the Walkerton Inquiry: Part Two*, pages 35 to 41.

are aimed more at protecting raw water supplies (i.e. by controlling sources of water pollution), as opposed to specifically regulating the collection, treatment and distribution of drinking water.

For example, the federal government's main pollution control law – the *Canadian Environmental Protection Act, 1999* (“CEPA”) -- has been used identify, assess and regulate certain “toxic” substances that may be released into the environment, including watercourses.⁷ Similar regulations have been promulgated under the federal *Fisheries Act* to control wastewater discharges from certain industrial sectors.⁸ The *Fisheries Act* also generally prohibits the deposit of “deleterious substances” into water frequented by fish.⁹ As national laws of general application, both CEPA and the *Fisheries Act* apply in Ontario, and substantial penalties (i.e. \$1 million fines, jail terms, profit-stripping orders, restoration orders, etc.) may be imposed by the courts against persons convicted of offences under these statutes.¹⁰ The need to protect surface water and groundwater resources can also be addressed under the federal environmental assessment process when applicable to projects (i.e. physical works or activities) proposed in Ontario.¹¹

On the non-regulatory side, the federal government is represented on the joint Federal-Provincial Subcommittee on Drinking Water, which publishes and updates drinking water guidelines for various microbial, chemical, physical, and radiological parameters, and sets aesthetic objectives for substances that may cause appearance, odour, or taste problems. These national guidelines

⁷ Generally, see *Canadian Environmental Protection Act*, SC 1999, c.33, Part 5. Among other things, CEPA regulations exist in relation to phosphorus concentrations (SOR/89-501); pulp and paper effluent chlorinated dioxins and furans (SOR/92-267); and pulp and paper mill defoamer and wood chips (SOR/92-268). In December 2004, a federal guideline and a pollution prevention planning notice were issued under CEPA to address dissolved ammonia, inorganic chloramines and chlorinated wastewater from municipal treatment plants: see www.canadagazette.gc.ca/part1/2004/20041204/html/notice-e.html#i3.

⁸ Liquid effluent regulations have been passed under the *Fisheries Act* in relation to the following sectors: chlor-alkali plants (CRC, c.811); meat and poultry plants (CRC, c.818); metal mining facilities (SOR/2002-222); petroleum facilities (CRC, c.828); potato processing plants (CRC, c.829); and pulp and paper mills (SOR/92-269).

⁹ *Fisheries Act*, RSC 1985, c.F-14, subsection 36(3). See also *Fletcher v. Kingston* (2004), 7 CELR (3d) 198 (Ont. C.A.); leave to appeal refused (SCC).

¹⁰ Other federal water-related laws include: *Canada Shipping Act*, RSC 1985, c.S-9; *Canada Shipping Act, 2001*, SC 2001, c.26;; *Canada Water Act*, RSC 1985, c.C-11; *International Boundary Waters Treaty Act*, RSC 1985, c.I-17; *International River Improvements Act*, RSC 1985, c.I-20; and *Navigable Waters Protection Act*, RSC 1985, c.N-22.

¹¹ *Canadian Environmental Assessment Act*, S.C. 1992, c.37. In general terms, this Act may be triggered if the project: (a) is proposed by a federal proponent; (b) requires a disposition of federal land; (c) involves federal funding; or (d) requires a federal permit or approval prescribed by the Law List Regulations (SOR/94-636).

are not legally binding standards, but may be considered and/or adopted by provincial authorities when regulating drinking water quality.

It should be further noted that the federal government also has constitutional responsibility for Indians and lands reserved for Indians, which gives federal officials an important role in ensuring drinking water safety within First Nation communities in Ontario and across Canada (see further discussion below).

(b) Provincial Jurisdiction

Ontario has numerous provincial laws, regulations, policies and programs that directly or indirectly protect the quality and quantity of drinking water. In general terms, these initiatives can be grouped into five broad categories: (i) regulation of drinking water systems; (ii) resource protection and conservation; (iii) pollution control; (iv) land use and environmental planning; and (v) public health protection. Each of these categories is described below, together with a brief review of some illustrative examples of legislation within each category.

(i) Regulation of Drinking Water Systems

The centrepiece of Ontario's current drinking water regime is the *Safe Drinking Water Act, 2002* ("SDWA") and the detailed regulatory standards thereunder. It should be noted that the SDWA does not address the critical issue of drinking water source protection (see below); instead, the SDWA is primarily aimed at drinking water treatment and distribution. The notable aspects of the SDWA include:¹²

- recognition that Ontarians are entitled to expect that their drinking water is safe;
- designation of the Environment Minister as being responsible for regulating drinking water in Ontario;
- establishment of the Advisory Council on Drinking Water Quality and Testing Standards to provide advice and recommendations to the Environment Minister;¹³

¹² Generally, see *Safe Drinking Water Act, 2002*, S.O. 2002,c.32, sections 4, 7, Part III, Part V, Part VII, Part VIII, Part IX.

¹³ For more information on the Advisory Council, see www.odwac.gov.on.ca.

- creation of the Chief Drinking Water Inspector to ensure that regulated drinking water systems comply with SDWA standards;
- requirements for drinking water and drinking water systems to meet prescribed regulatory standards regarding potability, treatment, monitoring and reporting;¹⁴
- imposition of a duty upon drinking water system owners and laboratories to immediately report every adverse water test result to the MOE and medical officer of health, and to undertake the prescribed corrective actions;¹⁵
- creation of a statutory duty of care for owners, directors and officers of municipal drinking water systems;¹⁶
- requirements for owners of regulated drinking water systems to use licenced laboratories for drinking water testing;
- creation of approvals and licencing requirements for municipal drinking water systems;
- requirements for the training and certification of operators and water quality analysts for certain systems;¹⁷
- licencing requirements for laboratories that perform drinking water testing services;¹⁸ and
- creation of broad inspection, compliance and enforcement powers for MOE personnel.¹⁹

Persons convicted of offences under the SDWA may face large fines, jail terms, profit-stripping, restoration orders, or preventative orders. Certain offences that result in drinking water health hazards may trigger fines up to \$10 million for corporations and \$7 million for individuals.²⁰

(ii) Resource Protection and Conservation

Ontario has enacted various laws aimed at protecting and conserving natural resources, including surface water and groundwater. The principal water-related statute is the *Ontario Water*

¹⁴ See, for example, the Ontario Drinking-Water Quality Standards (O.Reg.169/03), which sets out numerical standards for microbiological, chemical and radiological parameters. See also the Drinking Water Systems Regulation (O.Reg.170/03), which sets out detailed operational standards for regulated systems.

¹⁵ See, for example, O.Reg. 170/03, Schedules 16, 17 and 18.

¹⁶ SDWA, section 19. This section has not yet been proclaimed in force.

¹⁷ O.Reg. 128/04.

¹⁸ O.Reg.248/03.

¹⁹ The MOE's protocol for inspecting municipal drinking water systems includes announced and unannounced inspections, and violations of legal requirements will likely trigger mandatory abatement measures (i.e. Provincial Officer order): see www.ene.gov.on.ca/envision/water/mdwip.htm.

²⁰ SDWA, section 143.

Resources Act (“OWRA”), which generally prohibits the discharge of substances that may impair water quality.²¹ The OWRA is also used, among other things, to regulate water takings (see below), well construction, water works, and sewage works.²² Persons convicted of offences under the OWRA may face large fines, jail terms, profit-stripping, restoration orders, or preventative orders.

In addition to the OWRA, Ontario has passed laws intended to protect the environment against the impacts of resource extraction activities, such as forestry, mining, and aggregate production.²³

(iii) Pollution Control

Ontario’s main pollution control statute is the *Environmental Protection Act* (“EPA”), which generally prohibits contaminant discharges into the natural environment that cause, or are likely to cause, an adverse effect.²⁴ The EPA also empowers MOE personnel to issue a wide variety of legally binding orders and approvals to remediate or prevent environmental harm,²⁵ and the EPA is used to regulate various types of activities, such as waste management and disposal.²⁶ The EPA has also been used to promulgate sectoral wastewater effluent regulations under the Municipal-Industrial Strategy for Abatement (“MISA”) program.²⁷ Persons convicted of offences under the EPA may face large fines, jail terms, profit-stripping, restoration orders, or preventative orders.

In addition to the EPA, the Ontario government has enacted the *Nutrient Management Act, 2002*²⁸ to enable the passage of regulatory standards for manure management and other

²¹ *Ontario Water Resources Act*, RSO 1990, c.O.40, section 30. See also *R. v. Inco* (2001), 41 CELR (N.S.) 9 (Ont. C.A.); leave to appeal refused (SCC).

²² *Ibid.*, sections 34, 52, 53, and Regulation 903 (Wells).

²³ See, for example, the *Crown Forest Sustainability Act, 1994*, S.O. 1994, c.25; *Lakes and Rivers Improvement Act*, RSO 1990, c.L.3; *Mining Act*, RSO 1990, c.M.14; and *Aggregate Resources Act*, RSO 1990, c.A.8.

²⁴ *Environmental Protection Act*, RSO 1990, c.E.19, section 14.

²⁵ *Ibid.*, sections 7 to 12, 17, 18, section 97, Part XI and Part XIV.

²⁶ *Ibid.*, Part V, Regulation 347 (General: Waste Management), and O.Reg. 232/98 (Landfilling Sites).

²⁷ See, for example, O.Reg. 537/93 (petroleum sector); O.Reg. 760/93 (pulp and paper sector); O.Reg. 560/94 (metal mining sector); O.Reg. 561/94 (industrial metals sector); O.Reg. 562/94 (metal casting sector); O.Reg. 63/95 (organic chemical manufacturing sector); O.Reg. 64/95 (inorganic chemical sector); O.Reg. 214/95 (iron and steel manufacturing sector); and O.Reg. 215/95 (electric power generation sector).

²⁸ SO 2002, c.4.

agricultural activities. At the present time, the general regulation under this Act requires certain new or expanding livestock operations to develop nutrient management strategies and plans, and it establishes land application standards for nutrients (i.e. setback distances to wells, watercourse buffer zones, etc.).²⁹

While not a pollution control statute *per se*, Ontario's *Environmental Bill of Rights, 1993*³⁰ ("EBR") creates broad public rights to: participate in environmentally significant decisions by prescribed provincial ministries; to request reviews of laws, regulations, policies and instruments that are inadequate to protect the environment; to request investigations of suspected environmental offences; and to access the courts to protect public resources or to address public nuisances causing environmental harm. Most of Ontario's environmental laws – including the SDWA, OWRA, and EPA – are prescribed as being subject to the EBR.³¹

(iv) Land Use and Environmental Planning

Ontario has a number of statutes that regulate land use and development on private and Crown lands across Ontario. These statutes include the *Planning Act*³² (see below), *Niagara Escarpment Planning and Development Act*,³³ *Public Lands Act*,³⁴ *Ontario Planning and Development Act, 1994*,³⁵ *Oak Ridges Moraine Conservation Act, 2001*,³⁶ and *Greenbelt Act, 2005*.³⁷ In general, the statutory instruments available under these laws³⁸ can be used to protect natural heritage features (i.e. watercourses, wetlands, woodlands, aquifers, and recharge areas) that are necessary to ensure the sustainability of ecological and hydrological functions. Protection of surface water and groundwater resources can also be addressed as undertakings (or

²⁹ O.Reg. 267/03. See also www.gov.on.ca/OMAFRA/english/agops.index.html.

³⁰ SO 1993, c.28. Virtually every annual report prepared under the EBR by the Environmental Commissioner of Ontario has raised concerns about drinking water and its sources: see www.eco.on.ca.

³¹ O.Reg. 73/94.

³² RSO 1990, c.P.13.

³³ RSO 1990, c.N.2.

³⁴ RSO 1990, c.P.43.

³⁵ SO 1994, c.23.

³⁶ SO 2001, c.31.

³⁷ SO 2005, c.1.

³⁸ These tools include regional land use plans, official plans, zoning by-laws, plans of subdivision, Ministerial orders, land use permits, and other statutory instruments.

classes of undertakings) are planned, reviewed and approved (or rejected) under Ontario's *Environmental Assessment Act*.³⁹

(v) Public Health Protection

Ontario's *Health Protection and Promotion Act*⁴⁰ contains various provisions that are directly related to the investigation, reporting, and reduction of waterborne disease within local health units across the province. For example, this Act provides medical officers of health and public health inspectors with broad powers of entry, inspection, sampling and order-making in relation to health hazards (i.e. unsafe drinking water).⁴¹ As discussed below, it has been recently suggested that local health units should be given greater responsibility to oversee and inspect small non-municipal drinking water systems.

(c) Municipal Jurisdiction

In addition to the provincial statutes described above, Ontario has also enacted a number of laws which establish and regulate certain local institutions – such as municipal corporations and conservation authorities – which play key roles in water resource management and drinking water safety. The legislative framework governing municipalities is particularly important since approximately 9 million Ontarians (i.e. 82% of the provincial population) receive their drinking water from municipally owned systems.⁴²

In general, single-tier, lower-tier and upper-tier municipalities are empowered under the new *Municipal Act, 2001* to enact and enforce by-laws in relation to various water-related matters within their assigned “spheres of jurisdiction”, such as public utilities (i.e. sewage and water), drainage, and flood control.⁴³ In addition, municipalities possess specific powers in relation to: inspection of sewage systems; sewer system discharges; non-municipal water or sewage public utilities; natural environment (i.e. trees, woodlands, and topsoil); and licencing conditions to

³⁹ RSO 1990, c.E.18.

⁴⁰ RSO 1990, c.H.7.

⁴¹ *Ibid.*, sections 10 to 13, and 41.

⁴² *Report of the Walkerton Inquiry: Part Two*, page 278.

⁴³ Generally, see *Municipal Act, 2001*, S.O. 2001, c.25, sections 8, 11 and 96. The *Municipal Act, 2001* also repealed many provisions of the *Public Utilities Act*, and empowers municipalities to establish “municipal service boards”: see sections 194 to 202.

protect health and safety or to control nuisances.⁴⁴ Moreover, municipalities are broadly empowered to enact by-laws intended to protect the “health, safety and well-being of the inhabitants of the municipality.”⁴⁵ Persons convicted of offences under municipal by-laws may face fines, closing orders or prohibition orders, and municipalities, local boards and taxpayers are entitled to bring civil actions to restrain contraventions of municipal by-laws.⁴⁶

Municipalities also enjoy broad authority under the *Planning Act* to regulate land use and development at the local or regional level. For example, municipalities are empowered to pass zoning by-laws that prohibit or restrict the use of land (or the erection or use of buildings or structures) in areas containing significant natural heritage, sensitive groundwater recharge areas, headwater areas, or sensitive aquifers.⁴⁷ Contraventions under the *Planning Act* are punishable by fines and prohibition orders.⁴⁸

It should be further noted that the *Planning Act* specifies that land use decisions “shall be consistent” with the new *Provincial Policy Statement* (“PPS”) that was recently issued by the Ontario government.⁴⁹ The new PPS came into force on March 1, 2005, and sets out prescriptive provincial policies in relation to numerous matters, including the planning of sewage and water infrastructure, protection of natural heritage, and protection of water quality and quantity.⁵⁰

Municipalities are also represented on the 36 conservation authorities (“CA’s”) established across Ontario pursuant to the *Conservation Authorities Act*. Under this Act, CA’s may undertake a variety of activities – such as watershed management, land acquisition, flood and erosion control, and development regulation – that safeguard water quality and quantity.⁵¹ As

⁴⁴ *Ibid.*, sections 87, 92, 93, 135 to 147, and 150.

⁴⁵ *Ibid.*, section 130. This broad power has been used by the City of Toronto to regulate the use of certain pesticides within its municipal boundaries: see *Croplife Canada v. Toronto* (2003), 4 CELR (3d) 201 (Ont. SCJ). See also *11497 Canada Ltee (Spraytech, Societe d’arrosage) v. Hudson (Ville)*, [2001] 2 S.C.R. 241 (SCC).

⁴⁶ *Ibid.*, Part XIV.

⁴⁷ *Planning Act*, RSO 1990, c.P.13, subsection 34(1).

⁴⁸ *Ibid.*, section 67.

⁴⁹ *Ibid.*, subsection 3(5).

⁵⁰ PPS, sections 1.6, 2.1, and 2.2.

⁵¹ *Conservation Authorities Act*, RSO 1990, c.C.27, sections 20, 21, and 28. For more information about CA’s, see www.conservation-ontario.on.ca.

discussed below, CA's will also be responsible for developing watershed-based plans to protect sources of drinking water.

PART III – LOOKING AHEAD: KEY ISSUES AND CHALLENGES

In the past five years since the Walkerton Tragedy, the drinking water regime in Ontario has been significantly strengthened and improved. Nevertheless, there are a number of key issues and challenges that have not been fully addressed to date, as described below.

(a) Source Protection

In the *Report of the Walkerton Inquiry: Part Two*, the Hon. Dennis R. O'Connor made 22 recommendations that were directly related to the need to identify and protect sources of drinking water in Ontario. After committing to implement all of the Walkerton Inquiry recommendations (including those related to source protection), the Ontario government established the Advisory Committee on Watershed-Based Source Protection Planning in November 2002. In April 2003, the Advisory Committee filed its Final Report containing 55 recommendations aimed at developing a comprehensive framework for source water protection.⁵²

In February 2004, the Ontario government issued its White Paper on Watershed-Based Source Water Protection Planning,⁵³ and then subsequently released a draft *Drinking Water Source Protection Act* for public comment in June 2004.⁵⁴ This consultation was followed by more detailed source protection reports in November 2004 from the multi-stakeholder “Implementation Committee”⁵⁵ and the “Technical Experts Committee”.⁵⁶

⁵² *Advisory Committee on Watershed-Based Source Protection Planning Final Report: Protecting Ontario's Drinking Water – Toward a Watershed-Based Source Protection Framework* (April 2003). This report is available at www.ene.gov.on.ca/envision/techdocs/4383.htm.

⁵³ This report is available at www.ene.gov.on.ca/programs/3585e01.htm.

⁵⁴ See EBR Registry Notice No. AA04E0002.

⁵⁵ *Watershed-Based Source Protection: Implementation Committee Report to the Minister of the Environment* (November 2004). This report is available at www.ene.gov.on.ca/envision/techdocs/4938e.pdf.

⁵⁶ *Science-Based Decision-Making for Protecting Ontario's Drinking Water Resources: A Threats Assessment Framework* (November 2004). This report is available at www.ene.gov.on.ca/envision/techdocs/4935e.pdf.

At the present time, it is anticipated that the provincial government will shortly introduce its source protection legislation for First Reading in the Ontario Legislature. Based upon the extensive consultations and reports described above, it appears likely that Ontario's forthcoming source protection regime will, at a minimum, include the following elements:

- delineation of "source protection areas" (or regions) based upon existing watershed boundaries within Ontario;
- designation of conservation authorities (where they exist) as "source protection boards", and requiring such boards to appoint multi-stakeholder "source protection committees";
- requirements for source protection committees to prepare terms of reference, assessment reports, and source protection plans ("SPP's") in accordance with prescribed public consultation procedures and provincial standards;
- empowering MOE to review and approve SPP's, with a limited public right of appeal against an approved SPP; and
- requirement for source protection committees to monitor and report upon SPP implementation.

It is further anticipated that many of the key operational details regarding SPP's will be set out in regulations that accompany the source protection legislation. It may also be necessary to review and/or revise existing provincial laws, regulations and statutory instruments to ensure conformity with approved SPP's.

(b) Small Drinking Water Systems

In June 2004, the Environment Minister requested the Advisory Council on Drinking Water Quality and Testing Standards to provide advice on the appropriateness of applying operational standards under O.Reg. 170/03 to small and rural drinking water systems (i.e. community centres, town halls, campgrounds, motels, resorts, mobile home parks, etc.). To facilitate the Advisory Council's public consultation efforts, the Ontario government acted in December 2004

to extend deadlines for certain small drinking water systems to comply with treatment standards imposed by O.Reg. 170/03.⁵⁷

In February 2005, the Advisory Council filed its report with the Environment Minister regarding the regulation and inspection of small drinking water systems in Ontario.⁵⁸ Among other things, the Advisory Council found that small systems face fiscal and operational challenges in meeting the stringent standards imposed by O.Reg. 170/03 under the SDWA.

Thus, the Advisory Council has recommended that instead of applying O.Reg. 170/03 to smaller systems, the Ontario government should develop a new regulation that implements a “risk-based, site-specific approach” for treatment and testing requirements for most categories of small residential and non-residential drinking water systems. The Advisory Council further recommends that public health units assume responsibility for administering the safe drinking water program for all commercial and institutional systems that serve the public. At the present time, the MOE is considering the new approach advocated by the Advisory Council, but has not formally announced whether – or to what extent – that the Advisory Council’s recommendations will be adopted by the Ontario government.

(c) Funding

Funding continues to represent one of the most significant challenges to the proper protection of drinking water quality and quantity in Ontario. For example, the technological measures required to treat and test drinking water are known and available, but they may be prohibitively expensive for smaller or rural drinking water systems, as discussed above. Similarly, many urban centres across Ontario face daunting capital costs to repair or upgrade their aging drinking water infrastructure. In addition, there are various short- and long-term costs that will be incurred as source protection plans are developed, implemented, monitored and revised in the coming years. On this latter point, it should be noted that the province’s Implementation Committee has suggested that the cost of developing source protection plans may range between

⁵⁷ O.Reg.408/04, which extends the deadlines by 6 to 18 months, depending upon the system category.

⁵⁸ This report is available at www.odwac.gov.on.ca.

\$6 to 10 million per watershed, which could be financed from provincial, municipal, federal and private sources.⁵⁹

To help address funding issues, the Ontario government has passed or proposed a number of revenue-related initiatives. For example, the *Sustainable Water and Sewage Services Act, 2002*⁶⁰ was enacted to require municipalities to prepare audited reports on the full cost of water services, and to develop audited plans to recover the costs of water services. However, this Act has not yet been proclaimed in force. Other options being pursued by the province include application fees (see below), regulatory charges, and other economic instruments premised upon “user pay” or “polluter pay” principles articulated in the *Report of the Walkerton Inquiry: Part Two*.⁶¹

(d) First Nations and Aboriginal Communities

Many First Nation and aboriginal communities in Ontario and across Canada continue to experience poor drinking water quality and outbreaks of waterborne illness and disease. The main factors causing this unacceptable situation have been summarized as follows:

- infrastructure that is either obsolete, entirely absent, inappropriate or of low quality;
- lack of adequately trained or certified operators;
- inadequate testing and inspection;
- frequency of microbial contamination; and
- inadequate distribution systems.⁶²

Accordingly, the Walkerton Inquiry produced a number of recommendations aimed at both the federal and provincial governments in order to improve and protect drinking water quality within Ontario’s First Nations and aboriginal communities.⁶³ The Ontario government has stated that these recommendations have been implemented or are underway at the present time,⁶⁴ while the

⁵⁹ Implementation Committee Report, *supra*, footnote 55, Chapter 6.

⁶⁰ S.O. 2002, c. 29.

⁶¹ See pages 116 to 117 and Chapter 10.3. For a review of various financing options, see CELA, *Revenue Raising for Source Protection: Innovative Tools* (March 2004), which is available at www.cela.ca.

⁶² *Report of the Walkerton Inquiry: Part Two*, page 486.

⁶³ *Ibid.*, Recommendations 88 to 93.

⁶⁴ See www.ene.gov.on.ca/envision/water/sdwa/status_part2.htm.

2003 federal budget allocated \$600 million over five years to upgrade, monitor and maintain water and wastewater systems in First Nations and aboriginal communities.

Ontario's SDWA standards do not apply directly to First Nations' drinking water systems due to constitutional constraints. However, it is hoped that First Nations and aboriginal communities will have a meaningful opportunity to participate in Ontario's forthcoming source protection planning regime, as described above.

(e) Water Taking and Transfers

With some exceptions,⁶⁵ takings of surface water or groundwater in Ontario in excess of 50,000 litres/day require permits to take water ("PTTW") issued under section 34 of the OWRA. In December 2004, the Ontario government passed a new Water Taking and Transfer Regulation (O.Reg. 387/04), which is intended to provide for the conservation, protection, and wise use and management of Ontario's water resources.⁶⁶ Among other things, the new regulation: specifies the mandatory factors (i.e. ecosystem function, water availability, conservation, etc.) to be considered by the MOE before issuing a PTTW; restricts certain takings in high use watersheds; generally prohibits transfers of water out of Ontario's three main water basins; and imposes data collection and reporting requirements upon PTTW holders. In April 2005, the MOE released a new PTTW Manual to provide further guidance on the principles and procedures governing the issuance of PTTW's in Ontario.⁶⁷ As of April 1, 2005, Ontario will start collecting "administrative fees" for processing certain types of PTTW applications.⁶⁸

The Water Taking and Transfer Regulation also requires the MOE to consider and comply with the province's obligations under the Great Lakes Charter, which was signed in 1985 by Ontario, Quebec, and eight American states within the Great Lakes Basin. In June 2001, these signatories executed a Charter Annex, which committed these jurisdictions to develop binding agreements

⁶⁵ Exempted water takings include: takings by an individual for ordinary household purposes; takings for the direct watering of livestock or poultry; and takings for firefighting.

⁶⁶ See also MOE, *Compendium to the Final Water Taking and Transfer Regulation (O.Reg.387/04)* (December 2004).

⁶⁷ See www.ene.gov.on.ca/envision/gp/4932e.pdf.

⁶⁸ See EBR Registry Notice No. XA04E0024. The fees range from \$750 to \$3,000 per PTTW application (or renewal), depending upon its complexity. Certain farming PTTW applications are exempt from fees.

regarding the protection, conservation, management and use of Great Lakes waters. The Annex 2001 is particularly relevant since the majority of Ontarians receive drinking water drawn from the Great Lakes. At the present time, however, the Ontario government has declared that it will not sign the draft agreements unless they are changed to better protect water resources, ensure conservation measures, and prohibit water diversions.⁶⁹

(f) New and Emerging Contaminants

As noted above, Ontario's Drinking Water Quality Standards (O.Reg. 169/03) contain numerical standards for a wide variety of drinking water contaminants. However, there are certain contaminants for which Ontario standards have not been developed to date. For example, no specific water quality standards have been promulgated in relation to viruses, protozoan parasites (i.e. *Giardia* and *Cryptosporidium*), certain industrial chemicals, and pharmaceutical substances that may be present in raw water supplies.⁷⁰ Presumably, the ongoing adequacy of Ontario's Drinking Water Quality Standards will be systematically reviewed by the MOE and the Advisory Council on Drinking Water Quality and Testing Standards.

(g) Spills Liability and Prevention

In July 2004, a provincial advisory committee reported to the Environment Minister with its findings and recommendations regarding the need to better manage, remediate and prevent spills of pollutants along the St. Clair River.⁷¹ This report, in part, prompted the Ontario government to introduce Bill 133 in October 2004. If enacted, Bill 133 will amend the EPA and OWRA to facilitate spill prevention planning within industry, and to authorize MOE officials to promptly impose monetary "environmental penalties" against companies responsible for spills. Any monies received by the MOE from environmental penalties will be earmarked for a new community clean-up fund to assist in environmental rehabilitation efforts. In April 2005, Bill 133 was referred to the Standing Committee on the Legislative Assembly for further review.

⁶⁹ See www.mnr.gov.on.ca/mnr/csb/news/2004/nov15nr_04.html.

⁷⁰ *Report of the Walkerton Inquiry: Part Two*, pages 174 to 175.

⁷¹ *Industrial Pollution Action Team: Discussion Document* (July 30, 2004). This report is available at www.ene.gov.on.ca/envision/techdocs/4771e.htm.

PART IV – CONCLUSIONS

Given the concurrent federal, provincial and municipal jurisdiction over drinking water matters, the present drinking water regime in Ontario can fairly be described as complex, fragmented and evolving. While most Ontarians enjoy access to safe drinking water, it appears that there is considerable room for improvement, particularly in relation to small municipalities, First Nations, and rural residents. As one commentator has noted:

Although drinking water will never be risk-free, the legal regime to protect water sources, ensure adequate treatment, maintain effective infrastructure, implement rigorous testing, and keep the public informed could be improved substantially.⁷²

Therefore, as Ontario's drinking water regime continues to evolve, it is imperative that all components of the multi-barrier approach be fully, effectively and expeditiously implemented in order to prevent further public health catastrophes caused by unsafe drinking water.

April 18, 2005

⁷² David R. Boyd, *supra*, footnote 3, page 27.

APPENDIX 1
RECENT DRINKING WATER CONVICTIONS AND PENALTIES IN ONTARIO
(January 2004 to April 2005)

Note 1: OWRA = *Ontario Water Resources Act*
SDWA = *Safe Drinking Water Act*

Note 2: All of the information below has been obtained from the MOE's website, and does not necessarily include all convictions during the above-noted timeframe. In addition, this summary does not include cases where the MOE used voluntary or mandatory abatement measures (rather than prosecution) to address non-compliance by drinking water system owners or operators.

Defendant(s)	Nature of Offence(s)	Penalty (Excludes Victim Fine Surcharge)
PUC Services Inc. (convicted April 13, 2005)	SDWA: failing to sample daily for free chlorine residual	Total fine: \$6,000
BMV Investments Ltd. and Robert Legault (convicted April 11, 2005)	SDWA: failing to undertake prescribed water sampling	Total fines: \$7,000
Township of Puslinch (convicted April 6, 2005)	SDWA: failing to immediately report adverse water quality tests	Total fines: \$7,500
Township of Tiny (convicted April 4, 2005)	OWRA: failing to sample for nitrate; failing to comply with Provincial Officer's order	Total fines: \$21,500
Town of New Tecumseth (convicted April 4, 2005)	OWRA: failing to report adverse water quality test; failing to provide minimum of 40 hours of annual training to operators	Total fines: \$11,500 (plus suspended sentence)
Municipality of Oliver Paipouge and 2017376 Ontario Inc. (sentenced April 1, 2005)	SDWA: failing to sample and test for free chlorine residual	Total fines: \$7,000

Caduceon Enterprises Ltd. (convicted March 11, 2005)	SDWA: failing to provide immediate notice of an adverse water quality test to waterworks owner	Total fine: \$5,000
Simcoe County District School Board (convicted March 7, 2005)	SDWA: failing to take corrective action following confirmation of adverse water quality; failing to report adverse water quality test	Total fines: \$7,500
Town of Rainy River (convicted March 4, 2005)	OWRA: failing to maintain free chlorine residual as per certificate of approval	Total fine: \$7,000
City of Timmins (convicted February 24, 2005)	OWRA: failing to comply with certificate of approval; failing to comply with Provincial Officer's order; Failing to meet sampling and analysis requirements; failing to report adverse water quality test results; failing to ensure certified operator in charge SDWA: failing to notify MOE re resolution of adverse water quality issue	Total fines: \$38,000
Lakeshore New Centre Estates Ltd. (convicted February 8, 2005)	OWRA: installing water and sewage works without certificates of approval	Total fines: \$27,000
Town of Fort Frances (fined January 28, 2005)	OWRA: failing to prepare an operations manual as per certificate of approval SDWA: failing to analyze treated water for a prescribed parameter	Total fines: \$5,000

Municipality of Grey Highlands (convicted January 10, 2005)	SDWA: failing to report water test result	Total fine: \$2,500
Township of Ignace (convicted December 21, 2004)	OWRA: failing to comply with sampling and analysis requirements; failing to comply with operator training requirements	Total fines: \$2,000
Ontario Clean Water Agency (convicted December 16, 2004)	OWRA: failing to report adverse water quality event; failing to take corrective action re adverse water quality event	Total fines: \$12,000
Roger Giroux (convicted December 20, 2004)	OWRA: failing to sample and analyze raw and treated water at mobile home park	Total fine: \$2,500
Township of North Dumfries (convicted November 23, 2004)	SDWA: failing to provide immediate notice of adverse water quality event; failing to provide written notice of adverse water quality event	Total fines: \$5,000
Crossroads Christian Communications Incorporated (convicted November 23, 2004)	SDWA: failing to sample and analyze for prescribed parameters	Total fine: \$1,000
Riverwalk Country Day and Montessori School (convicted November 2, 2004)	SDWA: failing to undertake corrective action after adverse water test result; failing to perform required bacteriological testing	Total fines: \$5,000

Town of Northeastern Manitoulin and the Islands (convicted October 7, 2004)	OWRA: failure to provide notice of adverse water quality incident	Total fine: \$3,000
Municipality of Highlands East (convicted September 7, 2004)	OWRA: failing to equip chlorine residual analyzer with alarm as per certificate of approval	Total fine: \$3,000
Town of Gananoque (convicted September 29, 2004)	OWRA: failing to provide immediate notification of adverse water quality events; failing to provide written notification of adverse water quality events	Total fines: \$12,000
1324457 Ontario Limited (convicted September 16, 2004)	OWRA: failing to comply with Provincial Officer's order re communal water system	Total fine: \$2,000
Town of Grimsby (convicted August 20, 2004)	OWRA: failing to ensure every operator held applicable licence	Total fine: \$1,500
E3 Laboratories Inc. (convicted August 20, 2004)	SDWA: failing to provide immediate notification of adverse water quality incident	Total fine: \$5,000
Township of Woolwich (convicted July 12, 2004)	OWRA: failing to ensure every operator received prescribed annual training	Total fine: \$1,000
Richard Plue (convicted June 1, 2004) and George Redmond (convicted February 13, 2004)	OWRA: failing to comply with Provincial Officer's order re cottage waterworks	Total fines: \$2,000

Accutest Laboratories Ltd. (fined May 26, 2004)	OWRA: failing to report adverse water quality indicators	Total fines: \$20,000 (plus suspended sentences)
Town of East Gwillimbury (convicted May 10, 2004)	OWRA: failing to analyze for prescribed parameter	Total fine: \$2,500
Sherkston Shores Inc. and ASI Group Ltd. (convicted May 11, 2004)	OWRA: altering waterworks without approval; failing to ensure flow monitoring as per permit to take water	Total fines: \$13,000
Township of Tay (convicted March 18, 2004)	OWRA: discharging filtration residue that may water quality; failing to comply with certificate of approval; failing to report low free chlorine residual	Total fines: \$25,000
Township of Severn (fined March 10, 2004)	OWRA: failing to report water quality exceedances; failing to install continuous chlorine monitor/alarm as per certificate of approval	Total fines: \$10,000
486606 Ontario Inc. (fined February 20, 2004)	OWRA: failing to perform sampling for biological parameters	Total fines: \$2,000
Richmond Lodge Limited and Claudette Richer (convicted January 30, 2004)	OWRA: failing to provide notification of adverse water quality incidents	Total fines: \$9,000
Municipality of Thames Centre (fined January 15, 2004)	OWRA: failing to provide notification of adverse water quality test results	Total fines: \$25,000 (plus suspended sentence)